Authentic Leadership: An Empirical Assessment of the Ephemeral

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ATTESTATION OF AUTHORSHIP

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Andrei A. Lux



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ABSTRACT

This thesis quantitatively examines how individual cultural differences impact on authentic leadership efficacy and isolates its key mediating mechanisms. Four major advances are presented. The first is a formula for calculating respondents' Western Values Scores from existing indices – a logical advance along traditional lines of cultural research. The second is the development of a new Holistic Cognition Scale (HCS) that captures cultural differences in cognitive schemata. The third and fourth advances are the moderation and mediation assessments of authentic leadership efficacy. The results indicate that the final 14-item HCS is a valid and reliable measure of respondents' analytic and holistic thought. Contrary to expectations, I find no significant moderation effects from individual cultural differences and authentic leadership proves remarkably robust to cultural forces. Lastly, I identify followers' personal identification, affect-based trust, and work engagement as the three main mediating mechanisms through which authentic leadership positively influences desirable organisational outcomes.

Keywords: Authentic leadership; cultural values; cognition; scale development.

CHAPTER ONE: INTRODUCTION

The World Economic Forum (2015) reports that we are in the throes of a leadership crisis as citizens lose faith in democratic institutions and geopolitical conflicts proliferate. Within the business sphere, we are confronted with a plethora of corporate scandals: including Enron, WorldCom, Lehman Brothers, the Gulf of Mexico oil spill, and the Fukushima Daiichi meltdown in Japan. Such colossal leadership failures have shocked societies around the world and sparked a growing interest in leaders who shoulder their responsibilities with integrity and rise above corruption (Avolio & Gardner, 2005; Peus, Wesche, Streicher, Braun, & Frey, 2012; Spitzmuller & Ilies, 2010).

Companies look increasingly to their people for competitive advantage (Wagner III & Hollenbeck, 2015) and a motivated workforce has become integral to survival and success (Cerasoli, Nicklin, & Ford, 2014). To inspire such superior performance, contemporary organisations need outstanding business leaders (Peterlin, Penger, & Dimovski, 2009). However, the current climate of intense global competition besets leaders with conflicting pressures: financial performance or moral action (Novicevic, Davis, Dorn, Buckley, & Brown, 2005). Traditional leadership approaches built on coercion, manipulation, and dependency have long been challenged (Block, 1993; Greenleaf, 1977) and are nearing obsolescence. Leaders using these antiquated methods almost invariably come to lose all that they have gained at the expense of countless others (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). B. George (2003) states most succinctly that:

> We need leaders who lead with purpose, values, and integrity; leaders who build enduring organisations, motivate their employees to provide superior customer service, and create long-term value for shareholders. (p. 9)

The global leadership penury precipitates an increased focus on integrity in the business sphere (Liedtka, 2008), and “authentic leadership” has emerged as a promising new approach (Avolio, Walumbwa, & Weber, 2009). In essence, authentic leaders create meaningful relationships and generate value through the true expression of self in leadership (Spitzmuller & Ilies, 2010). A considerable body of conceptual discussion delineates the construct, but the empirical work to contextualise authentic leadership is only just beginning. Hence, data-driven evidence of the antecedents, outcomes, and

mediating mechanisms is scarce (for reviews, see Banks, McCauley, Gardner, & Guler, 2016; Gardner, Cogliser, Davis, & Dickens, 2011). The present work advances knowledge in this field by examining how, and to what extent, authentic leadership generates positive follower outcomes.

Authentic leadership, and indeed the bank of leadership research, emanates primarily from the United States and Western contexts (Barkema, Chen, George, Luo, & Tsui, 2015). Examining leadership practices from within single national frames is no longer sufficient when corporations routinely do business on a global scale. This international component complicates matters as people from different backgrounds are exposed to different customs (L.-C. Lu, Rose, & Blodgett, 1999), learn different values (Leung, Bhagat, Buchan, Erez, & Gibson, 2005) and systems of thinking (Nisbett, Peng, Choi, & Norenzayan, 2001), all of which inevitably influence their workplace behaviours (Kirkman, Lowe, & Gibson, 2006). Consequently, Peus et al. (2012) have sounded the call for a cultural examination of authentic leadership, which the present study begins to answer by examining how individual cultural differences impact on authentic leadership efficacy.

Recent research on international business leadership identifies leader integrity as one universally attractive behaviour across cultures (House, Dorfman, Javidan, Hanges, & de Luque, 2014, p. 23). Based on the conceptual similarity between integrity and authenticity (Bauman, 2013), I anticipate that the authentic leadership approach is widely effective across most cultures. I further theorise that two of the authentic leadership dimensions are “leader-centric” in their focus and that the remainder are instead more “interactive”. Thus, each dimensional sub-group will appeal more to followers with certain cultural value dispositions (e.g. predominantly Western), and less to others (e.g. predominantly Eastern). When aggregated to a single score, however, these differences offset one another and the higher order construct is therefore not moderated by dimensions of culture. As such, authentic leadership constitutes a useful approach to international business as a break from the conventional contingency-based leadership models.

I propose two theoretical frameworks: the first investigates moderation effects to explore the impact of cultural differences on authentic leadership efficacy, while the second tests mediation effects to explain how authentic leadership generates follower outcomes (see Figures 1 and 2 below). This research is conducted from the perspective

of the followers, with their job satisfaction, affective organisational commitment, and work engagement serving as measures of leadership performance.

The theoretical concept of culture is explored from two different perspectives: the traditional values-based approach that has dominated cross-cultural leadership research for the last 40 years, with a specific focus on the five cultural value dimensions created by Hofstede (1980); and then from a more contemporary approach that differentiates people by their underlying cognitive processes or *schemata* – known broadly as analytic vs. holistic thought (Nisbett et al., 2001). Because nations are notoriously poor "containers" of culture (Taras, Steel, & Kirkman, 2016, p. 464), both of these approaches are used to synthesise the diverse constellations of cultural differences into single supranational cultural indicators. This methodology reflects an intentional move toward cultural assessment parsimony to generate more useable and relevant measures for later research, moving beyond geographical cultural boundaries.

The present work resides with the domain of leadership and is conceived of at the individual level of analysis. Followers' individual differences, such as cultural values and cognitive tendencies, serve as variables for the investigation of leadership phenomena (see Figure 1 below for a graphical representation of this theoretical framework). Investigations of organisational- or national-level cultural effects are outside of the scope.

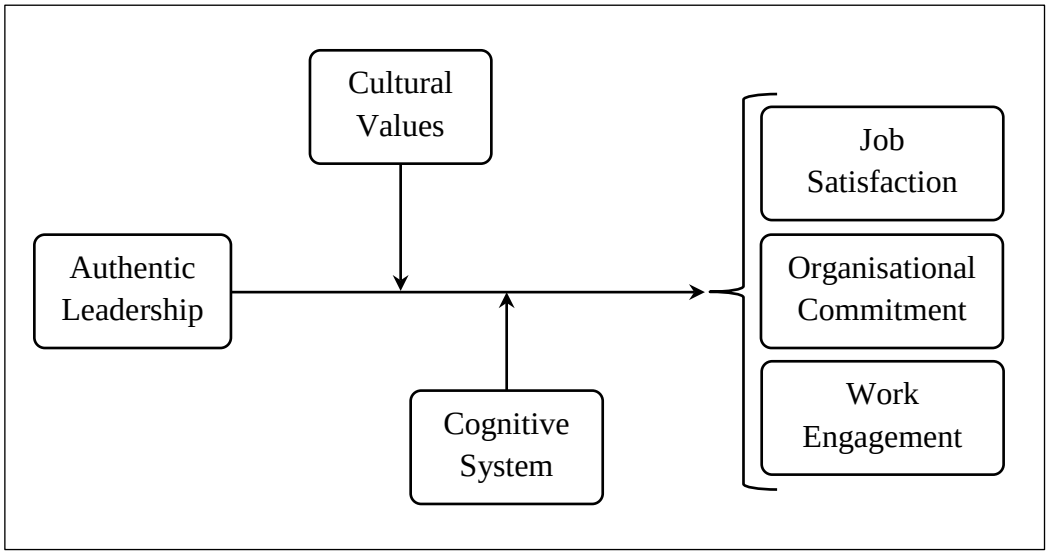


Figure 1. *Theoretical Framework – Moderation*

Individuals' unique cultural dispositions may not be as important as the perceived level of value congruence between leaders and followers. A measure of

followers' personal identification with their leader captures the level of such value-convergence. Avolio and Gardner (2005) posit that through the authentic relationship followers come to embrace the leader's values and goals as their own, which are inherently congruent. Therefore, followers' level of personal identification functions as a mediator of authentic leadership efficacy – an argument that already finds some empirical support (see Wong, Spence-Laschinger, & Cummings, 2010).

Several studies also demonstrate positive pathways linking authentic leadership to followers' trust (Wong & Cummings, 2009; Wong et al., 2010), and trust to positive organisational outcomes (Clapp-Smith, Vogelgesang, & Avey, 2009; Dirks & Ferrin, 2002). Therefore, I suggest that followers' level of personal identification and trust in their leader operate as mediators through which authentic leadership generates positive follower outcomes (see Figure 2 below for an outline of this theoretical framework).

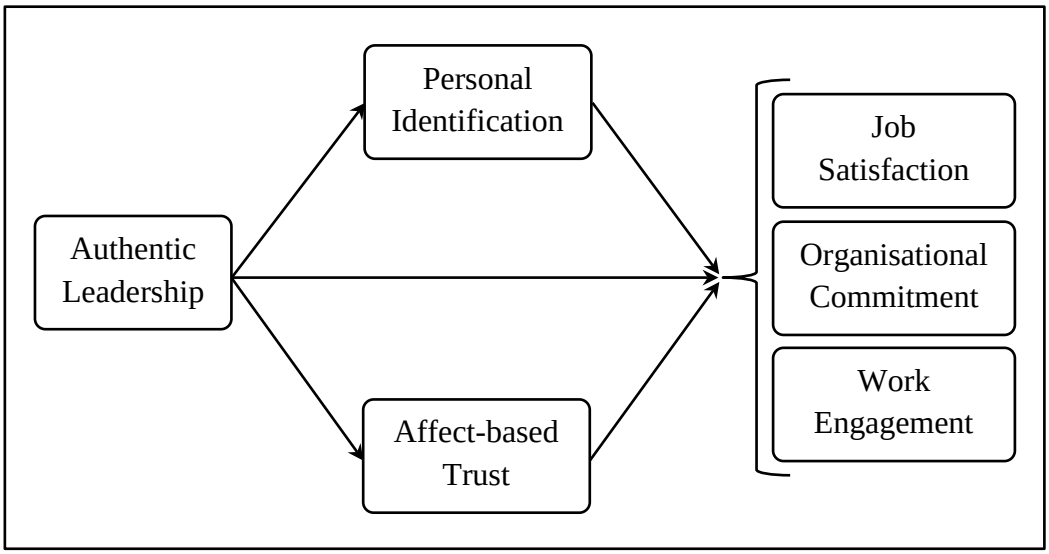


Figure 2. *Theoretical Framework – Simple Mediation*

Moreover, I anticipate that additional mediation paths exist between trust and personal identification, and within the group of outcome variables. Integrating all of these constructs into one cohesive multiple mediation model provides a more robust representation of their interactions with authentic leadership. This comprehensive framework requires nuanced theorisation and is presented in due course (see p. 49).

The proposed models are tested empirically using data collected with survey questionnaires and inferential statistical techniques from a positivist epistemological approach. The research design is organised around three studies. The first two develop and validate a new scale for analytic and holistic thought as based on the thorough theoretical foundation established by Nisbett et al. (2001). The larger third study has

three objectives: (1) continuing the scale development process by adding new items and replicating the scale development steps taken in the previous study using a more representative sample; (2) assessing the concurrent validity of the new scale against a well-established measure of culture; and (3) testing the authentic leadership hypotheses pertaining to the moderation of cultural differences and the mechanisms for generating positive follower outcomes. The structure of these three studies follows well established scale development procedures (see DeVellis, 2012) and forms a comprehensive research agenda to first create a new scale and then assess specific leadership phenomena.

Four major advances are presented in this thesis. The first is a simple formula for calculating respondents' Western Values Scores from existing indices. The second is the development of a new Holistic Cognition Scale that captures cultural differences in cognitive schemata. The third and fourth advances are the moderation and mediation assessments of authentic leadership efficacy, respectively.

The following chapter begins by discussing the two different approaches to culture to first establish the backdrop of the investigation, and then examines each of the authentic leadership dimensions within the context of these theories. The discussion then moves on to integrate authentic leadership into a framework with individual cultural differences that illustrates their moderating effects. The proposed mediating mechanisms of authentic leadership are then theorised by discussing the salience of followers' perceptions, their personal identification, trust, and positive outcomes. The specific hypotheses arising from the text are presented throughout. Subsequently, the results are discussed in light of the extant literature, yielding meaningful advances for both theory and practice.

CHAPTER TWO: THEORY DEVELOPMENT

Culture – Values Approach

Leadership research is predominantly conducted in a Western context, and yet interest in cross-cultural business leadership phenomena is growing (Avolio et al., 2009). Researchers are becoming more aware of the impact that followers' subjective cultural perceptions have on leadership outcomes, and the omission of context is increasingly criticised as an over-simplification of leadership theory (Bass & Stogdill, 1990; Conger, 2004; Day, 2000; Rost, 1991; Yukl, 2013). The cultural values that drive followers' perceptions have extensive relations with key organisational behaviours and outcomes, at all levels of analysis, for both the leaders and their followers (Hall, 1976; Hofstede, 1980; Kirkman et al., 2006; F. R. Kluckhohn & Strodtbeck, 1961; Ronen & Shenkar, 1985; Schwartz, 1994; Trompenaars & Hampden-Turner, 2012). As modern companies routinely engage with global markets and frequently employ international personnel, maintaining their competitive edge depends increasingly on understanding how cultural values impact on leadership outcomes (Newman & Nollen, 1996; Offermann & Hellmann, 1997). Because followers' perceptions of authenticity may be culturally embedded, it is necessary to examine how their cultural values interact with authentic leadership to ascertain its international business utility (Peus et al., 2012).

The following sections examine the foundations and summarise several seminal approaches to studying cultural differences in business contexts. The purpose is two-fold, first, to assess which framework would be most suitable for the present work, and second, to facilitate the synthesis of existing theory into a supranational indicator of cultural difference.

Definitions of Culture

The modern concept of "culture" stems from the vast domain of anthropology and was originally defined "in its broad, ethnographic sense, [as] that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society" (Tylor, 1871, p. 1). Thus, culture constitutes the recognition that individuals from different backgrounds have each been exposed to a diverse and unique constellation of customs, traditions, religions, rituals, and heritages (L.-C. Lu et al., 1999). These cultural practices shape individuals' beliefs, moral standards, and behaviours (Rushton & Chrisjohn, 1981). Although culture is

transmitted through an inherited pattern of symbols and meanings (Geertz, 1993), these are merely the visible *(surface)* manifestations of the underlying *(core)* "cultural values" (Hofstede & Hofstede, 2005). Such core cultural values are defined as the preferences for certain "modes, means, and ends" that are characteristic of an individual or group (C. Kluckhohn, 1951, p. 395). Therefore, it is important to distinguish that cultural values do not encompass *actual* behaviour, but only the *perceptions* of, and *preferences* for, certain kinds of behaviour.

Business Context

In the context of workplace behaviours and international business leadership, contemporary knowledge around cultural values is built upon only a handful of key research initiatives (Caprar, Devinney, Kirkman, & Caligiuri, 2015; Gaspay, Dardan, & Legorreta, 2009; Kirkman et al., 2006; Taras et al., 2016). The seminal approaches taken by Edward T. Hall, Shalom Schwartz, the GLOBE team, and Geert Hofstede are of particular significance. Hofstede's (1980) work has arguably been the most influential (Kirkman et al., 2006) and widely used in subsequent cross-cultural research (Gaspay et al., 2009). The following discussion, therefore, briefly covers the first three of these undertakings and then moves on to a more in-depth discussion of Hofstede's (1980) values framework.

Hall divided cultures along two polar dimensions: high-context vs. low-context, and polychronic vs. monochronic (Hall, 1976; Hall & Hall, 1987). These dimensions capture respondents' tendencies toward the use of non-verbal and situational cues to convey meaning, instead of explicating ideas through the message code itself (Warner-Søderholm, 2013). Accordingly, Hall's work is directly applicable to the conveyance of information (Dahl, 2004), and is therefore used extensively in communication research (Gaspay et al., 2009). Including these dimensions here could provide insights into the relationships between authentic leaders and followers, but as a stand-alone framework they may not sufficiently represent the breadth of the cultural value differences that could impact significantly on the leadership construct as a whole.

Seeking a broader and more comprehensive conceptualisation of cultural values, Schwartz created and administered a survey of cultural values to a sample of students and secondary school teachers in over 50 countries (Schwartz & Bardi, 2001). The Schwartz Value Inventory (SVI) contained 57 items that respondents were asked to rate

as “guiding principles” of their life (Dahl, 2004; Schwartz, 1994, p. 21). These items were organised into ten overlapping “value types”, which were then reduced down to two bi-polar dimensions: conservation vs. openness to change, and self-enhancement vs. self-transcendence (Dahl, 2004). This approach is theoretically compelling and has been used for cross-cultural studies in international business. However, Oyserman, Coon, and Kemmelmeier (2002) note that relying on student participants may have distorted the observed cultural value differences, as it cannot be assumed that a sample of students and teachers accurately represents a population of business people. While sample availability is often an issue for large cross-cultural studies, the discrepancy brings into question the theoretical validity of the identified value types and dimensions; all efforts must be taken to ensure that the sample is a microcosm of the population to which generalisations are made (Bryman & Bell, 2015). The SVI may therefore not be the most appropriate choice for investigating the relations of business people. From a practical perspective, the length of the instrument also renders it unwieldy for use in conjunction with multiple other scales and thus limits its suitability for the present study.

The GLOBE project, conceived and spearheaded by Robert J. House, sampled around 17,000 managers from local companies across three industries in 58 countries (House, Hanges, Javidan, Dorfman, & Gupta, 2004). Their study investigated nine separate cultural value dimensions and respondents were asked to rate each “as is” and as it “should be”. However, including the “should be” section could have prompted the participants to ideologically critique their current society, thereby biasing their “as is” answers (Hofstede, 2006). This essentially populated the GLOBE project results with data that captured only the theoretical difference between participants’ ideals and perceptions of reality; potentially undermining the validity of the dimensions as representing actual cultural values. Moreover, approaching each dimension from two sides effectively doubled the number of categories to 18 in total (Hofstede, 2006). Researchers are often loathe to oversimplify the complex phenomenon of cultural variance, but psychophysics research suggests that the upper bound for collecting reliable data should be around eight to ten categories (Guilford, 1954). Similarly, Miller (1956) asserts that useful classification should contain approximately seven categories (plus or minus two). Therefore, a framework utilising 18 categories would be more

thorough, but may subsequently lack the requisite parsimony for clear theory and inference.

The works of Schwartz and the GLOBE team have added considerably to the academic understanding of culture. However, both studies contain some conceptual concerns and methods issues which may be problematic for further research. While useful studies can be built around the results of such cross-cultural work, these two frameworks might not be the best fit for the present study because dimensional integrity is paramount when collecting and analysing new data. Seeking robust dimensions that effectively capture the range of variation in cultural values, the next section explores the influential work of Hofstede (1980).

Culture's Consequences

Between 1967 and 1973, Hofstede was in charge of collecting "morale surveys" from employees at IBM Corp., which amounted to around 116,000 responses across 72 countries (Baskerville, 2003). From these data, Hofstede (1980) extracted four cultural value dimensions: Individualism vs. Collectivism defines highly individualistic people as those that have "loosely knit" social ties and feel responsible for taking care of only themselves and their immediate family, while predominantly collectivistic people have strong social ties, distinguish between in- and out-groups, and expect mutual support from their in-groups in exchange for loyalty; Power Distance measures a person's acceptance of, and preference for, unequal distribution of power between the members of organisations, and within their society in general; Uncertainty Avoidance captures the extent to which a person is threatened by situational ambiguity and those that score highly prefer predictability through formal rules and are intolerant of others' deviance; Masculinity vs. Femininity nominally conceptualises the "male" role as being assertive and ambitious, while the "female" role is modest and nurturing – masculine values are those that envision a clear distinction between these two gender roles within society, and conversely, predominantly feminine values allow for an overlap between them.

Researchers in the United States readily embraced this early version of the framework (Schimmack, Oishi, & Diener, 2005), although many avoided using Masculinity vs. Femininity, perhaps due to the apparent taboo of making such a distinction in the era of political correctness that dominates the Western world (Hofstede et al., 1998). However, the Masculinity vs. Femininity dimension is not

actually concerned with issues of gender equality, but rather the allocation of gender-based roles within society; Hofstede (2006) explains that “it is about whether boys, not girls, should fight, and whether girls, not boys, may cry” (p. 894).

In collaboration with Michael Bond, Hofstede later added a fifth dimension to the framework called Short- vs. Long-Term Orientation (Chinese Culture Connection, 1987; Hofstede & Bond, 1988). Long-term oriented values are those that focus on the past and the future, by respecting tradition and encouraging perseverance, temperance, and thrift (Hofstede & Hofstede, 2005). In contrast, short-term oriented values prioritise the present, and are therefore often associated with increased conspicuous consumption and a preference for immediate results. Some descriptions of short-term values mistakenly include the distinctly Eastern beliefs that one must fulfil societal obligations and maintain “face” (see Ho, 1976 for a treatment of face). These ideals are concerned with individuals’ social conduct and are not included as considerations for their short- vs. long-term orientation. This discrepancy is the source of some confusion because the Eastern societies that uphold these beliefs predominantly exhibit long-term oriented values. Regardless, these five cultural value dimensions are used extensively in cross-cultural business research (Gaspay et al., 2009).

The cultural value indices that Hofstede generated for each country are heavily criticised, primarily because of the reliance on employees from one multinational corporation which introduces considerable bias for inference at the national level (McSweeney, 2002; Offermann & Hellmann, 1997). Using nations as a proxy for culture further limits Hofstede’s results (L.-C. Lu et al., 1999), as there are typically multiple cultures operating simultaneously within each country (Wildavsky, 1989), and aggregating scores to the national level precludes the capture of heterogeneous cultural variation *within* nation states (Sivakumar & Nakata, 2001). Although Ng, Lee, and Soutar (2007) suggest that any attempt to reduce the complexity of culture down to a few dimensions is overly parsimonious, and indeed some authors categorically reject the current use of cultural value dimensions (Brewer & Venaik, 2012, 2014, 2016); some models can still serve as useful approximations of reality (Box & Draper, 1987).

Criticisms of Hofstede’s work largely concern the resulting country-level indices. However, his five cultural value dimensions effectively encompass the main variations of culture (Nakata & Sivakumar, 1996) and have since been successfully implemented in numerous empirical studies (Gaspay et al., 2009). From their meta-

analysis, Kirkman et al. (2006) concluded that the subsequent studies utilising this framework have only strengthened its validity, and as such, it is "clearly relevant for additional cross-cultural research" (p. 308). While it can be argued that Hofstede's framework is the most conceptually robust metric, it raises several additional cultural research issues which must be addressed: specifically, the following sections discuss the level of analysis and the impact of time.

Level of analysis. Hofstede's dimensions were originally operationalised at the national level and therefore researchers using them at the individual level of analysis may commit an "ecological fallacy" (Brewer & Venaik, 2014): assuming that national-level statistical trends hold for individual respondents. This is particularly true of the national indices reported by Hofstede (1980), since individual level relations may be different at aggregate levels (Peterson & Castro, 2006). Based on this reasoning, Hofstede (2001) asserts that his framework should only be used at the cultural level, but in practice this becomes the *national* level and thereby incurs three significant disadvantages.

First, national scores neither capture the existence, nor impact, of the cultural value *subgroups* that are often witnessed within countries (Au, 1999; Bochner & Hesketh, 1994; Offermann & Hellmann, 1997; Wildavsky, 1989). Second, individuals from one country can demonstrate a larger *range* of scores, for example between the two polarities of individualism and collectivism (Cocroft & Ting-Toomey, 1994; Gabrielidis, Stephan, Ybarra, Pearson, & Villareal, 1997; Oyserman, 1993; Oyserman et al., 2002), yet aggregate to an identical *national-level* score as those from another country, whose scores are clustered more closely around the mean. Third, the recent increase in cross-border travel and immigration means that people are frequently "operating within at least two nation-based frames of cultural reference" (Hewling, 2005, p. 339), which further reduces the utility of country level scores that cannot be used to represent such individual-level nuances. Not surprisingly, Kirkman et al. (2006) noted in their meta-analysis that many researchers have successfully adapted Hofstede's five-dimensional framework for the individual or group/organisational level, despite his adamant objections.

Impact of time. Hofstede (2001) conceptualised culture as in a "homeostatic quasi-equilibrium", which led him to believe that the characteristics of national cultural values would self-regulate and endure over time (Yamamura, Satoh, & Stedham, 2003).

In critique of this position, Ng et al. (2007) suggest that indices generated from over 40 year old data are now rendered obsolete, unless we assume that cultural values are temporally stable (Kirkman et al., 2006). The antithetical perspective is that cultural values are in a state of flux as they are constantly "invented and re-invented" (Myers & Tan, 2002, p. 24); far from stable, they develop over time (Brett, Tinsley, Janssens, Barsness, & Lytle, 1997). This latter viewpoint is supported by early findings that Chinese managers are leaving their collectivistic values behind in favour of more individualistic ideals (Ralston, Egri, Stewart, Terpstra, & Kaicheng, 1999). A more recent analysis confirms such modernisation theory that values change as countries prosper, noting "average increases in individualism and indulgence" (Beugelsdijk, Maseland, & van Hoorn, 2015, p. 237).

Although the issue of cultural value malleability is far from settled, it seems counter-intuitive to assume that cultural values would not evolve over time, especially given the recent rise of international workforce mobility that is fuelling changes in the demographic composition of societies. However, Shackleton and Ali (1990) found that Pakistani nationals that have spent most of their lives in the United Kingdom still reported Power Distance and Uncertainty Avoidance scores that are indicative of their birthplace, suggesting that cultural values are formed during early childhood and then retained through adult life (Hofstede & Hofstede, 2005). Both of these propositions can be true simultaneously, as the gradual evolution of cultural values over generations may appear almost immutable within a single lifetime. Therefore, the present study records where respondents spent their first five "formative" years (Chadha, 2006), as well as their birthplace, current country of residence, and first language so as to control for the impact that such containers of culture may have on focal relations (Taras et al., 2016).

Classifying Cultural Values

Advancing the present cultural investigation of authentic leadership first requires a more succinct measure of cultural differences to facilitate clear moderation hypothesis theorisation and testing. Therefore, I build on the earlier work by Ronen and Shenkar (1985, 2013) to further categorise each of the five cultural values identified by Hofstede (1980) as being either predominantly "Eastern" or "Western" in nature – synthesising the diverse constellation of cultural differences into a single supranational cultural indicator. Persons with Eastern cultural values are largely collectivistic and feminine: they accept a greater disparity in power, prefer to avoid ambiguity, and orient toward

the long-term. Those with Western cultural values are primarily individualistic and masculine, tolerate less power distance, are more comfortable with uncertainty, and prioritise the short-term (see Table 1 below). The development of this indicator reflects an intentional move toward cultural measurement parsimony so as to generate more useable and relevant measures for subsequent moderation research; going beyond geographical cultural boundaries and complex multi-dimensional instruments.

Table 1.
Cultural Values: Western and Eastern

Cultural Values	
Western	**Eastern**
Individualistic[a]	Collectivistic[a]
Masculine	Feminine
Low Power Distance[a]	High Power Distance[a]
Low Uncertainty Avoidance[a]	High Uncertainty Avoidance[a]
Short-Term Oriented	Long-Term Oriented[a]

Note: [a] Dimension polarity congruent with Ronen and Shenkar (2013, p. 885).

Note that the two distinct cultural value subgroups outlined in the framework above are anticipated at the individual level. Some scholars operationalise cultural values by aggregating scores to the nation/country, while the present stream of research focuses instead on the relations between and within individuals – exploring these frameworks at the national level is outside of the theoretical scope.

Based on Hofstede's (1980) five original cultural value dimensions and the classification work of Ronen and Shenkar (1985, 2013), I derive a simple formula that categorises cultural values into Western and Eastern groups by calculating what I call a Western Values Score (WV-Score):

$$\text{Western Values Score (WV-Score)} = \frac{IND + MAS + (100 - PD) + (100 - UA) + (100 - LT)}{5}$$

The WV-Score formula is consistent with the distinctions presented in Table 1 above: Western values consist of higher individualism and masculinity values, and lower power distance, uncertainty avoidance, and long-term orientation values, hence, respondents' power distance, uncertainty avoidance, and long-term orientation scores are inverted during the calculation. Therefore, a high WV-Score would indicate high

individualism, high masculinity, low power distance, low uncertainty avoidance, and low long-term orientation (i.e. short-term orientation). Consequently, the WV-Score formula predicts whether respondents tend to uphold predominantly Eastern or Western cultural values. The midpoint of the 1-100 scale constitutes the WV-Score threshold between Eastern (1-49) and Western (50-100) responses, as demonstrated in Table 2 below.

To investigate the efficacy of the WV-Score approach, I conducting a secondary analysis on the indices reported by Hofstede and Hofstede (2005). The results reveal that the formula effectively clusters the Anglo, Germanic, and Nordic countries as those with predominantly Western cultural values. In contrast, the Arab, Eastern, and Latin countries are identified as those with predominantly Eastern cultural values (see Table 2 below). Two notable exceptions exist at the national level: the first is Iran, which is on the Western cusp by virtue of extreme short-term orientation (the lowest across all of the available data), while the remaining four dimensions conform to expectation.

Table 2.
Cultural Value Indices and Western Value Scores

	IND	**MAS**	**PD**	**UA**	**LT**	**WV-Score**
Ireland	70	68	28	35	24	**70.2**
Australia	90	61	36	51	21	**68.6**
United States	91	62	40	46	26	**68.2**
United Kingdom	89	66	35	35	51	**66.8**
New Zealand	79	58	22	49	33	**66.6**
Denmark	74	16	18	23	35	**62.8**
Canada	80	52	39	48	36	**61.8**
South Africa	65	63	49	49	34	**59.2**
Austria	55	79	11	70	60	**58.6**
Switzerland	68	70	34	58	74	**54.4**
Sweden	71	5	31	29	53	**52.6**
Norway	69	8	31	50	35	**52.2**
Italy	76	70	50	75	61	**52.0**
Finland	63	26	33	59	38	**51.8**
Iran	41	43	58	59	14	**50.6**
Germany	67	66	35	65	83	**50.0**

(continued)	**IND**	**MAS**	**PD**	**UA**	**LT**	**WV-Score**
Argentina	46	56	49	86	20	49.4
Philippines	32	64	94	44	27	46.2
Singapore	20	48	74	8	72	42.8
Mexico	30	69	81	82	24	42.4
Vietnam	20	40	70	30	57	40.6
Spain	51	42	57	86	48	40.4
Malaysia	26	50	100	36	41	39.8
France	71	43	68	86	63	39.4
Iraq	30	70	95	85	25	39.0
Thailand	20	34	64	64	32	38.8
Belgium	75	54	65	94	82	37.6
Greece	35	57	60	100	45	37.4
Turkey	37	45	66	85	46	37.0
Peru	16	42	64	87	25	36.4
United Arab Emirates	25	50	90	80	30[a]	35.0
Saudi Arabia	25	60	95	80	36	34.8
Indonesia	14	46	78	48	62	34.4
Chile	23	28	63	86	31	34.2
Portugal	27	31	63	99	28	33.6
Kuwait	25	40	90	80	30[a]	33.0
Taiwan	17	45	58	69	93	28.4

Note. Indices extracted from Hofstede and Hofstede (2005). [a] Missing data substituted with Arab country cluster mean.

Table 3.
Mean Cultural Value Indices and Western Value Scores

Western		Mean	Mean		**Eastern**
IND	High	71.8	31.7	Low	IND
MAS	High	50.8	48.3	Low	MAS
PD	Low	34.4	73.5	High	PD
UA	Low	50.1	72.1	High	UA
LT	Low	42.4	43.7	High	LT
WV-Score		**59.2**	**38.1**		**WV-Score**

The second exception is Italy, which demonstrates a Western orientation pursuant to its uncharacteristically high masculinity score – the remaining Latin nations, including Belgium, France, Spain, and Portugal are appropriately identified as Eastern. Despite

these two minor misclassifications, the categorisation of Eastern and Western cultural values along these five dimensions finds support. The same pattern is observed across the dimensions when comparing the Index and WV-Score means between the two groups as shown in Table 3 below.

Hofstede and Hofstede's (2005) indices presented above are cultural value scores at the country level, whereas the present discussion focuses instead on the relations between and within individuals. These aggregated scores are useful for providing initial support for the WV-Score theory; however, leadership phenomena should not be investigated at this level of abstraction. Kirkman et al. (2006) noted in their meta-analysis that many researchers have successfully adapted Hofstede's five-dimensional framework for the individual or group level. Likewise, the WV-Scores and the Eastern/Western cultural value subgroups that they identify are conceived of at the individual level, and authentic leadership is an individual and group level phenomenon.

Summary

This section has explored culture from a values perspective and noted that the five cultural value dimensions created by Hofstede (1980) constitute a conceptually robust metric. Offermann and Hellmann (1997) argue that these cultural values influence followers' preferences for certain kinds of leader behaviour; for instance, a leader with a strong internal moral compass may effectively inspire highly individualistic followers, but could be seen as overly *egocentric* by those who are instead more collectivistic. Therefore, cultural value dimensions serve as useful tools for investigating the interaction of leadership theory across culturally diverse followers. I put forward a classification of Hofstede's (1980) cultural values, conceiving of them as being either predominantly Eastern or Western in nature. This classification finds support via the calculation of a WV-Score, which will also simplify moderation hypothesis testing in subsequent empirical works. The next section goes beyond this traditional values approach to examine the impact of culture through a newly developed cognitive lens.

Culture – Cognitive Approach

Instead of relying on values to explain cultural differences, a more contemporary approach focuses on the underlying cognitive processes – examining *how* people think, instead of *what* they think. As recently as a decade ago, "basic" cognitive processes

such as inference, perception, causal reasoning, attention, and categorisation were presumed to be universally homogeneous (Nisbett et al., 2001). New research, however, suggests that the habitual use of these cognitive processes varies systematically across global populations (Henrich, Heine, & Norenzayan, 2010). Since some cognitive processes seem malleable well into adult life, it follows that people who have been "socialised from birth into different world views and habits of thought" would develop quite distinct cognitive systems (Nisbett et al., 2001, p. 291). Indeed, cultural experiences even shape the neural structure and chemical balance of the human brain (for an introduction to cultural neuroscience, see Han et al., 2013). Variations on such a fundamental level could play an important role in explaining why individuals can perceive seemingly identical leadership behaviours in vastly different ways (Lord & Brown, 2003).

Early Societies

In order to better understand the different schemata of people in the modern business world, it is instructive to first examine the development of two ancient civilisations and the subsequent influence that they have had on contemporary cultures (Nisbett et al., 2001). Between roughly the fifth and second century BCE, during what Jaspers (1953) called the "Axial Age", both ancient Greece and China, in particular, saw considerable advancement in philosophy and moral thought. Moreover, their unique circumstances spurred the simultaneous development of remarkably different social structures. The combination of these factors resulted in the establishment of two distinct cognitive systems and the following discussion illuminates their evolutionary paths.

Because the geography of Greece was better suited to small-scale fishing and herding, its economy was not wholly dependent on agriculture and thus permitted the development of a "less socially complex society" (Nisbett et al., 2001, p. 303). Hence, the Greeks experienced unparalleled freedom; they were characterised by a strong sense of personal agency and social liberty that was unique in the ancient world (Nisbett et al., 2001). During this time, philosophers such as Socrates, Plato, and Aristotle popularised notions that the world could be understood through logical discourse built on deductive reasoning, inference, and the discovery of rules (Lloyd, 1991; Toulmin & Goodfield, 1961). As a result, Homer asserts that, besides warfare, being capable of cogent debate became a man's most important skill, and anyone's ideas could be challenged in the assembly irrespective of rank or office (Cromer, 1995, p. 65).

Concurrently, China was going through the "Warring States" period and their invention of the crossbow shifted warfare practices to favour massive armies of infantry that required complex logistical bureaucracies to function (Ebrey & Walthall, 2013). Additionally, the reliance on large-scale agriculture necessitated a substantial level of social cooperation for the sake of economic efficiency (Nisbett et al., 2001). As such, the Chinese developed complex and hierarchical societies where prescriptive roles guided ethical conduct (Lin, 1936; Munro, 1985). Meanwhile, prominent Chinese philosophers such as Confucius, Mencius, and Laozi proffered an understanding of the world through harmony, balance, and the acceptance of inevitable cyclical change. This combination of circumstances, therefore, led the Chinese to place considerable value on in-group harmony, reciprocity, and the performance of social duties (Munro, 1985); conversely, "any form of confrontation, such as debate, was discouraged" (Nisbett et al., 2001, p. 293).

Cognitive Tools

Nisbett et al. (2001) argue that the differences in the social structure and philosophical ideals between ancient Greece and China would have directly affected the development of their residents' cognitive frameworks by making certain patterns of interaction more preferable than others. For example, if individuals are encouraged to contend with one another they would likely establish rules to govern these debates, such as formal logic and the principle of non-contradiction, which would otherwise be of little use to a people whose society was based on harmony and compromise (C. B. Becker, 1986; Cromer, 1995; Lloyd, 1990). Lévi-Strauss (1966) illuminates this situation by conceiving of people as *"bricoleurs"* – handymen armed with sets of cognitive tools that they use to engage the quandaries of their daily lives. Such tools are the embodiment of a culture's intellectual history, containing their unique theorisations about the world, which are then *(often unknowingly)* accepted by the users of these tools (Resnick, 1994). Thus, the cognitive system (or *toolkit*) predominantly used by the ancient Greeks and can be broadly labelled as "analytic" and that of the Chinese as "holistic" (Nisbett, 1998; Peng & Nisbett, 1999). However, it should not be assumed that individuals from either nation were born as analytic or holistic thinkers, but rather that their cognitive patterns have historical, philosophical, and sociological origins which have rendered them relatively distinct (Choi, Dalal, Kim-Prieto, & Park, 2003).

Moreover, these two ancient civilisations have had an immense impact on the modern world: the Greek civilisation gave rise to both the European societies and post-Columbian America, while ancient China influenced extensively the development of East Asia, Japan, Korea, and Southeast Asia (Nisbett et al., 2001). Because such deeply ingrained cultural elements evolve very slowly over time (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988), these two different cognitive patterns have endured to the modern era and "find their counterparts among contemporary peoples" (Nisbett et al., 2001, p. 292). These ideas are encapsulated in the recent literature as "analytic vs. holistic thought" (Nisbett & Miyamoto, 2005), and provide a valuable new perspective for examining the cultural variations in followers' perceptions of authentic leadership and its ultimate utility as an international business approach. Therefore, the following sections will first define analytic and holistic thought, and then examine the various dimensions included in scale development.

Definitions of Thought

The cross-cultural and cognitive science literatures have generally accepted that Western thought is particularly analytic and that Eastern thought is instead more holistic (Spencer-Rodgers, Williams, & Peng, 2010). In their seminal article, Nisbett et al. (2001) define analytic thought as:

> Involving detachment of the object from its context, a tendency to focus on attributes of the object to assign it to categories, and a preference for using rules about the categories to explain and predict the object's behaviour. Inferences rest in part on the practice of decontextualizing structure from content, the use of formal logic, and avoidance of contradiction. (p. 293)

In contrast, they define holistic thought as:

> Involving orientation to the context or field as a whole, including attention to relationships between a focal object and the field, and a preference for explaining and predicting events on the basis of such relationships… there is an emphasis on change, a recognition of contradiction… and a search for the 'middle way' between opposing propositions. (p. 293)

Building on this theoretical foundation, Choi, Koo, and Choi (2007) categorised the key differences between analytic and holistic thought in terms of attention, causality,

contradiction, and the perception of change (see Table 4 below). The following sections discuss each one of these aspects in greater detail.

Table 4.
Cognitive Systems: Analytic and Holistic

Dimension		**Cognitive System**	
		Analytic	**Holistic**
Attention	–	Object	Field
Causality	–	Dispositionism	Interactionism
Contradiction	–	Formal Logic	Dialectics
Change	–	Linear	Cyclic

Attention: Object vs. Field

The first dimension is attention, which concerns those part(s) of the external environment on which people focus mentally. The ancient Greeks are thought to have perceived the world as an assortment of discrete objects and sought to categorise such objects according to properties or characteristics (Hansen, 1983). Therefore, they displaced the focal object from its context and pursued universal rules in order to understand and predict its behaviour (Nakamura, 1964). In contrast, the ancient Chinese were primarily concerned with the relationships between objects and among people (D. L. Zhang, 1985). They did not recognise a singular object as being particularly significant (Moser, 1996), and instead believed that "parts exist only within wholes, to which they have inseparable relations" (Munro, 1985, p. 17).

More recently, Nisbett and Miyamoto (2005) concluded that contemporary Westerners predominantly focus on primary objects and rely on categorisation and rules to conceptually organise their environment, while Easterners instead focus on the relationships between objects, and within the environment, background, or field. Their findings are corroborated by several other research initiatives that have found similar differences in the attention patterns of people in the modern era (Abel & Hsu, 1949; Chiu, 1972; Choi et al., 2007; Choi, Nisbett, & Smith, 1997; Ji, Peng, & Nisbett, 2000; Masuda & Nisbett, 2001). For instance, Abel and Hsu (1949) used Rorschach cards to compare responses and found that individuals of Asian descent mostly use the whole card to formulate their answer, while those of European descent are significantly more likely to focus on only a single aspect of the card. Similarly, Chiu (1972) noted that

Easterners presented with a picture of a man, a woman, and a child are much more likely to group together the woman and the child because “the mother takes care of the baby”, whereas Westerners usually select the man and the woman, because “they are both adults” (p. 237).

Causality: Dispositionism vs. Interactionism

The concept of dispositionism is used to describe those people who focus on the internal dispositions, characteristics, or motivations of individuals when explaining their behaviour, while interactionism understands causality through the examination of situational circumstances and the interactions between people (Benforado & Hanson, 2008). Easterners tend to uphold an interactionist perspective as they generally believe that all aspects of the world are interconnected (Ji, 2008; Ji et al., 2000; Munro, 1985; Nakamura, 1964; Needham, Ling, & Robinson, 1962) and that events occur as a result of complex relations between the various actors and within the environment (Choi et al., 2007). Meanwhile, Westerners predominantly demonstrate a dispositional view as they largely attribute events and behaviour to the temperament of the primary actor (Choi et al., 2007), which compliments their perception of the world as comprised of multitudinous independent objects (Hansen, 1983).

When presented with a situation that necessitates explanation, people first gather relevant information and, once they conclude that they have collected enough, they proceed to make a final attribution (Choi et al., 2003). The amount of information that an individual collects can vary quite drastically: some may move on to the attribution stage relatively quickly with only a few pieces of information, while others will seek out vast quantities of information at great length before they are satisfied that they have collected enough to make an attribution (Shaklee & Fischhoff, 1983). Choi et al. (2003) found that the amount of information considered before making an attribution varies concordantly with the two causal models described above. Logically, the more complex and multifaceted approach characteristic of Easterners leads them to seek out a greater quantity of information than Westerners, who are often satisfied after investigating only the focal objects (Choi et al., 2003; Choi, Nisbett, & Norenzayan, 1999).

Contradiction: Formal Logic vs. Dialectics

The third dimension is concerned with the differences between the analytic and holistic approaches to discourse. Most significantly, instead of a developing a deductive

syllogism and the principle of non-contradiction (C. B. Becker, 1986; Liu, 1974), the ancient Chinese used a dialectic approach that involved reconciling, accepting, and transcending contradiction (Lloyd, 1990; Nisbett et al., 2001). In their intellectual and philosophical history no two ideas were ever irreconcilable, because both *"A"* and "*not A"* could be true simultaneously, despite the apparent negation (Chang, 1952; Mao, 1966). Subsequently, Easterners in the modern era are much more comfortable with contradiction and tend to pursue a compromise when presented with two seemingly incompatible propositions by finding value in both arguments (Choi et al., 2007; Davis, Nisbett, & Schwarz, 2000; Nisbett, 2003; Nisbett et al., 2001; Norenzayan, 2006; Peng & Nisbett, 1999).

In marked contrast, the Western analytic approach to discourse is built entirely around the laws of non-contradiction and the excluded middle, which dictate that all propositions must either be true or false, and that they cannot be both at the same time (Peng & Nisbett, 1999; Spencer-Rodgers et al., 2010). Therefore, when contemporary Westerners encounter two contradictory statements, they examine both sides and tend to choose one of the two alternatives (Choi et al., 2007; Davis et al., 2000). This process compels them to reject the least plausible proposition in favour of the most (Spencer-Rodgers et al., 2010), and involves increasing *(or decreasing)* their initial confidence in either proposition. The process is motivated by a desire to reduce cognitive dissonance, the mental stress which results from simultaneously holding two or more contradictory beliefs (Festinger, 1957).

Perception of Change: Linear vs. Cyclic

Because Easterners see the world as a complex web of interrelated elements, they concomitantly believe that all such elements exist in a perpetual state of flux as a result of the myriad ongoing interactions between them (Choi et al., 2007). Moreover, Easterners believe that these changes move in cycles that transform each element into its opposite and then back into itself again (Peng & Nisbett, 1999; Spencer-Rodgers et al., 2010). Hence, these holistic thinkers generally anticipate frequent, cyclical change of greater magnitude when formulating predictions about the future (Choi et al., 2007; Ji, Nisbett, & Su, 2001; Nisbett, 2003; Nisbett et al., 2001; Norenzayan, 2006; Peng & Nisbett, 1999). Conversely, since Westerners perceive objects as largely independent from one another, their *essence* is neither affected by external factors, nor does it change dramatically over time (Choi et al., 2007). Instead, they conceive of change as a linear

progression through “incremental and permanent adjustments” (Spencer-Rodgers et al., 2010, p. 297). Linear change is therefore a reasonably predictable stepwise process, whereas cyclic change refers to the comparatively dramatic transformation cycle as things move from one state into its opposite, and then back again. Hence, when analytic thinkers speculate about the future they tend to expect less turbulent change and gradual linear progress based on their past experiences (Ji et al., 2001; Peng & Nisbett, 1999).

Summary

This section has explored a new cognitive schema approach to cultural variation, referred to in the recent literature as analytic vs. holistic thought. The construct has a strong conceptual foundation and clear, robust dimensionality. In the present day, analytic thought is embraced primarily in Western regions/nations such as Europe, North America, Canada, Australia, and New Zealand. Meanwhile, holistic thought is prevalent throughout Eastern regions – East and Southeast Asia, Japan, and Korea, as well as in India and the Middle East (Ronen & Shenkar, 2013; Spencer-Rodgers et al., 2010). Together, these regions contain the majority of the current global population, including almost all of the developed, and more than half of the newly industrialised countries. Widespread coverage of the foremost commercial zones around the world positions the construct well as a lens for investigating how cultural differences interact with business leadership outcomes. The next section introduces authentic leadership and its dimensions, positioning them within a cultural-differences frame, before moving on to theorise the various mediation pathways through which authentic leadership enacts positive organisational effects.

Authentic Leadership

The academic construct of authentic leadership is still in the early stages of development, and yet the concept of authenticity itself stands ancient by comparison; Aristotle exhorted that “knowing yourself is the beginning of all wisdom” (Karelitz, Jarvin, & Sternberg, 2010, p. 842), and Shakespeare urged that one should “to thine own self be true” (Shakespeare, 1600; 2003, 1.3.78-82). For millennia, understanding oneself has been upheld as the very core of human behaviour (Whetten & Cameron, 2007), knowledge that has since been reconfirmed through more recent explorations in both philosophy (Harter, 2002; Heidegger, 1962; Sartre, 1943) and psychology (Cooley, 1902; James, 1890; Maslow, 1967, 1971; Mead, 1934; Rogers, 1959, 1963).

Traditional leadership approaches that are characterised by control, coercion, or manipulation can neither confront the challenges of today's evolving workforce, nor capitalise on the opportunities that it presents (Peterlin et al., 2009). As the Millennial generation enters the labour economy, these shortcomings are surfacing as increased turnover rates and employee disengagement (Özçelik, 2015; Rissanen & Luoma-Aho, 2016; Shaw & Fairhurst, 2008). Bridging the divergence of attitudes and work values between multiple culturally, demographically, and generationally diverse employees demands leaders to demonstrate unprecedented levels of awareness and integrity. Over two decades have passed since Bogue (1994) issued a leadership call to honour after concluding that the substandard conduct of many collegiate administrators could be traced back to a notable lack of authenticity. Yet the research focus has only recently begun to shift toward leaders who possess strong values and demonstrate genuine integrity (Dinh et al., 2014), despite centuries of knowledge that authenticity has a significant impact on individuals' well-being and development, especially in the workplace (Ilies, Morgeson, & Nahrgang, 2005).

Some authors have proclaimed that society's interest in leader authenticity only becomes prominent during turbulent and ambiguous times that are characterised by the increasingly complex and interconnected evolution of our modern civilization, when leaders are faced with conflicting social pressures, responsibilities, and moral dilemmas (Badaracco, 1992; Cranton & Carusetta, 2004; Vella-Brodrick & Page, 2009). In truth, the authenticity of our leaders is always salient, and it is merely thrown into sharp relief when corporate moral scandals fill the tabloids (Barnard, 1938; Novicevic, Harvey, Ronald, & Brown-Radford, 2006).

Consequently, the concept of authentic leadership has emerged as a return to the basics, moving past empty promises and re-introducing honour and integrity as core principles (Peterlin et al., 2009). This contemporary approach emanates from the recent positive psychology movement that emphasises building on individuals' strengths, instead of correcting their weaknesses (Novicevic et al., 2005). Although the development of authentic leadership is only embryonic (Avolio et al., 2009; Spitzmuller & Ilies, 2010), it has already been theoretically differentiated from transformational (Bass & Avolio, 2004) and ethical leadership (Brown, Treviño, & Harrison, 2005). Currently, there exists a considerable body of conceptual discussion, but few empirical studies have contextualised the construct and data-driven evidence is scarce (for recent

reviews and summaries of empirical findings, see Banks et al., 2016; Gardner et al., 2011).

Early Definitions

In the contemporary leadership literature, there are still numerous definitions of "authenticity" which vary in the specific wording and phrasing. However, they all court the same two central principles. First, one must know oneself. Harter (2002) described it as "owning one's personal experiences" (p. 382) and Erickson (1995) focused on the extent of truth in one's relationship with oneself. Other definitions refer either to "one's true, or core, self" (Kernis, 2003, p. 13) or "one's deeply held values" (Ilies et al., 2005, p. 376); and thereby include the implicit assumption that one has knowledge of oneself or of such deeply held values. The second principle theme that runs through these definitions is that one must also conduct oneself in congruence with one's true self (Ilies et al., 2005; Kernis, 2003). However, the enactment of these two principles cannot be thought of as a goal or "end state", because authenticity is essentially a developmental process of continually becoming wherein one attains ever-increasing levels (Erickson, 1995; Heidegger, 1962; Sartre, 1943). Therefore, authenticity will be defined here simply as the process of coming to know oneself and behaving accordingly.

Building on this conceptual foundation, the notion of authentic leadership was popularised near simultaneously by B. George (2003) in the management practitioner community and by Luthans and Avolio (2003) in the academic sphere. Avolio, Gardner, Walumbwa, Luthans, and May (2004) captured the essence of these early notions when they defined authentic leaders as:

> Those who are deeply aware of how they think and behave and are perceived by others as being aware of their own and others' values/moral perspectives, knowledge, and strengths; aware of the context in which they operate; and who are confident, hopeful, optimistic, resilient, and of high moral character. (pp. 802-804)

Additionally, May, Chan, Hodges, and Avolio (2003) posited that authentic leaders remain true to themselves while passionately enacting their organisational vision, and prioritise the mutual development of their followers (Luthans & Avolio, 2003). Not surprisingly, Cooper, Scandura, and Schriesheim (2005) cautioned against using such an

unwieldy and multi-dimensional definition as it posed considerable clarity and measurement difficulties.

The last portion of Avolio and colleagues' (2004) definition addresses leaders' confidence, hope, optimism, and resilience, which together constitute an individual's "psychological capital" (Caza, Bagozzi, Woolley, Levy, & Barker Caza, 2010). Seeking conceptual clarity, several authors contested the inclusion of such prescriptive states within the definition of authentic leadership (Cooper et al., 2005; Shamir & Eilam, 2005; Sparrowe, 2005). Subsequently, these four psychological capital components were removed and now exist as a separate construct (Caza et al., 2010; Clapp-Smith et al., 2009).

Current Definition

The academic literature has reached a consensus that authentic leadership is comprised of four primary factors: self-awareness, an internalised moral perspective, balanced processing, and relational transparency (Avolio et al., 2009; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Moreover, one's behaviour must display all four of these elements in order to qualify as authentic leadership (Caza et al., 2010; Walumbwa et al., 2008). Because there is considerable overlap between the aspects, authentic leadership is treated as a latent higher-order construct that is represented by these four dimensions (Walumbwa et al., 2008). Peus et al. (2012) capture this definition when stating that:

> Authentic leaders are guided by sound moral convictions and act in concordance with their deeply held values, even under pressure; they are keenly aware of their views, strengths, and weaknesses, and strive to understand how their leadership impacts others. (p. 332)

Their definition will serve here as the foundation for further discussion, which will be informed by first considering the synthesis of authentic leadership with cultural values before addressing the focus of its four dimensions.

Synthesis with Cultural Values

Traditional leadership theories promote a contingent approach, tailoring leader behaviour to each specific context (Yukl, 2013). However, recent cross-cultural investigations of authentic leadership find no significant differences (Petan & Bocarnea,

2016), and empirical studies across various industries in North America, Germany, China, Kenya, and New Zealand are reporting markedly similar results in terms of follower outcomes (Caza et al., 2010; Peus et al., 2012; Walumbwa et al., 2008). These findings suggest that authentic leadership may be widely effective across cultural borders, and thus inform the central premise presented in this thesis. In line with existing research (Giallonardo, Wong, & Iwasiw, 2010; Jensen & Luthans, 2006; Peus et al., 2012; Walumbwa et al., 2008; Wong et al., 2010), I anticipate that all four dimensions of authentic leadership will be positively related to followers' job satisfaction, affective organisational commitment, and work engagement, across all follower types. The investigation of authentic leadership as an antecedent to organisational outcomes at the individual level of analysis is a dominant approach in the field, supported by a proliferation of similar studies (for a meta-analytic review, see Banks et al., 2016).

However, the four dimensions of authentic leadership are construed broadly so as to encompass a comprehensive range of human behaviour and people vary in how they experience each aspect. I propose that the four authentic leadership dimensions can be split into two subgroups depending on whether their particular focus is either "leader-centric" or "interactive". Since both self-awareness and an internalised moral perspective are primarily concerned with the inner-workings of the leader's mind, they can be conceived of as being leader-centric. While in contrast, both balanced processing and relational transparency address the leaders' relationships with followers and their interaction with the external environment; hence, these two dimensions can be classified as being interactive (see Table 5 below). Consistent with previous theory, behaviour must include all four of the dimensions in order to be considered as authentic leadership (Caza et al., 2010; Walumbwa et al., 2008). Therefore, neither the leader-centric nor the interactive dimensions are construed as having primacy, and they cannot be invoked independently of each other.

Table 5.
Authentic Leadership Dimensions

Authentic Leadership	
Leader-centric	**Interactive**
Self-Awareness	Balanced Processing
Internal Moral Perspective	Relational Transparency

Because the two dimensional subgroups outlined above prioritise different aspects of leadership, followers' cultural values could dictate their preferences for either a predominantly leader-centric or interactive approach. Therefore, the next sections address each of the four authentic leadership dimensions in greater detail, considering them within the Eastern/Western cultural theories described earlier, and ultimately integrating them into a unified cultural-differences framework.

Self-Awareness

Self-awareness is the first, and perhaps the most notable, aspect of authentic leadership, because it facilitates the development of one's authentic self (Gardner, Avolio, Luthans, et al., 2005). Although not stated explicitly, self-awareness has three main components and the first is knowing one's own idiosyncratic characteristics, strengths, and weaknesses. The second is cognisance of one's impact on other people, and the third is a coherent understanding of how one derives meaning from one's own existence (Avolio & Gardner, 2005; Gardner, Avolio, Luthans, et al., 2005; Kernis, 2003). Authentic leaders gain this kind of self-awareness through introspective reflection, which gives them a lucid understanding of their own personal characteristics, talents, core values, desires, emotions and cognitions (Day, 2000; Gardner, Avolio, Luthans, et al., 2005; B. George, 2003; Ilies et al., 2005; London, 2001). Duignan and Bhindi (1997) stress that this introspective process must include an acceptance of "our flawed self, the dark self, the mask we sometimes wear to protect our fragile self" (p. 200).

Heidegger (1962) posits that people come to understand themselves through the activities that they pursue and that self-awareness is, therefore, developed through their actual choices and subsequent actions (Jackson, 2005). Only knowing oneself theoretically is not enough, one must also behave in ways that are consistent with that knowledge (Caza et al., 2010; Harter, 2002; Ilies et al., 2005; Kernis, 2003). However, care must be taken to avoid equating such self-aware behaviour with sincerity, which is defined as a congruence between individuals' outward expression of self and the reality that they experience within (Trilling, 1972). Because sincerity implies interaction with an "other", it is gauged by the extent of accuracy in that inter-personal exchange and thus distinguished from the self-awareness dimension of authentic leadership, which requires leaders to only be true to themselves (Erickson, 1995).

Self-awareness is inherently a leader-centric dimension, as it resides entirely within the authentic leader's mind. Leaders who demonstrate such a lucid cognisance of their own strengths, weaknesses, and motivations become an inherent focal point in the leadership dynamic. Western followers with individualistic cultural values identify with the leaders' independence and perceive them as a spearhead for organisational initiatives, complementing the Western cultural tendency to view leadership as a masculine domain for the assertive and ambitious (Javidan & Carl, 2004). A leader-centric approach likewise fits well with analytic thinkers who mentally prioritise a single central figure (Choi et al., 2007), and understand causality by focusing on the internal dispositions of the primary actor (Choi et al., 2003). Eastern followers, on the other hand, may consider such an approach too egocentric and hence objectionable to their more reserved collectivistic values – similarly to holistic thinkers who assign greater value to the relationships within the organisation and much less so to a single person (Chiu, 1972). Therefore, analytic and Western followers respond more positively to authentic leaders' self-awareness than holistic or Eastern followers.

Note that I draw a clear distinction between the traditionally Eastern practices of meditation/introspection and self-awareness. Authentic leadership theory is concerned with followers' perceptions of their leader's self-awareness, not actual leader practices. Leaders who outwardly demonstrate self-awareness will be regarded differently to those who are actually self-aware; the former appealing more to analytic and Western followers.

Internalised Moral Perspective

Issues of morality and ethics lie at the heart of leadership (Bass & Steidlmeier, 1999; Ciulla, 2004) and are addressed specifically within the authentic leadership construct. Authentic leaders possess an internalised moral perspective characterised by their inner drive for behavioural integrity (Walumbwa et al., 2008). This dimension, therefore, has two distinct aspects: morality and self-regulation. Morals are leaders' own internal principles regarding what is right and wrong, and ethics are the societal standards for acceptable conduct. Seeking congruence between their values and actions, authentic leaders undertake self-regulatory processes that are guided by their own internal moral values and standards, as opposed to organisational or societal pressures or expectations (Avolio & Gardner, 2005; Gardner, Avolio, Luthans, et al., 2005; Ryan & Deci, 2003; Worline & Quinn, 2003).

In an organisational setting, a leader's authenticity is constantly challenged by seemingly incompatible responsibilities. The conflict between striving to effectively attain organisational goals and behaving in a moral/ethical way is one of the greatest leadership challenges (Novicevic et al., 2005), because the aspiration for corporate success can compel leaders to exploit their various stakeholders (Michie & Gooty, 2005). When incompatible end values exist, the authentic response is one that is driven by an individual's internal cues *(morals)*, as opposed to societal standards *(ethics)* (Deci & Ryan, 1995; Ryan & Deci, 2003). This self-deterministic perspective of an authentic response is implicit in the "internalised moral perspective" component of authentic leadership, and subsequently opens the door for questioning the *quality* of one's morals. For example, if one has self-serving beliefs about that which is right and wrong, then acting on those morals in spite of societal norms may not be desirable. It is in recognition of this issue that many treatments of authentic leadership now specify a *positive* moral perspective (Duignan & Macpherson, 1992; Gardner, Avolio, & Walumbwa, 2005; Luthans & Avolio, 2003; May et al., 2003).

The requirements of leadership go beyond having a positive internal moral perspective to include the setting of moral codes for others (Barnard, 1938). Even though all individuals have a "moral identity" or particular disposition toward moral/immoral behaviour (Aquino & Reed II, 2002), they still operate within the "ethical climate" of the organisation, which is itself dictated by the leader's behaviour (Dickson, Smith, Grojean, & Ehrhart, 2001). Consequential ethics is concerned with how one's actions impact on others (Zhu, May, & Avolio, 2004), and an organisation's ethical climate is guided by values – the abstract beliefs that individuals hold with regard to ideal modes of conduct (Rokeach, 1979). These values function as trans-situational standards for behaviour (Schwartz, 1992), and therefore, leaders are responsible for setting a moral example for their followers (Aronson, 2001). Authentic leaders accomplish this through both their rhetoric, and concordant actions, that embody their own positive moral perspective (Luthans & Avolio, 2003; May et al., 2003).

The internalised moral perspective is also a leader-centric dimension, and it means that the leaders' actions are guided by their own standards and values, instead of any external societal norms or expectations (Avolio & Gardner, 2005). Leadership behaviours driven by such internal moral convictions may be better suited to Western followers who favour individuality and are generally more tolerant of uncertainty

(Ronen & Shenkar, 2013). As such, they are not deterred by leaders who may behave somewhat unexpectedly on moral principle, in spite of any ethical norms that may routinely govern those particular circumstances. Focusing on the leaders' personal morals is also central to the analytic approach to understanding causality based on individuals' internal dispositions as reason for action (Choi et al., 2007). However, leaders who prioritise their own internal morals may be at odds with the Eastern principles of collectivism, where *societal* norms largely dictate acceptable modes of conduct (Munro, 1985). In similar contrast, holistic thinkers tend not to comprehend actions through the perspective of a single person, but rather as resulting from the interactions and relationships between people (Benforado & Hanson, 2008). Hence, analytic and Western followers respond more positively to authentic leaders' internalised moral perspective than holistic or Eastern followers.

Leader-centric

Overall, the two leader-centric dimensions of authentic leadership (self-awareness and an internationalised moral perspective) may be better suited to followers with analytic cognitive systems and Western cultural values, as opposed to those with holistic patterns of thought and Eastern values. Therefore:

H1 Self-awareness and an internalised moral perspective are more strongly related to job satisfaction (H1a), affective organisational commitment (H1b), and work engagement (H1c) for analytic followers than holistic followers.

H2 Self-awareness and an internalised moral perspective are more strongly related to job satisfaction (H2a), affective organisational commitment (H2b), and work engagement (H2c) for followers with primarily Western values than those with primarily Eastern values.

Consistent with earlier empirical works, both kinds of followers demonstrate positive relations between the leader-centric dimensions of authentic leadership, and their job satisfaction, organisational commitment, and work engagement, but I argue that these relations are stronger for analytic and Western followers than for holistic and Eastern followers (see Figure 3 below for a stylised representation – a strictly linear relationship is not necessarily assumed).

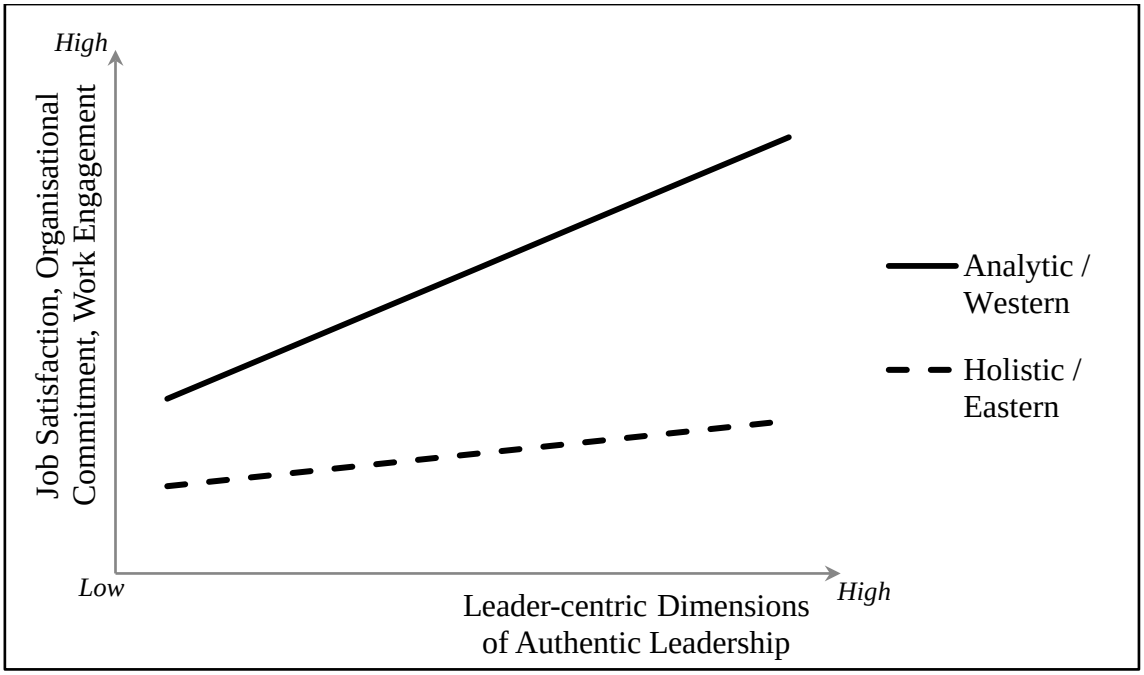


Figure 3. *Impact of Cultural Differences on Leader-centric Dimensions*

The following sections address the two interactive dimensions of authentic leadership, balance processing and relational transparency, to illustrate how they operate across cultural value types.

Balanced Processing

The third authentic leadership dimension is called balanced processing and specifies that authentic leaders are objective in the use of relevant information, whether positive or negative, and especially that which challenges their previously held beliefs (Gardner, Avolio, Luthans, et al., 2005; Gardner, Avolio, & Walumbwa, 2005). Kernis (2003) originally labelled this dimension *unbiased processing* and described it similarly as the collection and interpretation of relevant information without distorting, denying, or ignoring internal experiences, external evaluations, or private knowledge. However, because people are all inherently biased when processing information (Fiske & Taylor, 1991; Tice & Wallace, 2003), this aspect is more appropriately referred to as *balanced* processing (Avolio & Gardner, 2005). Most importantly, the process goes beyond the objective acquisition and re-evaluation of *self*-knowledge, to also dictate how authentic leaders engage with *other* people and their *external* environment. Taking a balanced approach to decision-making in the face of incompatible ends and contradicting responsibilities requires a lucid understanding of the both the broader context within which one operates, and of the various relationships involved.

Because people are constantly experiencing some level of emotional affect in every waking moment (Diener & Larsen, 1984), leaders will also need to appreciate the impact of their own emotions before they can engage in genuine balanced processing. Understanding one's emotions includes not only being aware of them, but also knowing their causes and effects on cognition, decision-making, and how they evolve over time (J. M. George, 2000; Salovey & Mayer, 1990; Salovey, Mayer, & Caruso, 2002). Although such emotional awareness is essential to effective leadership (Avolio, 2004; Caruso, Mayer, & Salovey, 2001; J. M. George, 2000; Michie & Gooty, 2005), traditional leadership paradigms interpreted that to mean that emotions needed to be controlled lest they impair one's cognitive faculties (Beyer, 1999; Kant, 1997). Indeed, emotions have only recently been reconceptualised as actually *helping* to enhance one's understanding of events and people, by providing invaluable information that would otherwise go unseen by a detached intellect (Cassell, 2002; Frijda, Manstead, & Bem, 2000; Nussbaum, 2001; Oakley, 1992; Smith & Lazarus, 1991). Sherman (1989) illustrates this more contemporary construal of emotions when stating that to see "dispassionately without engaging the emotions is often to be at peril of missing what is relevant" (p. 45). Kierkegaard (1987) was the first to combine a specific focus on emotions in the context of authenticity (Perkins, 1990), positing that our emotions are inextricably linked to our cognitive understanding of the world; and therefore, leaders are only able to practice balanced processing when their emotions are engaged and understood (Furtak, 2003; Kierkegaard, 1996).

Balanced processing is an interactive dimension because of its focus on the interpretation of information and engagement with the external environment. Authentic leaders who demonstrate such an equitable approach are particularly attractive to holistic thinkers who value cohesion and compromise (Nisbett et al., 2001), where process is more important than the outcome and all relevant factors must be equitably considered. Such balanced processing requires a cognisance of the broader picture and an appreciation of the various interrelationships that operate within each situation – understanding that coincides well with holistic followers who mentally prioritise the contextual background (Ji et al., 2000; Masuda & Nisbett, 2001), and interpret events as resulting from the interactions between the relevant actors (Ji, 2008). Leaders who engage with all relevant parties and deal with information and decision-making in this methodical way appear less capricious and are therefore more attractive to Eastern

followers with collectivistic values who generally prefer to avoid ambiguity in the workplace (Ronen & Shenkar, 2013). As a result, holistic and Eastern followers respond more positively to authentic leaders' balanced processing than their predominantly analytic and Western counterparts.

Relational Transparency

The fourth and final dimension of the authentic leadership construct is relational transparency, which means striving for open and truthful interpersonal relationships with followers (Ilies et al., 2005). In order to engage followers in such transparent relationships leaders must present their genuine (Gergen, 1991), or authentic (Kernis, 2003), self to others. Achieving this transparency requires "an active process of self-disclosure" with regard to one's true thoughts and feelings (Goldman & Kernis, 2002, p. 19). The open and honest nature of these relationships, in turn, promotes the mutual development of professional intimacy and trust (Gardner, Avolio, Luthans, et al., 2005; Goldman & Kernis, 2002; Kernis, 2003).

Through the transparent relationship, followers also become cognisant of their leader's values and beliefs, which make the leader's behaviours more predictable and easier to understand (Spitzmuller & Ilies, 2010). Therefore, it is important that leaders demonstrate consistency between their operating values and their behaviour, because it is ultimately the followers that authenticate the leader (Gardner, Avolio, Luthans, et al., 2005; Zhu et al., 2004). The increased predictability resulting from such behavioural integrity also makes authentic leaders more trustworthy (Peus et al., 2012), which grants them more credibility in the eyes of their followers (Block, 1993; Kouzes & Posner, 1987) and makes them more effective at leading others in general (Sparrowe, 2005).

Authentic leaders' relational transparency is an interactive dimension because of the inherent focus on their dealings with others. Leaders who prioritise the development of professionally intimate relationships are much more attractive to Eastern followers as they are generally possessed of collectivistic ideals and hence place considerable value on membership to mutually beneficial in-groups (Hofstede, 1980). While such a transparent relationship is of significant value in Eastern ideals, it is not necessarily a relationship of equality, because Eastern cultural values simultaneously accept a larger disparity in power between the members of society (Ronen & Shenkar, 2013). The efficacy of relational transparency is indeed unrelated to issues of equality, appealing

for example to both vertical- and horizontal-based theories of individualism and collectivism (see Singelis, Triandis, Bhawuk, & Gelfand, 1995). Eastern followers, however, tend to prefer relationships where superiors and subordinates are clearly differentiated, and leaders are expected to provide a "paternalistic" authority and benevolent guidance (Pellegrini & Scandura, 2008; Wu, Huang, & Chan, 2012). Therefore the focus on nurturing relationship-based leadership behaviour fits better with the predominantly feminine values inherent of Eastern followers (Ronen & Shenkar, 2013). Similarly, the focus on relationships complements holistic thinkers' tendency to understand the world through the various interactions between people (Choi et al., 2007). Indeed, from a holistic perspective, individuals do not exist in isolation and can only be conceived of in terms of their relationships to other people and places (Ji, 2008). Consequently, holistic and Eastern and followers respond more positively to authentic leaders' relational transparency than analytic or Western followers.

Interactive

To summarise, the two interactive dimensions of authentic leadership (balanced processing and relational transparency) are more in line with holistic minded followers and those who uphold Eastern cultural values, instead of those with analytic patterns of thought and Western cultural values. Thus:

H3 Balanced processing and relational transparency are more strongly related to job satisfaction (H3a), affective organisational commitment (H3b), and work engagement (H3c) for holistic followers than analytic followers.

H4 Balanced processing and relational transparency are more strongly related to job satisfaction (H4a), affective organisational commitment (H4b), and work engagement (H4c) for followers with primarily Eastern values than those with primarily Western values.

Likewise keeping with earlier works, the interactive dimensions of authentic leadership are expected to be positively related to job satisfaction, organisational commitment, and work engagement across all follower types, but these relations are stronger for holistic and Eastern followers than they are for analytic and Western followers (see Figure 4 below).

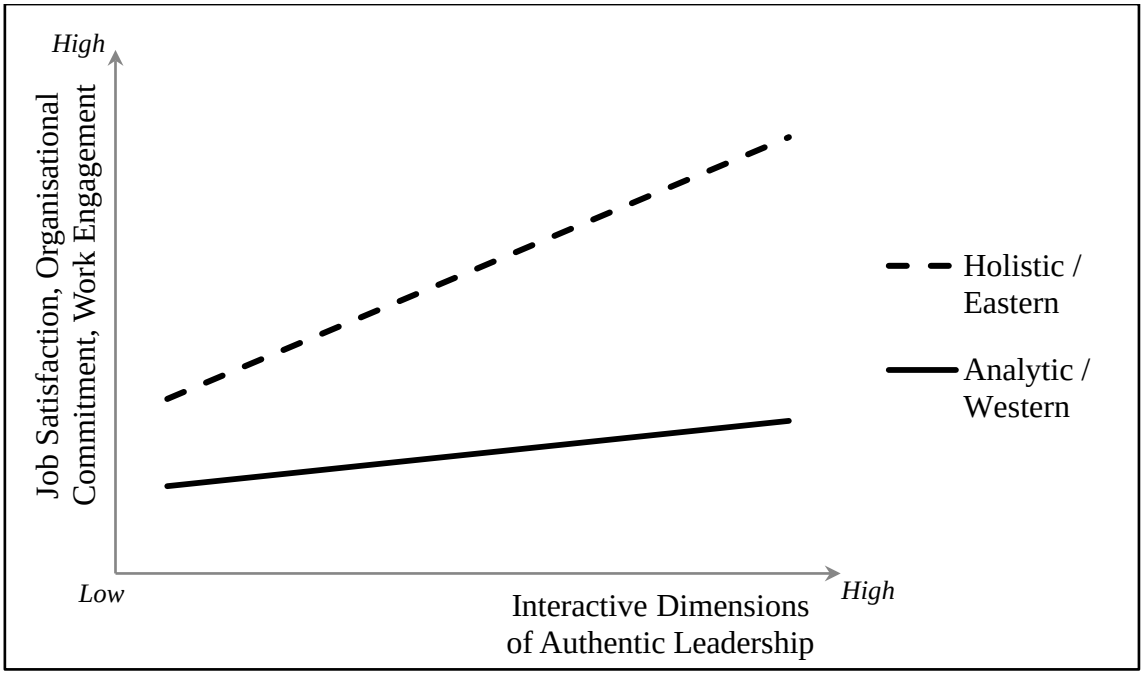


Figure 4. *Impact of Cultural Differences on Interactive Dimensions*

The following section now considers the interaction of these leader-centric and interactive dimensions with followers' cultural values and cognitive schemata, so as to combine them into an integrated authentic leadership framework.

Integrated Framework

The central argument of this thesis is that authentic leadership is widely effective across individual cultural differences, because some of the dimensions appeal more to certain kinds of followers and less to others. The four dimensions of authentic leadership encompass a wide range of human behaviour and it is therefore likely that followers with different cultural values vary significantly in how they experience each individual aspect. To briefly summarise, followers who utilise analytic systems of thought and those who uphold Western cultural values may tend to prefer a self-assured and morally-driven leader who champions organisational initiatives. Within the construct of authentic leadership, these preferences should be effectively met by self-aware leaders who are motivated by their internalised moral perspective – qualities that are captured by the two corresponding leader-centric dimensions. Conversely, holistic followers and those with predominantly Eastern cultural values might prefer a more relationship-oriented approach to leadership that prioritises the interactions between people and takes into careful consideration the various other contextual elements. Such an approach is embodied by authentic leaders who practice balanced processing and prioritise relational transparency – leadership behaviours that are well represented by

the two interactive dimensions. As a result of these cultural differences, I expect that both Western followers and analytic followers have a stronger appreciation for the two leader-centric dimensions of authentic leadership, while Eastern followers and holistic followers are instead more strongly influenced by the two interactive dimensions (see Table 6 below). Hence, the two different conceptualisations of culture moderate the efficacy of authentic leadership at the dimensional level.

Table 6.
Cultural Preferences for Authentic Leadership Dimensions

Authentic Leadership Dimensions	**Culture**	
	Cultural Values	**Cognitive System**
Leader-centric	Western	Analytic
Interactive	Eastern	Holistic

Note that the terms Eastern and Western are used only nominally and naïve conceptions of Asian/oriental or North American cultural practices should not cloud the theorisation of the specific cultural value dimensions identified by Hofstede (1980). It is individuals' aggregate tendencies toward collectivism, femininity, power distance, and uncertainty avoidance that influence their preference for certain aspects of authentic leadership. The present discussion has illustrated how the leader-centric and interactive dimensions of authentic leadership are moderated by followers' cultural values and cognitive schemata. The next section describes a markedly different outcome for the summative construct.

Higher-order Construct

Integrity, and by conceptual extension, authenticity (for a discussion, see Bauman, 2013), may be universally desirable and effective leadership qualities (House et al., 2014, p. 23). Authenticity is indeed inherent across all aspects of this leadership construct, and as such, I anticipate that the culturally driven differences illustrated above offset one another when the leader-centric and interactive dimensions of authentic leadership are aggregated to form a single score. Therefore, authentic leadership as a higher-order construct is not significantly moderated by cultural differences; be they conceived of in values- or cognition-based terms. Thus:

H5 Followers' analytic or holistic thought do not moderate on the relations between their perceptions of authentic leadership and their job satisfaction (H5a), affective organisational commitment (H5b), and work engagement (H5c).

H6 Followers' cultural values do not moderate the relations between their perceptions of authentic leadership and their job satisfaction (H6a), affective organisational commitment (H6b), and work engagement (H6c).

Together, these two hypotheses constitute the central premise of this study that authentic leadership is widely effective across individual cultural differences and therefore constitutes a uniquely useful approach to international business as a break from the traditional contingency-based leadership theories. The following discussion considers the salience of followers' perceptions and demonstrates how followers' personal identification with their leader may mediate the effects of authentic leadership on positive organisational outcomes. Latter sections consider the additional mediation effects of followers' trust, as well as between-outcome interactions, before proposing a more comprehensive serial mediation model that illustrates their causal paths.

Followers

Perspective and Outcomes

Followers must be the focal centre of model development to convincingly theorise the moderation and mediation effects of authentic leadership. Indeed, the academic leadership literature is criticised for focusing too narrowly on leaders themselves, omitting the potential influence of their followers and context (Avolio, 2007; Avolio et al., 2009; Shamir, 2007). Although leadership has long been conceived of as an interactive phenomenon, involving both leaders and followers (Graen & Scandura, 1987), research efforts are only now shifting toward using followers as the pivotal centre in model development (Howell & Shamir, 2005). Shamir (2007) asserts that successful leadership is as dependent on followers as it is on leaders, because "it only requires the good follower to do nothing for leadership to fail" (Grint, 2005, p. 133). Overall, there has been an increased interest in the impact of the subjectivity of perception, and concordantly, some studies have begun investigating the effects of authentic leadership from the followers' perspective (Caldwell, 2009; Peus et al., 2012).

How individuals interpret their life experiences dictates the consequences of those experiences. For instance, a person set a task that they see as mundane may be

demotivated to fully engage, whereas another person may consider the same task as vital to a larger goal and therefore feel driven to accomplish it. Similarly, how followers interpret others' leadership behaviours dictates the internal outcomes of those workplace interactions. Therefore, it is not leaders' *objective* authenticity that actually influences followers, but rather followers' *subjective* perceptions of their leaders' authenticity. Consequently, the authentic leadership construct is best operationalised by measuring the strength of the relations between followers' perceptions of authentic leadership and the organisational outcomes that they experience.

Considering that it is impossible to accurately quantify leaders' objective authenticity (Liedtka, 2008), a number of authors have reached the same theoretical conclusion and have likewise begun to approach the concept through the lens of followers' perception (i.e. Giallonardo et al., 2010; Jensen & Luthans, 2006; Peus et al., 2012; Walumbwa et al., 2008; Wong et al., 2010). The findings of their studies demonstrate with some consistency that followers who perceive their leaders to be more authentic will experience significantly increased job satisfaction, organisational commitment, and work engagement. These three positive follower outcomes serve as important metrics of leadership efficacy as they are associated with increased organisational performance (Dirks & Ferrin, 2002; Malhotra & Mukherjee, 2004; Wilson, Zeithaml, Bitner, & Gremler, 2012) and help to reduce employee burnout, absenteeism, turnover, and intention to quit (H. Lu, While, & Barriball, 2005; Shields & Ward, 2001). Therefore, in line with earlier works, I expect that:

H7 Followers' perceptions of authentic leadership are positively related to their job satisfaction (H7a) and work engagement (H7b).

Because organisational commitment is a multifaceted construct, the following section discusses it in more detail before hypothesising its interaction with authentic leadership.

Organisational commitment. Businesses require a stable workforce in order to be effective and employees that are unlikely to leave an organisation are broadly conceived of as being 'committed' (Allen & Meyer, 1990). Some early studies of commitment explored the construct in terms of the costs of leaving an organisation (H. S. Becker, 1960; Farrell & Rusbult, 1981; Rusbult & Farrell, 1983), and the subsequent likelihood of turnover if provided certain incentives to do so (Hrebiniak & Alutto, 1972;

Ritzer & Trice, 1969). Others described commitment as a perceived responsibility or obligation to the business, with individuals maintaining employment because it is in the company's best interests and is therefore the right way to behave (Wiener, 1982; Wiener & Vardi, 1980). However, merely maintaining this kind of workforce continuity is inadequate because "what employees *do* on the job is as important, or more important, than whether they remain" (Allen & Meyer, 1990, p. 15); employees must be willing to go beyond their basic role requirements in order to consistently deliver superior performance (Katz, 1964; Organ, Podsakoff, & MacKenzie, 2005). Accordingly, Buchanan (1974) focused instead on workers' *dedication* when defining organisational commitment as "a partisan, affective attachment to the goals and values of the organisation, to one's role in relation to the goals and values, and to the organisation for its own sake, apart from its purely instrumental worth" (p. 533).

Allen and Meyer (1990) clarified these disparate conceptualisations by isolating three different kinds of commitment: continuance, normative, and affective. Individuals with continuance commitment are conscious of the costs associated with leaving and therefore *need* to maintain employment; those with normative commitment perceive an obligation to stay because they *ought* to; and those with affective organisational commitment are emotionally attached to their organisation and remain because they *want* to (Allen & Meyer, 1990). The kind of commitment experienced by employees affects the extent and quality of their contribution to the overall effectiveness of the organisation, with those that *want* to belong adding more value than those who either *need* to or who feel *obligated* to (Meyer & Allen, 1991). Consequently, empirical studies find employees' affective organisational commitment to be positively related to desirable organisational outcomes, such as reduced turnover (Meyer & Allen, 1991), citizenship (Shore & Wayne, 1993), service quality (Malhotra & Mukherjee, 2004), and performance (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989). In contrast, continuance and normative commitment are either unrelated to, or are negatively correlated with, performance ratings (Malhotra & Mukherjee, 2004; Meyer et al., 1989). Hence, the prevailing trend in recent organisational behaviour research is to measure employee's *affective* organisational commitment (Riketta, 2002).

In the context of authentic leadership research, existing studies report positive relations between followers' perceptions of authentic leadership and organisational commitment (Giallonardo et al., 2010; Jensen & Luthans, 2006; Peus et al., 2012;

Walumbwa et al., 2008; Wong et al., 2010). Consistent with these results and serving here as the third indicator of authentic leadership efficacy, I expect that:

H7 Followers' perceptions of authentic leadership are positively related to their *affective* organisational commitment (H7c).

To briefly summarise, this study investigates how cultural differences affect authentic leadership from the followers' perspective, utilising their job satisfaction, affective organisational commitment, and work engagement as measures of leadership efficacy. The following section moves on to theorise the mechanisms through which authentic leadership engenders these positive follower outcomes: personal identification and interpersonal trust. Lastly, the relations between the three outcome variables are discussed and integrated into a multiple mediation model.

Value Congruence and Personal Identification

When examining the impact of followers' values on leadership outcomes, it is important to consider how they might perceive the leaders' operating values. For instance, individuals with a high level of self-concept clarity, whose "self-concept is clearly defined, internally consistent, and stable over time" (Campbell et al., 1996, p. 141), also possess clear knowledge of their own values, emotions, and beliefs (Gardner, Avolio, Luthans, et al., 2005). In a workplace setting, such individuals' willingness to follow may depend on both how well they understand themselves and the extent to which their leader represents values that they hold salient. Exemplifying the issue, Eagly (2005) noted cases where leaders failed to effectively motivate followers despite their authentic rhetoric and behaviour, because they were enacting values that their followers did not share. Hence, the efficacy of authentic leadership may be affected by the level of congruence between followers' values and those of their leader (Campbell et al., 1996; Gardner, Avolio, Luthans, et al., 2005; Howell & Shamir, 2005; Lord & Brown, 2001).

The impact of such value congruence on the leader-follower relationship can be explored through the concept of personal identification, which Kark and Shamir (2002) define as the "process whereby [an] individual's beliefs about a person become self-referential or self-defining" (p. 70). Phrased in leadership terms, this refers to the manner in which individuals come to define themselves as followers of a leader (Gardner & Avolio, 1998). Self-verification theory further informs us that one of the

underlying motivations behind interpersonal behaviour is the need to verify and validate one's self-concept (Swann Jr, 1983; Swann Jr, Rentfrow, & Guinn, 2003), which is anchored by working to make others understand one's true self (Swann Jr, Polzer, Seyle, & Ko, 2004). Therefore, as followers come to understand themselves through the authentic relationship, they will begin to strive toward "goals that are, in part, derived from and congruent with those of the leader" (Avolio & Gardner, 2005, pp. 326-327). Consequently, leadership has a stronger impact on followers' outcomes when they identify with their leader (Campbell et al., 1996; Howell & Shamir, 2005; Kark, Shamir, & Chen, 2003; Peterlin et al., 2009).

Extrapolating from organisational commitment theory, employees who follow a leader because they *want to* will experience more positive organisational outcomes (Meyer & Allen, 1991; Shore & Wayne, 1993) and add more value (Meyer et al., 1989). As individuals begin to personally identify with their leader, they begin to embrace the leader's values and goals as their own (Avolio & Gardner, 2005), which are inherently congruent and thereby increase their willingness to follow. Thus, personal identification serves as a mediator for authentic leadership efficacy. This perspective is in line with recent empirical studies exploring similar mediation pathways (see Wong et al., 2010). Therefore:

H8 Followers' personal identification with their supervisor *mediates* the relations between their perceptions of authentic leadership and their job satisfaction (H8a), affective organisational commitment (H8b), and work engagement (H8c).

Trust is another variable that is consistently identified as an important factor in the authentic leadership relationship (Gardner, Avolio, Luthans, et al., 2005; Wong & Cummings, 2009; Wong et al., 2010). The next section therefore moves on to discuss followers' interpersonal trust as the second mediating mechanism of authentic leadership.

Interpersonal Trust

Nyhan and Marlowe (1997) define trust as one's confidence in another person's "competence and willingness to act in a fair, ethical, and predictable manner" (p. 616). Robinson (1996) goes on to add that their actions must also "be beneficial, or at least not detrimental, to one's interests" (p. 576). Put together, the two fundamental components that elicit trust are behavioural consistency and benevolence toward others

(Butler, 1991). Therefore, the candour of relationships cultivated through authentic leadership, and the behavioural integrity of the leaders, engenders higher levels of trust between them and their followers.

Recent empirical studies find support for the significant positive relations between followers' perceptions of authentic leadership and trust (Wong & Cummings, 2009; Wong et al., 2010), consistent with earlier theoretical contributions (Gardner, Avolio, Luthans, et al., 2005). Dirks and Ferrin (2002) further affirm in their meta-analysis that followers' trust in leadership is positively correlated with increased job satisfaction, organisational commitment, and veritable sustained performance. Hence, it follows that interpersonal trust mediates the relations between authentic leadership and positive follower outcomes – indeed Clapp-Smith et al. (2009) find support for similar mediation pathways. Careful to avoid sampling mere *reciprocity*, Colquitt, Baer, Long, and Halvorsen-Ganepola (2014) recommend implementing a measure of *affect-based* trust to investigate such relations within leadership dyads. As such, I expect that:

H9 Followers' affect-based trust in their supervisor *mediates* the relations between their perceptions of authentic leadership and their job satisfaction (H9a), affective organisational commitment (H9b), and work engagement (H9c).

Followers' personal identification and affect-based trust do not operate in isolation and may in fact be substantively related to each other. Because trust is based in part on behavioural consistency (Butler, 1991; Nyhan & Marlowe, 1997), as employees come to know and personally identify with their leader, the leader's actions will make more sense and thereby produce increased trust. Consistent with the results reported by Clapp-Smith et al. (2009) and the behavioural consistency theorised earlier, authentic leadership should also still be directly related to followers' trust in the leader – there is no argumentation to suggest that personal identification would fully mediate the effects of trust. Therefore, I propose that followers' personal identification with their leader partially mediates the relation between their perceptions of authentic leadership and their trust in the leader. Wong et al. (2010) tested this particular mediated interaction and found compelling empirical support. Congruent with their results, I anticipate that followers' personal identification functions as a key mediating mechanism through which authentic leadership produces increased trust (see Figure 5 below for a graphical representation); hence:

H10 Followers' personal identification with their supervisor *partially mediates* the relation between followers' perceptions of authentic leadership and their affect-based trust in the leader.

Moreover, the three follower outcomes of authentic leadership (job satisfaction, affective organisational commitment, and work engagement) are unlikely to be independent from one another. To garner a deeper understanding of their interaction with both authentic leadership and each other, the following section unpacks this group of outcomes and then reassembles them into one unified mediation framework.

Interaction between Outcomes

Employees' job satisfaction, affective organisational commitment, and work engagement are similar, yet distinct constructs (for reviews, see Allen & Meyer, 1990; Saks, 2006; Thompson & Phua, 2012). Prior empirical work demonstrates that significant positive relations exist between these three outcome variables (Saks, 2006). Several such relations correspond with sound theoretical reasoning; for instance, being engaged with work would likely result in increased job satisfaction, which would in turn foster stronger commitment toward the organisation. Integrating these into a combined model would yield a more comprehensive understanding of how authentic leadership generates positive follower outcomes. We can also make more robust inferences from one inclusive model that concurrently tests all of the pertinent variables, rather than several discrete models that only account for small portions of the overall framework.

Existing empirical findings suggest that work engagement predicts both job satisfaction (Giallonardo et al., 2010) and organisational commitment (Saks, 2006). However, employees' engagement with their work may not consistently lead to *organisational* commitment; being engaged with the work would not necessarily commit employees to the company, but rather to the work itself. Yet being engaged would likely make a direct contribution to their overall job *satisfaction*, and it follows that employees who are satisfied with their jobs would develop affective organisational commitment. Therefore, I concur with earlier studies that work engagement generates increased job satisfaction, and theorise that job satisfaction then leads to increased organisational commitment; thereby mediating this interaction (see Figure 5 below for a graphical representation). Hence, I propose that:

H11 Followers' job satisfaction *mediates* the relation between their work engagement and affective organisational commitment.

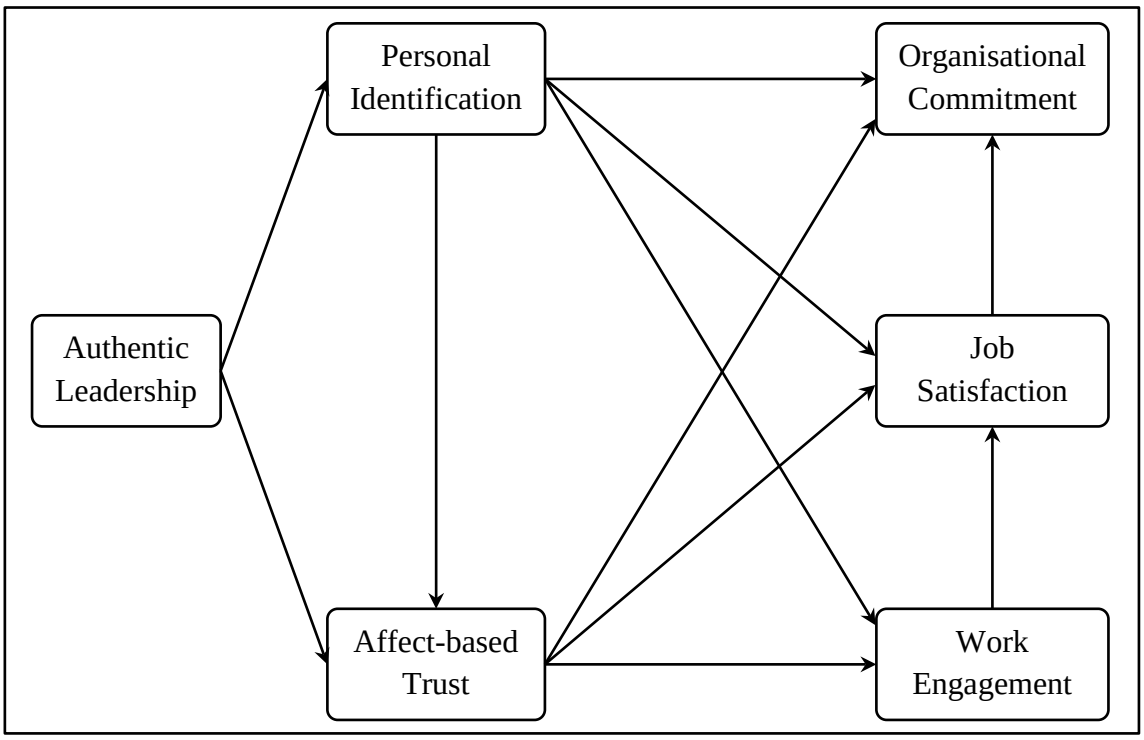


Figure 5. *Theoretical Framework – Multiple Mediation*

The following section encapsulates the main arguments presented during this theory development chapter, before introducing the next methodology chapter.

Chapter Summary

The present research investigates the impact of individual cultural differences on authentic leadership and isolates its key mediating mechanisms. In a deliberate move toward parsimonious measurement in cultural research, I introduce two supranational indices of cultural difference. The chapter is organised into four sections that lay the theoretical groundwork for subsequent empirical studies.

First, the notion of culture is explored within the traditional values-based perspective. Discussion focuses on the five dimensions of cultural values created by Hofstede (1980), which constitute a valid metric (Kirkman et al., 2006). Re-examining existing indices leads me to propose a new formula for calculating a single Western Values Score (WV-Score), which is supported by an assessment of existing data. The second section goes beyond values to examine the impact of culture through a cognitive schemata-based construct referred to in the recent literature as analytic vs. holistic thought (Nisbett et al., 2001) – examining *how* people think, instead of *what* they think.

Studying the differences between ancient Greek and Chinese societies illustrates how contemporary peoples' cognitive patterns have historical, philosophical, and sociological origins which have rendered them relatively distinct (Choi et al., 2003). The promising new theory has a strong conceptual foundation and clear, robust dimensionality.

Authentic leadership is then presented within the context of these structures of cultural difference. The comprising dimensions are split according to their focus: leader-centric or interactive, and then combined with the two conceptualisations of culture. This integrated framework reveals the moderated operation of authentic leadership within the context of individual cultural differences. Lastly, followers' perceptions are discussed as a focal point in model development and serve as a platform for theorisation about the main mediating mechanisms of authentic leadership. Several mediation models of increasing complexity capture the dynamic interaction between mediators and within the outcome variables. Specific hypotheses arising from the text are presented throughout.

The following chapter outlines the research methods implemented to test these frameworks, beginning with two scale development studies and followed by a third, larger study, that finalises the scale and addresses the leadership-related hypotheses.

CHAPTER THREE: METHOD AND RESULTS

Research Design

The present work followed the dominant trend over the last century in leadership research (Avolio et al., 2009) by operating under a positivist epistemological belief structure and implementing a quantitative methodology.

Positivists generally believe in an objective, measurable reality, which allows them to empirically test theoretical hypotheses – in this case, about social phenomena (Bryman & Bell, 2015). Here, a clear distinction is drawn between theory and research: the former is used to generate specific hypotheses, while the latter implements statistical techniques to test these hypotheses. Using such a deductive approach and quantitative methods affords researchers the procedural rigor that is necessary to minimise the impact of their own subjective values. Replicable findings are taken as evidence of "truth" (Guba, 1994, p. 108) and yield generalisable knowledge on the subject matter.

Adhering to the deductive structure, the previous chapter established a theoretical framework and presented 11 hypotheses – several of which are split into three subgroups, one for each of the three dependent variables – logically derived from the existing literature. The research component of this project was then organised into three different studies in order to investigate these propositions. The first two studies use quantitative methods to develop and validate a new Holistic Cognition Scale (HCS). The third study then uses the HCS in conjunction with several existing measures to first establish the criterion validity of the HCS and then to test the main leadership-oriented hypotheses. The remainder of this chapter addresses each study in turn, covering the rationale, methods, and results, before moving on to a general discussion in the next chapter.

Study 1: Developing the Holistic Cognition Scale

At present, two scales measure the construct of analytic and holistic thought: the original Holism scale by Choi et al. (2003), and the more recent Analysis-Holism Scale (AHS) by Choi et al. (2007). The Holism scale represents an initial foray into measurement as part of establishing this cognitive theory. Hence, the scale did not benefit from a rigorous developmental methodology and only included two dimensions of holistic tendencies. In contrast, the AHS was the result of a concerted scale

development initiative comprised of multiple studies. A major contribution of the work by Choi et al. (2007) is that their instrument is based on a thorough theoretical review of the topic across several disciplines. Moreover, this conceptual foundation is effectively synthesised into a clear dimensional structure, which is a critical first step toward creating sound psychometric measures (Hinkin, 1995; Schriesheim, Powers, Scandura, Gardiner, & Lankau, 1993).

However, several limitations have permeated the final set of items included in the AHS. First, the scale contains an unequal number of forward and reverse-scored items as well as an uneven distribution of them across the dimensions – five out of the six reverse-scored items are in the 'perception of change' dimension, and the remaining three dimensions are comprised almost entirely of positively-scored items. Schimmack et al. (2005) caution against such asymmetry, especially in studies of culture, since participants' acquiescence bias may distort the observed variation. While the authors largely followed the contemporary scale development procedures set out by Hinkin (1998), following DeVellis (2012) suggests that an inadvisable level of redundancy exists between the items. This may have inflated the overall alpha (Cronbach's test of reliability) while simultaneously covering less of the actual phenomenon. The fact that the items were originally written in Korean might account for the redundancies because it is unclear whether the authors followed the standard back-translation method to convert the items into English (Brislin, 1980). Lastly, the scale demonstrates a low (but technically acceptable) alpha coefficient, near the .70 minimum threshold (DeVellis, 2012; Nunnally, 1978). The alpha is an indicator of internal consistency within a dimension or scale (Cronbach, 1951), and if we then consider the inflationary effect of item redundancy, a low alpha score may indicate sub-standard reliability (for a review, see Boyle, 1991).

Illustrating some of the above concerns, Lechuga, Santos, Garza-Caballero, and Villarreal (2011) implemented the AHS in their work but encountered difficulties with the item wording and their subsequent results proved inconclusive. Bearing in mind the importance of measurement clarity in leadership research (Schriesheim & Cogliser, 2009), the development of a new measure for analytic and holistic thought may be warranted. Modern scale development techniques utilise quantitative methods to reduce the subjectivity of item assessments (Hinkin & Tracey, 1999; Schriesheim et al., 1993). These techniques can help refine scales and improve content validity before subsequent

research initiatives invest into potentially problematic measures (Schriesheim, Cogliser, Scandura, Lankau, & Powers, 1999).

The present study therefore adopts the comprehensive four-dimensional framework of analytic and holistic thought established by Choi et al. (2007), and begins the scale development process anew by generating a pool of items and conducting a content validation study.

Method

Sample. The sample contained 41 participants, which is an appropriate size for this kind of study (Hinkin & Tracey, 1999), and consisted of 19 doctoral students and 22 academic faculty members from the management departments of AACSB accredited business schools across six universities in New Zealand. The sample was comprised of 56.1% males, and the mean age was 43.6 years. Doctoral students and academic staff versed in management literature were selected for this study because they are generally familiar with business research terminology and possess sufficient intellect to understand the construct definitions (Schriesheim et al., 1999).

Procedure. Based on a review of the current literature, and adapted from the seminal development work of Choi et al. (2007), I generated the following definitions to encapsulate each aspect of the four dimensions of analytic and holistic thought (see Table 7 below).

Following DeVellis (2012), a larger initial pool of 55 survey items was generated using the above definitions as a guiding framework. Thus, the weaker items (those that load on the wrong factor, or cross-load on multiple factors) could be identified by subsequent analysis and removed from the emerging scale (Clark & Watson, 1995). The initial set of items was developed to capture the domain of analytic and holistic thought as defined within four dimensions: attention, causality, contradiction, and change (Choi et al., 2007). Following Churchill Jr (1979), focus groups were used to develop potential items. Group members were diverse with regard to their cultural backgrounds and demographic profile; as representative of the target population. The initial item pool was generated in isolation from existing instruments to reduce the impact of availability bias. All of the items were written as declarative statements for use with a Likert-type scale response format and the wording targeted a sixth grade reading level, as is considered appropriate for instruments intended for use

with the general population (DeVellis, 2012). Particular care was taken to ensure that both the holistic and analytic aspects of each dimension were well represented in this preliminary item pool (Clark & Watson, 1995), and that the item wording varied sufficiently to "sample all possible contents" of the theory (Loevinger, 1957, p. 659).

Table 7.
Definitions of the Holistic Cognition Scale (HCS) Dimensions

Attention *(analytic)*	Analytic thinkers tend to focus their attention on the primary object, detaching it from the context and assigning it to categories based on its attributes, because they see the world as comprised of numerous independent elements.
Attention *(holistic)*	Holistic thinkers orient toward the context as a whole, focusing on the relationships between objects, because they believe that parts exist only within wholes, to which they have inseparable relations.
Causality *(analytic)*	Analytic thinkers understand cause and effect by focusing on the internal dispositions, characteristics, or motivations of individuals, because they believe that people are mostly independent and events occur as a result of individual peoples' behaviour.
Causality *(holistic)*	Holistic thinkers understand cause and effect by examining the contextual circumstances and interactions between people, because they believe that all things are interconnected and events occur as a result of the complex relations between various people and within the environment.
Contradiction *(analytic)*	The analytic approach to discussion assumes that all propositions must either be true or false, and that they cannot be both at the same time; when faced with two contradictory statements, the most plausible alternative is chosen and the least plausible is rejected.
Contradiction *(holistic)*	The holistic approach to discussion involves reconciling, accepting, and transcending contradiction, understanding that even opposing ideas can both be true; when faced with two contradictory statements, a compromise is sought by finding value in both arguments.
Change *(analytic)*	Analytic thinkers see change as a linear progression which moves through incremental and permanent adjustments; when speculating about the future they anticipate gradual linear progress based on past experiences.
Change *(holistic)*	Holistic thinkers see the world as in a constant state of change, which moves in cycles that transform each element into its opposite and then back into itself again; when speculating about the future they anticipate frequent cyclical change of greater magnitude.

The initial set of items was distributed to the respondents as an online survey via an email link. Their participation was anonymous and voluntary, without incentive. In addition to the demographic questions, the survey contained eight main sections, one for each aspect of the four dimensions. Following Schriesheim et al. (1993), respondents were given the above construct definitions one at a time at the start of each section, and were instructed to rate the extent to which each item captured that corresponding dimension. Respondents were provided with seven point Likert-type scales to rate the relevance of each item as either: 1 = Not at all, 2 = Slightly, 3 = Somewhat, 4 = Fairly, 5 = Moderately, 6 = Very well, or 7 = Completely. This approach is an improvement over more dated techniques, such as the mid-point method described by Lawshe (1975) in that it generates greater variance and that the items are assessed relative to each other, rather than in absolute terms. The definitions were included at the top of each page for easy reference and the item sequence was randomised to control for any order effect response bias (Hinkin & Tracey, 1999).

Analysis and results. This study used a quantitative approach to identify appropriate items for retention so as to avoid the pitfalls of subjective judgment (Hinkin & Tracey, 1999). The technique is based on the work of Schriesheim et al. (1993) and involves comparing the items' mean ratings – which are an indication of how well they captured the corresponding conceptual dimension according to the expert panel of respondents. Therefore, the items in each section were ranked according to their mean rating and the three best-rated items from each dimension were retained for further testing (see Table 8 for the resulting item means – the full list of initially generated items is available in Appendix A).

Table 8.
Holistic Cognition Scale – Initial Item Pool (select only)

Dimension – Items	Mean	*SD*
Attention *(analytic)*		
The world is made up of many separate pieces.	**4.95**	1.69
An object is best described by its various properties; for example, the dining table is made from dark wood and can seat six people.	**4.90**	1.55
A thing can be understood in its entirety by carefully examining its properties.	**4.72**	2.06

Attention *(holistic)*		
It is impossible to understand the pieces without considering the whole picture.	**5.90**	1.41
Parts only exist within wholes, to which they have inseparable relations.	**5.45**	1.62
In a painting, the background is just as important as the main object.	**5.30**	1.36
Where you put an ornament is just as important as the ornament itself.	*5.25*	*1.53*
Causality *(analytic)*		
People's behaviour is best understood by carefully examining their personal characteristics and internal motivations.	**5.23**	1.56
Events occur as a result of individuals' choices and behaviour.	**5.08**	1.95
Each individual person is solely responsible for his/her own actions.	**4.59**	1.86
Causality *(holistic)*		
Events occur as a result of the complex relations between people and within the environment.	**5.95**	1.00
Peoples' behaviour can only be understood within the entire context in which it occurs.	**5.82**	1.14
Everything in the world is related to each other.	**5.74**	1.21
We must first understand the society within which people make their choices before we can understand their actions.	*5.41*	*1.16*
Contradiction *(analytic)*		
When faced with a difficult decision, it is best to choose the one most plausible course of action.	**5.10**	1.83
It cannot be both day and night at the same time.	**5.05**	2.12
At every fork in the road, there is always one path that is better than the other.	**4.74**	2.12
Contradiction *(holistic)*		
Even two seemingly contradictory ideas can each yield something valuable.	**5.97**	1.14
Things can be both ugly and beautiful at the same time.	**5.77**	1.44
In any given situation, what it means to do the right thing depends on who you ask.	**5.18**	1.59
It is more important to reach a compromise than to debate who is right or wrong.	*4.90*	*1.74*

Change *(analytic)*		
The course of human history is best described as gradual linear progress.	**4.34**	2.10
It is useful to make future forecasts based on present situations.	**4.18**	1.67
An honest man can be expected to stay honest in the future.	**3.95**	1.88
Change *(holistic)*		
Everything is always changing.	**5.66**	1.21
When planning for the future, one must be prepared for unexpected upheavals.	**5.47**	1.37
Change moves in cycles.	**5.42**	1.18
All things follow the natural cycles of change which flow through birth, death, and rebirth again.	*5.05*	*1.47*

Where two theoretically identical items with slightly different wording ranked among the three top items across that dimension, only one was retained to avoid any unnecessary redundancy (Clark & Watson, 1995). In addition, several items within the holistic sections were particularly well rated, but not among the top three, and addressed different aspects of those dimensions. These were likewise held for further testing to ensure that the entire breadth of the construct would be adequately covered (these four item means are shown in italics in Table 8).

In total, 28 items were retained for further testing from the initial pool. These items all demonstrated adequate content validity according to the expert panel of respondents, and were thus congruent with the theoretical basis of the analytic and holistic thought construct. This concludes the first instrument construction phase and the following sections continue to present the iterative scale development processes undertaken during the second study.

Study 2: Testing the Factor Structure and Validity of the HCS

Having demonstrated the theoretical content validity of the HCS during the previous study, the crucial next step in the scale development process is to field-test its dimensionality (Hinkin, 1998). DeVellis (2012) notes that this is also an opportune time to simultaneously test a new scale's convergent and discriminant validity by including

several other well-established measures for comparison. Items were included from the Rahim Organisational Conflict Inventory II (ROCI-II; Rahim, 1983), the Rational-Experiential Inventory (REI; Epstein, Pacini, Denes-Raj, & Heier, 1996), and the Attributional Complexity Scale (ACS; Fletcher, Danilovics, Fernandez, Peterson, & Reeder, 1986) to serve as convergent validity comparisons. These scales sought to gauge respondents' attitudes towards compromise, intuition, and cognitive complexity, respectively – concepts similar to the holistic aspects of the HCS. Therefore, weak positive (0.1 - 0.3) correlations were anticipated as evidence of the scale's convergent validity (for correlation strength thresholds, see Dancey & Reidy, 2004, pp. 170-171).

Discriminant validity was tested by comparing the HCS against measures of Collectivism (COL; Oyserman et al., 2002), as well as a modified version of the High- and Low-Context orientation scale (HC-LC; Warner-Søderholm, 2013). Societies with a high level of interdependence theoretically engender more holistic cognitive tendencies (Nisbett et al., 2001), are predominantly associated with collectivistic values (Hofstede, 1980), and tend to prefer high-context modes of interaction (Hall, 1976). However, because COL and HC-LC employ a values-based approach to cultural differences, as opposed to the cognitive focus of the HCS, significant correlations were not expected. Establishing such discriminant validity is important because it demonstrates that the HCS captures a unique perspective and cannot be supplanted with existing measures. The following sections outline the methods used in the present study to test the scale's dimensionality and convergent/discriminant validity, while also discussing in greater detail the five measures mentioned above.

Method

Sample. The initial sample consisted of 306 responses from undergraduate students in Business Schools across several Australian and New Zealand universities. Missing data was replaced with the item mean for regression modelling, and deleted list-wise for exploratory and confirmatory factor analysis, resulting in 272 responses. This was considered to be adequate as samples of 200-300 participants are generally recommended for the purpose of structural analysis in scale development (Clark & Watson, 1995; Comrey, 1988; Guadagnoli & Velicer, 1988; Nunnally, 1978). Power of the test calculations revealed that to detect a medium effect size ($r = .15$), at a significant level ($p < .05$) and with a high degree of power (.95), only 184 responses would be required with 12 predictors. Therefore, satisfying the structural analysis

sample size requirements would be more than sufficient to ensure the tests possessed adequate power. Of the 306 total respondents, 175 (57.2%) were female and the average age for the sample was 22.2 years old. The mean scores obtained from such a sample would not accurately represent the intended future target population of business people, but are sufficient to investigate the unidimensionality and validity of the scale, which is the purpose of the present study (DeVellis, 2012). Data on respondents' cultural origins were also collected, including their current country of residence, length of residence, birthplace, and first language. These variables were used as controls during analysis to partial out their variance and therefore isolate individual cultural differences.

Procedure. Paper surveys were distributed to the sample during class time. The students' participation was voluntary, anonymous, and without incentive. The survey collected demographic information and contained 82 items in total, which included the 28 retained items from the HCS as well as the following five criterion measures (see Appendix B for complete scales).

Rahim organisational conflict inventory ii. Rahim (1983) developed this scale to explore five different approaches to handling interpersonal conflict: integrating, avoiding, dominating, obliging, and compromising. The final scale version contains 28 items in total which measure these conflict resolution styles as independent dimensions. The compromise subscale was suited to provide a convergent validity comparison for the contradiction dimension of the HCS. Thus, the four items that capture individuals' tendency to compromise were extracted from the ROCI-II and included here.

Rational-experiential inventory. Epstein (1990) theorised that individuals process information through two parallel systems: the rational and the experiential. The rational system represents the conscious cognitive mind, which is both intentional and systematic in its operation, while the experiential system represents the intuitive subconscious mind, which is more automatic and holistic. Individuals tend to rely on one system more than the other and, therefore, Epstein et al. (1996) developed the REI to measure whether individuals primarily demonstrated a preference for rational thought or favoured their intuition instead. The scale contains 10 items which are split evenly into two dimensions called "need for cognition" and "faith in intuition". Both analytic and holistic thought are already cognitive constructs; thus, only the five items pertaining to intuition were taken to serve as a convergent validity comparison for holistic thought.

Attributional complexity scale. This scale was developed by Fletcher et al. (1986) to measure the level of complexity in individuals' attributional processes. The original purpose was to explore whether people were generally inept thinkers, unwittingly plagued by cognitive biases and lazily reliant on flawed heuristics (Nisbett & Ross, 1980), or whether the degree of complexity varied between people, with some engaging more intricate schemata than others. The ACS contains 28 items assessing seven dimensions of attributional complexity, three of which were relevant for the purposes of the present study: preference for complex, complex-internal, and complex-external explanations. Therefore, the 12 items addressing these dimensions were extracted from the overall scale and included here.

Individualism and collectivism. The concept of contrasting individualism and collectivism has a long history reaching back to a discussion of Protestantism and Catholicism by Weber (1930). The notion was propelled into the academic research sphere by Hofstede (1980), and has since been implemented in various forms across numerous cross-cultural studies (Kirkman et al., 2006). Individualism is characterised by a preference for autonomy and focus on personal advancement, whereas collectivism emphasises the mutual benefit of common purpose and prioritises in-group harmony. Similarly, Markus and Kitayama (1991) consider the construct in terms of self-construal, which can be either independent from or interdependent with proximal society members. By conducting a meta-analysis of the existing IND-COL scales, Oyserman et al. (2002) synthesised one coherent instrument with 15 items that captured the most "consensual operationalization of IND and COL across researchers" (p. 10). As such, the eight items pertaining to Collectivism were included to serve as a values-based discriminant comparison to holistic thought in the present study.

High- and low-context. Hall (1976) explored patterns in communication and theorised that some societies rely much more extensively on contextual circumstances during their exchanges. Individuals from such high-context cultures make frequent use of non-verbal and situational cues to convey meaning, whereas a large proportion of the information in low-context communication is expressed explicitly through the transmitted code of the message (Warner-Søderholm, 2013). The HC-LC theory has been employed in over 200 articles since its inception, but the construct lacks sound psychometric measurement (Kittler, Rygl, & Mackinnon, 2011). Therefore, Warner-Søderholm (2013) developed an attitudinal scale to measure HC-LC by conducting a

meta-analysis on the existing literature and available instruments. The resulting scale contains five items which all begin “In our region we…”. These items were reworded to begin with “I…” and included in the present study to capture contextual tendencies at the individual level as another values-based discriminant validity measure for comparison.

Analysis and results. The data were subject to preliminary analyses to ensure that they demonstrated normal distributions. The skewness and kurtosis values were well within acceptable ranges (±2) for all scale items (D. M. George & Mallery, 2010; Gravetter & Wallnau, 2014) and visual inspection of histogram plots supported normal distributions. To begin assessing the dimensionality of the HCS, the items were first subject to an exploratory factor analysis (EFA) in order to ascertain the appropriate number of underlying dimensions and to narrow down the item selection. Items which cross-loaded (over .40) on multiple dimensions, as well as those that loaded on the wrong dimension, were eliminated leaving 12 items – three representing each of the four dimensions of analytic and holistic thought.

The EFA was repeated with only these 12 items and the first five eigenvalues were 2.40, 1.57, 1.31, 1.14, and 0.90; hence, indicating that it was appropriate to extract four factors (Cattell, 1966; Kaiser, 1960), which together accounted for 53.5% of the total variance. The Kaiser-Meyer-Olkin measure of sampling adequacy was .66 (above the .6 recommended minimum value), Bartlett’s test of sphericity was significant (χ^2 (66) = 352.41, $p < .01$), and the communalities all exceeded .4, thus evidencing the factorability of the matrix (Coakes, 2013). The results of the varimax orthogonally rotated component matrix were interpreted, sorting the items first by dimension and then by the highest value (see Table 9 for the resulting 12 items and loadings).

A confirmatory factor analysis (CFA) was then conducted using structural equation modelling (SEM) and the maximum likelihood estimation method with the IBM Amos (version 22) software package to verify the scale’s dimensional structure. Three different models were compared against each other for best fit: (a) a single-factor model with all 12 items loading on to the same factor, (b) a first-order model with the items loading on to the four corresponding factors, and (c) a second-order model with the four first-order factors loading on to a single latent second-order factor, which corresponds with the theoretical structure of the analytic and holistic thought construct.

Table 9.
Exploratory Factor Analysis of the 12-item HCS

Dimensions – Items	1	2	3	4
Attention				
1. Where you put an ornament is just as important as the ornament itself.	**0.71**	0.21	0.06	0.02
2. In a painting, the background is just as important as the main object.	**0.68**	0.02	0.01	-0.05
3. It is impossible to understand the pieces without considering the whole picture.	**0.60**	0.00	0.20	0.09
Causality				
4. Events occur as a result of individuals' choices and behaviour.[r]	0.09	**0.80**	0.05	0.05
5. Each individual person is solely responsible for his/her own actions.[r]	-0.04	**0.79**	-0.01	-0.08
6. People's behaviour is best understood by carefully examining their personal characteristics and internal motivations.[r]	0.23	**0.58**	0.23	-0.03
Contradiction				
7. Even two seemingly contradictory ideas can each yield something valuable.	0.05	0.20	**0.75**	0.12
8. In any given situation, what it means to do the right thing depends on who you ask.	0.15	-0.01	**0.72**	0.05
9. Things can be both ugly and beautiful at the same time.	0.08	0.05	**0.68**	-0.06
Change				
10. It is useful to make future forecasts based on present situations.[r]	0.14	-0.05	-0.29	**0.71**
11. An honest man can be expected to stay honest in the future.[r]	-0.01	0.06	0.06	**0.69**
12. The course of human history is best described as gradual linear progress.[r]	-0.06	-0.09	0.28	**0.67**

[r] Indicates reverse-coded items. Extraction: Principal Component Analysis. Rotation: Varimax with Kaiser Normalisation. (n = 272)

Model fit was assessed with chi-square (χ^2), ratio of chi-squared to the degrees of freedom (χ^2/df), goodness of fit (GFI), comparative fit (CFI) and normative fit (NFI) indices, as well as the root mean square error of approximation (RMSEA). Acceptable indices include GFI, CFI, and NFI values over .90 (Byrne, 1994; Hu & Bentler, 1999), χ^2/df ratios less than 2.0 (Kline, 2005; Ullman, 2001), and an RMSEA less than .05

(Steiger, 1990). Since no absolute values exist that can dictate adequate fit (Cheung & Rensvold, 2002), the models were compared against each other to select the one which best fit the data as well as the theory-driven dimensional structure (see Table 10 below for the results). The second order model with four first-order factors loading onto a single latent second-order factor (model c) demonstrated the best relative fit and corresponds with the theory of analytic and holistic thought. See Figure 6 below for the CFA diagram and item loadings.

Table 10.
Structural Equation Model Comparison of the 12-item HCS

Model	**χ^2 (*df*)**	**χ^2/*df***	**GFI**	**CFI**	**NFI**	**RMSEA (90% CI)**
(a) Single-factor model	173.50* (54)	3.21	.90	.59	.52	.09 (.08, .11)
(b) First-order model	103.87* (54)	1.92	.94	.83	.71	.06 (.06, .08)
(c) Second-order model	64.26 (50)	1.29	.96	.95	.82	.03 (.00, .05)

Note. * Significant chi-square test, $p < 0.05$, $n = 272$.

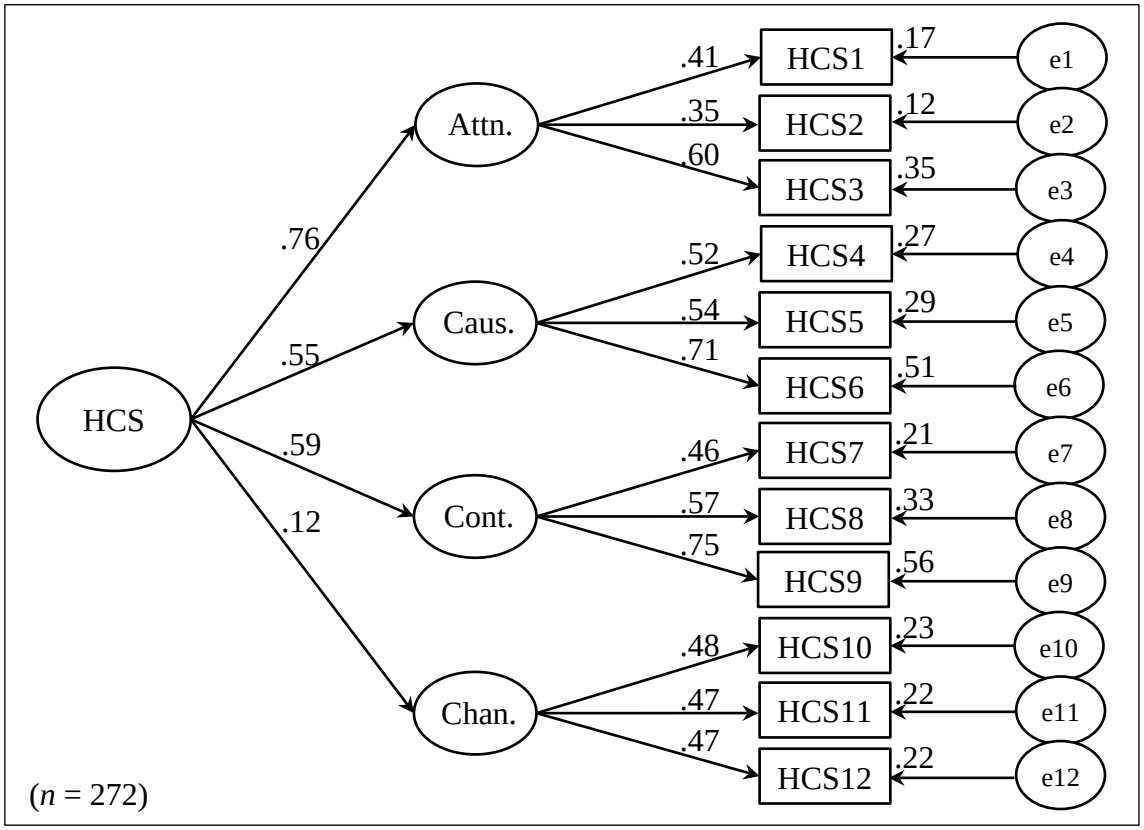


Figure 6. *Confirmatory Factor Analysis of the 12-item HCS*

The reliability and validity of the CFA was estimated using composite reliability (CR), average variance extracted (AVE), maximum shared variance (MSV), and average shared variance (ASV); see Table 10 below for the results. Hair Jr, Black, Babin, and Anderson (2010) suggest that ideal thresholds include CR values over .7, AVE values over .5, and a hierarchy between all four indices (CR > AVE > MSV > ASV). The results indicate that the index hierarchy is observed and that there are no discriminant validity concerns between the four dimensions, with each addressing a sufficiently different construct. Composite reliability is well over the .7 threshold and confirms that the CFA results have convergent validity. The low AVE scores, however, suggest that the individual items may not correlate well with one-another within each dimension – which is to be expected with broad psychometric constructs.

The reliability of these 12 items as a scale was then tested by using Cronbach's coefficient alpha to estimate internal consistency. An alpha of .70 is considered the minimally acceptable threshold (DeVellis, 2012; Nunnally, 1978) and the 12-item HCS falls short – which corresponds with the low AVE scores. However, the goal for scale development is validity and unidimensionality, rather than internal consistency (Clark & Watson, 1995). Indeed, psychometricians disavow using reliability indices to establish scale homogeneity (see Boyle, 1991; Cortina, 1993; Green, Lissitz, & Mulaik, 1977) because they can be artificially inflated by retaining highly intercorrelated items which reduces scale validity – i.e. the classic attenuation paradox in psychometric theory (Briggs & Cheek, 1986; Loevinger, 1954, 1957). Instead, average interitem correlations are a much more appropriate measure of internal consistency and these should range between .15 - .20 for broad higher order constructs such as analytic and holistic thought (Briggs & Cheek, 1986; Clark & Watson, 1995). See Table 11 below for the reliability analysis results, which indicate that the HCS is sufficiently unidimensional. Moreover, eliminating any analogous items has ensured that the HCS captures the breadth of this construct, without narrowing the measurement focus through redundant items.

To test the scale's convergent and discriminant validity, the HCS and its comprising dimensions were correlated with the seven criterion measures (see Table 12 below for the results). As expected, the Contradiction dimension correlated positively with the ROCI-II measure for compromise. The Change dimension, however, correlated negatively with compromise – because it captures respondents' *conception* of change as either linear or cyclic. Higher Change scores indicate a cyclical model of change and

lower scores suggest a linear model. The negative correlation with compromise arises because linear change is based on incremental adjustments, similarly to how one would compromise toward an agreement by making incremental concessions. Both results therefore support the convergent validity of these dimensions.

Table 11.
Reliability Analysis of the 12-item HCS

Scale	# Items	CR	AVE	MSV	ASV	α	AIC
HCS	12	0.82	0.29	0.03	0.01	0.57	0.18
- Attention	3	0.44	0.22	0.03	0.02	0.43	0.19
- Causality	3	0.62	0.36	0.02	0.01	0.61	0.19
- Contradiction	3	0.63	0.37	0.03	0.02	0.60	0.21
- Change	3	0.46	0.22	0.01	0.00	0.46	0.13

Note. n = 272. Abbreviations: HCS = Holistic Cognition Scale, CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, ASV = Average Shared Variance, AIC = Average Inter-item Correlation

As a combined scale, the HCS correlated positively with the ROCI-II measure of compromise, all three aspects of the ACS scale for cognitive complexity, and the REI measure for intuition. These scales assessed respondents' attitudes towards compromise, cognitive complexity, and intuition respectively – constructs which are theoretically similar to the holistic aspects of the HCS. The results showed weak positive correlations (average $r = 0.26$, $p < 0.01$), which serve as evidence of the scale's convergent validity (for correlation strength thresholds, see Dancey & Reidy, 2004, pp. 170-171). Average r values were determined by first conducting a Fisher z-transformation, calculating the arithmetic z' average, and then transforming the product back into a Pearson r value (Corey, Dunlap, & Burke, 1998). The small magnitude of the correlations suggests that these concepts are relatively similar, but not so much so that they could supplant the HCS. Taken together, the results demonstrate sufficient convergent validity of the HCS with previously established instruments of similar domains.

In contrast, no significant correlations were observed between either the HCS and Collectivism, or a preference for High Context interaction. These results indicate that the HCS is orthogonal to two prominent existing measures in this domain. As such, the HCS is effectively capturing a theoretically distinct construct to known instruments. Therefore, these findings provide compelling preliminary support for the new scale's

Table 12.
Convergent and Discriminant Validity Correlations of the 12-item HCS

	Mean	***SD***	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1. HCS (Attn.)	5.06	0.95	(.43)											
2. HCS (Caus.)	5.49	0.94	.22**	(.61)										
3. HCS (Cont.)	5.55	0.91	.25**	.20**	(.60)									
4. HCS (Chan.)	3.79	0.96	*ns*	*ns*	*ns*	(.46)								
5. HCS (12-items)	4.97	0.55	.65**	.59**	.64**	.47**	(.57)							
6. ROCI-II Comp.	5.03	0.91	.21**	*ns*	**.17****	**-.25****	*ns*	(.85)						
7. REI Intuit.	5.10	0.97	.24**	.16**	.22**	*ns*	**.23****	*ns*	(.83)					
8. ACS Comp.	4.46	0.86	*ns*	*ns*	.25**	*ns*	**.20****	.11*	*ns*	(.60)				
9. ACS Comp. Int.	4.98	0.83	.19**	.21**	.35**	*ns*	**.33****	.20**	*ns*	.61**	(.51)			
10. ACS Comp. Ext.	4.85	0.92	.28**	.14*	.33**	*ns*	**.34****	.26**	.12*	.53**	.60**	(.57)		
11. Collectivism	4.91	0.72	.21**	*ns*	.18**	-.22**	***ns***	.37**	*ns*	*ns*	*ns*	*ns*	(.61)	
12. High Context	3.46	0.71	*ns*	*ns*	*ns*	*ns*	***ns***	.13*	*ns*	-.24**	-.15**	-.16**	.38**	(.40)

Note. $N = 306$, * $p < 0.05$, ** $p < 0.01$, *ns* $p > 0.05$ (coefficient suppressed). Numbers in parentheses on the diagonal are coefficient alphas.

discriminant validity and demarcate its theoretical domain as discrete from dominant constructs of cultural difference. The following section briefly reviews the major outcomes of this study before introducing the next.

Discussion

These sections have outlined the procedures followed during the second empirical study for the development and validation of the HCS. The 28 content-validated items from the first study were distributed alongside several well-established scales to a much larger sample of business school students for exploratory and confirmatory factor analysis, as well as convergent and discriminant validity testing.

The results suggest that this early version of the HCS may possess adequate unidimensionality and validity as a measure of analytic and holistic thought. The HCS correlates positively with measures of intuition, cognitive complexity, and compromise; aspects which are theoretically congruent with the holistic tendencies of the construct and thus, demonstrate the scale's convergent validity. The magnitude of these interactions is modest, indicating that the HCS measures a sufficiently distinct construct. Furthermore, no significant relations exist with either collectivism or high-context interaction, thereby demarcating the HCS and demonstrating its discriminant validity.

However, the reliability analyses returned relatively low scores; perhaps driven by the few total scale items and/or the 'Change' dimension, which showed low average inter-item correlations (.13) and performed poorly on the CFA (.12 factor loading). Examining the Change dimension sample mean shows it to be noticeably lower (3.79) than the other three dimensions (5.06, 5.49, 5.55), indicating poor fit, and hence, that further development work is warranted in this area.

Psychometric instrument development is inherently an iterative process (Cronbach, 1984), and therefore, the following study builds on the present results. Having identified the kinds of items that work well, the next phase of the scale development process includes adding new questions to each of the four dimensions and then repeating the analytic techniques. The following sections present the third study which replicates the reliability and factor analyses before testing criterion validity by regressing the HCS on various outcome variables. The finalised scale is then applied in conjunction with other measures to investigate the leadership-related hypotheses.

Study 3: Scale Development and Authentic Leadership Investigation

The purpose of this third study was trifold. First, to continue the iterative scale development process by adding several new items and then replicating the exploratory and confirmatory factor analyses undertaken in the previous study, now using a more representative sample. Second, to reassess the reliability and investigate the concurrent validity of the HCS against a well-established measure of culture; and third, to test the 11 proposed hypotheses regarding the mechanisms and cultural interaction of authentic leadership. As such, web-based surveys were distributed to a large sample of employed business-people in Australia and the data collection was split into two waves to mitigate potential common method bias. The first survey wave contained the HCS items and other independent variables, while the second survey wave contained the dependent variables. The following sections discuss in greater detail the methods implemented to achieve these objectives and address in turn each of the scales selected for this study, before moving on to present the analyses and results.

Method

Sample. The study sample size was determined according to the types of analyses required. Specifically, the 20 items of the HCS (original 12 and eight new) were to be subject to EFA and CFA, and the leadership related hypotheses required moderation and mediation testing. Mundfrom, Shaw, and Ke (2005) suggest between 370-800 observations for an excellent-level criterion CFA with a four-factor solution and a 4-5 ratio of variables to factors. Similarly, a subject-to-item ratio upwards of 20:1 is recommended for EFA (Costello & Osborne, 2005; Osborne & Costello, 2004). Therefore, approximately 800 observations were sought in the first survey wave to satisfy the strictest CFA and EFA sampling guidelines (approx. 40:1 subject-to-item ratio). Fritz and MacKinnon (2007) generated sample size estimates for mediation models at .8 power and suggest 175 observations for complete mediation, with a large *a* path coefficient and medium *b* path coefficient – as was anticipated here. Similarly, a post-hoc calculation shows that 175 observations would be more than sufficient to detect moderation effects at above .8 power. Hence, a conservative 200 responses were sought for the second survey wave, which was considered achievable and allowed for as much as 75% participant attrition from the first survey wave (Ribisl et al., 1996).

The participants were all employed adults from Australia, which was deemed sufficiently diverse to generate a wide variety of individual-level scores across the various cultural dimensions. Participants had to have an immediate supervisor at work and could not be self-employed. No specific industry or organisation type was targeted so that the results could be generalised across a broad range of workplaces. The data collection was outsourced to Pureprofile Pty. Ltd., a reputable market research company of good standing with the local academic community. Respondents were provided with an informative cover letter, detailing the purpose of the study and inviting voluntary participation. Human ethics approval was obtained and communicated to respondents. See Appendices D-F for copies of the information sheet and ethical approval.

After removing cases with missing data list-wise, a total of 830 respondents completed the wave one surveys, and 283 of those later completed the wave two surveys. The average age for the larger sample was 46.5 years old (*SD* = 11.8) and 63.1% of the respondents were female. The majority of respondents were born in Australia (71.3%), spent their first five formative years there (72.8%), and lived in Australia at the time of the survey (95.4%). On average, the respondents had spent over 85% of their lives in their current country of residence and 87.2% spoke English as their first language. Approximately three quarters had attained education beyond the secondary school level, including trade certificates (23.4%) and bachelor degrees (33.4%). Most were employed full-time (64.9%) for large organisations (52.7%, with 250 employees or more). No one particular industry dominated the sample and respondents were engaged across a wide variety of sectors, including professional services (16.7%), government (14.2%), education (13.9%), health (11.2%), retail (8.9%), etc. Respondents had spent an average of 9.9 years (*SD* = 9.4) at their current place of employment and had worked for 4.2 years (*SD* = 4.9) with their current supervisor. No substantive differences were observed in the demographic composition between the respondents in wave one and the sub-sample who also completed wave two.

Research instrument. Web-based surveys are a form of electronic research instrument which is stored on a network server and accessed via an Internet browser (Stanton, 1998). The two major benefits are greatly reduced costs and faster response times (Lazar & Preece, 1999), which allow modern researchers to effectively collect larger samples, especially across more distant populations (Dillman, 2000; Schonlau,

Fricker, & Elliott, 2002). The technique also largely avoids the human error inherent in the manual data entry from paper surveys (Ritter & Sue, 2007), and tends to generate higher response rates for sensitive questions (Turner et al., 1998), such as those directed at respondents' workplace supervisors. Consequently, the use of web-based surveys has proliferated within the academic research sphere over the last decade (Greenlaw & Brown-Welty, 2009; Y. Zhang, 2000). Drawing on these advantages, the present study likewise implemented a web-based survey design, which was well-matched to the task of reaching a large geographically dispersed sample.

The Qualtrics (2015) Research Suite was identified as a suitable online survey provider because it was widely regarded as a professional research platform and had an ongoing license agreement with the University of Otago. The general section layout, design, and formatting of the survey followed the guidelines set out by Lumsden (2007). These prescribed various essential components such page breaks to minimise scrolling, an uncluttered and easy-to-use interface, forward and back buttons, as well as a survey progress bar. The instrument was pilot tested with a small (N = 12) and diverse sample of working adults on various online platforms to diagnose potential issues with clarity, operationalisation, or responsive web design (Litaker, 2003). Several minor corrections were made based on this feedback and the actual responses were discarded.

All of the questions were rated on seven-point Likert scales, which are often preferable to the more common five-point scales with regards to reliability, validity, and discriminating power (Dawes, 2008; Preston & Colman, 2000). Strictly speaking, the data collected by such scales is ordinal and therefore unfit for parametric analyses that assume interval data. However, parametric statistical tests are in fact very robust to the violation of this assumption and are "perfectly appropriate" (p. 626) for use with Likert scale data (for a review, see Norman, 2010). As such, the use of both Likert scales and parametric statistics was considered apt for the present study.

Measures. The web-based surveys distributed in the present study collected a detailed set of demographic information (13 items) and contained a total of 109 scale items. These were comprised of the original 12-item HCS and eight new items, the Values Survey Module (VSM08; Hofstede, Hofstede, & Minkov, 2010), the Authentic Leadership Inventory (ALI; Neider & Schriesheim, 2011), the Personal Identification with Leader Scale (PILS) adapted from Kark et al. (2003), a measure of Affect-based Trust (ABT; McAllister, 1995), the Brief Index of Affective Job Satisfaction (BIAJS;

Thompson & Phua, 2012), the Affective Commitment Scale (ACS; Allen & Meyer, 1990), and the Utrecht Work Engagement Scale–9 (UWES-9; Schaufeli, Bakker, & Salanova, 2006), as well as measures of Trust Propensity (International Personality Item Pool, 2001), Agreeableness (Rammstedt & John, 2007), and Social Desirability (M-C Short; Reynolds, 1982). This list serves as a roadmap for later sections, which discuss the rationale behind each scale in more detail. The data collection was split into two waves (see Table 13 below).

Table 13.
Study 3 Variables, Items, and Survey Design

T1[a] – Independent		(N = 830)	**T2[a] – Dependent**		(n = 283)
Authentic Leadership	ALI	16	Affect-based Trust	ABT	5
Cultural Values	VSM08	20	Job Satisfaction	BIAJS	4
Holistic Cognition	HCS	12 + 8[b]	Affective Org. Com.	ACS	8
Personal Identification	PILS	10	Work Engagement	UWES-9	9
Trust Propensity		4	Social Desirability[c]	M-C Short	13
Agreeableness[c]		3			
Total Scale Items[d]		**70**	**Total Scale Items**		**39**

Note. [a] Two week delay between T1 and T2 surveys to mitigate CMV issues. [b] Eight new items added to the 12-item HCS as part of scale dev. process. [c] Unrelated method factors to control for CMV. [d] T1 surveys included 13 additional demographic items.

The following sections discuss each of the scales mentioned above in greater depth to illustrate the reasoning for their inclusion, before moving on to consider control variables and the impact of common method variance. Please review Figures 1, 2, and 5 for graphical representations of the proposed frameworks (pp. 7, 8, and 49 respectively).

Authentic leadership inventory. The theoretical construct of authentic leadership was first operationalised by Walumbwa et al. (2008) through the Authentic Leadership Questionnaire (ALQ). This instrument treats authentic leadership as a higher-order latent factor represented by four first-order factors (dimensions), as per the dominant conceptualisation in the academic literature (Avolio et al., 2009). The ALQ is thus advantaged by a sound theoretical foundation, which is an essential step toward the development of valid and reliable psychometric measures (Hinkin, 1995). However, the original content validation process relied extensively on a small sample of subject matter experts and the reported CFA results indicated that the best-fitting empirical

model did not match the theoretical framework. These discrepancies raised concerns over the integrity of such subjective methods and a more rigorous quantitative approach toward scale development is emerging (based on Hinkin & Tracey, 1999).

In order to address the concerns over the ALQ, Neider and Schriesheim (2011) used the same well-established conceptual foundation and developed a reliable new scale called the Authentic Leadership Inventory (ALI, $\alpha = .85$). They used an ANOVA-based approach to assess content validity, thereby reducing the impact of subjectivity on item selection and validity assessment (Schriesheim & Cogliser, 2009; Schriesheim et al., 1999). While both the ALQ and the ALI share an identical theoretical basis, the more rigorous scale development procedures implemented in the formation of the ALI distinguish it as the preferred measure. Therefore, the 16-item ALI was used in the present study to capture followers' perceptions of authentic leadership.

Holistic cognition scale. The previous study successfully identified 12 items that adequately represent the four dimensions of analytic and holistic thought – these demonstrated content validity and unidimensionality, as well as both convergent and discriminant validity. However, the reliability analyses returned low scores, perhaps driven by the small number of items, and one of the dimensions showed a low (.12) factor loading on the CFA. Scale development is of course an iterative process, and having identified the kinds of items that were working well, two new questions were then added to each dimension (eight in total). These were based closely on the existing items and were created in consultation with focus groups. Group members included respondents broadly representative of the target population – working adults from diverse cultural backgrounds, as well as Management scholars with expert knowledge on both quantitative research instruments and qualitative interpretivist methods to ensure the efficacy and clarity of the items. These eight new items brought the total number of scale items to 20, with five representing each dimension. After replicating the exploratory and confirmatory factor analyses from the previous study, these 20 items were reduced to a final 14-item version of the scale which demonstrated significantly improved factor loadings and reliability, without deviating considerably from the previously validated items (see pp. 78-82 for a detailed account of the analyses). Therefore, respondents' tendency toward analytic or holistic thought was measured using the newly-established 14-item HCS.

Values survey module 2008. The original questions that Hofstede (1980) later developed into his values framework were items from a morale survey administered to employees of IBM Corp. This early version was called the VSM80 and its incidental origins posed a considerable limitation, since the items were not actually designed to capture cultural value differences. The survey was revised and tailored for cross-cultural research by the time the short- vs. long-term orientation dimension was added in the VSM94. After 14 years of accumulated experience with the VSM94, some of the question wording was adjusted and this led to the updated release of the VSM08. Several new dimensions were also added at that time, and again during the latest VSM14 release. Such additions have begun to shift the instrument away from the original theoretical framework. Therefore, only the 20 items pertaining to the five original dimensions were retained for use in the present study. These were selected from the VSM08 because it is advantaged over the VSM94 with revised wording, while still adhering to the original construal of the five relevant dimensions, whereas the VSM14 has now evolved considerably. Western Values Score (WV-Scores) were calculated based on these items and using the equation presented earlier (p. 17) to facilitate hypothesis testing.

Personal identification with leader scale. Kark et al. (2003) created a *social* identification scale as an amalgam of previous work by Mael and Ashforth (1992) and Shamir, Zakay, Breinin, and Popper (1998); its purpose was to capture employees' identification with their branch or department. The authors then rephrased these items to make a similar scale which measured employees' *personal* identification with their branch manager. The resulting 10-item scale demonstrated reliability ($\alpha = .93$) and its construct validity was assessed through confirmatory factor analysis (Kark et al., 2003). The full scale was provided by the authors upon request and without restriction. To fit the needs of the present work, the original wording was amended to direct the questions toward followers' "immediate supervisor" and the resulting instrument was called the Personal Identification with Leader Scale (PILS). Hence, the extent to which followers have come to personally identify with their leader was measured in the present study using the 10-item PILS, which was an adaptation from the earlier work by Kark et al. (2003).

Brief index of affective job satisfaction. The construct of job satisfaction appears repeatedly across business research over the last 75 years, resulting in a

"problematically large" (p. 276) array of measurement scales (Thompson & Phua, 2012). Whitman, Van Rooy, and Viswesvaran (2010) concluded in their meta-analysis that the majority of researchers used "ad hoc measures" (p. 55) that lack validity. Moreover, this nebulous variety of scales makes it difficult to draw direct comparisons between studies and hinders the incremental development of knowledge in the field (O'Connor, Peters, & Gordon, 1978). To address this issue, Thompson and Phua (2012) have developed a concise, theoretically grounded, and psychometrically valid 4-item scale called the Brief Index of Affective Job Satisfaction (BIAJS). The scale items in this measure were also worded specifically to facilitate translation and international research by minimising areas of foreseeable ambiguity. As such, the BIAJS was well-suited to capturing followers' job satisfaction in the present study, and all four items were included in their original configuration. In addition, Thompson and Phua (2012) incorporated three distracter items, which are designed to obfuscate the survey intent and reduce response bias effects (see Scheier & Carver, 1985). These were not required in the present work because the four BIAJS items were interspersed among the other scales, thereby achieving a similar end (Hinkin & Tracey, 1999).

Affective commitment scale. Meyer and Allen (1984) developed the eight-item ACS to measure affective organisational commitment at the individual level. Later studies have established that this unidimensional scale is both valid and reliable with coefficient alpha internal consistency estimates between .82-87 (Allen & Meyer, 1990; McGee & Ford, 1987; Meyer, Allen, & Gellatly, 1990; Meyer et al., 1989). More recently, Malhotra and Mukherjee (2004) used CFA with varimax rotation to reconfirm that the items were loading as expected and added support for the discriminant validity of the ACS. Thus, all eight ACS items were used in the present study to assess followers' affective organisational commitment.

Utrecht work engagement scale–9. Employee work engagement is defined as "a positive work-related state of fulfilment that is characterised by vigour, dedication, and absorption" (Schaufeli et al., 2006, p. 701). It has featured in a number of empirical authentic leadership studies (see Banks et al., 2016) and constitutes an important follower outcome metric for leadership research. Schaufeli et al. (2006) reanalysed earlier data to reduce their original Utrecht Work Engagement Scale from 17 items to nine items (UWES-9), which likewise demonstrated acceptable psychometric properties without sacrificing validity or reliability over the original (reduced scale $\alpha = .92$).

Affect-based trust. McAllister (1995) differentiates between cognition- and affect-based trust, the latter demonstrating positive relations with organisational outcomes and leader-follower interactions. Cognition-based trust is generally associated with mutually beneficial exchanges *(reciprocity)*, whereas affect-based trust "most explicitly evokes a relationship and… sentiments like commitment and intrinsic significance" (Colquitt et al., 2014, p. 5). Hence, affect-based trust (ABT) was selected as most suitable for investigating the operation of authentic leader-follower relations. McAllister (1995) followed a rigorous scale development methodology in creating a reliable five-item measure of ABT ($\alpha = .89$), and all five items were included in the present study.

Control variables. In order to isolate the specific relations pertaining to the proposed leadership-related hypotheses, various other factors with known correlations had to be controlled for during the analysis (by including them as covariates). Hence, the online survey included a comprehensive demographics section that collected data on respondents' gender, age, education level, employment status (full-time, part-time, etc.), the size of the organisation that they work for, how long they have been working there, and how much of that time has been with their current supervisor, as well as their current country of residence, how long they had been living there, their country of birth, where they spent their first five formative years, and their first language. Gender was operationalised as a dummy variable and respondents' were asked to provide their absolute age and length of residence. Similarly, tenure with the company and supervisor were recorded in years. Controlling for demographic factors is particularly important for cultural research as some of these indicators could be containers of culture in of themselves (Taras et al., 2016). In addition, several trait scales were included as control variables to mitigate priming and potential method issues; namely trust propensity, agreeableness, and social desirability. These demographic and scale items were included as covariates in all of the mediation and moderation models to partial out their variance and thus facilitate a more robust interpretation of the focal relations. The following section discusses the phenomenon and impact of common method variance in greater detail.

Common method variance. Method variance arises from the measurement process, rather than from the constructs being measured (Bagozzi & Yi, 1991), and it includes both a random and a systematic component (Nunnally, 1978; Spector, 1987).

The systematic measurement error component is of particular concern because it represents an alternate explanation for the various relations and thereby compromises the validity of theory-driven conclusions (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The measurement of dependent and independent variables using the same methods is the most frequent source of this systematic error, and the phenomenon is known broadly as common method variance (CMV).

The most obvious way to control for CMV is to collect predictor and criterion data from different sources, which is not possible in research that focuses on the relations between different employee work attitudes (Podsakoff et al., 2003). Such is the case in the present study because the independent *(perception of authentic leadership),* moderating *(cultural differences),* mediating *(trust and personal identification),* and dependent *(job satisfaction, organisational commitment, work engagement)* variables are all individual-level perceptions that only exist within the mind of each respondent. Therefore, self-report surveys are a suitable research instrument for such projects that quantitatively investigate subjective assessments (Chan, 2009; Conway & Lance, 2010), despite the methodological complications.

While common method variance cannot be eliminated, its impact can be mitigated by separating the measurement of predictor and criterion variables with a temporal delay between data collection points (Podsakoff et al., 2003). As such, common method issues were addressed proactively in the present study using multiple techniques. First, by splitting the survey into two stages: collecting independent variables in the first survey wave and then dependent variables two weeks later via a follow-up survey. Second, by only using construct-validated scales and randomising the question order (Podsakoff et al., 2003). Third, by including variables that were a priori identified as theoretically unrelated to at least one of the focal constructs to function as common method 'marker variables' to partial out CMV effects (see Lindell & Whitney, 2001). Building on earlier work by Schmitt (1994), Williams, Hartman, and Cavazotte (2010) add that marker variables should also be "capturing or tapping into one or more of the sources of bias that can occur in the measurement context" (p. 31). Therefore, trait agreeableness and social desirability were selected as marker variables for the first and second survey waves respectively, to partial out CMV effects and simultaneously negate potential self-report response bias. Correlation analysis confirmed that both

marker variables were statistically unrelated to multiple focal constructs, thereby satisfying the requirements set out by Lindell and Whitney (2001).

Although the debates around common method variance are still ongoing (for reviews, see Conway & Lance, 2010; Richardson, Simmering, & Sturman, 2009), the potential implications for validity "cannot be ignored" (Ashkanasy, 2008, p. 264). Therefore, two post-hoc statistical techniques were used to ascertain whether CMV issues were present in the data. The first procedure involves conducting an exploratory factor analysis (EFA) with all of the construct-level variables, to see if "either (a) a single factor will emerge from the factor analysis or (b) one general factor will account for the majority of covariance among the measures" (Podsakoff et al., 2003, p. 889). The second procedure uses a CFA analysis of one unmeasured latent variable predicted by all of the construct items to estimate CMV effects; i.e. Harman's single-factor test (Williams & Anderson, 1994; Williams, Edwards, & Vandenberg, 2003). Consequently, the present study addressed common method variance concerns both during the research design phase and post-hoc using statistical tests, implementing the current best-practice techniques outlined above.

Results of the unrotated principal component factor analysis revealed three distinct factors with eigenvalues greater than 1.0, rather than a single factor. Interpreting the varimax rotated solution, these three factors together accounted for 63.7% of the total variance and the first (largest) factor did not account for a majority of the variance (32.7%). Thus, one general factor was not apparent. Furthermore, the CFA showed that the single-factor model did not fit the data well: χ^2/df (1952) = 3.43, p = .000, GFI = .47; CFI = .54; NFI = .49; RMSEA = .09 (.09, .10). These results do not preclude the possibility of CMV issues, but rather suggest that CMV is not of overriding concern and is therefore unlikely to inhibit the interpretations of later tests. Hence, no further post-hoc statistical common method variance correction techniques were included during subsequent analyses.

Analysis and results. Two separate streams of analysis were undertaken consecutively: the first, finishing the scale development work on the Holistic Cognition Scale (HCS), and the second, using the HCS alongside other well-established measures to test the authentic leadership related hypotheses. These will now be addressed in turn over the following two sections, each presenting the analytic techniques employed, the

results obtained, and (briefly) their implications. A more general discussion follows in the next chapter.

Scale development. The development of psychometric instruments is inherently an iterative process (Cronbach, 1984). Having identified the kinds of items that were working well during the previous study, two new questions were added to each of the four dimensions of analytic and holistic thought, bringing the total number of scale items to 20, with five items representing each dimension. These were based closely on the existing items and were created in consultation with focus groups. Group members included respondents representative of the target population – working adults from diverse cultural backgrounds, as well as Management scholars with expert knowledge on both quantitative research instruments and qualitative interpretivist methods to ensure the efficacy and clarity of the items. The new set of items was then used to repeat the scale development steps from Study 2, beginning with exploratory factor analysis (EFA) to assess the number of underlying dimensions. Items that cross-loaded (over .40) on multiple dimensions, as well as those that loaded on the wrong dimension, were eliminated, leaving 14 HCS items in total. The first five eigenvalues were 3.27, 1.82, 1.34, 1.06, and 0.84; thus, indicating that it was appropriate to again extract four factors (Cattell, 1966; Kaiser, 1960), which accounted for 53.5% of the total variance. Kaiser-Meyer-Olkin's measure of sampling adequacy was .78, well above the recommended minimum value (.6) and a notable improvement over the earlier result (.66). Bartlett's test of sphericity was significant ($\chi^2(91) = 1926.21$, $p < .01$) and all of the scale item communalities exceeded .4, hence confirming the factorability of the matrix (Coakes, 2013). The procedure was repeated with varimax orthogonal rotation for interpretation; the items sorted first by dimension and then by highest value (see Table 14 below for the resulting 14 items and their respective loadings).

After re-establishing the dimensional structure with EFA, the resulting 14 items were subject to CFA using the maximum likelihood estimation method. Consistent with the prior study, three different models were compared against each other for best fit: (a) a single-factor model with all 14 items loading on to the same factor, (b) a first-order model with the items loading on to the four corresponding factors, and (c) a second-order model with the four first-order factors loading on to a single latent second-order factor, which represents the theoretically derived structure of analytic and holistic thought (see Table 15 below).

Table 14.
Exploratory Factor Analysis of the 14-item HCS

Dimensions – Items	1	2	3	4
Attention				
1. It is impossible to understand the pieces without considering the whole picture.	**0.82**	0.11	0.05	0.05
2. It makes more sense to study things in their natural context rather than in isolation.	**0.79**	-0.01	0.16	0.22
3. In a painting, the background is just as important as the main object.	**0.51**	0.18	0.34	-0.10
Causality				
4. People are mostly independent of one another.[r]	-0.13	**0.71**	0.10	0.18
5. Events only occur as a result of individuals' choices and behaviour.[r]	0.13	**0.69**	-0.03	0.13
6. Each individual person is solely responsible for his/her own actions.[r]	0.19	**0.68**	0.08	0.05
7. People usually end up doing what they want to, irrespective of norms or expectations.[r]	0.03	**0.67**	0.18	0.07
Contradiction				
8. Something can be both ugly and beautiful at the same time.	0.14	0.10	**0.74**	-0.06
9. In any given situation, what it means to do the right thing depends on who you ask.	0.04	0.06	**0.68**	0.10
10. It is better to reach a compromise than to argue your point of view.	0.05	0.26	**0.56**	0.17
11. The glass is both half empty and half full.	0.36	-0.09	**0.55**	0.03
Change				
12. An honest person can be expected to stay honest in the future.[r]	0.02	0.09	-0.08	**0.80**
13. A person's true nature may evolve but it does not change dramatically over time.[r]	0.05	0.15	0.08	**0.78**
14. It is useful to make future projections based on the present situation.[r]	0.10	0.12	0.16	**0.60**

Note. [r] Reverse-coded items. Extraction: Principal Component Analysis. Rotation: Varimax with Kaiser Normalisation. $N = 830$.

The results indicate that the second order model (c) demonstrated the best relative fit and was within range of adequate fit indices: GFI, CFI, and NFI values over .90 (Byrne, 1994; Hu & Bentler, 1999), χ^2/df ratios less than 5.0 or 3.0 (Carmines & McIver, 1981; Schumacker & Lomax, 2004), and an RMSEA less than .08 (Browne &

Cudeck, 1993) or ideally, less than .05 (Steiger, 1990). The model fits well despite the significant chi-square test because this is almost certainly the result of the large sample size (Hinkin, 1998), to which the test is particularly sensitive (Jöreskog & Sörbom, 1989). Overall, these results are congruent with the earlier version of the scale and confirm the proposed factor structure of the final 14-item version of the HCS (see Figure 7 below for the CFA diagram which includes the individual item loadings).

Table 15.
Structural Equation Model Comparison of the 14-item HCS

Model	**χ^2 (*df*)**	**χ^2/*df***	**GFI**	**CFI**	**NFI**	**RMSEA (90% CI)**
(a) Single-factor model	467.24* (73)	6.40	.92	.79	.76	.08 (.07, .09)
(b) First-order model	246.16* (71)	3.47	.96	.91	.87	.06 (.05, .06)
(c) Second-order model	216.57* (69)	3.14	.96	.92	.89	.05 (.04, .06)

Note. * Significant chi-square test, $p < 0.05$, $N = 830$.

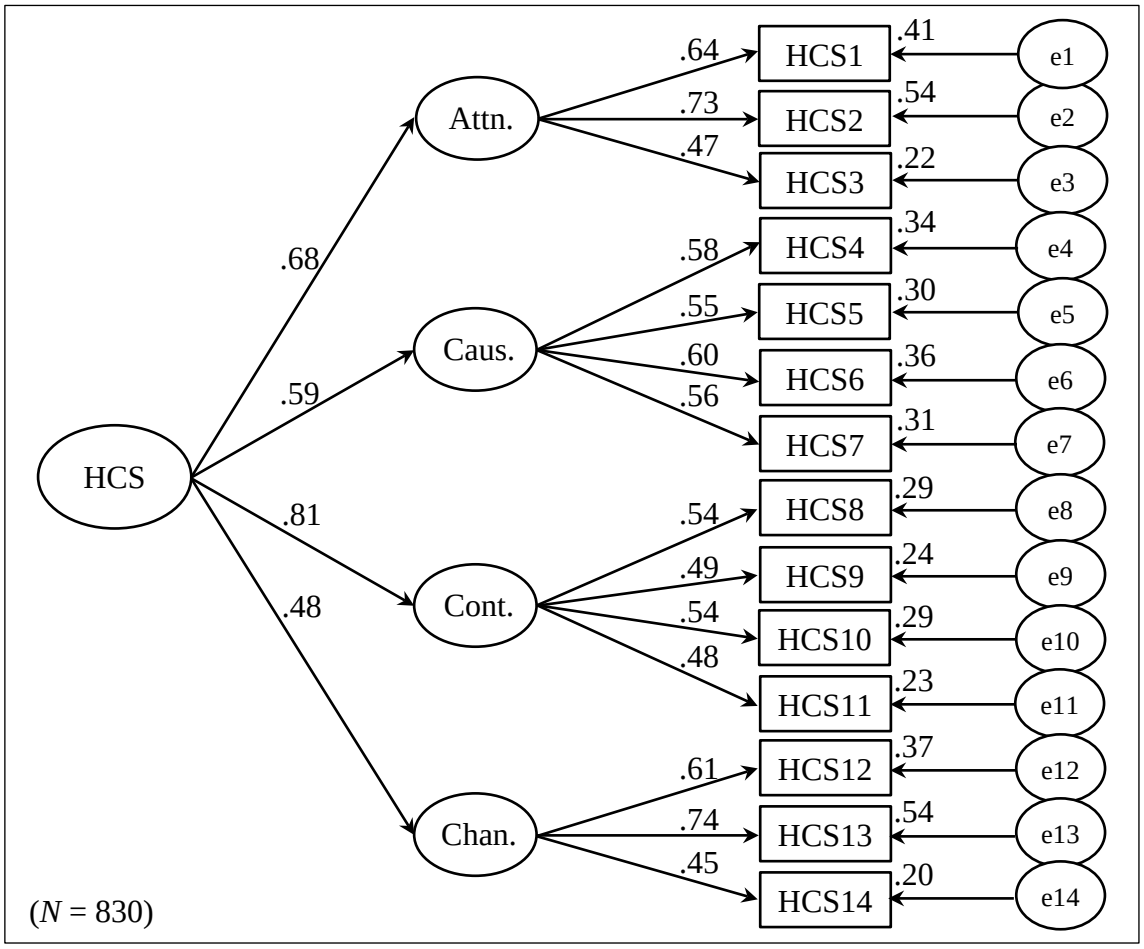


Figure 7. *Confirmatory Factor Analysis of the 14-item HCS*

The validity and reliability of the CFA test was re-established using the same indices as previously: composite reliability, average variance extracted, maximum shared variance, and average shared variance. The results show a marked improvement over the earlier 12-item version of the scale, with AVE indices now approaching the thresholds recommended by Hair Jr et al. (2010). The reported values conform to the hierarchy of indices (CR > AVE > MSV > ASV) and suggest that each dimension is capturing a sufficiently different aspect of the construct. Composite reliability is well over the .70 threshold and confirms that the CFA results have convergent validity. Although improved, the AVE scores are still below the recommended level (.50) and indicate low level correlation between items. However, the goal for scale development is validity and unidimensionality, and therefore, lower AVE scores may be preferable to highly redundant items that ultimately attenuate scale efficacy (Clark & Watson, 1995; Loevinger, 1954).

The internal consistency of the scale was then retested, first, by estimating Cronbach's coefficient alpha, with .70 accepted as the minimum threshold (DeVellis, 2012; Nunnally, 1978), and then by calculating the average interitem correlations, which should range between .15 - .20 for more abstract higher-order constructs (Briggs & Cheek, 1986; Clark & Watson, 1995). See Table 16 below for the reliability analysis results, which indicate that the final 14-item version of the HCS is a unidimensional and reliable measure of analytic and holistic thought, and is an improvement over the earlier 12-item variant.

Table 16.
Reliability Analysis of the 14-item HCS

Scale	# Items	CR	AVE	MSV	ASV	α	AIC
HCS	14	0.87	0.33	0.11	0.05	0.74	0.23
- Attention	3	0.65	0.39	0.11	0.06	0.64	0.24
- Causality	4	0.66	0.33	0.11	0.07	0.66	0.24
- Contradiction	4	0.59	0.27	0.11	0.07	0.60	0.23
- Change	3	0.63	0.37	0.11	0.06	0.61	0.21

Note. *N* = 830. Abbreviations: CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, ASV = Average Shared Variance, AIC = Average Inter-item Correlation.

Having established the psychometric adequacy of the HCS, the next phase of the development process involves testing the scale's criterion-related validity. There are

two types, concurrent and predictive; the difference rests solely in the time at which each measure is administered. The present study included Hofstede's (1980) measures of cultural values to serve as a suitable criterion for this analysis. Hence, the concurrent validity of the HCS was tested by regressing the scale on respondents' Western Values Scores (calculated from Hofstede's cultural value items). The results show a significant negative relationship (r = -.17, $p < 0.05$), as expected, since higher HCS scores indicate more holistic cognitive tendencies, and stand in contrast to Western values. Comparing the magnitude of the correlation (.17) to the square root of the AVE score for each scale (.57 and .57 respectively) suggests that the cognitive focus of the HCS is indeed distinct from the traditional values-based approach—evidencing their discriminant validity according to the Fornell-Larcker criterion (Fornell & Larcker, 1981; Henseler, Ringle, & Sarstedt, 2015).

In sum, the results reported above are encouraging and lead me to conclude that the HCS has acceptable psychometric properties. The instrument can therefore be used in further organisational studies, and contributes in particular to the literature on individual cultural differences. The next section moves on to test the various authentic leadership related hypotheses using the HCS alongside other well-established measures.

Testing hypotheses. The 11 hypotheses presented earlier were tested with simple linear, moderated, and mediated regression models of increasing complexity. First, all of the scales were subject to reliability analysis by estimating Cronbach's coefficient alpha and calculating the average interitem correlations (see Table 17 below for the results, and Appendix C for the individual scale items). The Authentic Leadership Inventory (ALI) was tested both as a summative scale and separately by each of the four dimensions, which would be used as distinct independent variables. Virtually all of the measures exceeded the .70 threshold for an acceptable alpha (DeVellis, 2012; Nunnally, 1978) and the .50 AVE threshold (Hair et al. 2010). Two exceptions are Agreeableness and Social Desirability, which reveal sub-optimal reliabilities. Similarly, both cultural indices show low AVE scores, suggesting issues with convergent validity. Regardless, all of the scales demonstrate average interitem correlations either within the accepted .15 - .50 range, or exceeding it (Briggs & Cheek, 1986). The data were also subject to normality assessment. The results indicated that the skewness and kurtosis values were well within acceptable ranges (±2) for all scale items (D. M. George & Mallery, 2010; Gravetter & Wallnau, 2014) and visual inspection of the histogram plots supported

normal distributions. Thus, these measures were considered sufficiently reliable and internally consistent to proceed with subsequent analysis.

The data were explored preliminarily by calculating the bivariate Pearson's correlations across all of the scales (see Table 18 below for the results). As might be expected, most of the correlations were statistically significant and noteworthy patterns emerged from the results. Neither Western Values, nor Holistic Cognition scores were related to Authentic Leadership, or any of its comprising dimensions – suggesting that the phenomenon is not culturally dependent. In contrast, strong positive correlations

Table 17.
Study 3 Scale Reliability Analysis

Scale	# Items	CR	AVE	MSV	ASV	α	AIC
Independent							
Authentic Leadership	16	.96	.62	.20	.13	.97	.65
- Self Awareness	4	.88	.65	.25	.19	.89	.66
- Internal Moral Persp.	4	.83	.55	.25	.16	.85	.61
- Balanced Processing	4	.90	.69	.25	.23	.90	.67
- Relational Transp.	4	.89	.66	.18	.13	.90	.67
Moderator / Mediator							
Western Values	20	.84	.32	.14	.11	.75	.19
Holistic Cognition	14	.87	.32	.21	.12	.71	.21
Personal Identification	10	.93	.60	.18	.14	.94	.63
Affect Based Trust	5	.92	.70	.17	.17	.93	.77
Dependent							
Job Satisfaction	4	.93	.78	.04	.04	.94	.84
Affective Org. Com.	8	.89	.55	.14	.13	.87	.53
Work Engagement	9	.92	.58	.26	.17	.93	.64
Control / CMV Marker							
Trust Propensity	4	.81	.54	.26	.26	.83	.66
Agreeableness	3	.60	.35	.06	.06	.56	.54
Social Desirability	13	.80	.34	.12	.08	.81	.30

Note. n = 283. Abbreviations: CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, ASV = Average Shared Variance, AIC = Average Inter-item Correlation.

link Authentic Leadership (including its four dimensions), Personal Identification, Affect-based Trust, Job Satisfaction, Affective Organisational Commitment, and Work Engagement (average $r = .57$, $p < .01$). These findings are encouraging and may be signalling the existence of underlying mediation pathways between these constructs.

The results also revealed that Western Values and Holistic Cognition were directly related to followers' Personal Identification, Job Satisfaction, and Work Engagement. Interestingly, these correlations were positive for the more holistically oriented thinkers (average $r = .19$, $p < .01$), and negative for respondents with more western cultural values (average $r = -.17$, $p < .05$). Lastly, both CMV marker variables (Agreeableness and Social Desirability) demonstrated weak positive relations with Authentic Leadership (average $r = .14$, $p < .05$) and all three of the dependent variables: Job Satisfaction, Affective Organisation Commitment, and Work Engagement (average $r = .19$, $p < .05$). These findings suggest the presence of a small inflationary effect from response bias, which should be effectively controlled for in the subsequent analyses by including these marker variables as covariates within the regression models.

To facilitate moderation analysis, all of the variables were then standardised by first subtracting the mean and dividing by the standard deviation. Interactions terms were then calculated by multiplying the independent (predictor) variables by each of the moderators. Hierarchical multiple regressions were then used to test Hypotheses 1-6 (see pp. 35, 39, and 42) – investigating the moderation effects of Western Values and Holistic Cognition on the relationships between Authentic Leadership (both as a summative scale and individual dimensions) and outcome variables: Job Satisfaction, Affective Organisational Commitment, and Work Engagement. Hierarchical regression involves running three regression models that introduce additional predictors stepwise. The first model contains all of the control variables, the second adds the main predictor (i.e. Authentic Leadership), and the third adds the interaction term (e.g. Authentic Leadership x Western Values). As such, the second model allowed for the simultaneous testing of Hypothesis 7 (see p. 43): assessing the predicted positive relationships between followers' perceptions of Authentic Leadership and the outcome variables mentioned above. The results are organised according to moderator, dependent variable, and predictor, see Tables 19-48 below.

Residual analysis was undertaken to verify that the data adhered to the assumptions underpinning linear regression, and examination of the residual plots confirmed that the data were free from heteroscedasticity. Variance inflation factors (VIFs) were used to detect any multicollinearity issues, and all of the testing was done with 95% confidence, as is appropriate for non-critical behavioural research (DeVellis, 2012). Respondents' country of birth and where they spent their first five formative years were very strongly correlated (VIFs > 4.0, which corresponds to an R^2 of .75) and therefore introduced problematic multicollinearity into the models. Consequently, the country of birth was dropped from the analysis in order to retain the formative years control variable as the preferable indicator of respondents' acculturation.

Examining the results of the second step (predictor) hierarchical regression models showed that Authentic Leadership was positively related to respondents' Job Satisfaction ($\beta = .45$, $p < .001$), Affective Organisational Commitment ($\beta = .43$, $p < .001$), and Work Engagement ($\beta = .37$, $p < .001$). The models also explained a significant portion of the variance for these three outcomes ($R^2 = .32$, .28, and .30 respectively, at $p < .001$). Therefore, Hypothesis 7 was supported in asserting that authentic leadership is a significant predictor of these three positive follower outcomes – in congruence with prior research (Giallonardo et al., 2010; Jensen & Luthans, 2006; Peus et al., 2012; Walumbwa et al., 2008; Wong et al., 2010).

Interpreting the beta coefficient and significance of the third step (interaction) regression results indicates that neither Western Values nor Holistic Cognition have a significant moderation effect on the relationships between followers' perceptions of Authentic Leadership and their positive organisational outcomes (i.e. Job Satisfaction, Affective Organisational Commitment, and Work Engagement). Therefore, Hypotheses 5 and 6 also find empirical support, suggesting that authentic leadership is widely effective across culturally diverse individuals and thereby constitutes a particularly useful approach for international business.

Furthermore, none of the four individual dimensions of Authentic Leadership were significantly moderated by Western Values or Holistic Cognition, either. Indeed, no significant differences were observed between the operation of the individual dimensions and the combined scale: as determined by overlapping β confidence intervals (at 95%). Therefore, Hypotheses 1-4 were not supported by the data. These

Table 18.
Initial Scale Correlation Analysis

Predictor	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. ALI	4.71	1.28	–													
2. ALI-SA	4.45	1.40	.95**	–												
3. ALI-IM	4.95	1.23	.91**	.78**	–											
4. ALI-BP	4.56	1.41	.95**	.90**	.80**	–										
5. ALI-RT	4.88	1.39	.95**	.86**	.83**	.86**	–									
6. WV-Score	3.34	0.36	*ns*	*ns*	*ns*	*ns*	*ns*	–								
7. HCS	5.05	0.59	*ns*	*ns*	*ns*	*ns*	*ns*	-.17**	–							
8. PILS	4.03	1.30	.73**	.71**	.65**	.72**	.66**	-.12*	.19**	–						
9. ABT	4.74	1.45	.70**	.66**	.62**	.68**	.65**	-.17**	*ns*	.69**	–					
10. BIAJS	4.86	1.32	.41**	.36**	.41**	.40**	.36**	-.20**	.16**	.40**	.47**	–				
11. ACS	4.27	1.18	.41**	.38**	.43**	.41**	.34**	*ns*	*ns*	.51**	.55**	.64**	–			
12. UWES-9	4.72	1.10	.40**	.37**	.39**	.40**	.34**	-.19**	.21**	.47**	.48**	.82**	.62**	–		
13. TrustProp	4.24	1.07	.26**	.22**	.30**	.24**	.25**	*ns*	*ns*	.21**	.15*	.28**	.24**	.27**	–	
14. Agreeable	5.00	0.91	.15*	*ns*	.19**	.13*	.14*	*ns*	.12*	*ns*	*ns*	.21**	.15*	.25**	.60**	–
15. M-C Short	4.64	0.80	.13*	.12*	.15*	*ns*	.12*	*ns*	*ns*	*ns*	.12*	.14*	.15*	.21**	.25**	.46**

Note. $n = 283$, * $p < 0.05$, ** $p < 0.01$, *ns* $p > 0.05$ (coefficient suppressed). Authentic Leadership Inventory (ALI) scale abbreviations are: SA = Self Awareness, IM = Internalised Moral Perspective, BP = Balanced Processing, RT = Relational Transparency.

Table 19.
Western Values Moderation of Self-awareness and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.34	0.15	-2.25	0.03	-0.34	0.15	-2.24	0.03
Age	0.02	0.01	1.54	0.13	0.01	0.01	1.52	0.13	0.01	0.01	1.51	0.13
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-1.08	0.28	0.00	0.00	-1.07	0.28
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.66	0.01	-0.02	0.01	-2.64	0.01
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.33	0.74	0.00	0.00	-0.33	0.74
FirstLang	-0.04	0.03	-1.68	0.09	-0.05	0.02	-2.07	0.04	-0.05	0.02	-2.06	0.04
Education	-0.01	0.05	-0.27	0.79	0.00	0.05	-0.06	0.95	0.00	0.05	-0.06	0.95
EmployStatus	0.13	0.13	1.04	0.30	0.07	0.12	0.61	0.54	0.07	0.12	0.61	0.54
Industry	-0.02	0.03	-0.63	0.53	0.00	0.02	-0.11	0.91	0.00	0.02	-0.11	0.91
CompanyTenure	0.02	0.01	1.77	0.08	0.02	0.01	2.31	0.02	0.02	0.01	2.31	0.02
CompanySize	-0.11	0.10	-1.18	0.24	-0.09	0.09	-1.03	0.30	-0.09	0.09	-1.03	0.30
SupervisorTenure	0.05	0.02	2.50	0.01	0.04	0.02	2.10	0.04	0.04	0.02	2.10	0.04
TrustProp	0.35	0.10	3.70	0.00	0.27	0.09	2.99	0.00	0.27	0.09	2.98	0.00
Agreeable	0.07	0.10	0.70	0.49	0.10	0.10	1.09	0.28	0.10	0.10	1.08	0.28
SocDesirable	-0.01	0.09	-0.12	0.90	-0.06	0.08	-0.80	0.43	-0.06	0.08	-0.79	0.43
ALI-SA					0.40	0.07	5.54	0.00	0.40	0.07	5.50	0.00
WV-Score					-0.24	0.07	-3.51	0.00	-0.24	0.07	-3.50	0.00
WV-S x ALI-SA									**0.00**	**0.07**	**0.01**	**0.99**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** $F(15, 267) = 4.07$, $p < .001$				R^2 = .30, Adj.R^2 = .26, ΔR^2 = .12** $F(17, 265) = 6.82$, $p < .001$				R^2 = .30, Adj.R^2 = .26, ΔR^2 = .00 $F(18, 264) = 6.42$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 20.
Western Values Moderation of Internal Moral Perspective and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.33	0.15	-2.22	0.03	-0.33	0.15	-2.23	0.03
Age	0.02	0.01	1.54	0.13	0.02	0.01	2.09	0.04	0.02	0.01	2.13	0.03
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-1.04	0.30	0.00	0.00	-1.06	0.29
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.90	0.00	-0.02	0.01	-2.93	0.00
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.45	0.65	0.00	0.00	-0.48	0.63
FirstLang	-0.04	0.03	-1.68	0.09	-0.05	0.02	-1.92	0.06	-0.05	0.02	-1.94	0.05
Education	-0.01	0.05	-0.27	0.79	-0.01	0.04	-0.33	0.74	-0.02	0.04	-0.35	0.72
EmployStatus	0.13	0.13	1.04	0.30	0.02	0.12	0.15	0.88	0.02	0.12	0.13	0.90
Industry	-0.02	0.03	-0.63	0.53	0.00	0.02	-0.06	0.95	0.00	0.02	-0.02	0.98
CompanyTenure	0.02	0.01	1.77	0.08	0.02	0.01	1.74	0.08	0.02	0.01	1.72	0.09
CompanySize	-0.11	0.10	-1.18	0.24	-0.09	0.09	-0.99	0.32	-0.09	0.09	-0.98	0.33
SupervisorTenure	0.05	0.02	2.50	0.01	0.03	0.02	1.85	0.07	0.03	0.02	1.84	0.07
TrustProp	0.35	0.10	3.70	0.00	0.22	0.09	2.49	0.01	0.23	0.09	2.51	0.01
Agreeable	0.07	0.10	0.70	0.49	0.08	0.09	0.87	0.39	0.08	0.09	0.84	0.40
SocDesirable	-0.01	0.09	-0.12	0.90	-0.05	0.08	-0.69	0.49	-0.05	0.08	-0.68	0.50
ALI-IM					0.43	0.07	5.90	0.00	0.44	0.07	5.90	0.00
WV-Score					-0.24	0.07	-3.47	0.00	-0.24	0.07	-3.48	0.00
WV-S x ALI-IM									**-0.03**	**0.06**	**-0.44**	**0.66**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** $F(15, 267) = 4.07$, $p < .001$				R^2 = .31, Adj.R^2 = .27, ΔR^2 = .13** $F(17, 265) = 7.13$, $p < .001$				R^2 = .31, Adj.R^2 = .27, ΔR^2 = .00 $F(18, 264) = 6.73$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 21.
Western Values Moderation of Balanced Processing and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.34	0.15	-2.30	0.02	-0.34	0.15	-2.30	0.02
Age	0.02	0.01	1.54	0.13	0.02	0.01	1.86	0.06	0.02	0.01	1.84	0.07
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-0.80	0.42	0.00	0.00	-0.80	0.43
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.63	0.01	-0.02	0.01	-2.60	0.01
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.50	0.61	0.00	0.00	-0.49	0.62
FirstLang	-0.04	0.03	-1.68	0.09	-0.05	0.02	-2.15	0.03	-0.05	0.02	-2.14	0.03
Education	-0.01	0.05	-0.27	0.79	0.00	0.04	0.00	1.00	0.00	0.04	0.00	1.00
EmployStatus	0.13	0.13	1.04	0.30	0.06	0.12	0.53	0.60	0.06	0.12	0.53	0.60
Industry	-0.02	0.03	-0.63	0.53	0.00	0.02	-0.19	0.85	0.00	0.02	-0.20	0.84
CompanyTenure	0.02	0.01	1.77	0.08	0.02	0.01	1.94	0.05	0.02	0.01	1.93	0.05
CompanySize	-0.11	0.10	-1.18	0.24	-0.10	0.09	-1.09	0.28	-0.10	0.09	-1.10	0.27
SupervisorTenure	0.05	0.02	2.50	0.01	0.04	0.02	2.38	0.02	0.04	0.02	2.37	0.02
TrustProp	0.35	0.10	3.70	0.00	0.25	0.09	2.83	0.00	0.25	0.09	2.80	0.01
Agreeable	0.07	0.10	0.70	0.49	0.09	0.09	0.98	0.33	0.09	0.09	0.99	0.32
SocDesirable	-0.01	0.09	-0.12	0.90	-0.06	0.08	-0.77	0.44	-0.06	0.08	-0.78	0.44
ALI-BA					0.45	0.07	6.25	0.00	0.45	0.07	6.19	0.00
WV-Score					-0.22	0.07	-3.22	0.00	-0.22	0.07	-3.21	0.00
WV-S x ALI-BA									**0.01**	**0.06**	**0.18**	**0.86**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** $F(15, 267) = 4.07$, $p < .001$				R^2 = .32, Adj.R^2 = .28, ΔR^2 = .14** $F(17, 265) = 7.46$, $p < .001$				R^2 = .32, Adj.R^2 = .28, ΔR^2 = .00 $F(18, 264) = 7.02$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 22.
Western Values Moderation of Relational Transparency and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.35	0.15	-2.32	0.02	-0.35	0.15	-2.31	0.02
Age	0.02	0.01	1.54	0.13	0.01	0.01	1.63	0.10	0.01	0.01	1.59	0.11
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-0.77	0.44	0.00	0.00	-0.74	0.46
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.70	0.01	-0.02	0.01	-2.66	0.01
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.24	0.81	0.00	0.00	-0.24	0.81
FirstLang	-0.04	0.03	-1.68	0.09	-0.05	0.02	-1.94	0.05	-0.05	0.02	-1.93	0.05
Education	-0.01	0.05	-0.27	0.79	0.00	0.05	-0.03	0.97	0.00	0.05	-0.02	0.98
EmployStatus	0.13	0.13	1.04	0.30	0.07	0.12	0.57	0.57	0.07	0.12	0.59	0.55
Industry	-0.02	0.03	-0.63	0.53	-0.01	0.02	-0.43	0.67	-0.01	0.02	-0.45	0.65
CompanyTenure	0.02	0.01	1.77	0.08	0.02	0.01	2.09	0.04	0.02	0.01	2.09	0.04
CompanySize	-0.11	0.10	-1.18	0.24	-0.09	0.09	-0.97	0.33	-0.09	0.09	-0.98	0.33
SupervisorTenure	0.05	0.02	2.50	0.01	0.04	0.02	2.31	0.02	0.04	0.02	2.30	0.02
TrustProp	0.35	0.10	3.70	0.00	0.26	0.09	2.87	0.00	0.26	0.09	2.82	0.01
Agreeable	0.07	0.10	0.70	0.49	0.10	0.10	1.02	0.31	0.10	0.10	1.05	0.30
SocDesirable	-0.01	0.09	-0.12	0.90	-0.06	0.08	-0.69	0.49	-0.06	0.08	-0.71	0.48
ALI-RE					0.38	0.07	5.19	0.00	0.38	0.07	5.15	0.00
WV-Score					-0.22	0.07	-3.16	0.00	-0.22	0.07	-3.15	0.00
WV-S x ALI-RE									**0.02**	**0.06**	**0.35**	**0.73**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** F(15, 267) = 4.07, p < .001				R^2 = .30, Adj.R^2 = .25, ΔR^2 = .11** F(17, 265) = 6.54, p < .001				R^2 = .30, Adj.R^2 = .25, ΔR^2 = .00 F(18, 264) = 6.16, p < .001			

Note. n = 283, * p < .05, ** p < .001.

Table 23.
Western Values Moderation of Authentic Leadership and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.33	0.15	-2.26	0.02	-0.33	0.15	-2.26	0.02
Age	0.02	0.01	1.54	0.13	0.02	0.01	1.83	0.07	0.02	0.01	1.82	0.07
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-0.90	0.37	0.00	0.00	-0.89	0.37
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.75	0.01	-0.02	0.01	-2.73	0.01
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.50	0.62	0.00	0.00	-0.50	0.62
FirstLang	-0.04	0.03	-1.68	0.09	-0.05	0.02	-2.13	0.03	-0.05	0.02	-2.12	0.03
Education	-0.01	0.05	-0.27	0.79	0.00	0.04	-0.06	0.95	0.00	0.04	-0.06	0.95
EmployStatus	0.13	0.13	1.04	0.30	0.05	0.12	0.43	0.66	0.05	0.12	0.43	0.67
Industry	-0.02	0.03	-0.63	0.53	0.00	0.02	-0.16	0.87	0.00	0.02	-0.16	0.87
CompanyTenure	0.02	0.01	1.77	0.08	0.02	0.01	2.05	0.04	0.02	0.01	2.05	0.04
CompanySize	-0.11	0.10	-1.18	0.24	-0.09	0.09	-1.02	0.31	-0.09	0.09	-1.01	0.31
SupervisorTenure	0.05	0.02	2.50	0.01	0.04	0.02	2.11	0.04	0.04	0.02	2.11	0.04
TrustProp	0.35	0.10	3.70	0.00	0.24	0.09	2.66	0.01	0.24	0.09	2.64	0.01
Agreeable	0.07	0.10	0.70	0.49	0.10	0.09	1.02	0.31	0.10	0.09	1.01	0.31
SocDesirable	-0.01	0.09	-0.12	0.90	-0.06	0.08	-0.80	0.43	-0.06	0.08	-0.79	0.43
ALI					0.45	0.07	6.17	0.00	0.45	0.07	6.13	0.00
WV-Score					-0.23	0.07	-3.29	0.00	-0.23	0.07	-3.29	0.00
WV-S x ALI									**0.00**	**0.06**	**-0.01**	**0.99**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** $F(15, 267) = 4.07$, $p < .001$				R^2 = .32, Adj.R^2 = .28, ΔR^2 = .14** $F(17, 265) = 7.38$, $p < .001$				R^2 = .32, Adj.R^2 = .28, ΔR^2 = .00 $F(18, 264) = 6.95$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 24.
Western Values Moderation of Self-awareness and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	0.00	0.14	0.02	0.99	0.00	0.14	0.01	0.99
Age	0.01	0.01	1.13	0.26	0.01	0.01	1.29	0.20	0.01	0.01	1.26	0.21
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-1.16	0.25	0.00	0.00	-1.15	0.25
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.50	0.13	-0.01	0.01	-1.45	0.15
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.30	0.76	0.00	0.00	-0.28	0.78
FirstLang	-0.01	0.02	-0.50	0.62	-0.02	0.02	-1.11	0.27	-0.02	0.02	-1.08	0.28
Education	-0.07	0.04	-1.46	0.15	-0.05	0.04	-1.20	0.23	-0.05	0.04	-1.18	0.24
EmployStatus	-0.10	0.12	-0.89	0.37	-0.14	0.11	-1.29	0.20	-0.14	0.11	-1.27	0.21
Industry	0.00	0.02	0.13	0.90	0.01	0.02	0.66	0.51	0.01	0.02	0.61	0.54
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	1.68	0.09	0.01	0.01	1.66	0.10
CompanySize	-0.12	0.09	-1.41	0.16	-0.12	0.08	-1.41	0.16	-0.12	0.08	-1.43	0.15
SupervisorTenure	0.06	0.02	3.19	0.00	0.05	0.02	2.77	0.01	0.05	0.02	2.78	0.01
TrustProp	0.28	0.09	3.29	0.00	0.20	0.08	2.39	0.02	0.19	0.08	2.34	0.02
Agreeable	-0.01	0.09	-0.12	0.90	0.01	0.09	0.15	0.88	0.02	0.09	0.17	0.86
SocDesirable	0.08	0.08	0.96	0.34	0.03	0.07	0.46	0.65	0.03	0.07	0.42	0.67
ALI-SA					0.40	0.07	5.91	0.00	0.39	0.07	5.84	0.00
WV-Score					-0.06	0.06	-0.91	0.36	-0.06	0.06	-0.91	0.37
WV-S x ALI-SA									**0.03**	**0.06**	**0.46**	**0.65**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .26, Adj.R^2 = .21, ΔR^2 = .10** $F(17, 265) = 5.44$, $p < .001$				R^2 = .26, Adj.R^2 = .21, ΔR^2 = .00 $F(18, 264) = 5.13$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 25.
Western Values Moderation of Internal Moral Perspective and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	0.01	0.14	0.10	0.92	0.01	0.14	0.10	0.92
Age	0.01	0.01	1.13	0.26	0.02	0.01	1.90	0.06	0.02	0.01	1.85	0.07
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-1.10	0.27	0.00	0.00	-1.09	0.28
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.73	0.09	-0.01	0.01	-1.69	0.09
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.45	0.65	0.00	0.00	-0.44	0.66
FirstLang	-0.01	0.02	-0.50	0.62	-0.02	0.02	-0.94	0.35	-0.02	0.02	-0.93	0.35
Education	-0.07	0.04	-1.46	0.15	-0.06	0.04	-1.53	0.13	-0.06	0.04	-1.52	0.13
EmployStatus	-0.10	0.12	-0.89	0.37	-0.20	0.11	-1.82	0.07	-0.20	0.11	-1.81	0.07
Industry	0.00	0.02	0.13	0.90	0.02	0.02	0.75	0.46	0.02	0.02	0.73	0.47
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	1.07	0.28	0.01	0.01	1.08	0.28
CompanySize	-0.12	0.09	-1.41	0.16	-0.11	0.08	-1.35	0.18	-0.11	0.08	-1.35	0.18
SupervisorTenure	0.06	0.02	3.19	0.00	0.04	0.02	2.45	0.02	0.04	0.02	2.45	0.02
TrustProp	0.28	0.09	3.29	0.00	0.15	0.08	1.87	0.06	0.15	0.08	1.85	0.06
Agreeable	-0.01	0.09	-0.12	0.90	-0.01	0.09	-0.13	0.90	-0.01	0.09	-0.11	0.91
SocDesirable	0.08	0.08	0.96	0.34	0.04	0.07	0.59	0.56	0.04	0.07	0.59	0.56
ALI-IM					0.45	0.07	6.61	0.00	0.44	0.07	6.55	0.00
WV-Score					-0.06	0.06	-0.87	0.38	-0.06	0.06	-0.86	0.39
WV-S x ALI-IM									**0.01**	**0.06**	**0.18**	**0.86**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .12** $F(17, 265) = 6.01$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .00 $F(18, 264) = 5.69$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 26.
Western Values Moderation of Balanced Processing and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	0.00	0.14	-0.01	0.99	0.00	0.14	-0.02	0.98
Age	0.01	0.01	1.13	0.26	0.01	0.01	1.65	0.10	0.01	0.01	1.59	0.11
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-0.92	0.36	0.00	0.00	-0.90	0.37
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.39	0.17
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.47	0.64	0.00	0.00	-0.42	0.67
FirstLang	-0.01	0.02	-0.50	0.62	-0.03	0.02	-1.17	0.24	-0.03	0.02	-1.14	0.26
Education	-0.07	0.04	-1.46	0.15	-0.05	0.04	-1.17	0.24	-0.05	0.04	-1.17	0.24
EmployStatus	-0.10	0.12	-0.89	0.37	-0.15	0.11	-1.40	0.16	-0.15	0.11	-1.38	0.17
Industry	0.00	0.02	0.13	0.90	0.01	0.02	0.56	0.57	0.01	0.02	0.50	0.62
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	1.28	0.20	0.01	0.01	1.27	0.21
CompanySize	-0.12	0.09	-1.41	0.16	-0.12	0.08	-1.47	0.14	-0.12	0.08	-1.53	0.13
SupervisorTenure	0.06	0.02	3.19	0.00	0.05	0.02	3.07	0.00	0.05	0.02	3.08	0.00
TrustProp	0.28	0.09	3.29	0.00	0.18	0.08	2.24	0.03	0.17	0.08	2.13	0.03
Agreeable	-0.01	0.09	-0.12	0.90	0.00	0.09	0.01	0.99	0.01	0.09	0.10	0.92
SocDesirable	0.08	0.08	0.96	0.34	0.04	0.07	0.53	0.60	0.03	0.07	0.47	0.64
ALI-BA					0.44	0.07	6.57	0.00	0.43	0.07	6.44	0.00
WV-Score					-0.04	0.06	-0.60	0.55	-0.04	0.06	-0.59	0.55
WV-S x ALI-BA									**0.06**	**0.06**	**0.96**	**0.34**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .12** $F(17, 264) = 6.01$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .00 $F(18, 264) = 5.73$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 27.
Western Values Moderation of Relational Transparency and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	-0.01	0.14	-0.10	0.92	-0.01	0.14	-0.08	0.94
Age	0.01	0.01	1.13	0.26	0.01	0.01	1.38	0.17	0.01	0.01	1.30	0.19
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-0.88	0.38	0.00	0.00	-0.81	0.42
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.54	0.12	-0.01	0.01	-1.47	0.14
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.14	0.89	0.00	0.00	-0.13	0.89
FirstLang	-0.01	0.02	-0.50	0.62	-0.02	0.02	-0.91	0.36	-0.02	0.02	-0.91	0.37
Education	-0.07	0.04	-1.46	0.15	-0.05	0.04	-1.18	0.24	-0.05	0.04	-1.14	0.25
EmployStatus	-0.10	0.12	-0.89	0.37	-0.14	0.11	-1.29	0.20	-0.14	0.11	-1.21	0.23
Industry	0.00	0.02	0.13	0.90	0.01	0.02	0.29	0.77	0.01	0.02	0.24	0.81
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	1.43	0.15	0.01	0.01	1.44	0.15
CompanySize	-0.12	0.09	-1.41	0.16	-0.11	0.08	-1.34	0.18	-0.12	0.08	-1.38	0.17
SupervisorTenure	0.06	0.02	3.19	0.00	0.05	0.02	2.99	0.00	0.05	0.02	2.99	0.00
TrustProp	0.28	0.09	3.29	0.00	0.20	0.08	2.34	0.02	0.19	0.08	2.23	0.03
Agreeable	-0.01	0.09	-0.12	0.90	0.01	0.09	0.07	0.94	0.01	0.09	0.15	0.88
SocDesirable	0.08	0.08	0.96	0.34	0.04	0.07	0.59	0.55	0.04	0.08	0.53	0.59
ALI-RE					0.34	0.07	4.99	0.00	0.34	0.07	4.93	0.00
WV-Score					-0.04	0.07	-0.63	0.53	-0.04	0.07	-0.61	0.54
WV-S x ALI-RE									**0.05**	**0.06**	**0.90**	**0.37**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .23, Adj.R^2 = .18, ΔR^2 = .08** $F(17, 265) = 4.73$, $p < .001$				R^2 = .24, Adj.R^2 = .18, ΔR^2 = .00 $F(18, 264) = 4.51$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 28.
Western Values Moderation of Authentic Leadership and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	0.00	0.14	0.03	0.98	0.00	0.14	0.03	0.97
Age	0.01	0.01	1.13	0.26	0.01	0.01	1.61	0.11	0.01	0.01	1.55	0.12
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-0.97	0.33	0.00	0.00	-0.94	0.35
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.57	0.12	-0.01	0.01	-1.50	0.13
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.46	0.65	0.00	0.00	-0.43	0.67
FirstLang	-0.01	0.02	-0.50	0.62	-0.03	0.02	-1.14	0.26	-0.02	0.02	-1.11	0.27
Education	-0.07	0.04	-1.46	0.15	-0.05	0.04	-1.22	0.23	-0.05	0.04	-1.19	0.23
EmployStatus	-0.10	0.12	-0.89	0.37	-0.16	0.11	-1.50	0.14	-0.16	0.11	-1.46	0.15
Industry	0.00	0.02	0.13	0.90	0.01	0.02	0.60	0.55	0.01	0.02	0.55	0.58
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	1.39	0.16	0.01	0.01	1.39	0.17
CompanySize	-0.12	0.09	-1.41	0.16	-0.11	0.08	-1.39	0.16	-0.12	0.08	-1.43	0.15
SupervisorTenure	0.06	0.02	3.19	0.00	0.05	0.02	2.79	0.01	0.05	0.02	2.79	0.01
TrustProp	0.28	0.09	3.29	0.00	0.17	0.08	2.05	0.04	0.16	0.08	1.99	0.05
Agreeable	-0.01	0.09	-0.12	0.90	0.01	0.09	0.06	0.95	0.01	0.09	0.11	0.91
SocDesirable	0.08	0.08	0.96	0.34	0.04	0.07	0.49	0.63	0.03	0.07	0.45	0.65
ALI					0.43	0.07	6.48	0.00	0.43	0.07	6.38	0.00
WV-Score					-0.04	0.06	-0.67	0.50	-0.04	0.06	-0.66	0.51
WV-S x ALI									**0.04**	**0.06**	**0.63**	**0.53**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .12** $F(17, 265) = 5.93$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .00 $F(18, 264) = 5.61$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 29.
Western Values Moderation of Self-awareness and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.27	0.13	-2.14	0.03	-0.27	0.13	-2.14	0.03
Age	0.01	0.01	1.57	0.12	0.01	0.01	1.58	0.12	0.01	0.01	1.54	0.12
Country	0.00	0.00	0.00	1.00	0.00	0.00	-0.22	0.83	0.00	0.00	-0.21	0.84
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.42	0.02	-0.01	0.01	-2.36	0.02
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.32	0.75	0.00	0.00	-0.30	0.76
FirstLang	-0.04	0.02	-1.68	0.10	-0.04	0.02	-2.11	0.04	-0.04	0.02	-2.08	0.04
Education	0.00	0.04	-0.06	0.95	0.01	0.04	0.18	0.86	0.01	0.04	0.19	0.85
EmployStatus	0.00	0.11	-0.03	0.98	-0.05	0.10	-0.52	0.61	-0.05	0.10	-0.49	0.62
Industry	0.00	0.02	-0.21	0.84	0.01	0.02	0.35	0.72	0.01	0.02	0.31	0.76
CompanyTenure	0.00	0.01	0.43	0.67	0.01	0.01	0.87	0.39	0.01	0.01	0.85	0.40
CompanySize	-0.06	0.08	-0.79	0.43	-0.05	0.07	-0.62	0.53	-0.05	0.07	-0.65	0.52
SupervisorTenure	0.03	0.02	1.98	0.05	0.02	0.02	1.53	0.13	0.02	0.02	1.54	0.13
TrustProp	0.23	0.08	2.86	0.01	0.15	0.07	2.07	0.04	0.15	0.07	2.03	0.04
Agreeable	0.10	0.09	1.13	0.26	0.12	0.08	1.54	0.13	0.12	0.08	1.56	0.12
SocDesirable	0.09	0.07	1.31	0.19	0.05	0.07	0.75	0.46	0.05	0.07	0.71	0.48
ALI-SA					0.35	0.06	5.70	0.00	0.34	0.06	5.62	0.00
WV-Score					-0.19	0.06	-3.18	0.00	-0.19	0.06	-3.18	0.00
WV-S x ALI-SA									**0.03**	**0.06**	**0.45**	**0.65**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** F(15, 267) = 3.71, p < .001				R^2 = .29, Adj.R^2 = .25, ΔR^2 = .12** F(17, 265) = 6.42, p < .001				R^2 = .29, Adj.R^2 = .24, ΔR^2 = .00 F(18, 264) = 6.06, p < .001			

Note. n = 283, * p < .05, ** p < .001.

Table 30.
Western Values Moderation of Internal Moral Perspective and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.26	0.13	-2.11	0.04	-0.26	0.13	-2.10	0.04
Age	0.01	0.01	1.57	0.12	0.02	0.01	2.09	0.04	0.02	0.01	2.02	0.04
Country	0.00	0.00	0.00	1.00	0.00	0.00	-0.12	0.91	0.00	0.00	-0.10	0.92
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.60	0.01	-0.01	0.01	-2.54	0.01
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.39	0.70	0.00	0.00	-0.37	0.71
FirstLang	-0.04	0.02	-1.68	0.10	-0.04	0.02	-1.91	0.06	-0.04	0.02	-1.89	0.06
Education	0.00	0.04	-0.06	0.95	0.00	0.04	-0.11	0.91	0.00	0.04	-0.09	0.93
EmployStatus	0.00	0.11	-0.03	0.98	-0.10	0.10	-0.95	0.34	-0.09	0.10	-0.93	0.35
Industry	0.00	0.02	-0.21	0.84	0.01	0.02	0.39	0.70	0.01	0.02	0.37	0.71
CompanyTenure	0.00	0.01	0.43	0.67	0.00	0.01	0.29	0.77	0.00	0.01	0.30	0.77
CompanySize	-0.06	0.08	-0.79	0.43	-0.04	0.07	-0.57	0.57	-0.04	0.07	-0.58	0.56
SupervisorTenure	0.03	0.02	1.98	0.05	0.02	0.02	1.30	0.20	0.02	0.02	1.30	0.20
TrustProp	0.23	0.08	2.86	0.01	0.12	0.08	1.65	0.10	0.12	0.08	1.63	0.10
Agreeable	0.10	0.09	1.13	0.26	0.10	0.08	1.30	0.19	0.11	0.08	1.32	0.19
SocDesirable	0.09	0.07	1.31	0.19	0.06	0.07	0.88	0.38	0.06	0.07	0.87	0.38
ALI-IM					0.35	0.06	5.72	0.00	0.35	0.06	5.66	0.00
WV-Score					-0.18	0.06	-3.13	0.00	-0.18	0.06	-3.11	0.00
WV-S x ALI-IM									**0.02**	**0.05**	**0.29**	**0.77**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** $F(15, 267) = 3.71$, $p < .001$				R^2 = .29, Adj.R^2 = .25, ΔR^2 = .12** $F(17, 265) = 6.44$, $p < .001$				R^2 = .29, Adj.R^2 = .24, ΔR^2 = .00 $F(18, 264) = 6.06$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 31.
Western Values Moderation of Balanced Processing and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.27	0.12	-2.20	0.03	-0.27	0.12	-2.20	0.03
Age	0.01	0.01	1.57	0.12	0.01	0.01	1.92	0.06	0.01	0.01	1.91	0.06
Country	0.00	0.00	0.00	1.00	0.00	0.00	0.05	0.96	0.00	0.00	0.06	0.95
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.39	0.02	-0.01	0.01	-2.36	0.02
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.48	0.63	0.00	0.00	-0.47	0.64
FirstLang	-0.04	0.02	-1.68	0.10	-0.04	0.02	-2.18	0.03	-0.04	0.02	-2.17	0.03
Education	0.00	0.04	-0.06	0.95	0.01	0.04	0.23	0.81	0.01	0.04	0.23	0.82
EmployStatus	0.00	0.11	-0.03	0.98	-0.06	0.10	-0.61	0.54	-0.06	0.10	-0.61	0.54
Industry	0.00	0.02	-0.21	0.84	0.01	0.02	0.26	0.79	0.00	0.02	0.25	0.80
CompanyTenure	0.00	0.01	0.43	0.67	0.00	0.01	0.46	0.65	0.00	0.01	0.46	0.65
CompanySize	-0.06	0.08	-0.79	0.43	-0.05	0.07	-0.68	0.50	-0.05	0.07	-0.69	0.49
SupervisorTenure	0.03	0.02	1.98	0.05	0.03	0.02	1.81	0.07	0.03	0.02	1.81	0.07
TrustProp	0.23	0.08	2.86	0.01	0.14	0.07	1.91	0.06	0.14	0.07	1.88	0.06
Agreeable	0.10	0.09	1.13	0.26	0.11	0.08	1.44	0.15	0.11	0.08	1.44	0.15
SocDesirable	0.09	0.07	1.31	0.19	0.05	0.07	0.81	0.42	0.05	0.07	0.79	0.43
ALI-BA					0.38	0.06	6.29	0.00	0.38	0.06	6.23	0.00
WV-Score					-0.17	0.06	-2.89	0.00	-0.17	0.06	-2.89	0.00
WV-S x ALI-BA									**0.01**	**0.05**	**0.15**	**0.88**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** $F(15, 267) = 3.71$, $p < .001$				R^2 = .31, Adj.R^2 = .26, ΔR^2 = .14** $F(17, 265) = 6.94$, $p < .001$				R^2 = .31, Adj.R^2 = .26, ΔR^2 = .00 $F(18, 264) = 6.54$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$.

Table 32.
Western Values Moderation of Relational Transparency and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.28	0.13	-2.22	0.03	-0.28	0.13	-2.20	0.03
Age	0.01	0.01	1.57	0.12	0.01	0.01	1.65	0.10	0.01	0.01	1.60	0.11
Country	0.00	0.00	0.00	1.00	0.00	0.00	0.04	0.97	0.00	0.00	0.07	0.95
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.44	0.02	-0.01	0.01	-2.40	0.02
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.16	0.88	0.00	0.00	-0.15	0.88
FirstLang	-0.04	0.02	-1.68	0.10	-0.04	0.02	-1.90	0.06	-0.04	0.02	-1.89	0.06
Education	0.00	0.04	-0.06	0.95	0.01	0.04	0.16	0.87	0.01	0.04	0.18	0.86
EmployStatus	0.00	0.11	-0.03	0.98	-0.05	0.10	-0.52	0.61	-0.05	0.10	-0.48	0.63
Industry	0.00	0.02	-0.21	0.84	0.00	0.02	0.00	1.00	0.00	0.02	-0.02	0.98
CompanyTenure	0.00	0.01	0.43	0.67	0.00	0.01	0.63	0.53	0.00	0.01	0.64	0.52
CompanySize	-0.06	0.08	-0.79	0.43	-0.04	0.08	-0.57	0.57	-0.05	0.08	-0.59	0.55
SupervisorTenure	0.03	0.02	1.98	0.05	0.03	0.02	1.77	0.08	0.03	0.02	1.77	0.08
TrustProp	0.23	0.08	2.86	0.01	0.16	0.08	2.05	0.04	0.15	0.08	1.99	0.05
Agreeable	0.10	0.09	1.13	0.26	0.12	0.08	1.44	0.15	0.12	0.08	1.47	0.14
SocDesirable	0.09	0.07	1.31	0.19	0.06	0.07	0.88	0.38	0.06	0.07	0.85	0.40
ALI-RE					0.29	0.06	4.69	0.00	0.29	0.06	4.65	0.00
WV-Score					-0.17	0.06	-2.87	0.00	-0.17	0.06	-2.86	0.00
WV-S x ALI-RE									**0.02**	**0.05**	**0.43**	**0.67**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** $F(15, 267) = 3.71$, $p < .001$				R^2 = .27, Adj.R^2 = .22, ΔR^2 = .09** $F(17, 265) = 5.65$, $p < .001$				R^2 = .27, Adj.R^2 = .22, ΔR^2 = .00 $F(18, 264) = 5.33$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$.

Table 33.
Western Values Moderation of Authentic Leadership and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.27	0.12	-2.16	0.03	-0.27	0.12	-2.15	0.03
Age	0.01	0.01	1.57	0.12	0.01	0.01	1.87	0.06	0.01	0.01	1.83	0.07
Country	0.00	0.00	0.00	1.00	0.00	0.00	-0.03	0.98	0.00	0.00	-0.01	0.99
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.49	0.01	-0.01	0.01	-2.44	0.02
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.45	0.65	0.00	0.00	-0.44	0.66
FirstLang	-0.04	0.02	-1.68	0.10	-0.04	0.02	-2.13	0.03	-0.04	0.02	-2.11	0.04
Education	0.00	0.04	-0.06	0.95	0.01	0.04	0.17	0.87	0.01	0.04	0.18	0.86
EmployStatus	0.00	0.11	-0.03	0.98	-0.07	0.10	-0.69	0.49	-0.07	0.10	-0.67	0.50
Industry	0.00	0.02	-0.21	0.84	0.01	0.02	0.29	0.77	0.01	0.02	0.26	0.79
CompanyTenure	0.00	0.01	0.43	0.67	0.00	0.01	0.58	0.56	0.00	0.01	0.58	0.56
CompanySize	-0.06	0.08	-0.79	0.43	-0.04	0.07	-0.60	0.55	-0.05	0.07	-0.62	0.54
SupervisorTenure	0.03	0.02	1.98	0.05	0.02	0.02	1.55	0.12	0.02	0.02	1.55	0.12
TrustProp	0.23	0.08	2.86	0.01	0.13	0.07	1.77	0.08	0.13	0.07	1.74	0.08
Agreeable	0.10	0.09	1.13	0.26	0.12	0.08	1.46	0.14	0.12	0.08	1.48	0.14
SocDesirable	0.09	0.07	1.31	0.19	0.05	0.07	0.78	0.43	0.05	0.07	0.76	0.45
ALI					0.37	0.06	6.03	0.00	0.37	0.06	5.96	0.00
WV-Score					-0.17	0.06	-2.97	0.00	-0.17	0.06	-2.96	0.00
WV-S x ALI									**0.02**	**0.05**	**0.30**	**0.76**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** $F(15, 267) = 3.71$, $p < .001$				R^2 = .30, Adj.R^2 = .26, ΔR^2 = .13** $F(17, 265) = 6.71$, $p < .001$				R^2 = .30, Adj.R^2 = .25, ΔR^2 = .00 $F(18, 264) = 6.32$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$.

Table 34.
Holistic Cognition Moderation of Self-awareness and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.34	0.15	-2.26	0.02	-0.34	0.15	-2.26	0.02
Age	0.02	0.01	1.54	0.13	0.02	0.01	1.72	0.09	0.02	0.01	1.72	0.09
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-0.78	0.43	0.00	0.00	-0.80	0.42
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.69	0.01	-0.02	0.01	-2.78	0.01
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.60	0.55	0.00	0.00	-0.64	0.52
FirstLang	-0.04	0.03	-1.68	0.09	-0.06	0.02	-2.50	0.01	-0.06	0.02	-2.52	0.01
Education	-0.01	0.05	-0.27	0.79	0.01	0.05	0.17	0.87	0.01	0.05	0.20	0.84
EmployStatus	0.13	0.13	1.04	0.30	0.09	0.12	0.78	0.44	0.09	0.12	0.78	0.43
Industry	-0.02	0.03	-0.63	0.53	-0.01	0.02	-0.22	0.83	-0.01	0.02	-0.24	0.81
CompanyTenure	0.02	0.01	1.77	0.08	0.02	0.01	1.91	0.06	0.02	0.01	2.03	0.04
CompanySize	-0.11	0.10	-1.18	0.24	-0.11	0.09	-1.17	0.24	-0.10	0.09	-1.10	0.27
SupervisorTenure	0.05	0.02	2.50	0.01	0.04	0.02	2.07	0.04	0.04	0.02	2.05	0.04
TrustProp	0.35	0.10	3.70	0.00	0.26	0.09	2.88	0.00	0.27	0.09	2.93	0.00
Agreeable	0.07	0.10	0.70	0.49	0.08	0.10	0.79	0.43	0.07	0.10	0.73	0.47
SocDesirable	-0.01	0.09	-0.12	0.90	-0.04	0.08	-0.52	0.60	-0.04	0.08	-0.50	0.62
ALI-SA					0.40	0.07	5.49	0.00	0.40	0.07	5.42	0.00
HCS					0.14	0.07	1.96	0.05	0.13	0.07	1.85	0.06
HCS x ALI-SA									**0.06**	**0.07**	**0.86**	**0.39**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** $F(15, 267) = 4.07$, $p < .001$				R^2 = .28, Adj.R^2 = .24, ΔR^2 = .10** $F(17, 265) = 6.14$, $p < .001$				R^2 = .29, Adj.R^2 = .24, ΔR^2 = .00 $F(18, 264) = 5.84$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$.

Table 35.
Holistic Cognition Moderation of Internal Moral Perspective and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.34	0.15	-2.26	0.02	-0.34	0.15	-2.26	0.02
Age	0.02	0.01	1.54	0.13	0.02	0.01	2.29	0.02	0.02	0.01	2.28	0.02
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-0.74	0.46	0.00	0.00	-0.74	0.46
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.93	0.00	-0.02	0.01	-2.88	0.00
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.74	0.46	0.00	0.00	-0.73	0.47
FirstLang	-0.04	0.03	-1.68	0.09	-0.06	0.02	-2.38	0.02	-0.06	0.02	-2.37	0.02
Education	-0.01	0.05	-0.27	0.79	0.00	0.05	-0.08	0.93	0.00	0.05	-0.09	0.93
EmployStatus	0.13	0.13	1.04	0.30	0.03	0.12	0.29	0.78	0.03	0.12	0.28	0.78
Industry	-0.02	0.03	-0.63	0.53	0.00	0.02	-0.15	0.88	0.00	0.02	-0.14	0.89
CompanyTenure	0.02	0.01	1.77	0.08	0.01	0.01	1.32	0.19	0.01	0.01	1.29	0.20
CompanySize	-0.11	0.10	-1.18	0.24	-0.10	0.09	-1.13	0.26	-0.10	0.09	-1.13	0.26
SupervisorTenure	0.05	0.02	2.50	0.01	0.03	0.02	1.80	0.07	0.03	0.02	1.80	0.07
TrustProp	0.35	0.10	3.70	0.00	0.22	0.09	2.37	0.02	0.22	0.09	2.36	0.02
Agreeable	0.07	0.10	0.70	0.49	0.05	0.10	0.55	0.58	0.05	0.10	0.55	0.58
SocDesirable	-0.01	0.09	-0.12	0.90	-0.03	0.08	-0.42	0.68	-0.03	0.08	-0.41	0.68
ALI-IM					0.45	0.07	5.99	0.00	0.45	0.08	5.93	0.00
HCS					0.16	0.07	2.26	0.02	0.16	0.07	2.26	0.02
HCS x ALI-IM									**-0.01**	**0.07**	**-0.14**	**0.89**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** $F(15, 267) = 4.07$, $p < .001$				R^2 = .30, Adj.R^2 = .25, ΔR^2 = .11** $F(17, 265) = 6.56$, $p < .001$				R^2 = .30, Adj.R^2 = .25, ΔR^2 = .00 $F(18, 264) = 6.18$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$.

Table 36.
Holistic Cognition Moderation of Balanced Processing and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.35	0.15	-2.33	0.02	-0.34	0.15	-2.31	0.02
Age	0.02	0.01	1.54	0.13	0.02	0.01	2.05	0.04	0.02	0.01	2.07	0.04
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-0.53	0.60	0.00	0.00	-0.54	0.59
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.66	0.01	-0.02	0.01	-2.72	0.01
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.78	0.44	0.00	0.00	-0.81	0.42
FirstLang	-0.04	0.03	-1.68	0.09	-0.06	0.02	-2.59	0.01	-0.06	0.02	-2.61	0.01
Education	-0.01	0.05	-0.27	0.79	0.01	0.05	0.24	0.81	0.01	0.05	0.23	0.82
EmployStatus	0.13	0.13	1.04	0.30	0.08	0.12	0.66	0.51	0.08	0.12	0.68	0.50
Industry	-0.02	0.03	-0.63	0.53	-0.01	0.02	-0.28	0.78	-0.01	0.02	-0.30	0.76
CompanyTenure	0.02	0.01	1.77	0.08	0.01	0.01	1.55	0.12	0.01	0.01	1.64	0.10
CompanySize	-0.11	0.10	-1.18	0.24	-0.11	0.09	-1.22	0.22	-0.10	0.09	-1.17	0.24
SupervisorTenure	0.05	0.02	2.50	0.01	0.04	0.02	2.34	0.02	0.04	0.02	2.29	0.02
TrustProp	0.35	0.10	3.70	0.00	0.24	0.09	2.71	0.01	0.24	0.09	2.72	0.01
Agreeable	0.07	0.10	0.70	0.49	0.07	0.09	0.70	0.49	0.07	0.10	0.70	0.49
SocDesirable	-0.01	0.09	-0.12	0.90	-0.04	0.08	-0.52	0.60	-0.04	0.08	-0.52	0.60
ALI-BA					0.46	0.07	6.42	0.00	0.46	0.07	6.30	0.00
HCS					0.14	0.07	2.06	0.04	0.14	0.07	1.97	0.05
HCS x ALI-BA									**0.05**	**0.07**	**0.76**	**0.45**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** $F(15, 267) = 4.07$, $p < .001$				R^2 = .31, Adj.R^2 = .26, ΔR^2 = .12** $F(17, 265) = 6.95$, $p < .001$				R^2 = .31, Adj.R^2 = .26, ΔR^2 = .00 $F(18, 264) = 6.59$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 37.
Holistic Cognition Moderation of Relational Transparency and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.36	0.15	-2.34	0.02	-0.36	0.15	-2.34	0.02
Age	0.02	0.01	1.54	0.13	0.02	0.01	1.82	0.07	0.02	0.01	1.84	0.07
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-0.50	0.62	0.00	0.00	-0.51	0.61
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.73	0.01	-0.02	0.01	-2.81	0.01
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.51	0.61	0.00	0.00	-0.56	0.58
FirstLang	-0.04	0.03	-1.68	0.09	-0.06	0.02	-2.36	0.02	-0.06	0.02	-2.39	0.02
Education	-0.01	0.05	-0.27	0.79	0.01	0.05	0.19	0.85	0.01	0.05	0.19	0.85
EmployStatus	0.13	0.13	1.04	0.30	0.09	0.12	0.70	0.48	0.09	0.12	0.72	0.47
Industry	-0.02	0.03	-0.63	0.53	-0.01	0.02	-0.52	0.60	-0.01	0.02	-0.56	0.58
CompanyTenure	0.02	0.01	1.77	0.08	0.02	0.01	1.72	0.09	0.02	0.01	1.81	0.07
CompanySize	-0.11	0.10	-1.18	0.24	-0.10	0.09	-1.09	0.28	-0.10	0.09	-1.05	0.29
SupervisorTenure	0.05	0.02	2.50	0.01	0.04	0.02	2.27	0.02	0.04	0.02	2.24	0.03
TrustProp	0.35	0.10	3.70	0.00	0.25	0.09	2.74	0.01	0.25	0.09	2.74	0.01
Agreeable	0.07	0.10	0.70	0.49	0.07	0.10	0.75	0.46	0.07	0.10	0.76	0.45
SocDesirable	-0.01	0.09	-0.12	0.90	-0.04	0.08	-0.45	0.65	-0.04	0.08	-0.46	0.65
ALI-RE					0.39	0.07	5.36	0.00	0.39	0.07	5.32	0.00
HCS					0.14	0.07	1.92	0.06	0.13	0.07	1.87	0.06
HCS x ALI-RE									**0.05**	**0.07**	**0.73**	**0.47**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** $F(15, 267) = 4.07$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .09** $F(17, 265) = 6.03$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .00 $F(18, 264) = 5.72$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$.

Table 38.
Holistic Cognition Moderation of Authentic Leadership and Job Satisfaction

DV1	**Model 1**				**Model 2**				**Model 3**			
Job Satisfaction	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.37	0.16	-2.27	0.02	-0.34	0.15	-2.28	0.02	-0.34	0.15	-2.27	0.02
Age	0.02	0.01	1.54	0.13	0.02	0.01	2.03	0.04	0.02	0.01	2.03	0.04
Country	0.00	0.00	-0.77	0.44	0.00	0.00	-0.62	0.54	0.00	0.00	-0.62	0.53
ResideLength	-0.02	0.01	-2.53	0.01	-0.02	0.01	-2.78	0.01	-0.02	0.01	-2.82	0.01
Formative	0.00	0.00	0.15	0.88	0.00	0.00	-0.77	0.44	0.00	0.00	-0.79	0.43
FirstLang	-0.04	0.03	-1.68	0.09	-0.06	0.02	-2.56	0.01	-0.06	0.02	-2.57	0.01
Education	-0.01	0.05	-0.27	0.79	0.01	0.05	0.17	0.86	0.01	0.05	0.18	0.86
EmployStatus	0.13	0.13	1.04	0.30	0.07	0.12	0.57	0.57	0.07	0.12	0.58	0.56
Industry	-0.02	0.03	-0.63	0.53	-0.01	0.02	-0.25	0.80	-0.01	0.02	-0.28	0.78
CompanyTenure	0.02	0.01	1.77	0.08	0.01	0.01	1.67	0.10	0.02	0.01	1.72	0.09
CompanySize	-0.11	0.10	-1.18	0.24	-0.10	0.09	-1.15	0.25	-0.10	0.09	-1.11	0.27
SupervisorTenure	0.05	0.02	2.50	0.01	0.04	0.02	2.07	0.04	0.04	0.02	2.05	0.04
TrustProp	0.35	0.10	3.70	0.00	0.23	0.09	2.53	0.01	0.23	0.09	2.54	0.01
Agreeable	0.07	0.10	0.70	0.49	0.07	0.10	0.73	0.46	0.07	0.10	0.73	0.47
SocDesirable	-0.01	0.09	-0.12	0.90	-0.04	0.08	-0.54	0.59	-0.04	0.08	-0.54	0.59
ALI					0.46	0.07	6.27	0.00	0.45	0.07	6.18	0.00
HCS					0.14	0.07	2.01	0.05	0.14	0.07	1.95	0.05
HCS x ALI									**0.04**	**0.07**	**0.53**	**0.60**
Model Summary	R^2 = .19, Adj.R^2 = .14, ΔR^2 = .19** $F(15, 267) = 4.07$, $p < .001$				R^2 = .30, Adj.R^2 = .26, ΔR^2 = .12** $F(17, 265) = 6.81$, $p < .001$				R^2 = .31, Adj.R^2 = .26, ΔR^2 = .00 $F(18, 264) = 6.43$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 39.
Holistic Cognition Moderation of Self-awareness and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	0.00	0.14	0.01	0.99	0.00	0.14	0.01	0.99
Age	0.01	0.01	1.13	0.26	0.01	0.01	1.37	0.17	0.01	0.01	1.37	0.17
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-1.10	0.27	0.00	0.00	-1.09	0.28
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.52	0.13	-0.01	0.01	-1.49	0.14
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.38	0.71	0.00	0.00	-0.37	0.71
FirstLang	-0.01	0.02	-0.50	0.62	-0.03	0.02	-1.22	0.22	-0.03	0.02	-1.21	0.23
Education	-0.07	0.04	-1.46	0.15	-0.05	0.04	-1.15	0.25	-0.05	0.04	-1.15	0.25
EmployStatus	-0.10	0.12	-0.89	0.37	-0.14	0.11	-1.24	0.22	-0.14	0.11	-1.24	0.22
Industry	0.00	0.02	0.13	0.90	0.01	0.02	0.63	0.53	0.01	0.02	0.63	0.53
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	1.60	0.11	0.01	0.01	1.56	0.12
CompanySize	-0.12	0.09	-1.41	0.16	-0.12	0.08	-1.45	0.15	-0.12	0.08	-1.45	0.15
SupervisorTenure	0.06	0.02	3.19	0.00	0.05	0.02	2.77	0.01	0.05	0.02	2.77	0.01
TrustProp	0.28	0.09	3.29	0.00	0.19	0.08	2.36	0.02	0.19	0.08	2.34	0.02
Agreeable	-0.01	0.09	-0.12	0.90	0.01	0.09	0.10	0.92	0.01	0.09	0.10	0.92
SocDesirable	0.08	0.08	0.96	0.34	0.04	0.07	0.52	0.60	0.04	0.07	0.52	0.61
ALI-SA					0.40	0.07	5.94	0.00	0.40	0.07	5.92	0.00
HCS					0.02	0.06	0.28	0.78	0.02	0.07	0.29	0.77
HCS x ALI-SA									**-0.01**	**0.06**	**-0.10**	**0.92**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .26, Adj.R^2 = .21, ΔR^2 = .10** $F(17, 265) = 5.38$, $p < .001$				R^2 = .26, Adj.R^2 = .20, ΔR^2 = .00 $F(18, 264) = 5.06$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 40.
Holistic Cognition Moderation of Internal Moral Perspective and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	0.01	0.14	0.07	0.94	0.00	0.14	0.03	0.97
Age	0.01	0.01	1.13	0.26	0.02	0.01	1.98	0.05	0.02	0.01	1.94	0.05
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-1.03	0.30	0.00	0.00	-1.04	0.30
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.75	0.08	-0.01	0.01	-1.59	0.11
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.53	0.60	0.00	0.00	-0.49	0.62
FirstLang	-0.01	0.02	-0.50	0.62	-0.02	0.02	-1.07	0.28	-0.02	0.02	-1.04	0.30
Education	-0.07	0.04	-1.46	0.15	-0.06	0.04	-1.45	0.15	-0.06	0.04	-1.49	0.14
EmployStatus	-0.10	0.12	-0.89	0.37	-0.20	0.11	-1.79	0.07	-0.20	0.11	-1.80	0.07
Industry	0.00	0.02	0.13	0.90	0.02	0.02	0.72	0.47	0.02	0.02	0.79	0.43
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	0.96	0.34	0.01	0.01	0.81	0.42
CompanySize	-0.12	0.09	-1.41	0.16	-0.11	0.08	-1.39	0.16	-0.12	0.08	-1.43	0.15
SupervisorTenure	0.06	0.02	3.19	0.00	0.04	0.02	2.45	0.02	0.04	0.02	2.45	0.02
TrustProp	0.28	0.09	3.29	0.00	0.15	0.08	1.83	0.07	0.15	0.08	1.81	0.07
Agreeable	-0.01	0.09	-0.12	0.90	-0.02	0.09	-0.20	0.85	-0.02	0.09	-0.22	0.83
SocDesirable	0.08	0.08	0.96	0.34	0.05	0.07	0.65	0.51	0.05	0.07	0.71	0.48
ALI-IM					0.45	0.07	6.66	0.00	0.46	0.07	6.76	0.00
HCS					0.04	0.06	0.60	0.55	0.04	0.06	0.65	0.52
HCS x ALI-IM									**-0.07**	**0.06**	**-1.13**	**0.26**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .12** $F(17, 265) = 6.02$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .00 $F(18, 264) = 5.76$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 41.
Holistic Cognition Moderation of Balanced Processing and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	0.00	0.14	-0.03	0.98	0.00	0.14	-0.03	0.98
Age	0.01	0.01	1.13	0.26	0.01	0.01	1.70	0.09	0.01	0.01	1.70	0.09
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-0.87	0.38	0.00	0.00	-0.87	0.39
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.47	0.14	-0.01	0.01	-1.46	0.15
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.53	0.60	0.00	0.00	-0.52	0.60
FirstLang	-0.01	0.02	-0.50	0.62	-0.03	0.02	-1.25	0.21	-0.03	0.02	-1.25	0.21
Education	-0.07	0.04	-1.46	0.15	-0.05	0.04	-1.12	0.26	-0.05	0.04	-1.12	0.27
EmployStatus	-0.10	0.12	-0.89	0.37	-0.15	0.11	-1.37	0.17	-0.15	0.11	-1.37	0.17
Industry	0.00	0.02	0.13	0.90	0.01	0.02	0.55	0.58	0.01	0.02	0.55	0.59
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	1.21	0.23	0.01	0.01	1.19	0.24
CompanySize	-0.12	0.09	-1.41	0.16	-0.12	0.08	-1.50	0.14	-0.12	0.08	-1.49	0.14
SupervisorTenure	0.06	0.02	3.19	0.00	0.05	0.02	3.08	0.00	0.05	0.02	3.07	0.00
TrustProp	0.28	0.09	3.29	0.00	0.18	0.08	2.21	0.03	0.18	0.08	2.21	0.03
Agreeable	-0.01	0.09	-0.12	0.90	0.00	0.09	-0.03	0.98	0.00	0.09	-0.03	0.98
SocDesirable	0.08	0.08	0.96	0.34	0.04	0.07	0.57	0.57	0.04	0.07	0.57	0.57
ALI-BA					0.44	0.07	6.64	0.00	0.44	0.07	6.59	0.00
HCS					0.02	0.06	0.35	0.73	0.02	0.06	0.35	0.73
HCS x ALI-BA									**0.00**	**0.06**	**-0.02**	**0.98**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .12** $F(16, 266) = 5.99$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .00 $F(17, 265) = 5.64$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 42.
Holistic Cognition Moderation of Relational Transparency and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	-0.02	0.14	-0.11	0.91	-0.02	0.14	-0.11	0.91
Age	0.01	0.01	1.13	0.26	0.01	0.01	1.43	0.15	0.01	0.01	1.43	0.15
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-0.83	0.41	0.00	0.00	-0.83	0.41
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.56	0.12	-0.01	0.01	-1.54	0.12
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.20	0.84	0.00	0.00	-0.20	0.84
FirstLang	-0.01	0.02	-0.50	0.62	-0.02	0.02	-1.00	0.32	-0.02	0.02	-1.00	0.32
Education	-0.07	0.04	-1.46	0.15	-0.05	0.04	-1.14	0.26	-0.05	0.04	-1.13	0.26
EmployStatus	-0.10	0.12	-0.89	0.37	-0.14	0.11	-1.26	0.21	-0.14	0.11	-1.25	0.21
Industry	0.00	0.02	0.13	0.90	0.01	0.02	0.27	0.79	0.01	0.02	0.27	0.79
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	1.36	0.17	0.01	0.01	1.35	0.18
CompanySize	-0.12	0.09	-1.41	0.16	-0.11	0.08	-1.37	0.17	-0.11	0.08	-1.36	0.18
SupervisorTenure	0.06	0.02	3.19	0.00	0.05	0.02	2.99	0.00	0.05	0.02	2.99	0.00
TrustProp	0.28	0.09	3.29	0.00	0.19	0.08	2.31	0.02	0.19	0.08	2.30	0.02
Agreeable	-0.01	0.09	-0.12	0.90	0.00	0.09	0.03	0.97	0.00	0.09	0.03	0.97
SocDesirable	0.08	0.08	0.96	0.34	0.05	0.07	0.64	0.53	0.05	0.07	0.63	0.53
ALI-RE					0.34	0.07	5.06	0.00	0.34	0.07	5.05	0.00
HCS					0.02	0.07	0.28	0.78	0.02	0.07	0.28	0.78
HCS x ALI-RE									**0.00**	**0.07**	**0.04**	**0.97**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .23, Adj.R^2 = .18, ΔR^2 = .08** $F(17, 265) = 4.71$, $p < .001$				R^2 = .23, Adj.R^2 = .18, ΔR^2 = .00 $F(18, 264) = 4.43$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 43.
Holistic Cognition Moderation of Authentic Leadership and Affective Organisational Commitment

DV2	**Model 1**				**Model 2**				**Model 3**			
Affect. Org. Com.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.04	0.15	-0.24	0.81	0.00	0.14	0.02	0.98	0.00	0.14	0.02	0.99
Age	0.01	0.01	1.13	0.26	0.01	0.01	1.67	0.10	0.01	0.01	1.66	0.10
Country	0.00	0.00	-1.12	0.26	0.00	0.00	-0.92	0.36	0.00	0.00	-0.91	0.36
ResideLength	-0.01	0.01	-1.46	0.15	-0.01	0.01	-1.58	0.11	-0.01	0.01	-1.51	0.13
Formative	0.00	0.00	0.42	0.68	0.00	0.00	-0.52	0.60	0.00	0.00	-0.50	0.62
FirstLang	-0.01	0.02	-0.50	0.62	-0.03	0.02	-1.23	0.22	-0.03	0.02	-1.21	0.23
Education	-0.07	0.04	-1.46	0.15	-0.05	0.04	-1.17	0.24	-0.05	0.04	-1.17	0.24
EmployStatus	-0.10	0.12	-0.89	0.37	-0.16	0.11	-1.47	0.14	-0.16	0.11	-1.47	0.14
Industry	0.00	0.02	0.13	0.90	0.01	0.02	0.58	0.56	0.01	0.02	0.60	0.55
CompanyTenure	0.01	0.01	1.33	0.19	0.01	0.01	1.32	0.19	0.01	0.01	1.25	0.21
CompanySize	-0.12	0.09	-1.41	0.16	-0.12	0.08	-1.43	0.16	-0.12	0.08	-1.44	0.15
SupervisorTenure	0.06	0.02	3.19	0.00	0.05	0.02	2.79	0.01	0.05	0.02	2.79	0.01
TrustProp	0.28	0.09	3.29	0.00	0.17	0.08	2.03	0.04	0.17	0.08	2.01	0.05
Agreeable	-0.01	0.09	-0.12	0.90	0.00	0.09	0.02	0.99	0.00	0.09	0.02	0.99
SocDesirable	0.08	0.08	0.96	0.34	0.04	0.07	0.53	0.60	0.04	0.07	0.53	0.59
ALI					0.44	0.07	6.53	0.00	0.44	0.07	6.53	0.00
HCS					0.02	0.06	0.32	0.75	0.02	0.06	0.35	0.73
HCS x ALI									**-0.02**	**0.06**	**-0.36**	**0.72**
Model Summary	R^2 = .16, Adj.R^2 = .11, ΔR^2 = .16** $F(15, 267) = 3.30$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .12** $F(17, 265) = 5.90$, $p < .001$				R^2 = .28, Adj.R^2 = .23, ΔR^2 = .00 $F(18, 264) = 5.56$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 44.
Holistic Cognition Moderation of Self-awareness and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.29	0.13	-2.30	0.02	-0.29	0.13	-2.30	0.02
Age	0.01	0.01	1.57	0.12	0.01	0.01	1.77	0.08	0.01	0.01	1.78	0.08
Country	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	-0.02	0.98
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.53	0.01	-0.01	0.01	-2.65	0.01
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.59	0.56	0.00	0.00	-0.63	0.53
FirstLang	-0.04	0.02	-1.68	0.10	-0.05	0.02	-2.63	0.01	-0.05	0.02	-2.66	0.01
Education	0.00	0.04	-0.06	0.95	0.02	0.04	0.50	0.62	0.02	0.04	0.54	0.59
EmployStatus	0.00	0.11	-0.03	0.98	-0.04	0.10	-0.43	0.66	-0.04	0.10	-0.43	0.67
Industry	0.00	0.02	-0.21	0.84	0.00	0.02	0.25	0.80	0.00	0.02	0.22	0.82
CompanyTenure	0.00	0.01	0.43	0.67	0.00	0.01	0.38	0.70	0.00	0.01	0.53	0.59
CompanySize	-0.06	0.08	-0.79	0.43	-0.06	0.07	-0.79	0.43	-0.05	0.07	-0.71	0.48
SupervisorTenure	0.03	0.02	1.98	0.05	0.02	0.02	1.56	0.12	0.02	0.02	1.54	0.12
TrustProp	0.23	0.08	2.86	0.01	0.15	0.07	2.00	0.05	0.15	0.07	2.06	0.04
Agreeable	0.10	0.09	1.13	0.26	0.09	0.08	1.17	0.24	0.09	0.08	1.10	0.27
SocDesirable	0.09	0.07	1.31	0.19	0.07	0.07	1.04	0.30	0.07	0.07	1.06	0.29
ALI-SA					0.34	0.06	5.64	0.00	0.34	0.06	5.56	0.00
HCS					0.19	0.06	3.30	0.00	0.19	0.06	3.17	0.00
HCS x ALI-SA									**0.06**	**0.06**	**1.00**	**0.32**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** $F(15, 267) = 3.71$, $p < .001$				R^2 = .29, Adj.R^2 = .25, ΔR^2 = .12** $F(17, 265) = 6.48$, $p < .001$				R^2 = .30, Adj.R^2 = .25, ΔR^2 = .01 $F(18, 264) = 6.18$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 45.
Holistic Cognition Moderation of Internal Moral Perspective and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.29	0.12	-2.29	0.02	-0.28	0.12	-2.28	0.02
Age	0.01	0.01	1.57	0.12	0.02	0.01	2.30	0.02	0.02	0.01	2.30	0.02
Country	0.00	0.00	0.00	1.00	0.00	0.00	0.10	0.92	0.00	0.00	0.10	0.92
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.73	0.01	-0.01	0.01	-2.73	0.01
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.68	0.50	0.00	0.00	-0.68	0.50
FirstLang	-0.04	0.02	-1.68	0.10	-0.05	0.02	-2.47	0.01	-0.05	0.02	-2.47	0.01
Education	0.00	0.04	-0.06	0.95	0.01	0.04	0.24	0.81	0.01	0.04	0.25	0.81
EmployStatus	0.00	0.11	-0.03	0.98	-0.09	0.10	-0.91	0.36	-0.09	0.10	-0.91	0.36
Industry	0.00	0.02	-0.21	0.84	0.01	0.02	0.31	0.76	0.01	0.02	0.30	0.77
CompanyTenure	0.00	0.01	0.43	0.67	0.00	0.01	-0.23	0.82	0.00	0.01	-0.21	0.84
CompanySize	-0.06	0.08	-0.79	0.43	-0.05	0.07	-0.73	0.46	-0.05	0.07	-0.73	0.47
SupervisorTenure	0.03	0.02	1.98	0.05	0.02	0.02	1.30	0.19	0.02	0.02	1.30	0.19
TrustProp	0.23	0.08	2.86	0.01	0.12	0.08	1.55	0.12	0.12	0.08	1.55	0.12
Agreeable	0.10	0.09	1.13	0.26	0.07	0.08	0.92	0.36	0.07	0.08	0.92	0.36
SocDesirable	0.09	0.07	1.31	0.19	0.08	0.07	1.16	0.25	0.08	0.07	1.15	0.25
ALI-IM					0.36	0.06	5.90	0.00	0.36	0.06	5.80	0.00
HCS					0.21	0.06	3.64	0.00	0.21	0.06	3.62	0.00
HCS x ALI-IM									**0.01**	**0.06**	**0.16**	**0.87**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** $F(15, 267) = 3.71$, $p < .001$				R^2 = .30, Adj.R^2 = .26, ΔR^2 = .13** $F(17, 265) = 6.71$, $p < .001$				R^2 = .30, Adj.R^2 = .25, ΔR^2 = .00 $F(18, 264) = 6.32$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$.

Table 46.
Holistic Cognition Moderation of Balanced Processing and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.29	0.12	-2.37	0.02	-0.29	0.12	-2.34	0.02
Age	0.01	0.01	1.57	0.12	0.02	0.01	2.11	0.04	0.02	0.01	2.14	0.03
Country	0.00	0.00	0.00	1.00	0.00	0.00	0.26	0.80	0.00	0.00	0.24	0.81
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.50	0.01	-0.01	0.01	-2.62	0.01
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.75	0.45	0.00	0.00	-0.80	0.42
FirstLang	-0.04	0.02	-1.68	0.10	-0.05	0.02	-2.71	0.01	-0.05	0.02	-2.75	0.01
Education	0.00	0.04	-0.06	0.95	0.02	0.04	0.57	0.57	0.02	0.04	0.56	0.57
EmployStatus	0.00	0.11	-0.03	0.98	-0.06	0.10	-0.57	0.57	-0.05	0.10	-0.54	0.59
Industry	0.00	0.02	-0.21	0.84	0.00	0.02	0.18	0.86	0.00	0.02	0.15	0.88
CompanyTenure	0.00	0.01	0.43	0.67	0.00	0.01	-0.02	0.98	0.00	0.01	0.13	0.90
CompanySize	-0.06	0.08	-0.79	0.43	-0.06	0.07	-0.83	0.41	-0.06	0.07	-0.77	0.44
SupervisorTenure	0.03	0.02	1.98	0.05	0.03	0.02	1.83	0.07	0.03	0.02	1.77	0.08
TrustProp	0.23	0.08	2.86	0.01	0.13	0.07	1.82	0.07	0.14	0.07	1.85	0.07
Agreeable	0.10	0.09	1.13	0.26	0.08	0.08	1.08	0.28	0.08	0.08	1.08	0.28
SocDesirable	0.09	0.07	1.31	0.19	0.07	0.07	1.07	0.29	0.07	0.07	1.08	0.28
ALI-BA					0.38	0.06	6.45	0.00	0.38	0.06	6.31	0.00
HCS					0.20	0.06	3.42	0.00	0.19	0.06	3.29	0.00
HCS x ALI-BA									**0.06**	**0.06**	**1.10**	**0.27**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** $F(15, 267) = 3.71$, $p < .001$				R^2 = .32, Adj.R^2 = .27, ΔR^2 = .14** $F(17, 265) = 7.22$, $p < .001$				R^2 = .32, Adj.R^2 = .27, ΔR^2 = .01 $F(18, 264) = 6.89$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$.

Table 47.
Holistic Cognition Moderation of Relational Transparency and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.30	0.13	-2.38	0.02	-0.30	0.13	-2.38	0.02
Age	0.01	0.01	1.57	0.12	0.01	0.01	1.82	0.07	0.01	0.01	1.84	0.07
Country	0.00	0.00	0.00	1.00	0.00	0.00	0.24	0.81	0.00	0.00	0.23	0.82
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.55	0.01	-0.01	0.01	-2.59	0.01
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.41	0.68	0.00	0.00	-0.44	0.66
FirstLang	-0.04	0.02	-1.68	0.10	-0.05	0.02	-2.40	0.02	-0.05	0.02	-2.42	0.02
Education	0.00	0.04	-0.06	0.95	0.02	0.04	0.48	0.63	0.02	0.04	0.48	0.63
EmployStatus	0.00	0.11	-0.03	0.98	-0.05	0.10	-0.47	0.64	-0.05	0.10	-0.45	0.65
Industry	0.00	0.02	-0.21	0.84	0.00	0.02	-0.08	0.93	0.00	0.02	-0.11	0.92
CompanyTenure	0.00	0.01	0.43	0.67	0.00	0.01	0.17	0.86	0.00	0.01	0.24	0.81
CompanySize	-0.06	0.08	-0.79	0.43	-0.05	0.08	-0.72	0.47	-0.05	0.08	-0.70	0.49
SupervisorTenure	0.03	0.02	1.98	0.05	0.03	0.02	1.79	0.07	0.03	0.02	1.77	0.08
TrustProp	0.23	0.08	2.86	0.01	0.15	0.08	1.97	0.05	0.15	0.08	1.96	0.05
Agreeable	0.10	0.09	1.13	0.26	0.09	0.08	1.09	0.28	0.09	0.08	1.10	0.27
SocDesirable	0.09	0.07	1.31	0.19	0.08	0.07	1.14	0.26	0.08	0.07	1.13	0.26
ALI-RE					0.29	0.06	4.79	0.00	0.29	0.06	4.76	0.00
HCS					0.19	0.06	3.26	0.00	0.19	0.06	3.22	0.00
HCS x ALI-RE									**0.03**	**0.06**	**0.47**	**0.64**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** $F(15, 267) = 3.71$, $p < .001$				R^2 = .27, Adj.R^2 = .23, ΔR^2 = .10** $F(17, 265) = 5.83$, $p < .001$				R^2 = .27, Adj.R^2 = .22, ΔR^2 = .00 $F(18, 264) = 5.50$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$.

Table 48.
Holistic Cognition Moderation of Authentic Leadership and Work Engagement

DV3	**Model 1**				**Model 2**				**Model 3**			
Work Engage.	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***	**β**	***SE***	***t***	***p***
Gender	-0.30	0.14	-2.19	0.03	-0.29	0.12	-2.32	0.02	-0.29	0.12	-2.31	0.02
Age	0.01	0.01	1.57	0.12	0.02	0.01	2.05	0.04	0.02	0.01	2.07	0.04
Country	0.00	0.00	0.00	1.00	0.00	0.00	0.18	0.86	0.00	0.00	0.17	0.86
ResideLength	-0.01	0.01	-2.30	0.02	-0.01	0.01	-2.60	0.01	-0.01	0.01	-2.67	0.01
Formative	0.00	0.00	0.20	0.84	0.00	0.00	-0.72	0.47	0.00	0.00	-0.75	0.45
FirstLang	-0.04	0.02	-1.68	0.10	-0.05	0.02	-2.65	0.01	-0.05	0.02	-2.67	0.01
Education	0.00	0.04	-0.06	0.95	0.02	0.04	0.50	0.62	0.02	0.04	0.51	0.61
EmployStatus	0.00	0.11	-0.03	0.98	-0.06	0.10	-0.64	0.52	-0.06	0.10	-0.63	0.53
Industry	0.00	0.02	-0.21	0.84	0.00	0.02	0.20	0.84	0.00	0.02	0.17	0.86
CompanyTenure	0.00	0.01	0.43	0.67	0.00	0.01	0.10	0.92	0.00	0.01	0.20	0.84
CompanySize	-0.06	0.08	-0.79	0.43	-0.06	0.07	-0.76	0.45	-0.05	0.07	-0.72	0.47
SupervisorTenure	0.03	0.02	1.98	0.05	0.02	0.02	1.57	0.12	0.02	0.02	1.55	0.12
TrustProp	0.23	0.08	2.86	0.01	0.13	0.07	1.69	0.09	0.13	0.07	1.70	0.09
Agreeable	0.10	0.09	1.13	0.26	0.09	0.08	1.10	0.27	0.09	0.08	1.10	0.27
SocDesirable	0.09	0.07	1.31	0.19	0.07	0.07	1.05	0.29	0.07	0.07	1.05	0.30
ALI					0.37	0.06	6.14	0.00	0.37	0.06	6.03	0.00
HCS					0.19	0.06	3.37	0.00	0.19	0.06	3.30	0.00
HCS x ALI									**0.04**	**0.06**	**0.67**	**0.50**
Model Summary	R^2 = .17, Adj.R^2 = .13, ΔR^2 = .17** $F(15, 267) = 3.71$, $p < .001$				R^2 = .31, Adj.R^2 = .26, ΔR^2 = .14** $F(17, 265) = 6.92$, $p < .001$				R^2 = .31, Adj.R^2 = .26, ΔR^2 = .00 $F(18, 264) = 6.55$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$.

findings are likely due to the unidimensionality of the Authentic Leadership Inventory, which earlier demonstrated a high coefficient alpha (.97) and an average interitem correlation of .65 – exceeding the upper bound of the recommended range (.15 - .50; see Briggs & Cheek, 1986; Clark & Watson, 1995). Consequently, participants responded consistently across all four dimensions and no inter-dimensional differences could be observed; as indeed, would likely be the case for any unidimensional psychometric instrument. Hence, all of the subsequent analyses were conducted using only the summative ALI scores.

Simple mediation analysis was conducted with ordinary least squares path analysis via the PROCESS macro developed for SPSS by Hayes (2013), using the Preacher and Hayes (2004) bootstrapping method. The technique involves "taking a large number of samples… from the data, sampling with replacement, and computing the indirect effect in each sample" (Preacher & Hayes, 2004, p. 722). A confidence interval is then calculated at 95% and should zero fall outside of this interval the indirect effect is considered significantly different from zero at $p < .05$ (two-tailed). The PROCESS macro automates this sequence and can be accessed through the SPSS syntax input. All of the tests were run with 10,000 bias-corrected bootstrap samples. During the previous hierarchical regression analysis, the existence of significant direct relationships between Authentic Leadership and the three dependent variables was established (see Tables 23, 28, and 33 above), thereby satisfying the initial criteria for mediation testing.

Results of the first mediation analysis are presented in Table 49 below, and indicate that Personal Identification completely mediates the relations of Authentic Leadership and (a) Job Satisfaction, (b) Affective Organisational Commitment, and (c) Work Engagement. In the absence of the mediator, Authentic Leadership was a strong predictor of these outcome variables ($\beta = .45$, .43, and .37 respectively at $p < .001$) and all three relations lose significance in the mediated model, confirming complete mediation. The mediation path coefficients were strong ($a = .72$, $b_{(a)} = .38$, $b_{(b)} = .58$, and $b_{(c)} = .55$) and together account for a large portion of the effect of Authentic Leadership on the outcome variables (total indirect effect $ab_{(a)} = .28$, $ab_{(b)} = .42$, and $ab_{(c)} = .39$ at $p < .05$). These results, therefore, support Hypothesis 8 as an appropriate fit to the data.

Table 49.
Personal Identification as a Mediator of Authentic Leadership Outcomes

Model / Predictor	**β**	***SE***	**LLCI**	**ULCI**	**β**	***SE***	**LLCI**	**ULCI**
Model 1a	**M – Personal Identification**				**DV1 – Job Satisfaction**			
IV – ALI	.72**	.04	.64	.81	*ns*	.10	-.02	.39
M – PILS	–	–	–	–	.38**	.10	.18	.59
Indirect Effect	–	–	–	–	.28*	.08	.12	.44
Model Summary	$R^2 = .59$ $F(16, 266) = 24.03, p < .001$				$R^2 = .33$ $F(17, 265) = 7.62, p < .001$			
Model 1b	**M – Personal Identification**				**DV2 – Affective Org. Com.**			
IV – ALI	.72**	.04	.64	.81	*ns*	.09	-.16	.20
M – PILS	–	–	–	–	.58**	.09	.40	.75
Indirect Effect	–	–	–	–	.42*	.07	.29	.57
Model Summary	$R^2 = .59$ $F(16, 266) = 24.03, p < .001$				$R^2 = .37$ $F(17, 265) = 9.25, p < .001$			
Model 1c	**M – Personal Identification**				**DV3 – Work Engagement**			
IV – ALI	.72**	.04	.64	.81	*ns*	.08	-.17	.15
M – PILS	–	–	–	–	.55**	.08	.38	.71
Indirect Effect	–	–	–	–	.39*	.07	.27	.53
Model Summary	$R^2 = .59$ $F(16, 266) = 24.03, p < .001$				$R^2 = .38$ $F(17, 265) = 9.51, p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$, *ns* $p > .05$ (beta coefficient suppressed).

The second mediation analysis tested the interaction effects of Affect-based Trust and found similar results (see Table 50 below). Affect-based Trust completely mediated the relations between Authentic Leadership and the outcome variables: Job Satisfaction, Affective Organisational Commitment, and Work Engagement. The direct effect paths were likewise non-significant in the mediated model, as is consistent with complete mediation. The mediation path coefficients ($a = .71$, $b_{(a)} = .47$, $b_{(b)} = .56$, and $b_{(c)} = .42$) together account for the majority of the effect of Authentic Leadership on the outcome variables (total indirect effect $ab_{(a)} = .33$, $ab_{(b)} = .40$, and $ab_{(c)} = .30$ at $p < .05$). Therefore, Hypothesis 9 is empirically supported and adds validity to existing findings in these domains (Wong & Cummings, 2009; Wong et al., 2010). However, Personal Identification and Affect-based Trust were strongly related during the correlation analysis ($r = .69$, $p < .001$), and should be tested concurrently within a single model to partial out the covariance from authentic leadership as a common cause (Hayes, 2013).

Table 50.
Affect-based Trust as a Mediator of Authentic Leadership Outcomes

Model / Predictor	**β**	***SE***	**LLCI**	**ULCI**	**β**	***SE***	**LLCI**	**ULCI**
Model 2a	**M – Affect-based Trust**				**DV1 – Job Satisfaction**			
IV – ALI	.71**	.05	.62	.80	*ns*	.10	-.06	.33
M – ABT	–	–	–	–	.47**	.10	.28	.66
Indirect Effect	–	–	–	–	.33*	.09	.16	.51
Model Summary	R^2 = .54 $F(16, 266) = 19.78$, $p < .001$				R^2 = .35 $F(17, 265) = 8.40$, $p < .001$			
Model 2b	**M – Affect-based Trust**				**DV2 – Affective Org. Com.**			
IV – ALI	.71**	.05	.62	.80	*ns*	.09	-.13	.21
M – ABT	–	–	–	–	.56**	.09	.40	.73
Indirect Effect	–	–	–	–	.40*	.07	.28	.54
Model Summary	R^2 = .54 $F(16, 266) = 19.78$, $p < .001$				R^2 = .38 $F(17, 265) = 9.48$, $p < .001$			
Model 2c	**M – Affect-based Trust**				**DV3 – Work Engagement**			
IV – ALI	.71**	.05	.62	.80	*ns*	.08	-.08	.24
M – ABT	–	–	–	–	.42**	.08	.27	.58
Indirect Effect	–	–	–	–	.30*	.07	.16	.45
Model Summary	R^2 = .54 $F(16, 266) = 19.78$, $p < .001$				R^2 = .35 $F(17, 265) = 8.25$, $p < .001$			

Note. n = 283, * $p < .05$, ** $p < .001$, *ns* $p > .05$ (beta coefficient suppressed).

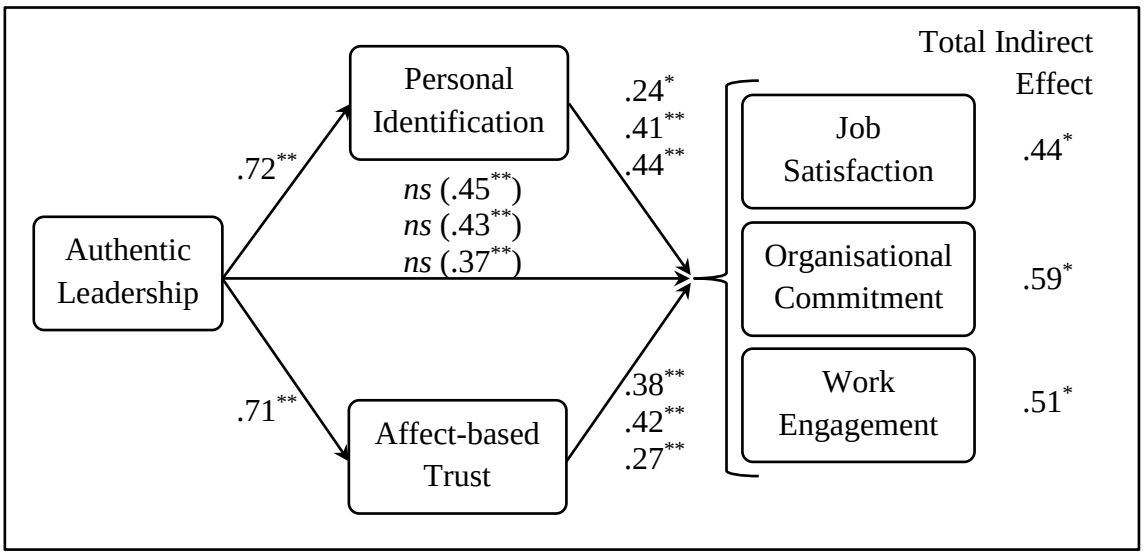
The results of the third parallel mediation model are presented in Table 51 below. In this combined model the a_1 and a_2 paths remain the same, but now the b_1 and b_2 paths more accurately represent the influence exerted upon the outcome variables by Personal Identification ($b_{1(a)} = .24$, $b_{1(b)} = .41$, and $b_{1(c)} = .44$) and Affect-based Trust ($b_{2(a)} = .38$, $b_{2(b)} = .42$, and $b_{2(c)} = .27$). Although these *b* path coefficients are lower than those reported during the single mediation analyses, this combined model is enriched by also accounting for the mediators' covariance. Indeed, the total indirect effects across the outcome variables is greatly improved ($a_1b_1 + a_2b_2 = .44$, .59, and .51 respectively, at $p < .05$), indicating that the combined mediation model explains a larger portion of the effect of Authentic Leadership on the outcome variables. The model is illustrated in Figure 8 below and strengthens the support for Hypotheses 8 and 9 by reconfirming these interactions within in a more robust framework.

Table 51.
Parallel Mediation Analysis of Authentic Leadership Outcomes

Model / Predictor	**β**	***SE***	**LLCI**	**ULCI**	**β**	***SE***	**LLCI**	**ULCI**	**β**	***SE***	**LLCI**	**ULCI**
Model 3a	**M1 – Personal Identification**				**M2 – Affect-based Trust**				**DV1 – Job Satisfaction**			
IV – ALI	.72**	.04	.64	.81	.71**	.05	.62	.80	*ns*	.11	-.19	.24
M_1 – PILS	–	–	–	–	–	–	–	–	.24*	.11	.02	.45
M_2 – ABT	–	–	–	–	–	–	–	–	.38**	.10	.18	.59
Total Indirect Effect	–	–	–	–	–	–	–	–	.44*	.10	.24	.64
Model Summary	$R^2 = .59$, $F(16, 266) = 24.03$, $p < .001$				$R^2 = .54$, $F(16, 266) = 19.78$, $p < .001$				$R^2 = .36$, $F(18, 264) = 8.30$, $p < .001$			
Model 3b	**M1 – Personal Identification**				**M2 – Affect-based Trust**				**DV2 – Affective Org. Com.**			
IV – ALI	.72**	.04	.64	.81	.71**	.05	.62	.80	*ns*	.09	-.34	.03
M_1 – PILS	–	–	–	–	–	–	–	–	.41**	.09	.23	.60
M_2 – ABT	–	–	–	–	–	–	–	–	.42**	.09	.24	.59
Total Indirect Effect	–	–	–	–	–	–	–	–	.59*	.09	.44	.77
Model Summary	$R^2 = .59$, $F(16, 266) = 24.03$, $p < .001$				$R^2 = .54$, $F(16, 266) = 19.78$, $p < .001$				$R^2 = .42$, $F(18, 264) = 10.70$, $p < .001$			
Model 3c	**M1 – Personal Identification**				**M2 – Affect-based Trust**				**DV3 – Work Engagement**			
IV – ALI	.72**	.04	.64	.81	.71**	.05	.62	.80	*ns*	.09	-.30	.05
M_1 – PILS	–	–	–	–	–	–	–	–	.44**	.09	.27	.61
M_2 – ABT	–	–	–	–	–	–	–	–	.27**	.08	.11	.43
Total Indirect Effect	–	–	–	–	–	–	–	–	.51*	.08	.35	.68
Model Summary	$R^2 = .59$, $F(16, 266) = 24.03$, $p < .001$				$R^2 = .54$, $F(16, 266) = 19.78$, $p < .001$				$R^2 = .40$, $F(18, 264) = 9.89$, $p < .001$			

Note. $n = 283$, * $p < .05$, ** $p < .001$, *ns* $p > .05$ (beta coefficient suppressed).

The following sections continue this line of inquiry by probing for further conditional effects between the mediators and within the outcome variables.



Note. n = 283, * p < .05, ** p < .001, *ns* p > .05 (beta coefficient suppressed). Listed coefficients correspond with the three outcome variables. Coefficients in brackets are unmediated direct effects.

Figure 8. *Parallel Mediation Analysis for Authentic Leadership*

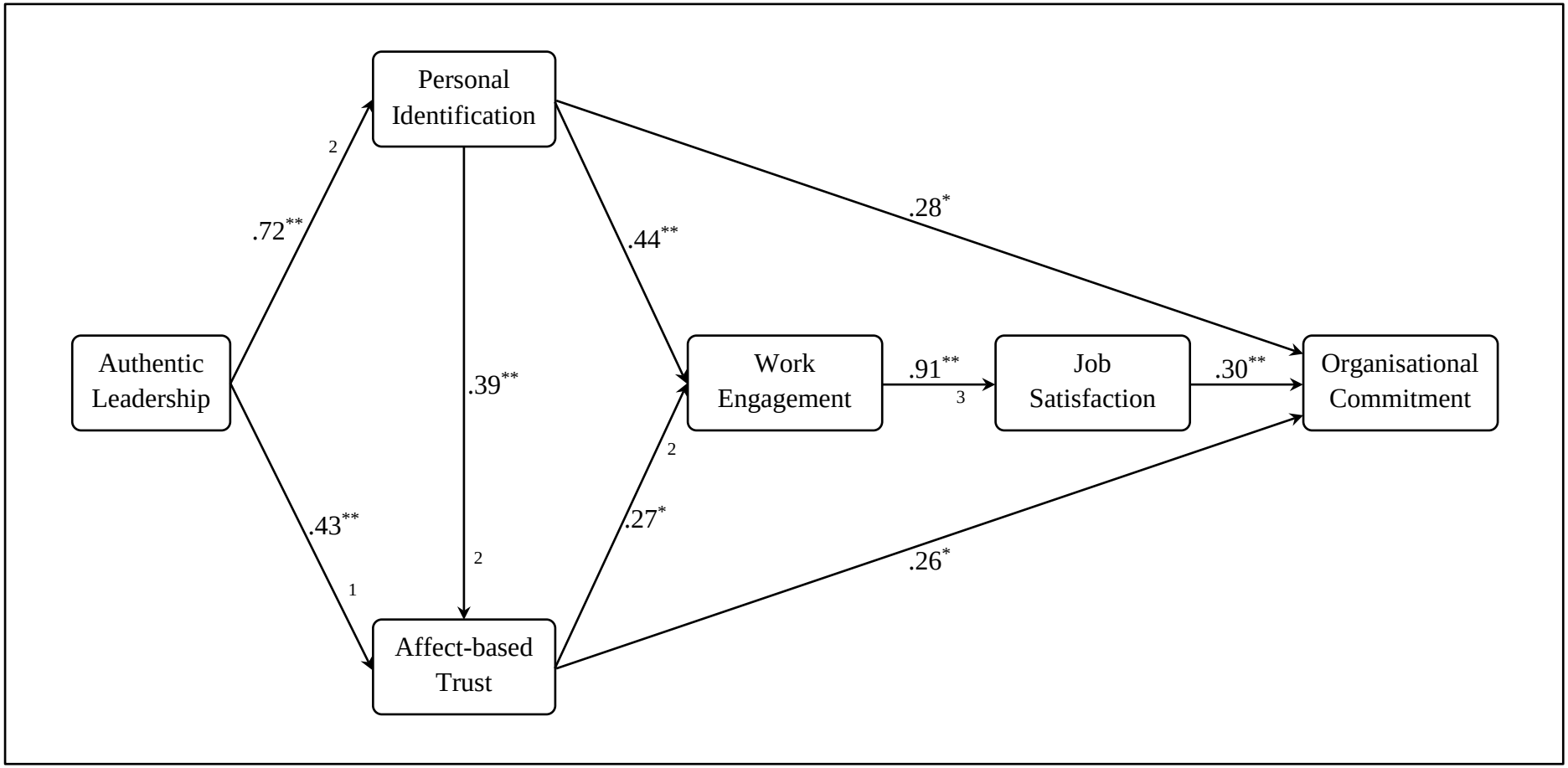
A serial multiple mediation (SMM) model was used to test Hypotheses 10 and 11 (for a guide, see Hayes, 2013, pp. 143-156). Hypothesis 10 proposed that followers' Personal Identification partially mediates the relation between Authentic Leadership and Affect-based Trust, while Hypothesis 11 posited that Job Satisfaction fully mediates the relation between Work Engagement and Affective Organisational Commitment, as shown in the path model illustrated in Figure 5 on page 49. The Hayes (2013) SMM model has two distinct advantages. First, it allows for mediators to causally influence each other, as opposed to the more traditional parallel models for testing multiple mediation, which assume no causal associations between the mediators. Second, the technique is also superior to a structural equation modelling approach in that all of the various control variables can be included in the model to partial out their covariance, thereby isolating the variance of focal constructs. Regardless, a preliminary assessment in Amos indicated that measurement model fit the data well: χ^2/df (6) = 3.19, p = .004, GFI = .98; CFI = .99; NFI = .98; RMSEA = .09 (.05, .13).

Personal Identification and Affect-based Trust were strongly related during the preliminary correlation analysis (r = .69, p < .001), as were the group of three outcome variables (average r = .71, p < .001); hence, satisfying the initial criteria for mediation

Table 52.
Serial Multiple Mediation Analysis of Authentic Leadership Outcomes

Predictor	**β**	***SE***	**95% CI**		**β**	***SE***	**95% CI**		**β**	***SE***	**95% CI**		**β**	***SE***	**95% CI**		**β**	***SE***	**95% CI**	
Model 4	**M1 – Personal Ident.**				**M2 – Affective Trust**				**M3 – Work Engage.**				**M4 – Job Satisfaction**				**DV – Affective Com.**			
IV – ALI	.72**	.04	.64	.81	.43**	.06	.31	.54	*ns*	.09	-.30	.05	*ns*	.08	-.01	.29	*ns*	.08	-.31	.02
M_1 – PILS	–	–	–	–	.39**	.06	.27	.51	.44**	-0.09	.27	.62	*ns*	.08	-.32	.01	.28*	.09	.11	.45
M_2 – ABT	–	–	–	–	–	–	–	–	.27*	.08	.10	.43	*ns*	.07	-.04	.28	.26*	.08	.10	.42
M_3 – WE	–	–	–	–	–	–	–	–	–	–	–	–	.91**	.05	.81	1.02	*ns*	.09	-.02	.32
M_4 – JS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	.30**	.07	.17	.44
Total Indirect Effect	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	.58*	.09	.42	.77
Model Summary	R^2 = .59, p < .001 F(16, 264) = 23.82				R^2 = .61, p < .001 F(17, 263) = 23.72				R^2 = .40, p < .001 F(18, 262) = 9.72				R^2 = .71, p < .001 F(19, 261) = 33.01				R^2 = .55, p < .001 F(20, 260) = 15.91			

Note. n = 281, * p < .05, ** p < .001, *ns* p > .05 (beta coefficient suppressed). Scale abbreviations are: ALI = Authentic Leadership Inventory, PILS = Personal Identification with Leader Scale, ABT = Affect-based Trust, WE = Work Engagement, JS = Job Satisfaction.



Note. $n = 281$, * $p < .05$, ** $p < .001$. Non-significant ($p > .05$) mediation paths are suppressed for clarity. Previously established pathways: [1] Clapp-Smith et al. (2009); [2] Wong et al. (2010); and [3] Giallonardo et al. (2010).

Figure 9. *Serial Multiple Mediation Analysis for Authentic Leadership*

testing. Results of the SMM analysis are presented in Table 52 above. The significant mediation pathways and coefficients are also illustrated in Figure 9 above – the non-significant paths are suppressed and the model is re-arranged for the sake of clarity. A number of the causal paths have been established by prior research and these are denoted with superscript numbers and referenced in the diagram notes.

A number of key findings stand out from the SMM results reported above. First, the direct effect of Authentic Leadership on Affect-based Trust is still significant, but is smaller in magnitude than was demonstrated in the parallel model ($\beta = .43$, $p < .001$, compared to $\beta = .71$, $p < .001$). However, the serial model reveals that a substantial part of that effect actually happens through Personal Identification ($\beta = .39$, $p < .001$), and consequently the serial model is able to explain a greater portion of the Affect-based Trust variance ($R^2 = .61$, $p < .001$). Therefore, Hypothesis 10 is supported in asserting that Personal Identification partially mediates this interaction. These results corroborate Wong et al. (2010) and further establish followers' trust and personal identification as the two primary mediators that function to deliver the positive outcomes from authentic leadership.

Second, the direct pathways from Authentic Leadership to each of the three outcome variables (Job Satisfaction, Affective Organisational Commitment, and Work Engagement) are non-significant in the serial mediation model. Instead, these effects are completely mediated by Personal Identification and Affect-based Trust, thereby adding further support for their role as key authentic leadership mechanisms.

Contrary to the previous model, neither (a) Personal Identification nor (b) Affect-based Trust remain as significant predictors of Job Satisfaction. The parallel mediation model provided strong evidence for both causal paths ($\beta_{(a)} = .24$ and $\beta_{(b)} = .38$, at $p < .001$) and Job Satisfaction is frequently touted as an important direct outcome of authentic leadership (Giallonardo et al., 2010; Jensen & Luthans, 2006; Walumbwa et al., 2008). However, in the presence of Work Engagement, these relations become non-significant. Indeed, the SMM model shows that Work Engagement is the sole predictor of Job Satisfaction ($\beta = .91$, $p < .001$), completely mediating the effects of both Personal Identification and Affect-based Trust. Moreover, this serial mediation framework explains a considerably greater portion of the variance in Job Satisfaction than the parallel model ($R^2 = .71$, $p < .001$, compared to $R^2 = .36$, $p < .001$).

Job Satisfaction, in turn, was a significant predictor of Affective Organisational Commitment (β = .30, $p < .001$); completely mediating the effect of Work Engagement, which was no longer directly related. Thus, mediation Hypothesis 11 was supported by the data. Note that Personal Identification and Affect-based Trust remain as significant predictors of Affective Organisational Commitment (β = .28, $p < .001$, and β = .26, $p < .001$, respectively). These coefficients were again lower than in the discrete models, but the combined model reveals that a portion of those effects actually happen through Work Engagement and Job Satisfaction. Consequently, the serial mediation model explained more of the overall variance in Affective Organisational Commitment ($R^2 = .55$, $p < .001$, compared to $R^2 = .42$, $p < .001$), indicating a better fit to the data.

The total indirect effect of the serial mediation model is likewise improved over the previous parallel models: (β = .58, $p < .05$), compared to the total indirect effects across the three outcome variables (β = .44, .59, and .51 respectively, at $p < .05$). Moreover, the new model accounts for all of the pertinent variables concurrently, thereby yielding a far more accurate representation of the various causal relations – indeed, we see several direct pathways become non-significant in the presence of additional variables. However, these results do not overturn the hypotheses supported earlier that dealt with discrete sections of the overall framework; they are still valid assessments of those relations in isolation and add incrementally to our overall understanding. The SMM model simply captures these interactions within a broader context, and will therefore serve as a more complete basis for the subsequent interpretation of authentic leadership mechanisms.

This concludes the presentation of the analytic methods and findings from the third study – the results are encouraging and paint a particularly interesting picture of authentic leadership. The following section briefly overviews a few of the main points that have been covered during the present methodology chapter, and then introduces the next general discussion chapter.

Chapter Summary

The present chapter empirically tested the theoretical frameworks and specific hypotheses proposed during the theory development section. This process was enabled by the development of a new instrument to measure respondents' analytic and holistic though tendencies. Hence, the chapter is organised into three consecutive studies that

first establish the Holistic Cognition Scale and then progress toward the investigation of the leadership-oriented propositions in the final stage.

The first study adopted the comprehensive four-dimensional framework of analytic and holistic thought established by Choi et al. (2007), and initiated the scale development process by generating a pool of items and assessing their content validity. The results revealed 28 items that demonstrated adequate content validity according to the expert panel of respondents, which were thus congruent with the theoretical basis of the analytic and holistic thought construct. These 28 items were retained for further testing during the next development phase.

The second study continued the scale development process by field-testing the items' dimensionality, reliability, and convergent/discriminant validity with a larger sample of business students. The results identified 12 items that corresponded well with the theoretically-derived structure and validity assessments led me to conclude that the 12-item HCS was valid and sufficiently unidimensional. However, low reliability scores suggested that the instrument could be further improved through minor refinement.

The third study, therefore, added several new items to the HCS and repeated the exploratory and confirmatory factor analyses undertaken in the previous study, using a larger and more representative sample of business people. The results revealed a 14-item scale that demonstrated superior reliability and factor loadings, and correlation analysis confirmed the scale's criterion validity. Thus, this 14-item version of the HCS was deemed complete and suitable for organisational research.

The latter stage of the third study employed the finalised HCS alongside a number of other well-established scales to test the 11 hypotheses regarding the mediating mechanisms and impact of individual cultural differences on authentic leadership. Results of multiple analyses show no evidence of cultural differences moderating the efficacy of authentic leadership on followers' satisfaction, affective commitment, and engagement; indicating that perhaps the construct is widely applicable across culturally diverse followers. Mediation analyses reveal personal identification and affect-based trust as two main mechanisms through which authentic leadership generates positive follower outcomes. Lastly, a serial mediation framework combines all of the pertinent variables into one unified model that illustrates all of these dynamic interactions within a broader context.

The following chapter presents a more general discussion of these findings, which integrates them into the existing literature, before moving on to highlight the main implications for theory and practice. Lastly, I address the potential limitations inherent of these studies and complete the text with several notable conclusions.

CHAPTER FOUR: GENERAL DISCUSSION

The present work advances our understanding of authentic leadership on two fronts. First, by investigating the moderation effects of individual cultural differences on authentic leadership efficacy, and second, by modelling multiple mediation paths to investigate how authentic leadership engenders positive follower outcomes.

The anticipated moderation effects of cultural differences were examined simultaneously from two angles – the conventional values-based perspective using Hofstede's (1980) five dimensions, and a contemporary cognitive schema-based approach, known as analytic vs. holistic thought (Nisbett et al., 2001). To facilitate the study of cultural differences, I propose two new instruments. The first is a formula that allows the calculation of what I call respondents' Western Values Score (WV-Score) using items from the 2008 Values Survey Module (Hofstede et al., 2010). The second is an entirely new measure that gauges respondents' tendency toward either analytic or holistic thought, called the Holistic Cognition Scale (HCS). Rigorous scale development techniques were implemented in establishing the HCS and the resulting instrument demonstrated validity and satisfactory psychometric properties.

The hypothesised moderation effects of individual cultural differences were not supported by the data; authentic leadership appears to transcend cultural differences and appeals to a wide variety of followers. Serial mediation analysis unpacks the major mechanisms behind authentic leadership efficacy, demonstrating that the construct influences outcomes through a sequential process of personal identification, affect-based trust, and work engagement.

The following sections address in turn the new measures of cultural difference and the moderation and mediation assessments of authentic leadership, interpreting the results against the backdrop of the literature. Afterwards, the most notable theoretical and practical implications are presented, before moving on to discuss limitations and encapsulate the present work with concluding remarks.

Cultural Differences

Western Values Score

Classifying cultural differences into profiles or 'clusters' stems from the seminal work of Ronen and Shenkar (1985). Building on their ideas, I combine the often-touted

notion of dichotomous Eastern and Western ideals with Hofstede's (1980) influential classification of cultural values along five dimensions. Largely congruent with the results of a more recent comparison of Anglo and Confucian work-related values (Ronen & Shenkar, 2013, p. 885), I classify Western values as predominantly individualistic and masculine, tolerating less power distance, demonstrating less uncertainty avoidance, and orienting toward the short term. Whereas Eastern values constitute the polar opposites across all five dimensions: tending to be collectivistic, feminine, more accepting of power inequalities, preferring to avoid situations of uncertainty, and focusing primarily on the long term.

Based on this theoretical framework I calculate a Western Values Score by applying a simple formula to data collected using the 2008 Values Survey Module (Hofstede et al., 2010). The resulting index is a supranational cultural indicator, assigning respondents into two broad groups. When applied to existing country level data published by Hofstede and Hofstede (2005), the Arab, Eastern, and Latin nations were appropriately identified as demonstrating Eastern values, while the Anglo, Germanic, and Nordic countries exhibited Western values. Examination of the between-group means confirmed the Eastern and Western theoretical polarities along these five dimensions, congruent with the earlier findings of Ronen and Shenkar (2013). Overall, these results support the existence of an Eastern vs. Western value dichotomy and the Western Values Score constitutes a concise tool for subsequent organisational and cultural research.

Holistic Cognition Scale

A major contribution of this research is creation of the HCS. Culture has traditionally been defined, and operationalised in research, as the shared and relatively stable values across populations (Taras, Rowney, & Steel, 2009). Countries have served as the default unit of analysis, presumably overlapping perfectly with cultural borders (Brewer & Venaik, 2012). This focus on countries as containers and values as the source of differences has generated meaningful advances, and yet blinded us to searching for alternative explanations (Taras et al., 2016). Indeed, the vast majority of the organisational research on culture has been on cultural *values* (Caprar et al., 2015), using either Hofstede's (1980) original values framework or latter refinements (e.g. House et al., 2004; Schwartz, 1994). Hofstede and Hofstede (2005) cite core values as the underlying source behind the different surface manifestations of cultural practice.

The present research suggests that we should look deeper still at the cognitive schema people use to engage the world; *how* they think, instead of *what* they think. With as much as 80% of the variance occurring within countries (Taras et al., 2016), the current period of national culture research is nearing obsolescence.

Researchers have acknowledged the limitations of these traditional approaches without addressing the issues (Taras et al., 2016), continuing this old game unabated for the last three decades. The Holistic Cognition Scale disrupts the status quo. Nisbett and colleagues (2001) first introduced the theory of analytic and holistic thought by studying the ancient roots of contemporary peoples' cognitive schemata. The construct has since been advanced with a clear theoretical structure organised around four distinct dimensions (Choi et al., 2007). However, the existing measures based on this framework have proved problematic and generated negligible uptake by the research community. The issues are methodological, within the scale development processes, rather than conceptual. Therefore, I build on this robust four-dimensional foundation and implement rigorous quantitative techniques to introduce the HCS.

I developed the HCS by employing contemporary quantitative methods to ensure the psychometric adequacy of the resulting instrument (see DeVellis, 2012; Hinkin & Tracey, 1999). The process includes assessments that establish the scale's factor structure and reliability, as well as its convergent, discriminant, and criterion validity. Overall, the results indicate that the final 14-item HCS is a sufficiently valid and reliable measure of respondents' analytic and holistic thought. Hence, I conclude that the HCS is suitable for cultural studies within organisational settings.

The HCS therefore constitutes an empirical alternative to overcome the limitations of traditional approaches to cultural research. By providing a validated instrument that is simple to administer and built upon a compelling supranational theoretical basis, I offer a way forward – moving beyond countries and beyond values toward more meaningful clusters that capture how and why certain groups of people think differently.

Consequently, I implemented the HCS alongside various other well established measures to test the authentic leadership related hypotheses. The following sections interpret the results of the moderation investigation of individual cultural differences and explain the findings from the mediation pathway analysis.

Authentic Leadership

Moderation

The results of the present study affirm the widely accepted perspective that followers who consider their supervisors to be authentic leaders experience a raft of positive organisational outcomes. In particular, I found that they were more satisfied with their jobs, more engaged at work, and more committed to the organisation as a whole. These findings are congruent with recent empirical research (Giallonardo et al., 2010; Jensen & Luthans, 2006; Peus et al., 2012; Walumbwa et al., 2008; Wong et al., 2010), and further support the utility of authentic leadership in the business sphere.

More interesting, however, is that these relations between authentic leadership and followers' positive organisational outcomes were not moderated by their cultural differences. These findings do not support the commonly held notions that culture affects virtually all aspects of peoples' interaction with one another, especially in the workplace. Decades of cross-cultural research highlight a range of behavioural and attitudinal differences that can be used to separate individuals into groups (Hall, 1976; Hofstede, 1980; House et al., 2004; F. R. Kluckhohn & Strodtbeck, 1961; Schwartz, 1994; Trompenaars & Hampden-Turner, 2012). This well-documented array of regional cultural differences has led to the propagation of contingency-based approaches to international business leadership; counselling leaders to tailor their behaviour to the context and followers (Newman & Nollen, 1996; Offermann & Hellmann, 1997; Yukl, 2013). However, self-censoring to such an extent is inherently disingenuous, followers are able to perceive this lack of authenticity and respond negatively to such leadership attempts. In contrast, authentic leadership appears to transcend cultural differences, appealing to a wide variety of followers. The present work therefore positions authentic leadership behaviour beside integrity as universally desirable leadership characteristics (House et al., 2014, p. 23).

Furthermore, I found no significant differences between the moderation results for each individual dimension of authentic leadership or the combined scale. Followers responded consistently across all of the four aspects of authentic leadership, despite compelling arguments to suggest that different followers may have distinct preferences for some of the authentic leadership behaviours and not others. Rather, the results of the

present study fit well with a latent unidimensional model of authentic leadership, which is consistent with the dominant theorisation in the literature (Walumbwa et al., 2008).

While none of the moderation hypotheses were supported in this particular data set, the respondents were all based in one Western country. More pronounced effects may occur from a geographically diverse sample collected across multiple nations and cultural regions. However, the uniform characteristics of the responses reported here add further support for the utility of authentic leadership in diverse cultural settings. The approach was effective across all follower types, irrespective of their individual cultural differences. Authentic leadership may therefore be tapping in to a set of universally desirable leadership behaviours, akin to integrity. Thus, authentic leadership constitutes a uniquely useful approach to international business, one that is effective across a broad variety of followers.

To illustrate how authentic leadership enacts positive follower outcomes, the following sections interpret the results and implications of the mediation analysis.

Mediation

Research on authentic leadership is proliferating and empirical studies are regularly finding positive relations to key follower outcomes (Gardner et al., 2011). However, we know little about exactly *how* the ephemeral construct of authentic leadership is able to deliver these desirable outcomes. Some authors have recently begun testing mediation models of authentic leadership, isolating followers' personal identification with their leader and their affect-based trust as two principal mediators (see Clapp-Smith et al., 2009; Giallonardo et al., 2010; Wong et al., 2010).

I advance the literature by combining these variables into one serial mediation model and find that authentic leadership functions via three main sequentially mediating mechanisms: personal identification, affect-based trust, and work engagement. Through the authentic leadership relationship followers come to trust and identify with their leader, which leads them to become more engaged and satisfied with their work, and more committed to their company in general.

Personal identification in the present context is the process whereby individuals come to define themselves as followers of a leader. The candid, relationship-oriented approach of authentic leadership facilitates and encourages this personal identification process. As followers begin to personally identify with the authentic leader, they come

to embrace the leader's values and goals as their own. The resulting value-congruence motivates these individuals to follow *willingly* – which translates directly into increased work engagement and affective commitment, since the leaders are espousing values that the followers hold salient.

The results also suggest that as followers come to personally identify with their authentic leaders, they subsequently develop increased interpersonal trust. At least part of the effect of authentic leadership on followers' trust occurs through the process of personal identification, wherein the followers' self-concept becomes derived from and congruent with that of the authentic leader. The combination of followers' shared values and authentic leaders' behavioural consistency creates a partial mediation effect as both sources contribute significantly to followers' increased trust in the leader. Followers' trust, in turn, generates increased work engagement and affective commitment.

Personal identification and affect-based trust are therefore the two primary interconnected mechanisms through which authentic leadership functions to improve followers' work experiences. This mediated operation stems from elusive nature of authentic leadership: its effects are tacit, sensed rather than consciously observed. However, the resulting increases in followers' trust and shared identity are more perceptible, and directly influence followers' positive organisational outcomes. Authentic leaders, therefore, engender desirable organisational effects by creating trusting relationships built on mutual identity with their followers.

A large portion of the overall effect from authentic leadership is explained by increased work engagement. Employee work engagement is a particularly desirable organisational outcome, which is defined "as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption" (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74). In the present study, followers who were more engaged with their work also tended to be more satisfied with their job and affectively committed to the organisation (see Figure 9 on p. 123). Affective commitment, therefore, served as the terminal outcome variable, capturing the extent to which employees are emotionally attached to their organisation and a strong proxy measure of performance (Allen & Meyer, 1990; Meyer et al., 1989). Contrary to existing empirical studies investigating authentic leadership, job satisfaction, and affective commitment in isolation (Giallonardo et al., 2010; Jensen & Luthans, 2006; Walumbwa et al., 2008), none of the direct paths remained significant when work engagement was included in

the regression models. Hence, the results of the present research identify followers' increased engagement at work as the sole predictor of their job satisfaction, and consequently their commitment to the company, positioning it as the third major instrument of authentic leadership efficacy.

Theoretical Implications

Four important contributions to the academic literature arise from the present work: the Western Values Score, Holistic Cognition Scale, assessment of individual cultural difference impact on authentic leadership, and mediation analysis of authentic leadership mechanisms. The following sections discuss each in greater detail, illustrating how they advance the literature in these fields.

The first contribution is a simple formula for calculating respondents' Western Values Score. The process uses items from the 2008 Values Survey Module (Hofstede et al., 2010) and is thus a logical advance along traditional values-based lines in cross-cultural research. The five cultural value dimensions isolate aspects of individuals' cultural differences and the WV-Score then clusters similar individuals into meaningful 'profiles' or groups. Analysis of existing country-level data supports this concise indicator, which effectively distinguishes the Anglo, Germanic, and Nordic countries as having predominantly Western values, and the Arab, Eastern, and Latin countries as upholding more Eastern values. These distinctions are congruent with recent research (Ronen & Shenkar, 2013) and support a Eastern vs. Western value dichotomy. This measure is conceived of at the individual level of analysis and is intended for research into individual and group level phenomena in organisations, such as leadership and employee motivation.

The WV-Score is an advance because it facilitates the testing of moderation effects from cultural differences across known organisational relations. Incorporating cultural interaction terms in empirical models can invalidate, strengthen, or reverse the direction of previously established relations. For example, paternalistic style leadership may effectively motivate Eastern employees, but would be less successful in Western contexts, and implementing the WV-Score would reveal this effect. Identifying these contextual differences is an important aspect of cultural business research and the WV-Score is a succinct tool for testing these moderation effects. Because WV-Scores are

calculated from established scale items, the technique can also be used to re-analyse existing data sets, and its simplicity presents an effective tool for original research.

The second contribution is the Holistic Cognition Scale for measuring cultural differences based on the theory of analytic vs. holistic thought (Nisbett et al., 2001). The instrument is built on a compelling conceptual framework (see Choi et al., 2007), and empirical assessments demonstrate the scale's content, convergent, discriminant, and criterion validity, as well as confirming its factor structure and reliability. The Holistic Cognition Scale therefore constitutes an innovative tool for quantitative cultural research in organisational settings.

The Holistic Cognition Scale presents a two-fold advance. First, provoking the field of cultural organisational research to progress beyond national values-based studies, and more importantly, providing a validated instrument to do so. Second, the cognitive focus of the HCS may be able to answer questions that have thus far eluded values-based approaches to organisational research. Such as, why do certain groups of people behave similarly, even though they appear to have little in common? Professions and socio-economic classes are two examples (Taras et al., 2016), where at the global level group members hail from culturally diverse backgrounds and exhibit a broad range of demographic characteristics. The culturally-embedded cognitive schemata that people tend to engage may be responsible for the similarities in behaviour. The HCS can thus be used to identify more meaningful cultural boundaries beyond traditional demarcations. Understanding whether individuals' cognitive patterns populate certain groups with like-minded people would advance a range of business research fields.

The third major contribution is the examination of individual cultural differences on authentic leadership efficacy. Contrary to the dominant paradigm that culture moderates peoples' interaction with one-another, authentic style leadership proved remarkably resilient to cultural moderation effects. The results did not uncover any significant interactions from followers' cultural differences. I employed the traditional values-based approach to cultural research as well as the novel cognitive framework discussed earlier; neither demonstrated any meaningful interaction with authentic leadership. These results, therefore, support an authentic approach to international business leadership, identifying it as a viable leadership technique for culturally diverse followers because its function is not affected by cultural forces. The present work

challenges leadership scholars to rethink the regionally-contingent approaches to international business.

The fourth contribution is the identification of three main mediating mechanisms through which authentic leadership positively influences desirable follower outcomes. Namely, followers' personal identification, affect-based trust, and work engagement. Several of these relations were discovered separately in prior research (Clapp-Smith et al., 2009; Wong et al., 2010), and the present work contributes to the field by combining these variables into one comprehensive model. I advance the literature by demonstrating that authentic leadership functions by establishing follower relationships characterised by mutual trust and shared identity, which increase followers' work engagement and ultimately lead to job satisfaction and organisational commitment. Establishing the primary mediating functions of authentic leadership clarifies the elusive construct, expanding our understanding of its operation in the workplace and opening new avenues for further research.

Practical Implications

The present work has notable implications for business practice. The first arise from the two new measures of cultural differences, while the remainder stem from the moderation and mediation assessments of authentic leadership efficacy and function.

Cultural Differences

Understanding that there is indeed an inherent Eastern/Western value divide allows business practitioners to strategically approach culturally diverse settings. While it may seem undesirable to highlight this distinction in the current era of equality and political correctness, its existence cannot be ignored. The implications are far-reaching; for example, strategies and techniques that have been developed in Western contexts may not work with Eastern followers. Businesses need to grasp these limitations before proceeding across cultural borders to minimise risk and avoid predictable pitfalls. The Western Values Score and Holistic Cognition Scale capture individuals' cultural differences and assign them into meaningful groups according to a profile of cultural factors. Larger corporations could use these instruments to understand the various stakeholders with whom they operate, both within and outside of the organisation. By surveying their own workforce, businesses could identify the kinds of managerial policies that would be more effective at motivating their employees to deliver superior

performance. As commerce becomes increasingly international, companies need to appreciate how cultural forces impact their bottom line, and the present work provides simple survey instruments to facilitate this process.

Authentic Leadership

The results of the moderation assessments presented here establish authentic leadership as a viable approach to international business, one that is broadly effective across individual cultural differences. Practicing business managers could therefore implement an authentic approach to effectively transcend followers' unique cultural dispositions, especially when leading diverse or international teams. We are living in the 'age of migration' (Castles, De Haas, & Miller, 2014) and increasing global workforce mobility is diversifying even domestic workplaces. Leaders at all organisational levels are routinely engaging with a broader variety of followers than ever before: diverse groups of foreign and domestic workers are no longer exceptional circumstances, but have become the norm in contemporary business. Being able to proceed confidently in the face of such cultural diversity with a single leadership strategy is a considerable advantage over a toolkit of techniques which work in only certain contexts, or with specific followers, and not others. Indeed, leaders who frequently enact different personas appear insincere to those bearing witness to multiple such instances (Trilling, 1972). Therefore, the integrity afforded by authentic style leadership makes it a useful approach for world leaders and high profile business managers who engage with international groups and are frequently in the public eye.

However, authentic leadership is a developmental process, not a quick fix (Gardner, Avolio, Luthans, et al., 2005), as the development of self-awareness and authenticity are lifetime pursuits (Erickson, 1995; Heidegger, 1962; Sartre, 1943). Concordantly, the present mediation analyses highlight the central role of building follower relations that are characterised by shared identify and mutual trust; which cannot expect to be formed overnight. Developing such a leadership approach requires a substantial investment of our two most valuable resources: energy and time. The results, however, are well worth the effort. My findings are congruent with existing research (Gardner et al., 2011) and confirm that authentic leadership delivers quantifiable increases across key follower outcomes, including work engagement, commitment, and satisfaction. Committed and engaged followers, who trust and identify with their leader, build enduring organisations and create lasting shareholder value (B. George, 2003).

The first rule of business, of course, is to stay in business, and those visionaries willing to invest in their own authentic leadership will surpass their myopic competitors.

Limitations and Future Directions

No research design is without limitations and those of consequence bear mentioning so that their implications are made explicit to readers. First, the authentic leadership investigation data originated from a single source and may therefore include error variance (Spector, 1987), which confounds the significance and magnitude of observed relations. However, all of the focal variables, such as perceptions of authentic leadership, satisfaction, and commitment, only exist within the mind of each follower and cannot be sampled from any external or secondary source. Therefore, I addressed such concerns proactively in the research design by introducing a time lag between the measurement of predictor and criterion variables, using only construct-validated scales, and including marker variables to partial out common method bias (Lindell & Whitney, 2001; Podsakoff et al., 2003). Consequently, the results of single-factor tests indicated that common method variance is not of overriding concern.

The second limitation was that the leadership and cultural differences data were collected from only one country. While this generated a sufficient breadth of variance across the numerous dimensions of cultural difference at the individual level, data from multiple nations may yield additional insights. Moreover, the cultural data were used to introduce two new instruments that capture unique theoretical domains, and although compelling results support the validity of these measures, they lack the surety granted only by on-going scholarship. These challenges suggest two alternate explanations for the moderation results: either that the two new instruments (WV-Score and HCS) did not function as intended (indeed, both scales revealed issues with convergent validity), or the selected sample did not tease out cultural differences. Accordingly, we must be cautious with how the present results are generalised before they are corroborated by successive inquiries.

Similar concerns arise for the Holistic Cognition Scale, which captures cultural differences in cognitive schemata. Performing the scale development and validation studies in one country may have affected which items were retained for inclusion in the final version of the scale. However, the analytic and holistic cognitive systems originate in ancient times and through migration have spread all over the world. A range of

modern day counterparts can be found within even one metropolitan city and these data were therefore considered to be sufficiently diverse to capture both kinds of schemata. Indeed, because the analytic and holistic cognitive systems are conceived of as polar opposites across all four dimensions, the scale development process should not be significantly affected by an asymmetric distribution of respondents.

Lastly, reliability and validity concerns remain for the new Holistic Cognition Scale. The final version of the instrument demonstrates AVE scores below the accepted threshold, which suggests issues with reliability (internal consistency) and convergent validity. The alpha and composite reliability scores exceed required values, indicating that that the issues with reliability may be overstated by AVE. Indeed, lower AVE values may be preferable to highly redundant items that ultimately attenuate scale efficacy. However, AVE is a more conservative estimate than composite reliability and the discrepancy merits additional investigation. Subsequent studies with the Holistic Cognition Scale may benefit from further examination of its internal properties to ensure that psychometric adequacy is attained, paying particular attention to convergent validity indices.

Future streams of authentic leadership research could explore longitudinal designs and field experiments to establish the causality of mediated effects. Business leadership interventions, seminars, or retreats could serve as suitable contexts for an experimental design, where survey data is collected before and after for comparison. The control group can receive the same leadership training after the study has been completed so as to not disadvantage those participants. Meanwhile, cultural researchers could administer the Holistic Cognition Scale to respondents in different countries, industries, and demographic groups to ascertain whether the scale is working as intended with more diverse samples and consider testing for between-group effects.

Conclusion

The present work offers several major advances for cultural and leadership research and the results have meaningful implications for academics and practitioners. Introduction of the Western Values Score and the Holistic Cognition Scale provides researchers with two parsimonious supranational instruments for the measurement of cultural differences, seeking to shift the research paradigm beyond national values-based approaches. Meanwhile, the results of the cultural differences investigation

provoke leadership scholars to rethink the traditional regionally-contingent approaches to international business. I demonstrate that authentic leadership is remarkably resilient to the influences of culture and proffer it as a viable alternative. By identifying three key mediating mechanisms of authentic leadership I also contextualise its functionality with important organisational processes and outcomes. I therefore demystify the elusive and seemingly ephemeral construct into something concrete: synthesising timeless wisdom into a usable form to guide contemporary business leaders.

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APPENDICES

Appendix A – HCS Initial Item Pool

Table 53.
Holistic Cognition Scale – Initial Item Pool

Dimension / Item	Mean	*SD*
Attention – Analytic		
The world is made up of many separate pieces.	**4.95**	1.69
An object is best described by its various properties; for example, the dining table is made from wood and can seat six people.	**4.90**	1.55
A thing can be understood in its entirety by carefully examining its properties.	**4.72**	2.06
An attractive piece of art is one that is bold and stands out from its surroundings.	3.35	2.08
Given pictures of a man, a woman, and a child, the man and the woman should be put together because they are both adults.	3.34	1.98
Strong leadership is more important for success than inclusiveness.	3.33	2.16
One big expensive gift is better than a matching set of several smaller gifts.	2.18	1.84
Attention – Holistic		
It is impossible to understand the pieces without considering the whole picture.	**5.90**	1.41
Parts only exist within wholes, to which they have inseparable relations.	**5.45**	1.62
In a painting, the background is just as important as the main object.	**5.30**	1.36
Where you put an ornament is just as important as the ornament itself.	*5.25*	1.53
A mark of good architecture is how well it blends in with the buildings around it.	5.08	1.69
An object is best described by its role or purpose; for example, the dining table is a family space for sharing a meal and each other's company.	4.83	1.55
Given pictures of a man, a woman, and a child, the woman and the child should be put together because the mother takes care of the baby.	2.80	1.83
Causality – Analytic		
People's behaviour is best understood by carefully examining their personal characteristics and internal motivations.	**5.23**	1.56

Events occur as a result of individuals' choices and behaviour.	**5.08**	1.95
Each individual person is solely responsible for his/her own actions.	**4.59**	1.86
Who we are comes entirely from within each of us.	4.18	1.97
The world is made up of many separate pieces.	4.10	1.86
Each person's value is best judged on his/her own merits and achievements.	3.84	2.02
You can always identify the one true cause of an event.	2.85	1.86
Causality – Holistic		
Events occur as a result of the complex relations between people and within the environment.	**5.95**	1.00
Peoples' behaviour can only be understood within the entire context in which it occurs.	**5.82**	1.14
Everything in the world is related to each other.	**5.74**	1.21
We must first understand the society within which people make their choices before we can understand their actions.	*5.41*	1.16
The way people behave is a result of their surroundings and interactions with others.	5.21	1.54
Every event has numerous causes and not all of them are known.	5.05	1.64
Each person is a product of their environment.	4.54	1.41
Contradiction – Analytic		
When faced with a difficult decision, it is best to choose the one most plausible course of action.	**5.10**	1.83
It cannot be both day and night at the same time.	**5.05**	2.12
At every fork in the road, there is always one path that is better than the other.	**4.74**	2.12
Eventually, every argument has a clear winner.	4.18	2.01
One's opinion must often be defended against others' opposing views.	3.92	1.83
You should never back down from an argument just because someone holds a conflicting point of view.	3.39	2.02
Placing second in a race is still losing.	3.33	1.88

Contradiction – Holistic		
Even two seemingly contradictory ideas can each yield something valuable.	**5.97**	1.14
Even two opposing ideas can co-exist harmoniously.	5.90	1.29
Things can be both ugly and beautiful at the same time.	**5.77**	1.44
In any given situation, what it means to do the right thing depends on who you ask.	**5.18**	1.59
It is more important to reach a compromise than to debate who is right or wrong.	*4.90*	1.74
When faced with a difficult decision, it is best to find middle ground, rather than going to extremes.	4.49	1.86
Change – Analytic		
The course of human history is best described as gradual linear progress.	**4.34**	2.10
It is useful to make future forecasts based on present situations.	**4.18**	1.67
An honest man can be expected to stay honest in the future.	**3.95**	1.88
The world is always slowly moving forward.	3.76	1.84
Year-to-year, the world changes very little.	3.45	1.87
Most opportunities, once missed, will never come around again.	3.00	1.80
Change – Holistic		
Everything is always changing.	**5.66**	1.21
The current situation can change at any moment.	5.50	1.25
When planning for the future, one must be prepared for unexpected upheavals.	**5.47**	1.37
Change moves in cycles.	**5.42**	1.18
All things follow the natural cycles of change which flow through birth, death, and rebirth again.	*5.05*	1.47
It is not surprising when a previously successful person suddenly loses everything.	4.66	1.70
An honest man may quickly become dishonest as things change.	4.42	1.88
Things are always moving two steps forward and one step back.	3.34	1.88

Appendix B – Study 2 Scales

Table 54.
Scale Items – Rahim Organisational Conflict Inventory II

Rahim Organisational Conflict Inventory II (ROCI-II)	**Mean**	***SD***	***Comm.***
Please reflect on yourself and rate the extent to which you agree/disagree with each of the following statements.			
1. I try to find a middle course to resolve an impasse.[1]	4.66	1.10	0.60
2. I usually propose a middle ground for breaking deadlocks.[1]	4.80	1.12	0.72
3. I negotiate with my peers so that a compromise can be reached.[1]	5.29	1.10	0.78
4. I try to give and take so that a compromise can be made.[1]	5.36	1.07	0.67
Scale Average	**5.03**	**1.10**	**0.69**

Note. *N* = 306. Source: Rahim (1983). Dimension: [1] Compromise.

Table 55.
Scale Items – Rational-Experiential Inventory

Rational-Experiential Inventory (REI)	**Mean**	***SD***	***Comm.***
Please reflect on yourself and rate the extent to which you agree/disagree with each of the following statements.			
1. I trust my initial feelings about people.[1]	5.22	1.22	0.61
2. I believe in trusting my hunches.[1]	5.20	1.12	0.64
3. My initial impressions of people are almost always right.[1]	4.79	1.35	0.61
4. When it comes to trusting people, I can usually rely on my ‘gut feelings’.[1]	5.10	1.29	0.66
5. I can usually feel when a person is right or wrong even if I can’t explain how I know.[1]	5.18	1.22	0.54
Scale Average	**5.10**	**1.24**	**0.61**

Note. *N* = 306. Source: Epstein et al. (1996). Dimension: [1] Faith in intuition.

Table 56.
Scale Items – Attributional Complexity Scale

Attributional Complexity Scale (ACS)	**Mean**	***SD***	***Comm.***
Please reflect on yourself and rate the extent to which you agree/disagree with each of the following statements.			
1. Once I have figured out a single cause for a person's behaviour I don't usually go any further.[1r]	4.14	1.30	0.63
2. I have found that the causes for people's behaviour are usually complex rather than simple.[1]	5.44	1.09	0.57
3. I usually find that complicated explanations for people's behaviour are confusing rather than helpful.[1r]	4.27	1.34	0.50
4. I prefer simple rather than complex explanations for people's behaviour.[1r]	3.96	1.40	0.49
5. I have found that the relationships between a person's attitudes, beliefs, and character traits are usually simple and straightforward.[2r]	4.78	1.43	0.48
6. To understand a person's personality/behaviour I have found it is important to know how that person's attitudes, beliefs, and character traits fit together.[2]	5.51	1.11	0.72
7. I have thought a lot about the way that different parts of my personality influence other parts (e.g., beliefs affecting attitudes or attitudes affecting character traits).[2]	5.14	1.36	0.53
8. I tend to take people's behaviour at face value and not worry about the inner causes for their behaviour (e.g., attitudes, beliefs, etc.).[2r]	4.47	1.40	0.48
9. If I see people behaving in a really strange or unusual manner I usually put it down to the fact that they are strange or unusual people and don't bother to explain it any further.[3r]	4.43	1.51	0.48
10. When I try to explain other people's behaviour I concentrate on the person and don't worry too much about all the existing external factors that might be affecting them.[3r]	4.52	1.43	0.42
11. I think a lot about the influence that society has on other people.[3]	5.42	1.28	0.78
12. I think a lot about the influence that society has on my behaviour and personality.[3]	5.03	1.29	0.75
Scale Average	**4.76**	**1.33**	**0.57**

Note. *N* = 306. Source: Fletcher et al. (1986). Dimensions: [1] Complex, [2] Complex-internal, [3] Complex-external. [r] Indicates reverse-coded items.

Table 57.
Scale Items – Collectivism

Collectivism (COL)	**Mean**	***SD***	***Comm.***
Please reflect on yourself and rate the extent to which you agree/disagree with each of the following statements.			
1. To understand who I am, you must see me with members of my group.	4.21	1.60	0.73
2. To me, pleasure is spending time with others.	5.10	1.27	0.42
3. I would help, within my means, if a relative were in financial difficulty.	5.69	1.06	0.65
4. I make an effort to avoid disagreements with my group members.	5.03	1.43	0.61
5. Before making a decision, I always consult with others.	4.60	1.43	0.54
6. How I behave depends on who I am with, where I am, or both.	5.23	1.38	0.61
7. I have respect for the authority figures with whom I interact.	5.90	0.97	0.59
8. I would rather do a group paper or lab than do one alone.	3.51	1.74	0.50
Scale Average	**4.91**	**1.36**	**0.58**

Note. *N* = 306. Source: Oyserman et al. (2002).

Table 58.
Scale Items – High- and Low-context Orientation

High- and Low-context Orientation (HC-LC)	**Mean**	***SD***	***Comm.***
Please reflect on yourself and rate the extent to which you agree/disagree with each of the following statements.			
1. I value honesty in meetings and discussions.[r]	1.84	0.84	0.52
2. I try to avoid showing disagreement openly in a discussion because I prefer to maintain a sense of harmony in meetings.	4.39	1.60	0.59
3. I like to ‘say it as it is’.[r]	2.98	1.39	0.53
4. When I talk, it is how I say ‘yes’ or ‘no’ that signals what I really mean.	4.55	1.28	0.59
5. I believe that maintaining harmony and a positive tone in a meeting is more important than speaking honestly.	3.52	1.50	0.63
Scale Average	**3.46**	**1.32**	**0.57**

Note. *N* = 306. Source: Warner-Søderholm (2013). [r] Indicates reverse-coded items.

Appendix C – Study 3 Scales

Table 59.
Scale Items – Authentic Leadership Inventory

Authentic Leadership Inventory (ALI)	**Mean**	***SD***	***Comm.***
The following statements refer to your immediate supervisor's leadership style. Please rate the extent to which you agree or disagree with each one.			
My supervisor:			
1. Solicits feedback for improving his/her dealings with others.[1]	4.12	1.73	0.56
2. Describes accurately the way that others view his/her abilities.[1]	4.32	1.54	0.68
3. Shows that he/she understands his/her strengths and weaknesses.[1]	4.61	1.60	0.81
4. Is clearly aware of the impact he/she has on others.[1]	4.75	1.61	0.66
5. Shows consistency between his/her beliefs and actions.[2]	4.90	1.67	0.72
6. Uses his/her core beliefs to make decisions.[2]	5.10	1.31	0.47
7. Resists pressures on him/her to do things contrary to his/her beliefs.[2]	4.71	1.53	0.43
8. Is guided in his/her actions by internal moral standards.[2]	5.10	1.42	0.64
9. Asks for ideas that challenge his/her core beliefs.[3]	4.05	1.68	0.62
10. Carefully listens to alternative perspectives before reaching a conclusion.[3]	4.77	1.63	0.78
11. Objectively analyses relevant data before making a decision.[3]	4.91	1.52	0.70
12. Encourages others to voice opposing points of view.[3]	4.49	1.61	0.67
13. Clearly states what he/she means.[4]	5.00	1.57	0.71
14. Admits mistakes when they occur.[4]	4.75	1.62	0.67
15. Openly shares information with others.[4]	4.85	1.60	0.64
16. Expresses his/her ideas and thoughts clearly to others.[4]	4.93	1.59	0.74
Scale Average	**4.71**	**1.58**	**0.66**

Note. Source: (Neider & Schriesheim, 2011). Dimensions: [1] Self Awareness, [2] Internalised Moral Perspective, [3] Balanced Processing, [4] Relational Transparency.

Table 60.
Scale Items – Values Survey Module 2008 (pt. 1)

Values Survey Module 2008 (VSM08) – Part 1 of 2	**Mean**	***SD***	***Comm.***
Please think of an ideal job, disregarding your present job. In choosing an ideal job, please rate how important each of the following would be for you.			
1. Have sufficient time for your personal or home life.[1]	6.00	0.99	0.59
2. Have security of employment.[1r]	5.91	1.10	0.56
3. Do work that is interesting.[1]	5.66	1.06	0.54
4. Have a job that is respected by your family and friends.[1r]	4.27	1.73	0.67
5. Get recognition for good performance.[2]	5.63	1.09	0.57
6. Have pleasant people to work with.[2r]	5.79	1.06	0.59
7. Live in a desirable area.[2r]	5.24	1.27	0.55
8. Have chances for promotion.[2]	4.50	1.66	0.62
9. Have a supervisor you can respect.[3]	5.78	1.09	0.72
10. Be consulted by your supervisor in decisions involving your work.[3r]	5.35	1.24	0.50
Scale Average	**5.16**	**1.29**	**0.57**

Note. n = 283. Source: Hofstede et al. (2010). Dimensions: [1] Individualism, [2] Masculinity, [3] Power Distance, [4] Uncertainty Avoidance, [5] Long-term Orientations.
[r] Indicates reverse-coded items.

Table 61.
Scale Items – Values Survey Module 2008 (pt. 2)

Values Survey Module 2008 (VSM08) – Part 2 of 2	**Mean**	***SD***	***Comm.***
This section contains some statements about you and your beliefs. Please indicate the extent to which you agree or disagree with each one.			
11. In my experience, employees are often allowed to contradict their supervisor.[3r]	3.89	1.35	0.48
12. A company structure in which certain employees have multiple supervisors should be avoided at all cost.[3]	4.92	1.36	0.67
13. I often feel nervous or tense.[4]	4.01	1.69	0.72
14. All in all, the state of my health is very good these days.[4r]	5.04	1.36	0.58
15. One can be a good manager without having a precise answer to every question that an employee may raise about his/her work.[4r]	5.61	1.10	0.49
16. A company's rules should not be broken – not even when the employee thinks breaking the rules would be in the company's best interests.[4]	4.54	1.36	0.56
17. If there is something expensive I really want, but I do not have enough money, I always save first before buying – rather than borrowing money to buy now.[5]	5.38	1.59	0.31
18. I am the same person at work and at home.[5r]	4.67	1.59	0.65
19. Persistent efforts are the surest way to results.[5]	5.46	0.98	0.60
20. We should honour our heroes from the past.[5r]	5.59	1.15	0.42
Scale Average	**5.16**	**1.29**	**0.57**

Note. *n* = 283. Source: Hofstede et al. (2010). Dimensions: [1] Individualism, [2] Masculinity, [3] Power Distance, [4] Uncertainty Avoidance, [5] Long-term Orientations. [r] Indicates reverse-coded items.

Table 62.
Scale Items – Holistic Cognition Scale

Holistic Cognition Scale (HCS)	**Mean**	***SD***	***Comm.***
This section explores your world views. Please rate the extent to which you agree or disagree with each statement.			
1. It is impossible to understand the pieces without considering the whole picture.[1]	5.50	1.27	0.61
2. It makes more sense to study things in their natural context rather than in isolation.[1]	5.39	1.19	0.72
3. In a painting, the background is just as important as the main object.[1]	5.13	1.20	0.47
4. People are mostly independent of one another.[2r]	4.10	1.53	0.55
5. Events only occur as a result of individuals' choices and behaviour.[2r]	4.44	1.49	0.57
6. Each individual person is solely responsible for his/her own actions.[2r]	5.58	1.23	0.59
7. People usually end up doing what they want to, irrespective of norms or expectations.[2r]	4.67	1.31	0.45
8. Something can be both ugly and beautiful at the same time.[3]	5.34	1.30	0.53
9. In any given situation, what it means to do the right thing depends on who you ask.[3]	5.18	1.42	0.47
10. It is better to reach a compromise than to argue your point of view.[3]	4.87	1.33	0.33
11. The glass is both half empty and half full.[3]	5.59	1.25	0.50
12. An honest person can be expected to stay honest in the future.[4r]	4.86	1.37	0.65
13. A person's true nature may evolve but it does not change dramatically over time.[4r]	5.11	1.17	0.68
14. It is useful to make future projections based on the present situation.[4r]	4.78	1.09	0.36
Scale Average	**5.04**	**1.30**	**0.53**

Note. n = 283. Dimensions: [1] Attention, [2] Causality, [3] Contradiction, [4] Change.
[r] Indicates reverse-coded items.

Table 63.
Scale Items – Personal Identification with Leader Scale

Personal Identification with Leader Scale (PILS)	**Mean**	***SD***	***Comm.***
The following statements refer to your immediate supervisor. Please indicate the extent to which you agree or disagree with each one.			
1. When someone criticises my supervisor, it feels like a personal insult.	3.55	1.60	0.65
2. I am very interested in what others think about my supervisor.	4.08	1.51	0.78
3. I view the success of my supervisor as my own success.	3.68	1.65	0.70
4. I am proud to tell others that he/she is my supervisor.	4.41	1.61	0.78
5. I praise my supervisor, when speaking with friends, as someone who is good to work for.	4.60	1.63	0.82
6. I highly identify with my supervisor.	4.18	1.68	0.83
7. It is important for me to see myself as an employee of my supervisor.	3.74	1.64	0.64
8. My supervisor is a role model for me.	3.76	1.72	0.78
9. The values of my supervisor are similar to my values.	4.28	1.67	0.74
10. I consider my supervisor as a symbol of success and achievement.	4.05	1.70	0.79
Scale Average	**4.03**	**1.64**	**0.75**

Note. n = 283. Adapted from Kark et al. (2003).

Table 64.
Scale Items – Affect-based Trust

Affect-based Trust (ABT)	**Mean**	***SD***	***Comm.***
The following statements refer to your immediate supervisor. Please rate the extent to which you agree or disagree with each one.			
1. My supervisor and I can freely share our ideas, feelings, and hopes.	4.94	1.61	0.83
2. I can talk freely to my supervisor about difficulties I am having at work and know that he/she will want to listen.	4.96	1.70	0.84
3. My supervisor and I would both feel a sense of loss if I could no longer work there.	4.63	1.70	0.70
4. If I shared my problems with my supervisor, I know that he/she would respond in a constructive and caring way.	4.87	1.63	0.82
5. My supervisor and I have both made considerable emotional investments in our working relationship.	4.28	1.63	0.66
Scale Average	**4.74**	**1.65**	**0.77**

Note. *n* = 283. Source: McAllister (1995).

Table 65.
Scale Items – Brief Index of Affective Job Satisfaction

Brief Index of Affective Job Satisfaction (BIAJS)	**Mean**	***SD***	***Comm.***
The following statements refer to your current place of employment. Please rate the extent to which you agree or disagree with each one.			
1. I find real enjoyment in my job.	4.98	1.41	0.87
2. I like my job better than the average person.	4.69	1.41	0.77
3. Most days I am enthusiastic about my job.	4.86	1.50	0.87
4. I feel fairly well satisfied with my job.	4.89	1.46	0.86
Scale Average	**4.86**	**1.44**	**0.84**

Note. *n* = 283. Source: Thompson and Phua (2012).

Table 66.
Scale Items – Affective Organisational Commitment

Affective Commitment Scale (ACS)	**Mean**	***SD***	***Comm.***
The following statements refer to your current place of employment. Please rate the extent to which you agree or disagree with each one.			
1. I would be very happy to spend the rest of my career with this company.	4.78	1.77	0.53
2. I enjoy discussing my company with people outside it.	4.47	1.52	0.75
3. I really feel as if this company's problems are my own.	3.71	1.64	0.65
4. I think that I could easily become as attached to another company as I am to this one.	3.55	1.44	0.82
5. I do not feel like 'part of the family' at this company.	4.45	1.68	0.69
6. I do not feel 'emotionally attached' to this company.	4.40	1.69	0.74
7. This company has a great deal of personal meaning for me.	4.29	1.58	0.64
8. I do not feel a strong sense of belonging to my company.	4.49	1.63	0.63
Scale Average	**4.27**	**1.62**	**0.68**

Note. *n* = 283. Source: Allen and Meyer (1990).

Table 67.
Scale Items – Utrecht Work Engagement Scale–9

Utrecht Work Engagement Scale–9 (UWES-9)	**Mean**	***SD***	***Comm.***
The following statements refer to your feelings about work. Please rate the extent to which you agree or disagree with each one.			
1. At my work, I feel bursting with energy.	4.20	1.37	0.71
2. At my job, I feel strong and vigorous.	4.42	1.37	0.73
3. I am enthusiastic about my job.	4.85	1.42	0.73
4. My job inspires me.	4.45	1.50	0.76
5. When I get up in the morning, I feel like going to work.	4.19	1.59	0.67
6. I feel happy when I am working intensely.	5.10	1.22	0.52
7. I am proud of the work that I do.	5.54	1.11	0.54
8. I am immersed in my work.	5.00	1.31	0.64
9. I get carried away when I am working.	4.72	1.40	0.51
Scale Average	**4.72**	**1.36**	**0.64**

Note. *n* = 283. Source: Schaufeli et al. (2006).

Table 68.
Scale Items – Trust Propensity

Trust Propensity	**Mean**	***SD***	***Comm.***
The following statements are about your personality. Please indicate the extent to which you agree or disagree with each one.			
1. I trust others.	4.72	1.29	0.75
2. I trust what people say.	4.43	1.32	0.70
3. I distrust people.[r]	4.11	1.35	0.72
4. I suspect hidden motives in others.[r]	3.70	1.29	0.49
Scale Average	**4.24**	**1.31**	**0.67**

Note. n = 283. Source: International Personality Item Pool (2001). [r] Indicates reverse-coded items.

Table 69.
Scale Items – Agreeableness

Agreeableness	**Mean**	***SD***	***Comm.***
The following statements are about your personality. Please indicate the extent to which you agree or disagree with each one.			
1. I see myself as someone who is generally trusting.	5.21	1.31	0.66
2. I see myself as someone who tends to find fault with others.[r]	4.22	1.41	0.36
3. I see myself as someone who is considerate and kind to almost everyone.	5.55	0.99	0.62
Scale Average	**4.99**	**1.24**	**0.55**

Note. n = 283. Source: Rammstedt and John (2007). [r] Indicates reverse-coded items.

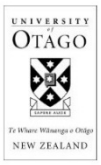
Table 70.
Scale Items – Social Desirability

Social Desirability (M-C Short)	**Mean**	***SD***	***Comm.***
This section contains some statements about you. Please rate the extent to which you agree or disagree with each one.			
1. It is sometimes hard for me to go on with my work if I am not encouraged.[r]	4.27	1.62	0.54
2. I sometimes feel resentful when I don't get my way.[r]	4.39	1.52	0.60
3. On a few occasions, I have given up doing something because I thought too little of my ability.[r]	4.68	1.50	0.54
4. There have been times when I felt like rebelling against people in authority even though I knew they were right.[r]	4.90	1.50	0.44
5. No matter who I'm talking to, I'm always a good listener.	5.15	1.06	0.62
6. There have been occasions when I took advantage of someone.[r]	4.85	1.51	0.43
7. I am always willing to admit it when I make a mistake.	5.48	1.15	0.42
8. I sometimes try to get even rather than forgive and forget.[r]	4.70	1.52	0.52
9. I am always courteous, even to people who are disagreeable.	5.26	1.28	0.66
10. I have never been irked when people expressed ideas very different from my own.	4.13	1.53	0.42
11. There have been times when I was quite jealous of the good fortune of others.[r]	4.02	1.60	0.60
12. I am sometimes irritated by people who ask favours of me.[r]	3.99	1.38	0.52
13. I have never deliberately said something that hurt someone's feelings.	4.44	1.62	0.50
Scale Average	**4.64**	**1.44**	**0.52**

Note. n = 283. Source: (Reynolds (1982)). [r] Indicates reverse-coded items.

Appendix D

Study 1 – Human Ethics Approval



D15/226

Academic Services
Manager, Academic Committees, Mr Gary Witte

13 July 2015

Professor S Grover
Department of Management
Division of Commerce
School of Business

Dear Professor Grover,

I am writing to confirm for you the status of your proposal entitled "**Developing the analytical and holistic through scale**", which was originally received on July 13, 2015. The Human Ethics Committee's reference number for this proposal is **D15/226**.

The above application was Category B and had therefore been considered within the Department or School. The outcome was subsequently reviewed by the University of Otago Human Ethics Committee. The outcome of that consideration was that the proposal was approved.

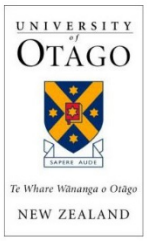
Approval is for up to three years from the date of HOD approval. If this project has not been completed within three years of this date, re-approval must be requested. If the nature, consent, location, procedures or personnel of your approved application change, please advise me in writing.

Yours sincerely,



Mr Gary Witte
Manager, Academic Committees
Tel: 479 8256
Email: gary.witte@otago.ac.nz

Study 1 – Participant Information Sheet *(page 1 of 2)*



Developing the Analytical and Holistic Thought Scale

INFORMATION SHEET

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

The aim of this project is to create a new set of survey questions which will measure the ways in which people think and how those mental patterns may vary across cultures. The survey development process has several stages and this study takes the first step by trialling a large number of potential questions to see which work the best.

What types of Participants are being sought?

Faculty members and doctoral students from the Management Departments of New Zealand universities may participate in this study. Potential respondents' contact details were obtained online through the university websites, where publicly available.

Participation is completely voluntary and there is no compensation/reimbursement offered to respondents. However, all participants will be offered a report of the results following the study's completion.

What will Participants be asked to do?

Should you agree to take part in this project, you will be asked to complete an online survey which should take around 15 minutes. The survey contains eight construct definitions and a number of statements; you will be asked to rate how well you think each statement captures the corresponding definition on a scale of 1-7 (from *'not at all'* to *'completely'*).

Answering the survey questions should not cause any discomfort, risk, or inconvenience to you as a result of your participation. Please be aware that you may decide not to take part in the project without any disadvantage to yourself.

Study 1 – Participant Information Sheet *(page 2 of 2)*

What Information will be collected and what use will be made of it?

The information collected is your opinion about the proposed survey questions and the extent to which they capture the corresponding definitions. The information is collected online via a survey service provider. The survey will not collect any personal name or contact information data. Instead, a randomly-generated code is attached to your information, which is then used to handle the completed surveys. There is no way to trace you to the information after it has been collected.

The data collected will be securely stored in such a way that only the researchers will have access to it. Data obtained as a result of the research will be retained for **at least 5 years** in secure storage. Any personal information held on the participants may be destroyed at the completion of the research even though the data derived from the research will, in most cases, be kept for much longer or possibly indefinitely.

Can Participants change their mind and withdraw from the Project?

You may withdraw from participation in the project without having to provide any reason and at any time before returning your answers to the researcher. Because no personal information will be recorded with your answers, it will not be possible to withdraw from participation after your answers have been returned as we will have no way of identifying your survey.

What if Participants have any Questions?

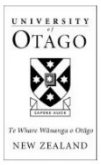
If you have any questions about our project, either now or in the future, please feel free to contact:

Student Researcher	Supervisor
Andrei Lux	**Professor Steven Grover**
University of Otago	University of Otago
School of Business	School of Business
Management Department	Management Department
andrei.lux@otago.ac.nz	steven.grover@otago.ac.nz
03 479 8133	03 479 8542

This study has been approved by the Management Department. However, if you have any concerns about the ethical conduct of the research you may contact the University of Otago Human Ethics Committee through the Human Ethics Committee Administrator (ph. 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.

Appendix E

Study 2 – Human Ethics Approval



15/116

Academic Services
Manager, Academic Committees, Mr Gary Witte

25 August 2015

Professor S Grover
Department of Management
Division of Commerce
School of Business

Dear Professor Grover,

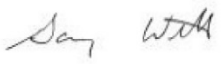
I am again writing to you concerning your proposal entitled "**Testing the analytical and holistic thought scale**", Ethics Committee reference number **15/116**.

Thank you for your response to the Committee of 24 August 2015. Thank you for rewriting question 10, and for providing a power analysis of the study.

On the basis of this response, I am pleased to confirm that the proposal now has full ethical approval to proceed.

Approval is for up to three years from the date of this letter. If this project has not been completed within three years from the date of this letter, re-approval must be requested. If the nature, consent, location, procedures or personnel of your approved application change, please advise me in writing.

Yours sincerely,

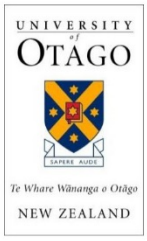


Mr Gary Witte
Manager, Academic Committees
Tel: 479 8256
Email: gary.witte@otago.ac.nz

c.c. Assoc. Prof. I C McAndrew Department of Management

Study 2 – Participant Information Sheet *(page 1 of 2)*

Ethics Committee Reference Number 15/116
25 August 2015



Testing the Analytical and Holistic Thought Scale

INFORMATION SHEET

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

The aim of this project is to test a new set of survey questions that measure the ways in which people think and how those mental patterns may vary across cultures. This study is the last step in the survey development process and will allow us to determine if the questionnaire is working as expected. This project is being undertaken as part of Andrei Lux's PhD research.

What Types of Participants are being sought?

Undergraduate students currently enrolled at an Australian or New Zealand University may participate in this study. The appropriate authority at your university (e.g. the Dean, the Research/Ethics Coordinator, or the Paper Coordinator) was contacted via their publically-available email address to request access to their students. If such access was granted, the surveys were provided to them for distribution to their students as either a web link or an electronic copy for printed distribution.

Participation is completely voluntary and there is no compensation/reimbursement offered to respondents. However, undertaking this survey may help develop your self-awareness as you reflect on your answers and all participants will be offered a report of the results following the study's completion.

What will Participants be Asked to Do?

Should you agree to take part in this project, you will be asked to complete either an online or printed a survey which should take around 15-20 minutes. The survey contains a number of statements that illustrate various world views, attitudes, and behaviours. You will be asked to rate the extent to which you either agree or disagree with each statement on a scale from 1-7 (*'strongly disagree'* to *'strongly agree'*).

Study 2 – Participant Information Sheet *(page 2 of 2)*

Answering the survey questions should not cause any discomfort, risk, or inconvenience to you as a result of your participation. Please be aware that you may decide not to take part in the project without any disadvantage to yourself of any kind.

What Date or Information will be Collected and What Use will be Made of it?

The information collected is your opinion about various different world views, attitudes, and behaviours. The information is collected either online via a survey service provider or with a printed paper questionnaire. Neither survey format will collect any personal name or contact information data. Instead, a randomly-generated code is attached to your information, which is then used to handle the completed surveys. There is no way to trace you to the information after it has been collected.

The data collected will be securely stored in such a way that only those mentioned below will be able to gain access to it. Data obtained as a result of the research will be retained for **at least 5 years** in secure storage. Any personal information held on the participants may be destroyed at the completion of the research even though the data derived from the research will, in most cases, be kept for much longer or possibly indefinitely.

The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve your anonymity. No commercial use will be made of the data; it is collected for research purposes only.

Can Participants Change their Mind and Withdraw from the Project?

You may withdraw from participation in the project without having to provide any reason and at any time before returning your answers to the researcher. Because no personal information will be recorded with your answers, it will not be possible to withdraw from participation after your answers have been returned as we will have no way of identifying your survey.

What if Participants have any Questions?

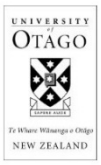
If you have any questions about our project, either now or in the future, please feel free to contact either:

Student Researcher	Supervisor
Andrei Lux	**Professor Steven Grover**
University of Otago	University of Otago
School of Business	School of Business
Management Department	Management Department
andrei.lux@otago.ac.nz	steven.grover@otago.ac.nz
+64 3 479 8133	+64 3 479 8542

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (phone +64 3 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.

Appendix F

Study 3 – Human Ethics Approval *(page 1 of 2)*



16/019

Academic Services
Manager, Academic Committees, Mr Gary Witte

19 February 2016

Professor S Grover
Department of Management
Division of Commerce
School of Business

Dear Professor Grover,

I am writing to let you know that, at its recent meeting, the Ethics Committee considered your proposal entitled "**Authentic Leadership: An Empirical Test of Cross-Cultural Utility**".

As a result of that consideration, the current status of your proposal is:- **Approved**

For your future reference, the Ethics Committee's reference code for this project is:- **16/019**.

The comments and views expressed by the Ethics Committee concerning your proposal are as follows:-

While approving the application, the Committee would be grateful if you would respond to the following:

Participants

The Committee asks that you reassure participants that taking part in the study will not affect their employment in anyway. The Committee recommends that a statement reflecting this is added to the Information Sheet.

Study questions

The Committee noted that it may take some participants longer than others to answer the questions and asks that the time commitment is clearly explained on the Information Sheet.

Please provide the Committee with copies of the updated documents, if changes have been necessary.

Approval is for up to three years from the date of this letter. If this project has not been completed within three years from the date of this letter, re-approval must be requested. If the nature, consent, location, procedures or personnel of your approved application change, please advise me in writing.

The Human Ethics Committee asks for a Final Report to be provided upon completion of the study. The Final Report template can be found on the Human Ethics Web Page

Study 3 – Human Ethics Approval *(page 2 of 2)*

http://www.otago.ac.nz/council/committees/committees/HumanEthicsCommittees.html

Yours sincerely,

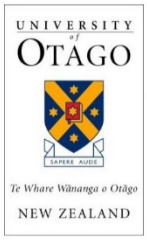


Mr Gary Witte
Manager, Academic Committees
Tel: 479 8256
Email: gary.witte@otago.ac.nz

c.c. Assoc. Prof. I C McAndrew Department of Management

Study 3 – Participant Information Sheet *(page 1 of 2)*

Ethics Committee Reference Number 16/019
19 February 2016



Authentic Leadership across Cultural Borders

INFORMATION SHEET

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

The aim of this project is to conduct a cross-cultural study of authentic leadership. Modern companies routinely engage with global markets and frequently employ international personnel, yet little is known about how cultural factors influence leadership outcomes. As such, we are examining how employees' cultural differences impact on their perceptions of authentic leadership and their experiences at work. This project is being undertaken as part of Andrei Lux's PhD research.

What Types of Participants are being sought?

We are inviting people who are currently employed in either New Zealand, Australia, or further abroad to participate in this study. Suitable participants will have a supervisor at work and cannot be self-employed.

Your participation is completely voluntary and there is no compensation or reimbursement offered to respondents. However, involvement in this study may help you to develop your own self-awareness as you reflect on your answers and all participants will be offered a report of the findings following the study's completion.

What will Participants be Asked to Do?

Should you agree to take part in this project, you will be asked to complete two different electronic surveys several weeks apart. The first one takes about 15-20 minutes to complete and the second is much shorter, around 10 minutes or so – some participants may take longer than others. **You must complete both surveys for your answers to be usable**. The surveys contain a number of statements that illustrate various world views, work experiences, and behaviours. You will be asked to rate the extent to which you either agree or disagree with each statement on a scale from 1-7 (*'strongly disagree'* to *'strongly agree'*).

Study 3 – Participant Information Sheet *(page 2 of 2)*

Answering the survey questions should not cause you any discomfort, risk, or inconvenience, and your participation will not affect your employment in any way. Please be aware that you may decide not to take part in the project without any disadvantage to yourself of any kind.

What Data or Information will be Collected and What Use will be Made of it?

The information collected is your opinion about different world views, work experiences, and behaviours. The information is collected online over two web-based surveys. You will not be asked to provide your name at any stage. Instead, a randomly-generated code is attached to your information and then used to handle the completed surveys. We will need to first collect your email address, which will then only be used for distributing the surveys to you. You will not be able to participate in this study if you choose not to provide your email address.

The data collected will be securely stored in such a way that only those mentioned below will be able to gain access to it. Data obtained as a result of the research will be retained for **at least 5 years** in secure storage. Any personal information held on the participants (i.e. your email address details) will be destroyed at the completion of the research even though the data derived from the research will, in most cases, be kept for much longer or possibly indefinitely.

The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve your anonymity. No commercial use will be made of the data; it is collected for research purposes only.

Can Participants Change their Mind and Withdraw from the Project?

You may withdraw from participation in the project without having to provide any reason and at any time before returning your final set of answers to the researchers. Because no personal information will be recorded with your answers, it will not be possible to withdraw from the study after submitting your answers as we will have no way of identifying your survey.

What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:

Student Researcher	Primary Supervisor
Andrei Lux	**Professor Steven Grover**
University of Otago	University of Otago
School of Business	School of Business
Management Department	Management Department
andrei.lux@otago.ac.nz	steven.grover@otago.ac.nz
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This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (phone +64 3 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.