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Pepperdine University  
Graduate School of Education and Psychology

EXPLORING DISC ATTITUDES TOWARD ORGANIZATIONAL CHANGE

A dissertation submitted in partial satisfaction  
of the requirements for the degree of  
Doctor of Philosophy in Global Leadership and Change

by

Christie Cooper

November, 2023

Martine Jago, Ph.D. – Dissertation Chairperson

This dissertation, written by

Christie Cooper

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Doctoral Committee:

Martine Jago, Ph.D. – Dissertation Chairperson

Ron Bonnstetter, Ph.D. - Committee Member

Kent Rhodes, Ed.D. – Committee Member

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## DEDICATION

To my husband, Howard Cooper, I am forever grateful for all your support. You are my best cheerleader. You bless me every day and provide me so much support on this constant “learning journey” I seem to be on forever!

I houd van jullie allemaal! (Translated from Dutch to English- means I love you all!)

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To Dr. Kent Rhodes, I have much admiration for you as a consultant and entrepreneur. I learned much from your class activities from my first organizational behavior and theory class with you.

## VITA

Christie Cooper

[linkedin.com/in/imchristiecooper/](https://www.linkedin.com/in/imchristiecooper/)

## INSPIRES LEARNING, DEVELOPS TALENT &amp; FUTURE LEADERS

**Learning and Development Leader** dedicated to enhancing and inspiring leadership by working effectively with key stakeholders to analyze and identify root causes and implement a training strategy that aligns with business needs.

Designs portfolio of customized workshops for individuals, teams, and multi-million-dollar organizations using wide array of assessment and training tools and in-depth knowledge to effect clear communication, quality leadership, and team skills. Looking to use this skillset in a university setting as an adjunct professor.

Core competencies include:

- Adult Learning / Andragogy
- Learning Design / Evaluation
- Talent / Leadership Development
- E-learning Theory and Practice
- Competency Models / Coaching
- Organizational Behavior / Team Building
- Advanced Facilitation
- Advanced Written Skills
- Advanced Selling Skills
- Employee Engagement

**Education****Doctor of Philosophy, Global Leadership & Change**

Pepperdine University, Malibu, CA

*Dissertation: DISC Attitudes Toward Organizational Change***Doctor of Education, Organizational Leadership**

Pepperdine University, Malibu, CA

*Dissertation: Competencies Needed for Successful Outside Sales Managers in the For-profit Sector: A Delphi Study***Master of Arts, Leadership & Organization**

Azusa Pacific University, Azusa, CA

**Bachelor of Science, Organization & Leadership**

Azusa Pacific University, Azusa, CA

**Academic Experience**

CALIFORNIA STATE UNIVERSITY, Fullerton, CA — 2015 to Present *Full Time Lecturer*  
BUAD 301 Advanced Business Communication

BUAD 201 Business Communication  
 MKTG 401 Professional Selling  
 MKTG 415 Managing the Sales Force  
 MKTG 489 Marketing Strategies  
 MKTG 351 Principles of Marketing

PEPPERDINE UNIVERSITY, Malibu, CA — 2015 to Present  
*Adjunct Faculty*  
 EDOL 791 Dissertation Success  
 EDOL 714 Organizational Behavior

### **Professional Work History**

#### **COOPER CONSULTING GROUP, INC., Yorba Linda, CA**

*Founder & President (MBTI Master Certified Practitioner) 2012 to Present*

Develop and execute customized interactive Leadership Development and team training programs and workshops for organizations, individuals, and teams. Utilize broad range of assessment and training tools to inspire and educate clients. Achieve impactful and viable new training initiatives to increase ROI effectiveness.

- Utilized gap analysis to reduce process time by 33% to consolidate client's meeting process.
- Provided client with practical tool to facilitate communication between management and associates resulting in promoting clear directives.

#### **THE MYERS BRIGGS COMPANY, Sunnyvale, CA 2016 to Present**

*Associate Consultant*

Provide engaging workshops and coaching using the MBTI; one of the world's most popular personality assessments.

#### **MARS, INC. (The Nutro Company), Franklin, TN**

*District Manager 2009 to 2014*

Managed Account Sales Team with 8 direct reports in CA, AZ, NM, and TX with \$80M sales portfolio. Set up and presented business development plans to ensure field sales activities were aligned with company objectives. Hired talent, developed teams, and conducted annual reviews using assessment key procedures to evaluate staff performance.

- Recognized for being in the Top 20% (90th percentile) for company's Gallup Engagement Survey.
- Established innovative e-credit form to streamline credit processes reducing time and expense resulting in \$525,000 in savings.
- Grew region's largest single independent account by \$750,000+ using

excellent client relationship management skills.

- Created best-practices onboarding procedures by collaborating cross-functionally with other teams.

#### *Regional Manager 2007 to 2009*

Accountable for strategic growth and development of National Accounts managing 10 direct reports with \$80M sales portfolio. Developed and expedited sales initiatives collaborating with National Account partners to reach sales goals.

- Implemented new sales curriculum generating increased sales performance and engaged employees.
- Received Over and Above Award two years and was semi-finalist for Make the Difference Award.

#### *Corporate Trainer 2004 to 2007*

Designed and facilitated training workshops on Selling Skills, Listening, Becoming the Trusted Business Advisor, Hiring / Interviewing, and Management Training for internal and external attendees on local and international platforms. Created coaching & feedback best-practices that were used throughout the company.

- Utilized U.S. based training curriculum to educate Japanese affiliate business unit resulting in generating \$5.6M in revenue.
- Formulated, implemented, and facilitated hiring and interview workshop for 525-store chain entity resulting in 20% reduction in employee turnover.

#### *Key Account Director 2001 to 2004*

Assigned to manage national accounts with 150 stores in 5 states and 5 direct reports earning top sales districtwide. Directed talent acquisition, team training, sales meetings, performance reviews, store-level recommendations, promotional and sales execution.

- Generated 16% territory growth in 4 consecutive years of exceeding 4% sales quotas standard.
- Reduced expenses 13% for 4 consecutive years by aggressively applying LEAN techniques.

#### *Territory Manager 1998 to 2001*

- Led 4 direct reports covering 350 stores in SoCal. Tasked with talent acquisition, training, mentoring, performance reviews, forecasting budgets, and ensuring sales targets were met or exceeded.
- Grew territory sales 9% year-over-year, outperforming industry average within \$10M territory.
- Exceeded district quota requirement managing territory accounts for 36 consecutive months.

## **Certifications**

- Board Certified Coach – *Center for Credentialing & Education*
- Certified Life & Business Coach – *Life Purpose Institute*
- Situational Leadership II Trainer & Channel Partner – *The Ken Blanchard Company*
- Legendary Service Master Trainer – *The Ken Blanchard Company*
- MBTI® Master Certified Practitioner (1 of 200 in US & Canada) – *CPP, Inc.*
- MBTI® Step III Certified Practitioner (1 of less than 100) – *CPP, Inc.*
- DiSC® Certified Trainer & Authorized Inscape Publishing Distributor – *John Wiley Company*
- Emotional Intelligence – *TalentSmart*
- Trained LPI 360 Coach – *John Wiley Company*
- 5 Behaviors of a Cohesive Team Authorized Distributor & Trainer – *John Wiley Company*
- Voices® 360 Certified; Interview Architect; Leadership Architect; Learning Agility – *Korn Ferry/Lominger*
- Behaviors Analyst; Motivators Analyst; Acumen Analyst – *TTI Success Insights*
- Hogan® Certified Practitioner – *Hogan Assessments*
- Gallup® Certified Global Coach

## **Boards / Volunteer**

### **Boards**

- CEPA Advisory Council Board Member
- International Coaching Federation- Director of Special Projects & Social Responsibility – 2018
- Youth Business Alliance: Guest Speaker
- H.O.P.E. Founder (Helping Other Provide Essentials) currently a 501c (3).

### **Affiliations & Memberships**

- American Psychological Association (APA)
- Society for Personality Assessment (SPA)
- American Talent Development (formerly ASTD)
- Center for Counseling and Education (CCE)
- International Coaching Federation (ICF)
- Association of Psychological Type (APT)
- United States Association of Accredited Businesses (USAAB)
- Better Business Bureau (BBB)



**Dissertation Committee Member**

- Pepperdine University: The Misconceptions of HUD Culture and How it Effects Employee Job Satisfaction
  - Pepperdine University: Examining Strategies Towards Helping African American Male Students Succeed in United States Secondary Schools
  - Pepperdine University: Succession Planning in Private Universities in the Los Angeles Vicinity
  - Pepperdine University: Adult Learning and the Decision-Making Process
  - Pepperdine University: Barriers to Career Advancement: A Qualitative Study of Asian American in the Aerospace Industry
  - Pepperdine University: Overcoming Resistance to Change in Saudi Arabian Organizations: A Correlation Study Between Resistance to Change and Organizational Justice
- 

**Publications & Copyrights**

## Publications

- Group Formation After the Restructure, Journal of Management (Published: September 2013).
- Understanding Team Dynamics to Team Reformation - ASTD Links (Published: July 2, 2013).
- 2015: SAM (Scientific Advancement of Management) Conference Proceedings
- 2019: SAGE Journal: A Delphi Study Copyrights
- The 7 C's to Selling: A Sales Process for Sales Teams
- The Four I's of Leadership Competencies

## ABSTRACT

This quantitative study explored how different personality styles, using the dominance, influence, steadiness, and compliance (DISC) personality assessment to address the concept of change. Specifically, the attitudes the four main DISC personality styles have toward change. The study aimed to contribute to the body of knowledge. There is a significant gap in the empirical research investigating DISC and change.

This study's significance was to fill a gap in the literature in an area that has limited empirical research conducted. European and Asian countries do far more work on the front-side of change to ensure people are prepared for the change before the new process or policy is implemented. It is time to banish the high statistics of failed change initiatives to the past.

The main hypothesis of the study was that there are identifiable attitudes towards organizational change recognized by each of the DISC personality styles. This study used a non-experimental research design in the form of correlational research, which is customarily used in the social sciences. This method is commonly employed when there is a need to determine how strongly different variables are related to each other. In this case the researcher sought to explore whether if there is a relationship between the DISC personality styles and their attitude toward organizational change. Quantitative methods through the lens of constructive alternativisim were used.

The dependent variables were dominance, influence, steadiness, and conscientiousness for this research. The main independent variable measured was people's attitudes toward change. This included areas such as how people navigate organizational change. Other variables included gender, age, position, and education.

Keyword: *personality, change, DISC, organizational development*

## **Chapter 1: Draft Introduction**

### **Chapter Overview**

Chapter One provides a road map to understand the background of the study, a description of the specific problem is identified, and the significance of the research. Next, a set of definitions is presented, followed by an overview of the conceptual framework, theoretical framework, and positionality. Limitations and delimitations of the study are then identified. The chapter concluded with a chapter summary.

### **Background of the Study**

Numerous studies cite the common statement, between 40 and 70% of change management programs fail (Avey et al., 2008; Barnett et al., 2006; Bridges, 2009; Cameron, 2008; Cameron & Quinn, 2011; Hammer & Champy, 2014; Hayes, 2018; Kotter, 1998; Kotter, 2007; Kupiek, 2011). Niccolo Machiavelli's famous quote supports this statistic, he stated, "There is nothing more difficult and dangerous, or are doubtful of success, than an attempt to introduce a new order of things..." (Machiavelli, 2003, p. 42).

Resistance to change has always been a factor and most likely will continue to be a factor. It is vital to understand why is change so hard for some people while others embrace it more willingly. A common practice in the United States is to roll-out a new process, idea, plan, or organizational structure change and then expect people to align with the change afterwards. Bartlett and Ghosal (2000) shared that when many Japanese and European companies want to make a change, they work to change the attitudes of key stakeholders first, before making the change. This practice is the exact opposite of the conventional change processes in the United States. Often organizational development practitioners do not understand the change fully and, therefore cannot lead the change (Burke et al., 1993).

Burke et al (1993) conducted a study to determine what leaders understand about the change management process. Approximately 700 managers and executives participated in the study, using Burke (2011) Managing Change Questionnaire to collect data. The results showed that if these individuals were to receive a letter grade on handling change, it would be that of a 'C.' What was startling was that these leaders were the very people responsible for initiating the change. No wonder there is such a high failure rate with change management programs.

Change is inherent and coming at an increasing speed each year. Organizations and people are changing frequently. How individuals handle change is the basis for their relevance in the workplace. Keeping up with how organizations change is vital. Many organizational leaders downsize and restructure their organizations due to rising costs, lack of profit or revenue, to remove poor-performing employees, and to eliminate excessive layers of unneeded management (Babakus et al., 1996; Gentry et al., 2008). Downsizing or announced layoffs in some organizations have become an accepted best practice in dealing with uncertainty by executive leadership (Colbert, 2014; Wertheim & Robinson, 2000). Organizations are shifting from a top-down, command and control model of management to a leaner and flatter structure (Gentry et al., 2008; McKinley & Scherer, 2000). Along with restructuring, technology has helped evolve the management sector. Since the Internet was created in the 1980s the world has become flatter (Friedman, 2007), and the speed of change comes at lightning speed.

The world is a tumultuous place for organizations to thrive (Alldredge & Nilan, 2000; Kantor, 1991; Kouzes & Posner, 2007). The evolution of conducting business has made it necessary for managers and leaders to adapt to a changing world. The need to change and evolve to stay relevant has allowed organizations and people to succeed and bring along new managers and leaders for continued success.

Coch and French (1948) saw the need for change back in the 1940s as competition and evolution of industry was influenced. A 1947 study conducted on the Harwood Manufacturing Corporation with 600 women and men attempted to identify production problems, and the resistance workers had to job and method changes (Coch & French, 1948). The initial theory of resistance to change was posited as job relearning after being transferred to a new position was a slower process than the initial learning when first starting with a company (Coch & French, 1948). Workers shared after being transferred to a new job that they felt frustrated, had resentment toward their supervisor, and had feelings of hopelessness that they would be able to get to the same level of productivity as in their former position. This study showed the transfer group had a higher level of turnover once they became frustrated compared to their non-transfer counterparts.

A key factor that affected recovery rates of the transfer group was defined as “we-feeling” (Coch & French, 1948). The concept of “we-feeling” showed that those groups with a strong negative attitude toward management had the most substantial resistance to change. Contrary to the negative group, were the strong positive feelings other groups had toward management. Those who had the most cooperative attitudes were the best re-learners in the transfer group. As a result, Harwood Manufacturing’s policy was to scatter a group and place individuals throughout the company.

Ironically, the Coch and French (1948) study supports Bartlett and Ghosal’s (2000) position that when organizations implement change, the company tends to be focused on the process of change rather than the personality of the individuals involved in the change.

Çakıroğlu and Harmancı Seren (2019), emphasized, “Attitudes toward change are defined as the responses people have to change...it is stated that regardless of what the changes are, members of an organization offer different responses. These responses can be positive or negative, open, or closed, and strong or weak” (pg. 212). Whereas Armenakis and Bedeian (1999) distinguished change readiness as an individual’s “beliefs, attitudes, and intentions regarding the extent to which changes are needed and to the organization’s capacity to successfully undertake those changes” (p. 681). Elizur and Guttman (1976) stated a working definition of attitudes toward change as, “Attitudes toward change is a multi-faceted concept comprised of a set of feelings about change, cognitions about change and intentions toward change. Each of these three facets reflects different manifestations of people’s evaluations of a change” (pg. 612). Petty and Wegener (1998) define attitudes toward change only as “a person’s overall evaluation of the change (as cited in Lines, 2005, p. 10). For this research, the definition of attitude toward change is an individual’s behavior which stems from a tridimensional view (affective, cognitive, and behavioral) toward the change with a level of valence in emotions, either positive or negative (Boyle et al, 2014; Elias, 2009; Suvajdzic & Vujic, 2015) and the strength of the emotion(s) either high or low, that lead to the behavior at the individual level not the organizational level.

### **Categories of Change**

Individuals can have a direct impact on how an organization effectively executes any change. Therefore, it is essential to understand more than just the psychological components (Chen & Wang, 2007) of change such as change readiness (Choi & Ruana, 2011; Walinga, 2008) openness to change (Chawala & Kevin Kelloway, 2004), commitment to change, resistance to change (Coch & French, 1948; Chawala & Kelloway, 2004; Jaramillo et al, 2012; Oreg, 2006;

Vakola et al., 2004) and coping with change (Schultz et al, 2017). Receptivity of employees to change (Armenakis & Bedeian, 1999) should be among the significant considerations to undertake during a change and the possible resistance (Lewin, 1945) that may likely accompany the change. According to a 2013 Towers Willis Watson survey, the number one item change leaders need to get right is to understand why people resist change (Walinga, 2008; Willis Towers Watson, 2013). This same survey reveals that 87% of companies train their managers to communicate the change, yet only 22% of the companies state the training is effective.

### **Change as Bipolar Views**

Organizational change research has been categorized as positive (Avey et al., 2008) or negative (Castillo et al, 2018). A review of the literature by Oreg et al (2011), who analyzed 79 articles, found that the emotions of employees were viewed as either positive or negative. Piderit (2000) suggested that most of the behavioral reactions to organizational change come with a bias on negative resistance toward change. Individuals with a negative view of the change will be more resistant to the change (Lines, 2005).

### **Reasons for Change**

Organizational change takes place to increase shareholder value and productivity, to streamline efficiencies across the organization, to implement corporate strategy, to prepare for the future, and to allow for incoming or outgoing leadership, just to name a few reasons. Yet, the impact of the change has the inverse effect (Choi & Ruona, 2011; Sibel & Idil, 2016).

Understanding the impact that change has on behaviors can assist human resource development (HRD) in improving performance during organizational changes (Lines, 2005).

At the beginning of this study, the world was shut down due to COVID-19, a new strain of a coronavirus. More than 14 million people found themselves unemployed due to state

shutdowns (Kochhar, et al., 2020). Unlike using change as a corporate strategy, the COVID-19 pandemic promoted change nearly overnight. Organizations furloughed and fired employees. For those employees who were deemed non-essential, they were relegated to working remotely from home. Frenzied people raced to the stores to stockpile food, water, and other necessities. In this uncertain time of change, people may have found themselves acting in a manner outside of their usual self. In fact, due to COVID-19 Microsoft's CEO Satya Nadella shared this about his company, "[we] have gone through two years' worth of digital transformation in two months" (Shapiro, 2020, p. 2).

### **Researcher Approach**

This research will look what the United States may consider a "backward" approach to handling change, which was to first understand the mindset and attitudes that people have toward change. Yet, this method may seem more natural and sensical to those from Europe or Japan. To understand the attitude people have toward change, it is imperative to know how people view change. This was determined in two ways (a) by understanding a person's personality style, using dominance, influence, steadiness, and conscientiousness/compliance personality assessment and (b) by learning how each of the DISC styles manage change, the information they need to have, how they want that information, how they can support others in times of change, and how others can support them.

Based on initial findings it does appear as though there is a major gap in the research that addresses how personality styles (Burke et al,1993; Caliskan & Islik, 2016; Church et al, 2015) specifically, DISC personality styles address change (Ron Bonnstetter, Personal Communication, March 15, 2018). A search of the following keywords (Table 1) showed limited results and demonstrates the lack of empirical research in personality attitudes toward change.



**Table 1***Research Search of Topic as of April 26, 2019*

LOCATION	KEYWORDS	# OF RESULTS
Pepperdine WorldCat	DISC attitudes toward change	2
Libraries Worldwide	Dominance, Influence, Steadiness, Compliance	1
	Attitudes towards organizational change	0
	DISC and organizational change	1
	DISC personality assessment	0
	DISC	1
Pepperdine WorldCat	Change Management	1,784,237
Libraries Worldwide		
Pepperdine WorldCat	Organizational Change	190.987
Libraries Worldwide		
Journal of Personality	DISC	0
	D, I, S, C	0
	DISC assessment	0
	Dominance, Influence, Steadiness, Conscientiousness	0

However, when using change management and organizational change as keywords, the return rate is substantially higher, nearly reaching two million articles and books. Clearly, not all these articles and books were read. However, topics that populates in human resource (HR) manager's guides to change management books are:

- Labor market conditions
- Customer demands
- Legislative requirements
- Competitors
- Organizational strategies

Nevertheless, managing personalities with change do not appear to be a topic discussed.

The goal of this research was to create an instrument that combines these two constructs (personality and change) into an assessment that can be used by HR practitioners, consultants, and virtually anyone who needs to lead change.

## **Problem Statement**

There appears to be a significant deficit in the body of knowledge in the correlation between personality styles, specifically using DISC, and their attitudes towards change. According to Church et al (2015) have emphasized, “The role of personality in that change process, however, has historically been ignored or relegated to a limited set of interventions” (p. 91).

I was energized to bring a [perceived] needed area to the forefront of this topic and provide much-needed research to others. Therefore, I explored and described the patterns that emerge in how the four DISC styles navigate change. Based on history, there has been a lengthy appreciation of an individual’s personality, both pre and post Hellenistic times (Wundt, 2013).

## **Purpose Statement**

This quantitative study explored how different personality styles, using the DISC personality assessment to address the concept of change. Specifically, I identified the attitudes of the four main personality styles toward change. The study aimed to contribute to the body of knowledge. There is a significant gap in the empirical research investigating DISC and change.

## **Significance of the Study**

This study’s significance is to conduct research in an area acknowledged to be lacking. European and Asian countries (Bartlett & Ghosal, 2000) do far more work on the front-side of change to ensure people are prepared for the change before the new change is implemented. It is time to banish the high statistics of failed change initiatives to the past.

There are many disruptors of change, from taxi to Uber, from hotel to Air BnB, from paper bill statements to online banking, and more recently from in-person work to working remotely with the onslaught of COVID-19. This disruptor of change, COVID-19, was not

planned for- it just occurred. There was no foresight, no careful planning, just a reactive response to a dire situation. Not all changes can be planned for. Regardless, of planning and preparation, understanding what the DISC personality styles attitude are toward change would be of great value. Understanding a universal language of observable behavior can allow individuals to better communicate in good times, bad times, or times of change. William Bernbach, a noted creative in the advertising space, once stated, “Nothing is so powerful as an insight into human nature...what compulsions drive a man, what instincts dominate his action...if you know these things about a man, you can touch him at the core of his being” (as cited in Bonnstetter & Suitor, 2013, pp. 31).

The study’s value was to provide learning and development leaders, organizational behavior practitioners, independent consultants, and leaders across all sectors of an organization information on the attitudes of various personality styles toward change. This information may allow leaders to be more prepared and prepare all individuals in an organization for impending change (Ajzen, 1988; Ajzen and Fishbein, 1980; Lines, 2005).

### **Definition of Terms**

It is essential to be familiar with the terms shown below, which will appear throughout the paper.

- *Attitude* – “is a psychological tendency to view a particular entity with some degree of favor or disfavor” (Blair et al, 2015, p. 1).
- *Attitudes toward change* – Seen as an individual’s behavior which stems from a tridimensional view (affective, cognitive, and behavioral) toward the change with a level of valence in emotions (either positive or negative) and the strength of the emotion(s) – either high or low, that lead to the behavior (Hower et al., 2019).

- *Big Five Inventory*—Describes personality in five areas: openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism (Oreg & Sverdluk, 2013).
- *Change*- According to Merriam Webster’s Dictionary (2019): is to make different in some way, to make a different position, course, or direction; to replace with another; to make a shift from one to another; to become different.
- *Clover Model*®- The conceptual framework for this study consisting of five components; personality, learning, behavior, change and assessment.
- *Construct validity*- To establish construct validity, the test should relate to an external criterion (Pervin et al, 2005).
- *DISC*- A personality assessment that measures a person’s personality in four main domains, where D measures dominance; I measures influence; S measures steadiness, and C measures conscientiousness.
- *Discriminant validity* – In creating new personality tests, showing the new test measures something distinct and not the same measures in other existing tests.
- *Human Resource Development (HRD)*- Refers to the training, development, and education of the workforce.
- *Humour or humor* – From the Latin word meaning moisture. In medieval times, humor referred to bodily fluid, not meaning “funny” as it is used today.
- *Idiographic* - A flexible testing method of characteristics. The goal is to find clusters of themes that show the uniqueness of personality.
- *IPIP* – International Personality Inventory Pool.
- *Neuroticism* – A scale created by Han Eysenck that shows emotional stability.

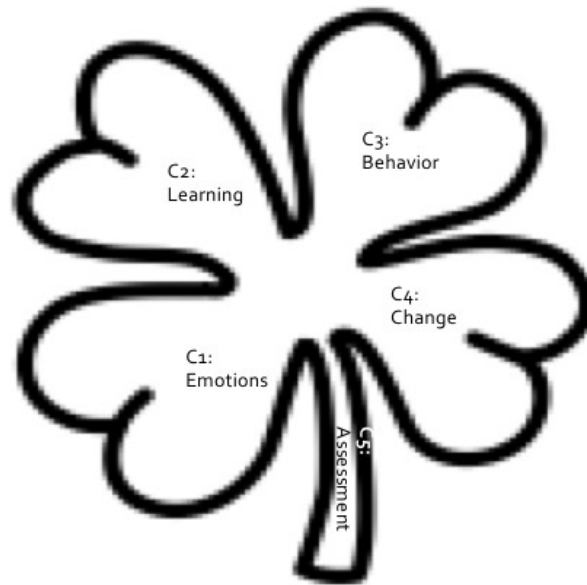
- *Nomothetic*- A method of assessing individuals using the same measure for different people. A fixed testing method.
- *Personality* – “Refers to those characteristics of the person that account for consistent patterns of feeling, thinking, and behaving” (Pervin et al, 2005, p. 6). Note that people use the term personality in a variety of ways. Identifying how the word personality is used can help understand one what the word means.
- *Personality psychology*- A unique branch of psychology that studies the patterns and variation in personalities.
- *Self-concept* –An individual’s belief about oneself (Baumeister, 1991).
- *Self-efficacy*- is the perception a person has about their ability to do something in a future scenario (Bandura, 1997; Pervin et al, 2005). These perceptions influence behavior, which in turn can impact the accomplishments someone can generate.
- *Self-esteem*- is a person’s overall evaluation of their self-worth. Self-esteem is presented as a term to differentiate the difference between self-efficacy and self-esteem.
- *Temperament*- the biological source a distinctive quality of personality is comprised of (Pervin et al, 2005). For example, shyness or fearfulness.
- *Trait*- The consistent way a person acts will demonstrate a trait. Traits are often seen on a continuum, having more or less of a trait. For example, being tactful, optimistic, direct, or analytical.

### **Conceptual Framework**

My conceptual framework is called the Clover model<sup>©</sup> (see Figure 1). The Clover Model has five components: personality, behavior, learning, change, and assessment.

## Figure 1

### *The Clover Model*



### **Theoretical Framework**

The research conducted used quantitative methods through the lens of constructive alternativism. The main goal was to describe what has not been fully defined by the current body of knowledge by using a postpositivist view (Epting & Leitner, 1992). The aim was to contribute to the area of personality styles and change. The theoretical framework was developed further in the research design, and is described in Chapter Three.

### **Research Questions & Hypotheses**

- RQ1. What are the relationships between each of the four DISC scales and the change survey scales?
- Null 1. None of the four DISC scale scores will be related to any of the change survey.
- Alternative 1. At least one of the four DISC scale scores will be related to the change survey.

Statistical approach: Pearson correlations

- RQ2. What are the relationships between each of the four DISC scales and the change survey scale scores after controlling for respondent demographics (sex, age, education, professional level, etc.)?
- Null 2. None of the four DISC scale scores will be related to the change survey scores after controlling for respondent demographics (sex, age, education, professional level, etc.).
- Alternative 2. At least one of the four DISC scale scores will be related to at least one of the change survey scores after controlling for respondent demographics (sex, age, education, professional level, etc.)?

Statistical approach: Partial correlations

### **Hypothesis**

There will be identifiable attitudes towards organizational change recognized by each of the DISC styles of personality.

### **Limitations**

Kumar (2005) described subjectivity as “related to your educational background, training and competence in research, and your philosophical perspective” (p. 246). I was cautious and aware of these views and attitudes toward possible outcomes and sought to gain the true essence of the stakeholders’ beliefs.

Possible limitations include:

- Difficulty in accessing the large sample size that covers numerous continents.
- Rater fatigue due to a survey that may be lengthier.
- My assumption was that participants would answer honestly.

- I have a consulting and training practice that uses psychometric instruments, such as DISC, Hogan and MBTI.
- I wish to use the results of the research in my consulting business and with other consultants.
- I worked for a large multi-national company, which was one of the largest family-owned businesses in the United States. I worked there for 18 years, which was prone to frequent re-organizational changes during my tenure.
- I understand there may be a distinction between attitudes toward organizational change in general versus a specific change. An individual may naturally approach change positively, yet that does not mean all change will have positive effects (Collis & Messick, 2001; Dunham et al., 1989).
- The research was during the COVID-19 pandemic which may have put participants in distress which could affect the outcome on a survey.
- This research did not look at trust or attitudes toward management, which could have an effect how an individual perceived organizational change (Chawla et al., 2004).
- Change can be viewed from two aspects: individual and organizational. Additionally, the change may be viewed positively toward the organization, yet negatively toward the individual (Lines, 2005).
- There is limited research on personality attitudes related to change (Church et al., 2015) and limited research on DISC personality attitudes related toward change (R. Bonnstetter, personal communication, August 4, 2020).
- Empirical studies of the DISC personality styles are not widely found (McKenna et al, 2001) However, Prochaska et al (2015) used two multivariate statistical techniques (exploratory factor and cluster analysis). Yet, data were limited to white-collar



professionals (Gordon et al., 2019).

- The DISC instrument will describe behavior yet cannot explain what causes the specific behavior as an individual's culture, education, parents, upbringing, and genetics shape their personality.

### **Delimitations**

The boundaries set for this research were:

- Participants had to be 21 years of age or older. The assumption premise was that most individual's personality should be formed by this time.
- Use of a survey already created by expert researchers based on the literature review.
- The survey was initially sent out via my LinkedIn network totaling over 3,000 people.
- The survey was sent to my network of experts within various organizations and social media.
- Participants had to take the DISC assessment, even if they already knew their DISC style.
- The Attitudes Toward Change survey was placed at the back of the DISC survey so the participant only needed to take one assessment in one sitting.

### **Assumptions**

A few key assumptions considered are:

- The participants were honest in their feedback when identifying how they view organizational change.
- Using DISC is a simple way to categorize the behaviors of individuals.
- I only found two articles that specifically called out DISC attitudes toward change.
- DISC has been used "off-label" to determine what each DISC personality style

attitude is toward change in the corporate world. The term off-label signifies that people are making non-empirical assumptions about how DISC styles feel about change.

- The respondent surveys added to the body of knowledge in a meaningful way.
- An individual's social class has no relevance to personality, as measured by the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1978).

### **Positionality**

A researcher will bring their interpretation of the research outcomes based on their background, beliefs, and personal life experiences (Maher & Tetreault, 1993). Foote and Bartell (2011) describe, "The positionality that researchers bring to their work, and the personal experiences through which positionality is shaped, may influence what researchers may bring to research encounters, their choice of processes, and their interpretation of outcomes" (p. 46).

I acknowledged that my industry of work is related to the area of the research. I conduct personality assessments for individual and organizational use. Many of these organizations have significant revenue streams themselves and can invest in coaching and training for the associates they employ. Therefore, I have more exposure to the middle to upper-middle-class individuals, whereas this research extends to all socio-economic types. Therefore, this may produce a bias that I sought to alleviate. However, the research has demonstrated that personality styles are varied across all socio-economic levels (Gordon et al., 2019).

I acknowledge I have expertise in evaluating DISC personality styles and I have a belief that there may be a correlation between how the different DISC styles (re)act toward change and what their needs are during change. The researcher uses two DISC assessments from two companies and views them both unique in their way. The researcher acknowledges that Myers-

Briggs Type Indicator (MBTI®) has shown correlations between the types and change and expects to find similar results using DISC (Kummerow et al., 2004).

### **Organization of the Study**

This research is organized into five chapters. Chapter 1 commenced with the background of the study, which laid the foundation for this research. Next, the significance of the study, problem statement, and purpose statement were described. The definition of terms was shown next, which allows the layperson to understand terms that may not be commonly understood. Following was my conceptual and theoretical framework from which the research study is grounded followed. A set of research questions and hypotheses were developed. Last, the limitations, delimitations, and my positionality were then identified.

In Chapter 2, the conceptual framework called the Clover model® is provided in more detail. The Clover model® illuminates five components: emotions/personality, behavior, learning, change, and assessment. Relevant literature is examined, and a short historical perspective of emotions is also reviewed.

Chapter 3 presents the research design and further conceptual and theoretical perspective. I will discuss the setting, sample population, limitations, and human subject considerations. Validity and reliability are examined, and the perspectives of key researchers will be presented. Finally, the chapter concludes with data collection, management, and analysis.

In Chapter 4, the findings were shown. The research questions are presented for further examination.

Chapter 5 concludes with a narrative explanation of the findings. The research questions are answered, and the implications of the findings are discussed. I will recommend future research, along with a specialized section on practitioner use of the data.

## **Chapter Summary**

The background of the problem showed continued high statistics of failed change management initiatives, up to 70%, and the difference between the approach the United States has toward change compared to European and Asian countries. The approach the U.S. takes is to focus on the outcome first before acknowledging the individual's attitude, which stems from their personality toward change (Ungar & Magen-Nagar, 2014).

A significant gap exists in the literature between personality and organizational change. There is no specific call out to personality, yet there is little research around attitudes towards organizational change. A comprehensive review of the literature was investigated in Chapter 2.

## Chapter 2: Preliminary Literature Review

### Chapter Overview

This review of literature includes an examination of personality history, theorists, assessments, attitudes toward change, learning theories, change models, and types of assessments to measure attitudes toward change.

### Context

There appears to be a significant deficit in the body of knowledge in the correlation between personality styles, using DISC and their attitudes towards change.

According to Church et al (2015) have emphasized, “The role of personality in that change process, however, has historically been ignored or relegated to a limited set of interventions” (p. 91).

Nevertheless, I was energized to research the topic of personality and change to provide much needed empirical research to others. Therefore, I explored and described the patterns that emerge in how the four DISC styles navigate organizational change (Vakila et al., 2004).

This study examined how different personality styles, using DISC, address the concept of change. There were identifiable attitudes towards change recognized by each of the DISC styles of personality.

### Conceptual Framework

The researcher’s conceptual framework is called the Clover model<sup>©</sup> (see Figure 1). The Clover model<sup>©</sup> has five components: emotions/personality (C1), learning (C2), behavior (C3), change (C4), and assessment (C5). A brief explanation of the model is below, and a more thorough examination of each step is provided.

- C1: Personality. This heading is the first component of the Clover model<sup>©</sup> and is

called personality. In the 17th century, the word “personality” was not yet discussed. Emotions were the mainstay of understanding. The main ancient theorists date back to 450 B.C. I reviewed the works from Aristotle, Galan, and Hippocrates. The Four Humors (Moore, 2008; US National Library of Medicine) were introduced in 1639 and is discussed further in this literature review. Moving to more current personality theorists of the early to mid-1900s, the works of Cattell, Allport, and Eysenck are introduced.

- C2: Behavior. Marston’s (1928) DISC theory is the focus for this research as it relates to the attitudes of different personality styles toward change. DISC is a model to help improve communication effectiveness, among other things (Sugerman, 2009).
- C3: Learning. My world view of constructive alternativism (Nugent, 2019) is vital to bring back into chapter two with a more in-depth discussion of its’ importance. The world view is strongly tied to Argyris and Schon (1974) learning loop process.
- C4: Change. Bridges (2009) change model, called managing transitions, was a part of the scaffold to determine how the DISC styles navigate change in three main areas: ending, neutral zone, and new beginnings. Other change models are also briefly examined.
- C5: Assessment. The fifth component and “stem” of the clover model is presented as the last step of the model. The ethical obligation of the assessment developer will be discussed.

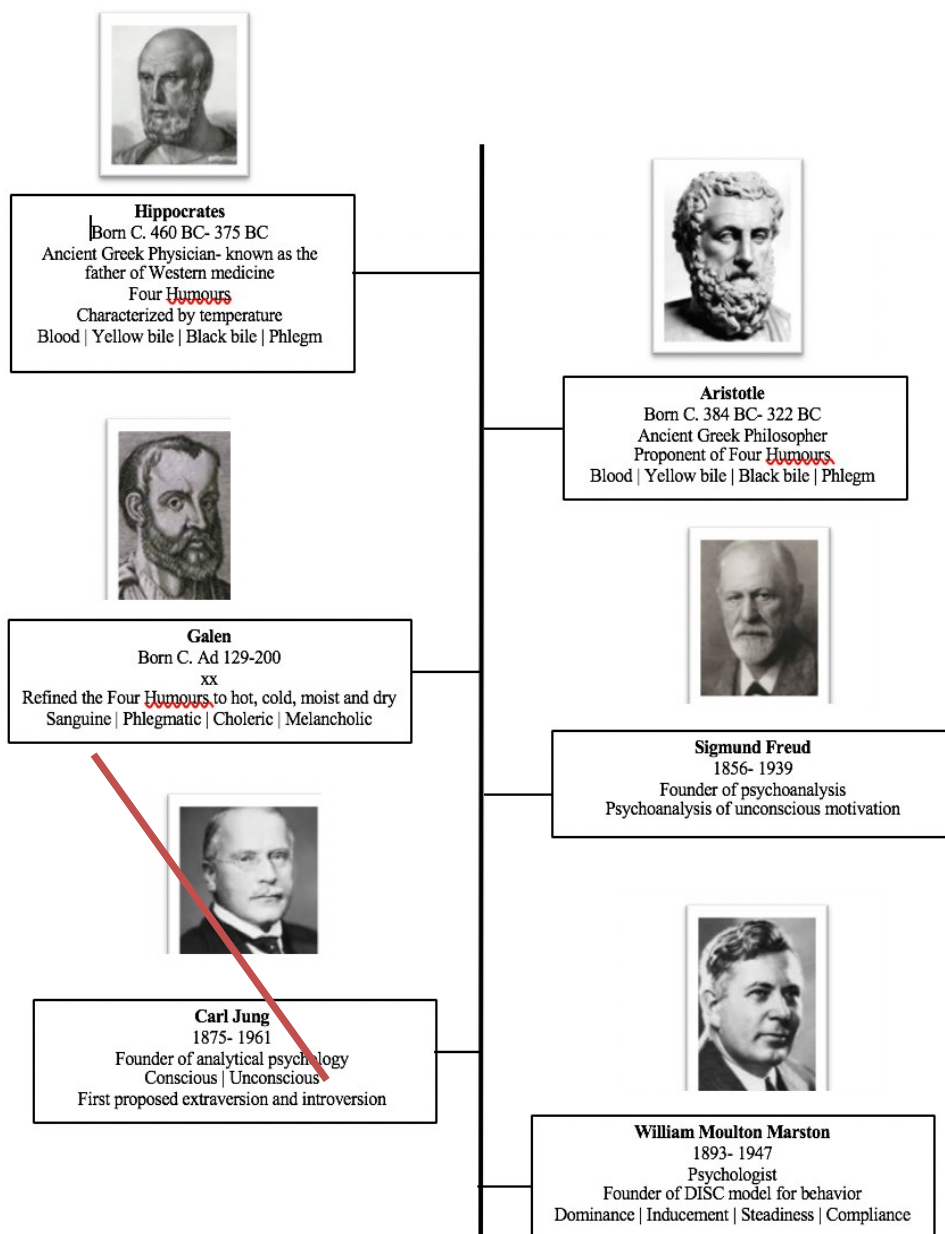
C1, C2, C3, and C4 will allow me to complete this model by assessing with a survey on how different personalities may have attitudes toward change. The goal is to create a DISC assessment showing the DISC styles and the attitudes each DISC style has toward change.

## C1: Emotions/Personality

A hierarchy of theorists (Figure 2) shows a visual from ancient Greek physicians to more modern-day psychologists and psychiatrists discussed more fully in the first of the five Clover model<sup>©</sup> components.

**Figure 2**

*Hierarchy of Theorists*



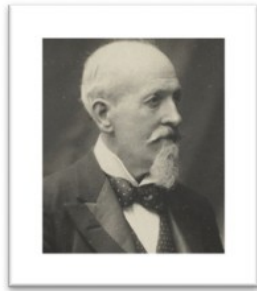


Photo Credit: National Library of France

**Charles Spearman**  
1905-1998  
Creator of factor analysis



Photo Credit: Getty Images

**Gordon Allport**  
1897-1967  
Father of trait theory  
Hierarchy of traits  
(cardinal, central & secondary)

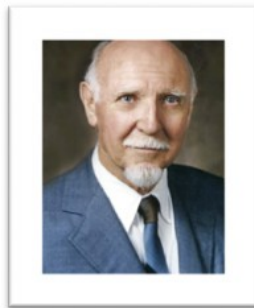


Photo Credit: Cattell Family, 2020

**Raymond Cattell**  
1905-1998  
Trait theorist  
Advanced factor analysis  
16 PF questionnaire

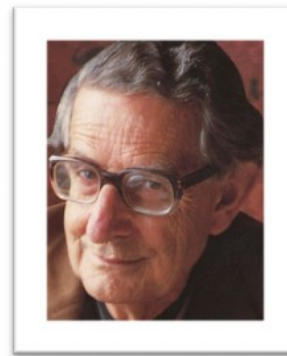


Photo Credit: S. Eysenck, 2019

**Hans Eysenck**  
1916-1997  
Psychologist  
Advanced factor analysis  
EPI /PEN questionnaire

*Note.* Hierarchy of Theorists.



The red line in Figure 2 shows the relationship between Marston's (1928) DISC model and the Four Humors refined and used by ancient theorist Galan. It is apparent that some theorists will either create their own theory or build upon the works of another theorist (Garfield, 1974).

### **Personality Theorists**

*Hippocrates, Galan, and Aristotle.* Since ancient times, people have long been trying to understand emotions that drive people's behavior and to understand their personality (Engler, 2005). While human personality is vast as the oceans are deep, many theorists have, in the past, created taxonomies of which to place various traits or characteristics. These taxonomies are seen in the works of Hippocrates, Galan, and Aristotle (Hankinson, n.d.; Singer, n.d.). Much of the basic vocabulary used in early discussions of emotions (Table 2) stem from Hippocrates, the founder of western medicine; Galan, seen as the Roman Empire's most celebrated physician; and Aristotle, touted as a founding father of science (Sykiotis et al., 2006).

**Table 2**

#### *Categories of Emotions/Personalities*

Theorist	Categories
Hippocrates, 460 B.C	Blood, yellow bile, black bile, phlegm
Aristotle, 364 B.C.	Earth, air, wind, fire
Galan, 130 AD	Hot, cold, moist, dry

Hippocrates developed the early theory of the four humors in Table 2 (Sykiotis et al., 2006). It was believed these physiological characteristics influenced the body, which generated temperature. Humoral theory gave power to environmental factors. The balance of the organism was imperative (Barea, 2011). Chadwick and Mann (1950) discussed that blood increases in the summer with an increase in heat, while winter will show an increase in phlegm, thus showing the dissimilarities in their characteristics of moisture, heat, cold and dryness. According to Greek medicine, the most critical body parts were the heart, the brain, and the liver (Oakland et al.,

2008). The organs were analogous to varying degrees of temperature and thus giving each person a particular temperament. Galan then comprised his humoral work; hot, cold, moist, and dry (Oakland et al., 2008) from Hippocrates; blood, yellow bile, black bile, phlegm to create sanguine, phlegmatic, bilious, and melancholic (Table 3). Present-day, one might call people hot-blooded or cold-blooded, which has no reference to actual bodily temperature but rather the disposition or personality of the person.

**Table 3**

*Galan Early Temperaments*

NAME	TEMPERMENT
Sanguine	Cheerful & optimistic
Phlegmatic	Calm, somewhat sluggish
Bilious	Ill-tempered, choleric
Melancholic	Sad, with depression tendency

From these descriptions, the underpinnings of early personality segregation are being made, and are referenced in Figure 3 (Orzikauskas, 2014).

**Figure 3**

*Diagram from “The Optick Glasse of the Four Humors,” 1639*



*Note. The Optick Glass of the Four Humors, by T. Walkington, 1639, National Library of Medicine (<https://resource.nlm.nih.gov/2426021R>). In the public domain.*

Walkington's (1639), *Optick Glasse of the Four Humors*, wrote,

Wherein the foure complections Sanguine, Cholericke, Phiegmaticke, Melancholicke are succinctly painted forth and their externall intimates laid open to the purblind eye of ignorance itselſe, by which everyone may judge, of what complection he is, and answerable learne what is most suitable to his nature (as cited in Mullet, 1946, p. 96)

### ***Gordon Allport***

Allport is revered as the founder of personality psychology in the United States (Carducci, 2015) and the father of trait theory (Hogan & Smither, 2008). It is believed Allport wrote the first American dissertation on personality traits in 1922. Furthermore, it is also believed he taught the first American college course at Harvard titled “Personality.” Allport’s trait theory helped define the uniqueness of everyone’s personality. He used three tenants of traits: cardinal, central, and secondary traits. Cardinal traits represent the broadest and most dominant features of one’s personality. Examples are Hitler’s need for power, and Martin Luther King Jr’s sense of justice (Carducci, 2015). Not everyone shows such significant traits as Hitler or Martin Luther King Jr. Less dominant traits are called central traits. Central traits are still substantially characteristic of an individual. Allport (1937) shared central traits are the “outstanding characteristics” of a person. Last, secondary traits are shown and observed in specific situations. Allport, like Jung, believed that a person’s personality is innate, yet is influenced by a person’s environment.

### ***Raymond Cattell***

Cattell is one of the world’s most eminent personality theorists. He is known for his advances in factor analysis, which aided in the understanding of personality. Cattell (1965) shared, “Personalities react differently even to the study of personality” (p. 11). Cattell (1965) noted early on researchers could find hundreds of variations when describing personality traits.

With no agreed-upon definition, using factor analysis, which Cattell (1965) refined from Spearman (1904), traits could be arranged and meaning made from them. Cattell (1965) stated, “What a tower of Babel would arise in chemistry if every chemist had a different test for the presence of, say, chlorine, and indeed no really common conception of what chlorine is” (p. 55).

Structure in personality can be viewed as such in this formula:

$$a_{hijk} = (f) a_{h'ij'k'} + u$$

The theory according to Cattell (1965), “...says that a measure of *a* of one kind of behavior *j* of a person *I*, in response to a stimulus *h* in situation *k*, is functionally related to a measure of some other bit of his [her] behavior *aj'* in some other situation *k'*, to a stimulus *h'*, at some other time” (Cattell 1979, pg. 5).

Cattell would collect data (Table 4) from three sources about people.

**Table 4**

*Three Data Sources of Psychometry*

SOURCE	DEFINITION
L-data	Life record data; deals with behavior in everyday situations; could be derived from school grades and work records
Q-data	Collected from a personality survey later known as the 16 PF
T-data	Taken from the objective scoring of tests done with a “key” not from the subjectivity of a psychologist or other professional

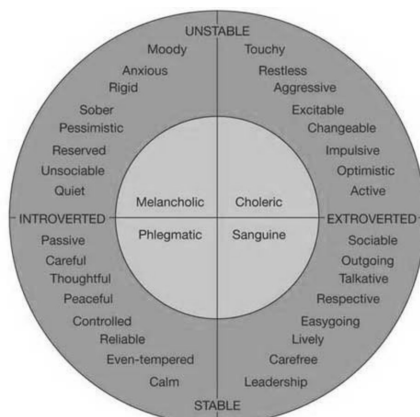
Cattell (1965) categorized the Q and T data using factor analysis (Cooper, 1983) to determine which types of behavior could be grouped together. From his findings, he created the 16 Personality Factors or PF (Table 5), which he identified as surface traits that could be easily identifiable.

**Table 5***16 Factors*

FACTOR	LOW SCORE	HIGH SCORE
Warmth	Reserved, detached	Warmhearted, outgoing
Reasoning	Critical, dull	Fast-learning, high-mental capacity
Emotional stability	Irritable, moody	Faces reality, mature
Dominance	Changeable, obedient	Assertive, aggressive
Liveliness	Serious, full of cares	Enthusiastic, talkative
Rule-Consciousness	Disregards rules, expedient	Conscientious, persistent
Social boldness	Shy, restrained	Adventurous, bold
Sensitivity	Unsentimental, self-reliant	Sensitive, overprotected
Abstractness	Practical, regular	Absent-minded, imaginative
Privateness	Unpretentious, spontaneous	Socially aware, exact calculating mind
Vigilance	Trusting, understanding	Jealous, dogmatic, suspicious
Apprehension	Confident, self-assured	Fearful, self-doubting
Openness to Change	Close-minded, set in-ways	Curious, self-exploratory
Self-Reliance	Group dependent, sound follower	Self-sufficient, resourceful
Perfectionism	Follows own urges, uncontrolled	Controlled, exacting will power
Tension	Relaxed, cool	Tense, frustrated, driven

***Hans Eysenck***

Eysenck's (1968) trait theory of personality was based on a person's inherited nervous system, which affects their ability to learn and adjust to the environment. Through factor-analysis and assessing 700 soldiers who suffered combat stress, Eysenck (1998) determined two dimensions of personality (Figure 4).

**Figure 4***Eysenck's Two Dimensions of Personality*

The first dimension was introversion and extroversion, while the second dimension was neuroticism and emotional stability. Extroversion shows up in individuals who direct their energy outward and are energized by the world through “doing.” People with a preference for extroversion may feel at ease in larger groups, be easier to get to know, use a mental mind-set of “speak-think-speak” and have a broader network of friends and acquaintances. On the contrary, people with a preference for introversion tend to be more private and contained, have a smaller network of friends and acquaintances, yet know these people on a far deeper level, and have a mental mind-set of “think-speak-think.”

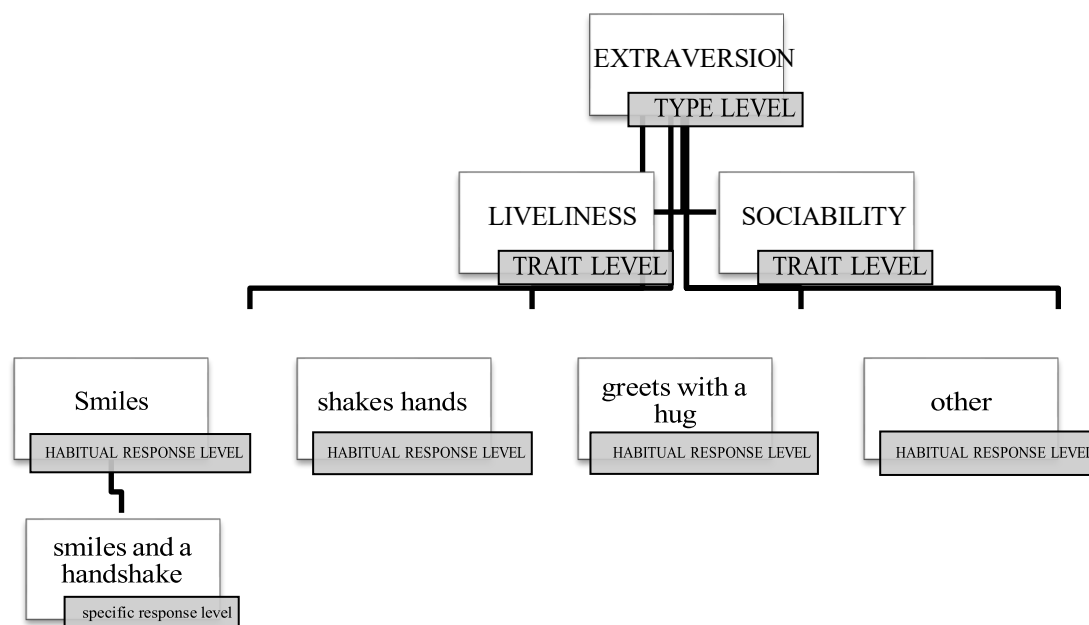
Eysenck derived some of the analysis from the works of others, such as Jung, Galan, and Hippocrates (Clark & Watson, 1999; Eysenck & Eysenck, 1968). Eysenck believed that brain activity is linked to cortisol arousal. Lower levels of cortisol arousal are found in people with a preference for extraversion, resulting in their need to seek external stimuli. Whereas people with a preference for introversion have a higher level of cortisol arousal resulting in their need for less external stimuli (Eysenck, 1979). Eaves and Eysenck (1975) would espouse that neither extreme of being extroverted or introverted is necessarily beneficial to promote the survival of the individual.

Dimension two is neuroticism and emotional stability. People who score higher on neuroticism may worry more often and have a higher level of stress and anxiety. Additionally, they may be characterized by being a perfectionist and may become frustrated, dissatisfied, or angry with others if their needs are not fulfilled. In contrast, people who score towards emotional stability or a low neuroticism score, will be seen as being able to cope with stressful events, and are more tolerant of others’ shortcomings.

Later, Eysenck and Eysenck (1976) added a third dimension; psychoticism- normality. Eysenck created a hierarchical order for traits, as presented in Figure 5. This hierarchical order has a similar context, as Allport's cardinal, central, and secondary traits (Guilford, 1975).

### Figure 5

#### *Eysenck's Hierarchy of Personality*



*Note.* Figure created by Christie Cooper.

At the top of the hierarchy is the “type” level, which shows the general pattern of behavior. Under type, the trait level is next, which are habitual responses. At the habitual response level, is the repetition of specific responses over a variety of situations. Drilling down further are specific response levels, which are responses in distinctive situations. Each level affects the influence that each trait level will have on behavior.

Eysenck & Eysenck (1968) later refined his personality questionnaire to determine what he saw as three basic personality types: psychoticism (P), extroversion-introversion (E), and neuroticism (N) or PEN. Furthermore, he believed these types were expressions of criminal activity, otherwise known as the “lie” scale (Eysenck & Eysenck, 1978).

### *Carl Jung*

Jung and Baynes (1921) suggested that people's psyche energy was directed inward (introversion), resulting in fewer social encounters; or outward (extroversion), leading to more frequent social engagements with other people. Jung believed that personality was innate, whereas Eysenck and Eysenck (1978) suggested that environmental factors and genetics contributed to the level of sociability one might demonstrate. Jung believed that education, societal class, and environment have a random distribution effect on the population. He showed this by studying two children born of the same mother who had very different psychological types, even with the same parental influence. At birth individuals have a particular disposition under normal conditions. If these same children were raised under extreme, abnormal conditions, this might violate the very disposition born to the children (Jung & Baynes, 1921). Jung further posited the concept of a relationship between a subject (the person) and an object (external stimuli/situation) and that the subject can adapt. Using the dichotomy of extroversion and introversion, the extravert might direct their energy outward, while the introvert may defend themselves from the outside world and draw inward. Using the children from the example above, a mother can have one child be an extrovert and the other an introvert. The Jungian type theory would suggest that based on a person's environment, culture, and life, a person will be who they are by the time they are in their early 20s, at which time personality is formed. Jung was one of the first to describe these two significant orientations of personality: extroversion and introversion. Later, Eysenck & Eysenck (1978) and Cattell (1965) further built upon Jung's identification of extroversion and introversion.

Each theorist presented here views personality in their unique way. Although many may see personality comprising cognitive, perceptual, environmental shaping (Jung & Baynes, 1921),



traits (Cattell, 1979; Eysenck, 1977; Feist, 2010), emotional (Mischel, 1999; Funder, 2001) or hierarchical systems (Allport, 1937; Eysenck, 1977). Mayer (1995) shared that many psychologists created their theories, which may have also created a divide amongst each other as they conducted their research and tried to refine their theories. A list of personality definitions is shown in Table 6.

**Table 6**

*Definitions of Personality*

Author	Definition
Cattell, 1950	“That which permits a prediction of what a person will do in a given situation” (p. 2).
Allport, 1937	“The dynamic organization within the individual of those psychophysical systems that determine his characteristic behavior and thought” (p. 28)
Eysenck, 1977	“Personality is the more or less stable and enduring organization of a person’s character, temperament, intellect, and physique, which determines his unique adjustment to his (or her) environment” (as cited in Pennington, 2005, p. 2).
Mischel, 1999	“The distinctive patterns of behavior (including thoughts and well as ‘affects,’ that is, feelings, and emotions and actions) that characterize each individual enduringly” (p. 4).
Funder, 2001	“Personality refers to individuals’ characteristic patterns of thought, emotion, and behavior, together with the psychological mechanisms – hidden or not – behind those patterns” (p. 2).
Feist and Feist, 2009	Although no single definition is acceptable to all personality theorists, we can say that personality is a pattern of relatively permanent traits and unique characteristics that give both consistency and individuality to a person’s behavior” (para. 3).

**Summary of Theorists**

Each trait theorist discussed does appear to employ a taxonomy the ancient theorists used by placing personality styles into categories. Some theorists attempted to create their own models, while others drew from the foundations of others (Carrigan, 1960; Clark & Watson, 1999; Costa & McCrae, 1992; Eysenck & Eysenck, 1968; Maher, 1986).

Eysenck’s limited viewpoint of only three dimensions of personality is a criticism of his work. Unlike Cattell (1965), who demonstrated 16 unique dimensions to personality which might

be viewed as a better measurement of personality. Cattell believed in a much larger number of dimensions to determine someone's personality. He created the 16 PF, which showcased 16 personality traits he believed were common to all people.

## **C2: Behavior**

### ***William Moulton Marston***

The personality framework I used is DISC. This theory was developed by Marston (1928) and was used to understand the emotions of normal people. Marston first proposed the DISC model of personality in the 1920s. His work is recorded in his book, *Emotions of Normal People* which demonstrates how observable behavior could be expressed in four domains, DISC; Dominance (D), Inducement (I); Submission (S); and Compliance (C).

Marston described emotions as,

Next simplest motivational compounds to primary feelings; composed of; 1) Psychonic motor impulses of motor self and motor stimulus in relationships of mutual alliance or conflict; 2) Motor self-increasing or decreasing its intensity in response to inferior or superior intensity of motor stimulus. Psychonic impulse combinations of these two relations found in continuous series. (p.187)

Marston posited that people's behavior could be found in four primary emotions, known as DISC. Marston named these patterns Dominance (D); Inducement (I); Submission (S); and Compliance (C). Marston defined primary emotions as, "Nodal points of emotions series, where relationships of alliance, conflict, and increase or decrease of motor self, reach maximum and begin to change toward opposite type of relationship" (p. 186). This theory then indicates that behavior can be categorized into four broad themes, commonly called DISC.

Marston posited his attention is on normal emotions, which would involve “pleasantness and harmony” in people. The emotions he is referred to are those we find in our everyday lives and are considered commonplace. A researcher of Marston’s day, Walter Cannon (1916) would have suggested emotions such as fear, and anger can assist human behavior. Cannon (1916) went on to further theorize about the interrelations among these emotions and others, and how they are curiously juxtaposed. Cannon (1916), emphasized, “We both fear and wish to kill anything that may wish to kill us; and the question which of the two impulses we shall follow is usually decided by one of those collateral circumstances of the particular case...” (p. 300). However, Marston does not view these emotions of those as normal people. Rather Marston implied states of being or emotions that create conflict or turmoil such as fear, shock, rage, and deceit are not to be viewed as emotions of normal people. Marston acknowledged that his original research did not involve normal behavior; rather he was concerned with measuring the biology of deception in humans. He started his research at Harvard in 1913 and continued it through the war. However, he realized that without a basis for normal emotions, it would be difficult to measure emotions like fear, anger, and deception (Marston, 1928). This research relegated those “non-normal” emotions for a different time.

The names of the four domains (see Table 7) that were chosen met two requirements. First, the names needed to be easily understood by the layperson; and second, the name should be identifiable in everyday experiences.

**Table 7**

*Names and Meanings From Marston's Book, Emotions of Normal People*

<b>NAME</b>	<b>MEANING</b>
Dominance	"To exercise control over; to prevail predominate" (Marston, 1928, p. 180)
Inducement	"To persuade or influence someone to do something" (Marston, 1928, p. 180)
Submission	"To give up to another; to yield power or authority; to surrender; to be submissive (Marston, 1928, p. 183)
Compliance	"To act in conformity with; to be complacent, courteous" (Marston, 1928, p. 179)

Marston (1928) identified people's behavior, or their "motor self" (p. 342) along two axes of action- (a) either passive or active determined by how the individual saw their environment, or "motor stimulus" (p. 342) or (b) antagonistic or allied. How Marston initially identified these four domains, D, I, S, and C are discussed next.

### ***Dominance***

Dominance is demonstrated as a victory over another person. One person prevails and exercises control over someone/something else. Strong-willed and assertive are words also associated with dominance. There may be a feeling of superiority that someone has over someone else (Marston, 1928).

### ***Inducement***

This domain has an intent of friendliness between two parties, yet one party needs to increase its strength to induce the other person. It also can be viewed as the act of persuading someone to accept another's view (Marston, 1928).

### ***Submission***

Submission is shown by reducing one's strength and becoming humble and giving in to a more stalwart ally. Obedience can be seen with submission. Submission is demonstrated as an act of pleasantness by the person submitting. After the act of submitting is complete, the individual can continue to be viewed as "docile and obedient" (Marston, 1928, p. 183).

### ***Compliance***

A person is shown to move oneself away from the dictates of another. Someone allows themselves to be controlled by outside stimuli, which in the end is perfunctory (Marston, 1928).

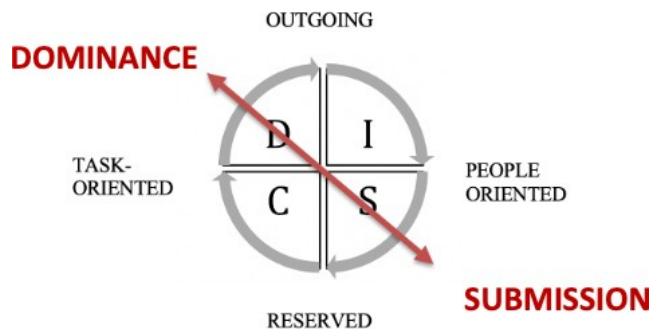
Dominance is seen as producing a particular behavior in an antagonistic environment, inducement produces behavior in an allied environment, submission produces passivity in an allied environment, and compliance produces conformity in a hostile environment. Marston's theory continued with his belief that each person developed a self-concept, how they viewed themselves (Marston, 1928; Merenda & Clarke, 1965), based on their environment and upbringing. Even though Marston did not develop an instrument of measurement for DISC, DISC's research and applications have been a framework for numerous researchers to follow.

Walter Clarke is credited (Bonnstetter & Sutor, 2013; Scullard & Baum, 2015) with creating the first psychological tool based on Marston's theory. Clarke's instrument was called the Activity Vector Analysis (Hasler & Clarke, 1967).

The current modern-day premise is that everyone demonstrates some behavior in each of the four domains (Bonnstetter & Sutor, 2013; Scullard & Baum, 2015). More contemporary uses of DISC would define DISC in the following manner (see Figure 6). One component that DISC does measure those other assessments do not, such as the MBTI®, is dominance and submissiveness as shown by the red arrow in Figure 6.

**Figure 6**

*Dominance, Influence, Steadiness, and Compliance Framework*

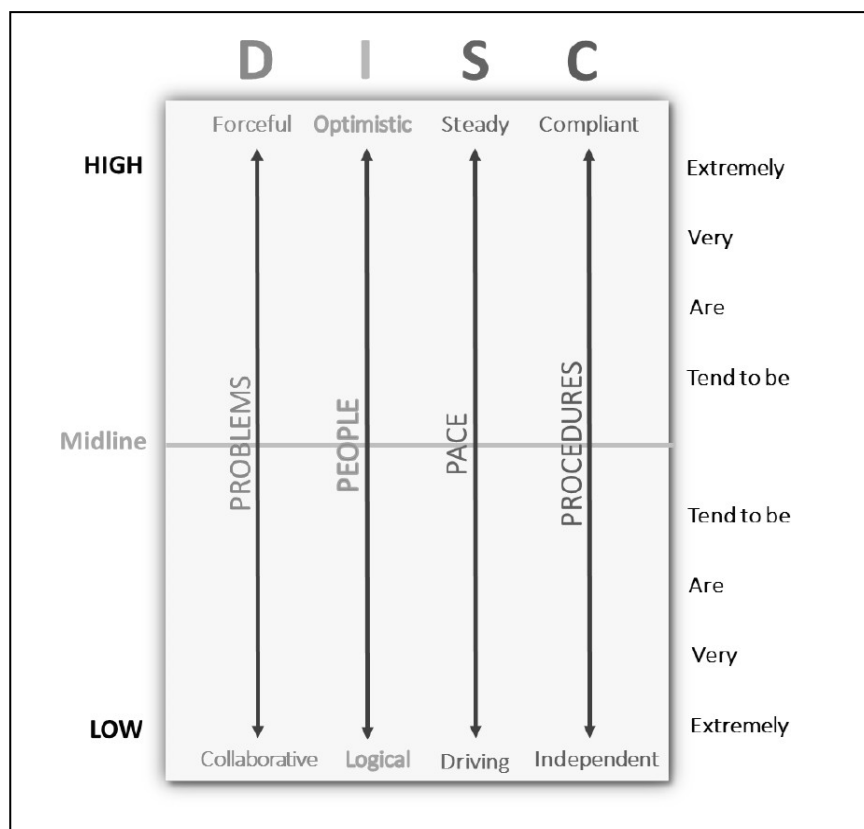


*Note.* Framework from Everything DiSC® Manual by Mark Scullard and Dabney Baum. Figure created by Christie Cooper.

This study implemented the DISC assessment using the Target Training International (TTI) TriMetrix DNA® report. The TTI model uses a high and low methodology of the four DISC domains (see Figure 7).

**Figure 7**

*Sample Chart Showing the Energy (Mid) Line*



*Note.* DISC Chart (L. Bouchard, personal communication, October 15, 2019). Used with permission.

Some DISC practitioners may look only to an individual's highest style to determine their DISC style. However, there is much to be said for styles that are lowest below the energy line. Styles above and below the energy line are discussed below.

### ***Dominance (D)***

This addresses how people respond to problems and challenges (Bonnstetter & Suitor, 2013).

**High D.** People with a preference (above the energy line) for dominance may display their behavior as direct, blunt, forceful, and to-the-point, and like the others to communicate with

them in a direct manner. The “D” style prefers a no-nonsense approach and is seen as having a competitive nature and one that seeks victory at most costs over their opponents.

**Low D.** The low “D” will appear patient, accepting, and peaceful. Unlike the high D, this style does not need to win and is very collaborative. They are a great listener, often asking clarifying questions to understand what other styles need so they can accommodate the needs of others. The low “D” may need more time to consider things and might take longer to decide. If challenged, the low “D” may back down as confrontation is uncomfortable, unless the topic is very important to them.

### ***Influence (I)***

The name was updated since Marston (1928) first introduced “inducement” in 1928. Influence measures how a person can influence someone else to their viewpoint (Bonnstetter & Suitor, 2013).

**High I.** The “I” style is seen to be lively, engaging, enthusiastic, and optimistic. They need to connect with others on a more personal level compared to the D and C styles.

**Low I.** The low “I” prefers data, and facts; and will look for what is missing. They come across as having a skeptical approach and are not controlled by emotions. The low “I” can evaluate situations and people thoroughly, and they are objective, factual, and analytical. Idle chit chat or making personal connections may not come naturally to this style, and they may be hard to get to know. More on the serious side and rarely showing enthusiasm, they can be blunt, critical, and sometimes cold or aloof.

### ***Steadiness (S)***

This domain name has been updated from Marston’s (1928) original term called submission. Steadiness measures how someone responds to the pace of the environment



(Bonnstetter & Sutor, 2013).

**High S.** The high “S” style values harmony. They come across as humble, tactful, and thoughtful. They may avoid conflict as it results in a lack of harmony. The S style prefers the pace of the environment to be steady and consistent.

**Low S.** The low “S” style is versatile, flexible, active, rarely bored, and are change agents. Handling multiple projects at one time is invigorating for this style as they prefer to always be active. This fast pace can make them appear impatient, intense, or even impulsive.

### ***Compliance/Conscientiousness (C)***

This domain measures how someone responds to rules and regulations as set by others (Bonnstetter & Sutor, 2013).

**High C.** The high “C” is accurate, detailed-oriented and prefers factual information. The C style prefers to avoid emotions and will decide based on fact. They have high standards, value quality and thoroughness, and tend to be slower as they need processing time for analysis. The high C is seen as a rule-follower.

**Low C.** The low “C” style portrays confidence and can be seen as daring, a risk-taker, and bold. This style finds new ways, can be viewed by others as working in the “gray,” and prefers to set their own rules. With little concern for consequences, they see no reason to follow the rules and are seen as rule-breakers. Appearing to be a maverick or a risk-taker is common. Without talking about lows and highs of DISC styles, each style can be viewed holistically in one dimension (refer to Table 8).

**Table 8***DISC Quick Indicators*

	<b>Dominance</b>	<b>Influence</b>	<b>Steadiness</b>	<b>Conscientiousness</b>
<b>Quick Indicators</b>	Fast-Paced Task-Oriented	Fast-paced People-Oriented	Slow-Paced People-Oriented	Slow-Paced Task-Oriented
<b>Do</b>	Be clear, specific, brief and to the point Stick to business and the facts Come with support materials and rationale	Provide a warm and friendly environment Put details in writing and follow up Ask for input and listen to ideas	Show sincere interest in them Present case softly, non-threatening Ask "how" questions to draw out opinions	Prepare your "case" in advance Be accurate and objective Follow rules and regulations
<b>Don't</b>	Tell stories or share unwanted details Leave loopholes or cloudy issues Appear disorganized or scattered	Be curt, cold, or tight lipped Control the conversation Drive on facts, figures, and data	Overload them with "to-do's" Be domineering or demanding Force them to respond quickly	Be too emotional, casual, or loud Push too hard or have unrealistic deadlines Exaggerate or "shoot from the hip"
	<b>Dominance</b>	<b>Influence</b>	<b>Steadiness</b>	<b>Conscientiousness</b>
<b>Characteristics</b>	Active Forceful Direct	Talkative Emotional Impulsive	Agreeable Cooperative Friendly	Detail-Oriented Careful Thorough
<b>Values</b>	Challenge Achievement	Affiliations Optimism	Relationships Security	Credibility Accuracy
<b>Dislikes</b>	Wasting Time Indecision	Negativity Being Left Out	Conflict Change	Low Standards Non-compliance
<b>Will Avoid</b>	Being Taken Advantage Of	Social Rejection	Loss of Stability	Criticism of Their Work
<b>Under Stress</b>	Impatient Argumentative	Disorganized Self-Promoting	Possessive Withdrawn	Overly Critical Fearful
<b>Decisions Are Based On</b>	Quick Results	Spontaneous Excitement	Thoughtful Consequences	Deliberate Facts
<b>Take Time To Be</b>	Efficient	Stimulating	Agreeable	Correct
<b>Give Them</b>	Options Probabilities	Testimonials Incentives	Guarantees Assurances	Evidence Details

*Note.* Quick DISC Indicators (L. Bouchard, personal communication, October 15, 2019). Used with permission.

One goal of using DISC is to gain self-awareness and to learn to appreciate similarities and differences (Scullard & Baum, 2015). This tool, like other personality assessments, are not meant

to stereotype, nor should individuals use their personality style as an excuse for poor behavior.

### **C3: Learning**

#### *Learning Loops*

“Learning is the process in which changes in knowledge take place inside an individual” (Jensen, 2005, p. 5). Mastering individual learning is critical, as this will affect possible new organizational behavior. After all people are doing the learning, not organizations (Swieringa & Wierdsma, 1992). For example, if a leader went to a leadership retreat to learn new leader behaviors and tried to implement the new behaviors, but the behaviors were not well received by the team then the new approach failed. However, if the team accepted the new behaviors then collective learning occurred.

Unconsciously the team, in effect, created new rules or new norms. Nevertheless, making these new norms explicit, verbally discussing them amongst the team, and understanding the expectations and how each other may feel about the norms allows for learning so that organizational change can occur (Swieringa & Wierdsma, 1992).

Bateson (1973), coined the term “deuteron-learning,” which is simply stated as “learning to learn” (as cited in Schon, 1975, p. 8). Learning can be viewed as single-loop, double-loop, and triple-loop learning (see Table 9). Each type of learning loop serves a particular purpose.

**Table 9**

#### *Learning Modes and Their Questions*

LEARNING MODE	AUTHOR	ANSWERS THIS QUESTION
single	Argyris & Schon, 1978	Are we doing things right?
double	Argyris & Schon, 1978	Are we doing the right things?
triple	Flood & Romm (1996)	Is rightness supported by might (the decision-maker)?

In single-loop learning, this merely addresses the question, are we doing things right? The answer is expected to be a simple yes or no. Single-loop learning is learning at the rules level. Single loop learning simply strives to make a process even better. Generally, at the single loop level there is no change in company culture, strategy, or the systems in the organization.

Some have suggested that double-loop learning can help facilitate the process someone goes through during change (Argryis & Schon, 1978). This self-reflective learning may allow a level of personal transformation, making double-loop learning more difficult (Bochman & Kroth 2010). Double-loop learning allows an individual to consider a new context; or learning at the insights level. Double-loop learning is needed when adjusting the rules no longer is effective. For example, if sluggish sales persist, or inter-departmental conflicts take place, using double-loop learning allows the “why” questions to be addressed and answered, thus providing additional knowledge, and understanding.

If this new context is not the right option, a person will implement triple-loop learning or LIII (Bateson, 1973). Triple-loop learning allows a person who views a situation as the incorrect context, or the context may be viewed as unchangeable to create an entirely new context. Bateson’s (1973) LIII distinction is that it moves from a change in doing to a change in being. The triple-loop learning view also incorporates a component of being virtuous and ethical (Reynolds, 2014). Transformation is another term made synonymous with Learning III (Tosey et al., 2012). Triple-loop learning would be an excellent lens to use if there is an organizational merger, takeover, or change in leadership, or the organization desires to make a shift in the culture (Bolman & Deal, 2008).

Limitations of Argyris and Schon’s (1978) seminal work of double-loop learning include a level of vagueness around the connection between double-loop learning and deuteron-learning.

However, Argyris (2002) commented,

We understand deuterio-learning to mean second-order learning, reflecting on the first-order actions. Deuterio-learning can occur by doing meta on single or double-loop learning (Argyris, n.d.). The distinction is important because the knowledge and skills required to produce double-loop learning are greater and more complicated than those required for deuterio-learning on single-loop learning (p. 1179)

Argyris and Schon (1978) did not view deuterio-learning as a third loop. Argyris and Schon (1978), also credit Bateson's (1973) influence on their single and double loop learning concepts (Argyris & Schon, 1974). Argyris (1976), Schon (1975), and Bateson's (1973) ideas have diverged (Tosey et al, 2012). Bateson's definitions of his levels of learning are provided in Table 10.

**Table 10**

*Bateson's (1973) Level of Learning*

Learning Level	Definition
Learning 0	"Is characterized by specificity of response, which right or wrong, is not subject to correction." (p. 264)
Learning I	"Is change in specificity of response by correction of errors of choice within a set of alternatives." (p. 264)
Learning II	"Is change in the process of Learning I, e.g., a corrective change in the set of alternatives from which choice is made, or it is a change in how the sequence of experience is punctuated." (p. 263)
Learning III	"Is change in the process of Learning II, e.g., a corrective change in the system of sets of alternatives from which choice is made." (p. 264)
Learning IV	"Would be change in Learning III, but probably does not occur in any adult living organism on this earth." (p. 264).

*Note.* From definitions (Bateson, 1973, pp. 263-264).

## Social Cognitive Theory

Overlaying the learning loop, whether single, double, or triple-loop learning with Bandura's social cognitive theory might prove useful. Bandura (2006a) coined the term "agentic" learning, which would suggest that it is people initiating their action(s), on their own volition, that drives learning (p. 7). Bandura's (2006b) social cognitive theory incorporates an agentic perspective through the lens of change. Bandura (2006b) espouses that "[people] are not just onlookers of life. They are contributors to their life circumstances..." (Bandura, 2006b, p. 164). Bandura (2006a) shared, "Agency refers to the human capability to influence one's functioning and the course of events by one's actions." The four core properties of human agency are:

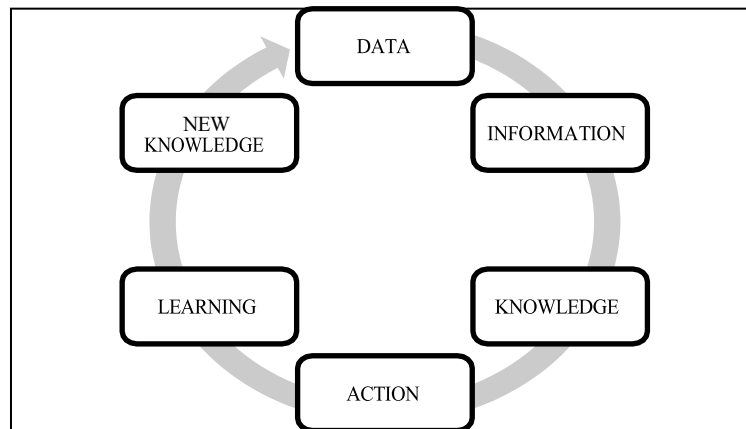
1. Intentionality – the goals that a person must create their own strategy to reach their plans.
  - This may be collective intentionality when the individual needs to involve others to obtain the plan(s).
2. Forethought- an extension of intentionality, which is the visualization of a future state.
3. Self-reactiveness – the deliberate action(s) taken to reach the desired future state.
4. Self-reflectiveness- the ability to be self-aware, and make corrections, given new information found to course correct if necessary.

Social cognitive theory addresses how the four core properties of human agency operate in three modes: individual, proxy, and collective. In the individual mode, people influence the outcome, yet often, people do not always have direct control of the outcome (individual) and must rely on outside sources (proxy). In the collective mode, people pool their resources and knowledge to shape their future (Bandura, 2006b).

Jensen's (2005) chain of learning (Figure 8) has a similar construct as double-loop learning as both afford a level of learning that allows an individual to make a change then.

**Figure 8**

*Chain of Learning*



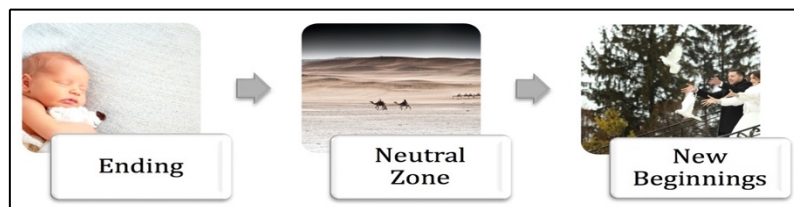
#### **C4: Change**

The intersection of personality, change, and organizational settings remain mostly unexplored (Church et al., 2015). Church et al argue that Bridges (2009) has done the most with personality research and change and Bridges realized limitations to looking at personality and change. Therefore, Bridges (1986) decoded his work into his own transitions model of change. Managing transitions is the change model (Bridges, 2009), which will categorize how the attitudes DISC personality styles have toward change.

The central concept behind the managing transitions model is that change is situational; it is a one-time event where something happens. However, transitions are psychological and comprise three phases (see Figure 9).

## Figure 9

### *Three Phases of Transition*



*Note:* Royalty free images purchased by Cooper Consulting Group on Getty Images.

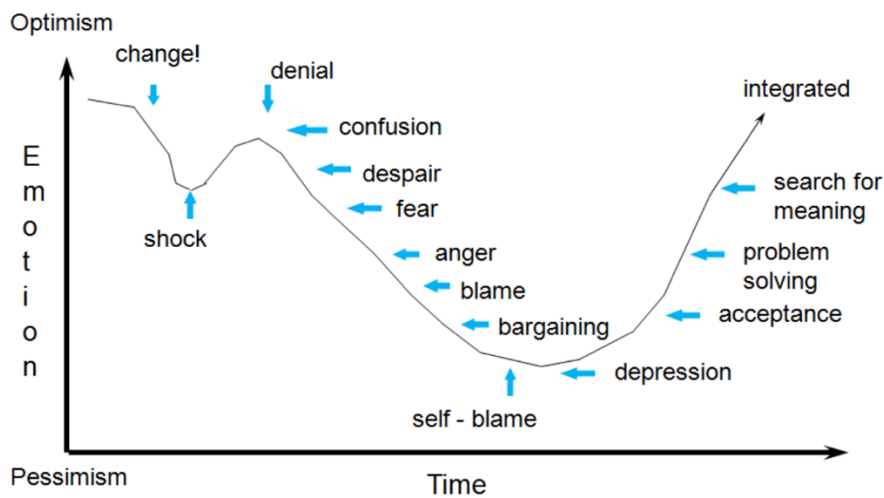
### **Ending**

The ending phase is the time that people are letting go of the old. The ending is something from the past they can no longer do. Figure 9 above, shows an image of a newborn baby, which represents what a couple may be giving up from their past. Freedom may have been a more conventional way of life before the newborn came into the world. Sleeping in, having an office versus a nursery, not having childproof locks on everything, are just a few freedoms that a couple may be letting go of.

How each person goes about this transition may be very different, and these losses need to be acknowledged at a minimum and hopefully handled appropriately.

The context of the discussion in the next section is related to the transition stage of endings, and not death, dying or grieving. A short elaboration on the Elizabeth Kubler Ross' grief model will allow an understanding about the transition model. The grief model has also become to be known as the change curve in more recent years. Kessler and Kubler Ross (2005) promotes a five-stage approach to death and dying , which is often referred to consultants as the change curve (Figure 10).



**Figure 10***Change Curve*

*Note.* Image created by Christie Cooper

**Denial**

Another term to use with denial might be disbelief or shock, and this is a natural state for people to be in. If a person, team, or organization remains in this stage for too long, it can be destructive. Once the reality of the loss has occurred, the healing process can then begin (Kubler Ross, 2005). Examples might be the loss of a colleague who has quit or been terminated, a company being sold, an owner or key stakeholder no longer with the organization, or the relocation of a department to a different part of a building.

**Anger**

Anger has no limits, and the anger someone feels may be directed towards a variety of different people. It is vital to show others who are going through this stage empathy. People need to experience this emotion without going too fast past it (Kubler Ross, 2005).

**Bargaining**

Bargaining may be someone's attempt to negotiate their way through a situation. This

can also be someone playing the “what-if” game, and that will not result in practical problem-solving (Kubler Ross, 2005).

### **Depression**

At this level of emotion, people need to go through the emotion and not around it (Bridges, 2009). While people may not be declared clinically depressed, being down, low, helpless, hopeless, or tired may be feelings a person might experience. This state, depression, is seen as an emotion to be fixed (Kubler Ross, 2005). The first question to ask is, “is what I am facing truly depressing?”

### ***Acceptance***

The place where a person now comes to terms with their reality or the new outcome. The individual can now move forward, yet this may not be viewed as a happy time. *Acceptance*, according to the Anglo-French definition, means an agreement to abide by the act on another.

While it may sound counter-intuitive if there were a goal to be reached during the ending phase by using this change curve model, it would be to allow each team member the opportunity to grieve for the loss they are realizing. Push people too fast, and they will not have the chance to restore themselves. This model is not necessarily linear, and people can regress and move forward again. Having people stuck in any place too long though, can impede the organization’s success. The goal of the organization should be to commit, not just comply. Some initiatives to gain commitment are to:

- Expect people to go through the change curve and experience a variety of emotions. Understand there are different layers of management and in the hierarchy in the organization that will learn about the change at different times. Therefore, the change curve is constantly evolving, moving forward and backward.

- Provide people with information. Do not assume a one-time delivery message will be enough. People will process information in different ways (Jung & Baynes, 1921; Marston, 1928).
- Define what is changing and what is not changing. Confusion during change can be shared (Bridges, 2009). Define what is ending and discuss what is being lost. This is the psychological component of change that the United States often negates (Bartlett & Ghosal, 2000).
- Treat the past with respect. If a new executive comes in to reorganize a division, sharing negative thoughts about how previous individual conducted business, may not be the best approach (Bridges, 2009).
- Let people take part of the past with them. Organizations can create a museum to honor the past or allow parts of a disassembled artifact to be distributed to employees as a point of remembrance.

Since it is people who will need to embrace the change, it is vital to ensure those people have been convinced about the new planned outcome.

### **Neutral Zone**

The neutral zone may feel as if one is wandering the desert aimlessly without a direction. This phase is the time when people need to psychologically repattern their habits. Using the example of the newborn, this is a time to experiment with new parental schedules. Who will awaken during the night when the baby wakes up? How often will this shift last? When will the other parent tend to the baby? How much additional time should the parents prepare for the day or get ready for work? This is a critical experimental time that can allow for innovation in an organization, and it may not yet feel natural or comfortable.

## New Beginnings

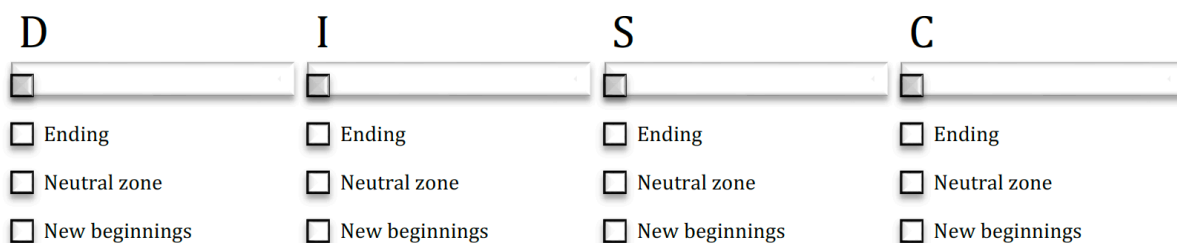
This phase gives purpose to the new direction a couple may be heading. There may be a new identity as a couple who leave, cleave, and become one. An organization that experiences a merger; will have a new identity after going through the endings and neutral zone. A new identity for the organization merging into the company and for the acquirer. Each may have a new sense of purpose or energy about the final change. Ultimately, both organizations have had an ending of sorts.

## Bridges Model and DISC Summary

The crucial aspect of this model is that the transitions must happen in this order, endings, neutral zone, and new beginnings. No phase can be skipped or re-ordered. A substantial difference between change and transitions is that the foci are on the ending, what is being let go, left behind, or lost. Whereas change produces or focuses on an outcome, and this becomes the difference Bartlett and Ghosal (2000) make a reference about. The factor to use as a framework in change is DISC (See Figure 11).

**Figure 11**

### *DISC and Transitions Model*



After an exhaustive search of change management theories, these themes in Table 11 were found.

**Table 11***Change Management Theory Categories*

AUTHOR(S)	THEORY NAME	PROCESS OR SYSTEMS	CULTURE	LEADERSHIP	CONTINGENCY	PSYCHOLOGICAL	PERSONALITY
Kotter (1998)	8 Stages of Change	X					
Cameron & Quinn (2011)	Competing Values Framework		X				
Cooperrider (2018)	Appreciative Inquiry			X			
Lewin (1958)	3-Step Procedure of Change-unfreezing, movement, refreezing					X	
Bridges (2009)	Managing Transitions					X	
Weisbord (1976)	Six Box Model	X		X			
Hammick, Nadler & Tushman (1998)	Congruence Model				X		
Tichy (1983)	TPC			X			
Lippitt, Watson & Westley (1958)	5 Phases of Planned Change	X					
Senge (1990)	The Fifth Discipline	X					
Hammer & Champy (2014)	Reengineering	X					
Trompenaars & Hampden-Turner (2012)	Waves of Culture		X				
Higgins & McAllaster	Cultural Artifacts		X				
Kegan & Lahey (2009)	Immunity to Change					X	

The main point in the above table is the lack of change theories that use personality assessment as a part of the framework.

**C5: Assessment**

The fifth component of the Clover model<sup>©</sup> is C5 Assessment. A high standard of ethics

and integrity needs to be applied when using personality instruments (Drogin, 2019). The American Psychological Association (Ethical Principles of Psychologists and Code of Conduct, n.d.). has five general principles that psychologists [and practitioners] should adhere to. They are:

1. **Beneficence and nonmaleficence:** First, the concept of “do no harm” is a critical component. Professionals should always seek to limit the negative impact on their clients. The professional should know of their own physical and emotional state and that impact as they help others.
2. **Fidelity and responsibility:** The establishment of trust is vital. The professional must uphold a professional code of conduct as they interact with colleagues, clients, and others.
3. **Integrity:** Honest and accuracy are paramount. Being fair, not lying or cheating, and fulfilling promises are fundamental for all professionals.
4. **Justice:** Each professional must understand their limitations and not promote or conduct work in areas in which they do not have expertise in.
5. **Respect for people’s rights and dignity:** Maintaining the privacy and confidentiality of individuals must be honored. Special precautions should be taken for any person who may have impaired decision-making abilities. The uniqueness of each individual must be respected and preserved, while the professional limits their biases that may lead to prejudices.

Professionals use the correct assessment(s) for any situation. Understanding this, I sought to find a correlation between the DISC assessment and people’s attitude toward change. There is currently no assessment that measures personality attitudes toward change. I will need to have the necessary knowledge and theoretical understanding in the areas under examination, change,

and personality assessment (Leach et al., 2019).

After an exhaustive search using terms such as *DISC attitudes toward change*, *DISC attitudes toward organizational change*, *DISC attitudes and readiness to change*, *DISC attitudes and openness to change*, the search was made more comprehensive by using DISC personality attitudes toward organizational change. This shift then produced 80 peer-reviewed articles, of which after reading every abstract, only three articles pertained to the subject. The other 77 articles showed no relevance to the topic at hand (e.g., disc invertebrates in the ocean or disc lumbar changes).

However, two of the three articles were seminal works that investigated change recipients' attitudes toward change (Oreg et al, 2011; Bouckenooghe, 2010). They reviewed 758 quantitative empirical studies between the years 1948 and 2007 and 1993 and 2007. None of these articles mentioned DISC personality attitudes toward change. What was found were five personality traits; locus of control, neuroticism, coping, tolerance for ambiguity, and self-efficacy, which are linked to reactions to change (Oreg et al., 2011).

### ***Personality Traits and Change***

The following scales shown below are scales related to change and used in the change survey.

#### **Locus of Control (LOC)**

The first attempt at measuring internal and external control as a personality variable was conducted by Phares in 1957 (as cited in Rotter, 1966). However, this model is probably best known by Rotter (1966). Phares (1957) initially developed a Likert-scale survey with 13 internal and 13 external attitudes (as cited in Rotter, 1966). The work of Phares was built on by a 1957 dissertation student, James, who revised the test Phares initially developed and added additional items (Rotter, 1975). Phares and James, later together, did find correlations on individual

differences in the areas of internal and external control. Yet there was no mechanism to account for answering in a way to control for social desirability until Liverant, Rotter and Seeman widened the survey (Strickland, 1965). Adding in subscales, they could then account for achievement, affection, social attitudes, and political attitudes (Rotter, 1966). More refining was needed at which point Rotter, Liverant and Crowne (1961) used tuberculosis patients to determine the validity and internal consistency. What they found was, “patients who had evidenced greater self-effort towards recovery versus those who were more passive” (Rotter, 1966, p. 10).

The concept of locus of control was described by Rotter (1966) as,

When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control.

(p. 1)

External locus of control is when a situational variable is outside the control of an individual (externals). Whereas internal locus of control was a belief that some reinforcement could be within their control (internals). Rotter (1990) speculated on four reasons for continued interest in the locus of control over the year. The first is the precise definition to which social scientists can agree, which is not always the case. The second is the ability to embed the I/E scales into a broader theory. “The third proposition is that the predictive value of a test is likely



to be increased if the principles of measurement are derived from the same theory as the constructs to be measured” (Rotter, 1990, p 491). The last is the dissemination of knowledge. Rotter (1990) shares between the years 1966 and 1990 at least 4,700 citations were made to his work of internal and external locus of control. As of 2020, the number of articles written on I/E scale is 18,830. During the same time frame 1966- 1990, according to a 2020 WorldCat search of articles, 3,002 were written. Thus, disseminating knowledge keeps the I/E scale popular.

Individuals with a perceived sense of control over a change view change more favorable, and there is a greater acceptance of the change (Wanberg & Banas, 2000). Although Chen and Wang (2007) purport, “To date no study has investigated the relationship between LOC and commitment to a specific change” (p. 505). Yet they do support the idea that, LOC captures one of the most important individual characters underlying the psychological reactions to a change by measuring personal beliefs of behavioral control that is useful for coping with the change. Internals can be viewed as having a more positive view of change (Greenberger et al, 1989) and be more likely to cope with the change.

### **Neuroticism (NEO)**

Neuroticism is considered an antecedent to how an individual’s reaction to change may be shaped (Oreg et al, 2011). Neuroticism has been widely researched by Eysenck (1998). Eysenck’s first version of the neuroticism scale was called the Maudsley Personality Inventory; the second version was the Eysenck Personality Inventory (most referred to); and his latest version is the Eysenck Personality Questionnaire (Bech, 2018).

Neurosis, as coined by Freud (as cited in Williamson, 2018) was used to show mental or emotional duress or suffering. Today, neuroticism is affiliated with the experience of negative emotions. People high in neuroticism tend to react more intensely to certain events. Someone low

in neuroticism tends to be calmer and have fewer negative thoughts.

### **Coping (COP)**

Coping has been viewed as a direct response to an emotion. If fear is the emotion provoked the response may be avoidance; if anger is the emotion this may cause attack. Cognitively coping may induce suppression, denial, rationalization, and problem-solving behaviors. Folkman et al (1986) defined coping as "the person's cognitive and behavioral efforts to manage (reduce, minimize, or tolerate) the internal and external demands of the person-environment transaction that is appraised as taxing or exceeding the person's resources" (p. 572). Not surprisingly, organizational changes can be stressful and perceived as being negative (Rafferty & Griffin, 2006). Folkman and Lazarus (1988) conducted a coping study using eight coping scales, which are:

1. Confrontive Coping ("stood my ground and fought for what I wanted")
2. Distancing ("went on as though nothing happened")
3. Self-control ("I tried to keep my feelings to myself")
4. Seeking social contact ("talked to someone who could do something about the problem")
5. Accepting responsibility ("criticized or lectured myself")
6. Escape- avoidance ("wished the situation would go away")
7. Planful problem solving ("I knew what had to be done so I doubled down")
8. Positive appraisal ("changed or grew as a person")

The eight scales had 50 items that accessed a "younger group" and the "older group" had 31 items. Both groups' consistent findings showed coping mediates emotions during stressful situations (Folkman & Lazarus, 1988).

## **Tolerance for Ambiguity (TFA)**

Major transformational change can create uncertainty and chaos in organizations. Sudden change can cause equal confusion as shown by the current state of world affairs with the onslaught of COVID-19. This level of ambiguity can be very unsettling for individuals, teams, organizations, and the world. One day companies were open, and the next the world was closed. Organizational change can be disruptive (Kotter, 1998a; McGuire, 1986).

Gioia et al (2012) looked at how organizations could conceive ambiguous vision statements to assist with strategic change. These authors used the definition of ambiguity from Harrington (1985 as cited in Gioia et al, 2012), who stated “Ambiguity concerns a vision’s ability to accommodate multiple meanings at the same time; flexibility concerns a vision’s ability to be adapted to different contexts or to a different strategic direction at a given point in time based on environmental exigencies” (p. 373). What they espoused is a three-step process that starts with a non-specific ambiguous vision statement, which leads to the second step, destabilization. In destabilization, people will make attempts at sense-making from their own viewpoint. Sense-making can then trigger the recipients of the vision to experiment with different practices to achieve the vision statement. During this third process, new knowledge can be manifested by individuals into new organizational plans, routines, and more (Gioia et al, 2012). The authors posited that ambiguity should be viewed as an ally, and they acknowledge the hazard that doing so could create.

Meanwhile, Kras et al (2017) share that the role of a middle manager is critical as they pass information up and down the hierarchy. When role ambiguity is present this can create stress and tension for the employees in the workplace. In a study of 75 middle managers who experienced an administration change, it was determined that the managers had a perception of

not achieving the new organizational goals and which resulted in role ambiguity (Kras et al, 2017). It can be construed that the ambiguity posed an issue for success in the organization.

### **Self-efficacy (SE)**

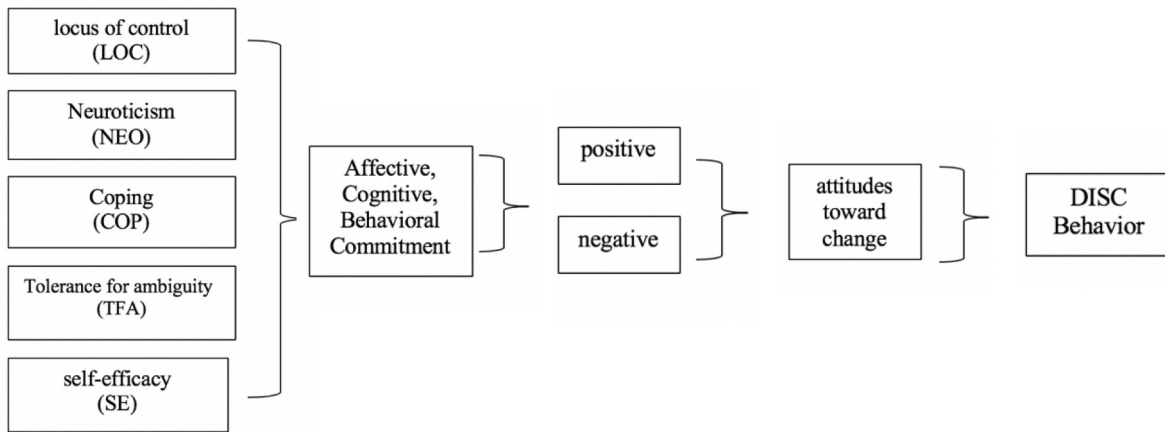
Bandura (1977) defined self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Also stated, self-efficacy as a personality variable describes an individual's ability to impact their own motivation, cognitive resources and choose the behavior needed to achieve outcomes (Heller et al, 2002).

#### **Tridimensional Concepts**

Additional literature from Oreg et al (2011) and Bouckennooghe (2010) agreed with a tridimensional concept (Elizur & Guttman, 1976; Piderit, 2000) consisting of affective, cognitive, and behavioral.

- Affective represents the feelings, thoughts, and emotions of a person.
- Cognitive refers to opinions a person has about the benefits/drawbacks of the change.
- Behavioral implies the actions taken either for or against the change.

From the literature a theoretical framework adapted (Figure 12) to assess the change recipient characteristics.

**Figure 12***Researcher Framework*

Çakıroğlu and Harmancı Seren (2019) found a correlation between personality, using the Five Factor Personality Traits Scale, and the attitudes that nurses had toward change. The study showed a significant relationship between change outcomes and conscientiousness, agreeableness, and emotional stability. This study determined that personality factors are important in how employees resist change (Çakıroğlu & Harmancı Seren, 2019).

### **Gaps and Inconsistencies in the Literature**

It has been noted there is a deficit in the literature and only a few studies in personality attitudes toward change (Çakıroğlu & Harmancı Seren 2019; Church et al, 2015). A search of keywords was conducted at the start of this research (Table 12 presented earlier) and again on March 27, 2022.

**Table 12***Research Search of Topic as of March 27, 2022*

LOCATION	KEYWORDS	# OF RESULTS
Pepperdine WorldCat	DISC attitudes toward change	2
Libraries Worldwide	Dominance, Influence, Steadiness, Compliance	1
	Attitudes towards organizational change	0
	DISC and organizational change	1
	DISC personality assessment	4
	DISC	1
Pepperdine WorldCat	Change Management	1,759,032
Libraries Worldwide		
Pepperdine WorldCat	Organizational Change	225,106
Libraries Worldwide		
Journal of Personality	DISC	0
	D, I, S, C	0
	DISC assessment	0
	Dominance, Influence, Steadiness, Conscientiousness	0
Journal of Change Management	Attitudes toward change	0
	Personality attitudes toward change	1
World Cat	personality attitudes toward organizational change	19,144
World Cat	DISC personality attitudes toward organizational change	80 3 articles of which 1 was in Russian

While conducting the review of the literature, it become evident that themes could be seen as they related to change management theories.

### Chapter Summary

An exhaustive review of the literature was conducted, and the results verified a significant gap in the literature at the intersection of personality and organizational change. There are many components to change; readiness to change, coping with change, tolerance for change, and attitudes toward change (Dweck, 2008; Peacock, 2017, Piderit, 2000; Raeder & Bokova, 2019; Saksvik & Hetland, 2009). The concept of organizational change is just as complex as people's personality.

## **Chapter 3: Proposed Research Methodology**

### **Chapter Overview**

This chapter contains an outline of the research methodology used in this study. Included is the research design, the method chosen for selecting participants, a discussion on how participants were protected, and the method selected for collecting the data.

### **Context**

The purpose of this study was to examine how different personality styles, using DISC specifically, address change.

### **Research Questions and Hypotheses**

- RQ1. What are the relationships between each of the four DISC scales and the change survey scales?
- Null 1. None of the four DISC scale scores will be related to any of the change survey.
- Alternative 1. At least one of the four DISC scale scores will be related to the change survey.

#### **Statistical Approach: Pearson Correlations**

- RQ2. What are the relationships between each of the four DISC scales and the change survey scale scores after controlling for respondent demographics (gender, age, education, professional level, etc.)?
- Null 2. None of the four DISC scale scores will be related to the change survey scores after controlling for respondent demographics (gender, age, education, professional level, etc.).
- Alternative 2. At least one of the four DISC scale scores will be related to at least

one of the change survey scores after controlling for respondent demographics (sex, age, education, professional level, etc.)?

Statistical Approach: Partial correlations

### Hypothesis

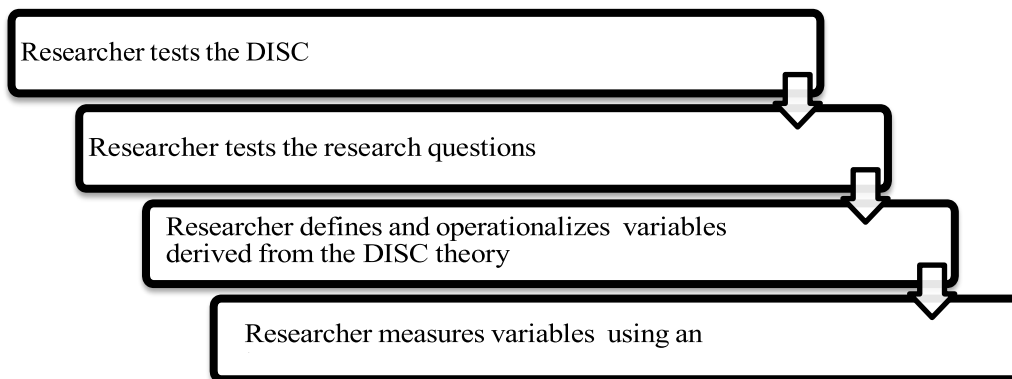
There will be identifiable attitudes towards change that are recognized by each of the D, I, S, C styles of personality.

### Research Design

This research used a purely quantitative approach. Creswell and Creswell (2018) state, “[Quantitative research] is used as a broad explanation for behavior and attitudes and it may be complete with variables, constructs, and hypotheses” (p. 61). I used a deductive method of reasoning see Figure 13.

### Figure 13

*Researcher’s Deductive Logic of Research*

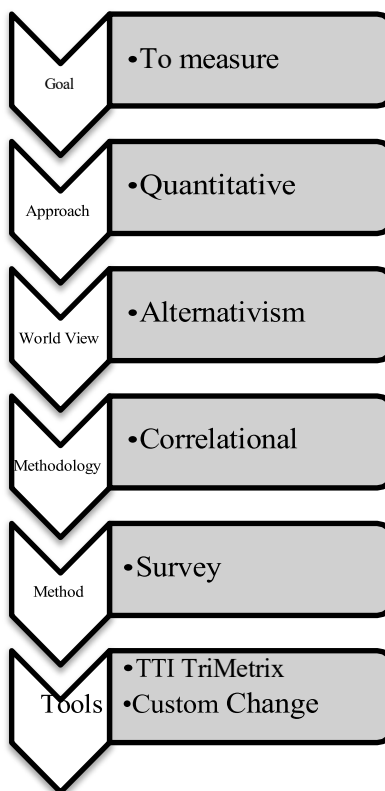


Additionally, at a macro-level the flow chart (Figure 13) highlights the conceptual framework including the goal, the approach, and my world view, methodology, method, and tools. The conceptual framework which Dr. Jago, Chairperson of this manuscript suggested to use is in Figure 14.



**Figure 14**

*Conceptual Framework for Theoretical Frameworks Jago 2020*



## **Goal**

The goal of personality psychology is to empirically measure the nature of human nature (Hogan, 1998). The goal of this study was to explore and potentially measure DISC personality attitudes toward change. Currently, there is a lack of research in this area. I aimed to add to the body of knowledge.

## ***Approach***

Research approaches, simply stated, are plans and steps for the research that span from the assumption to the elements of data collection (Lavrakas, 2008). This research approach was purely quantitative in nature. Creswell (2013) state, “Quantitative research is an approach for testing objective theories by examining the relationship among variables” (p. 4). Items that can

be codified are referred to as variables. The variables considered in this research were gender, age, education, and professional level, along with the DISC (dominance, influence, steadiness, and compliance) variables. Quantitative research questions seek to understand the relationships among the variables (Creswell & Creswell, 2018). Quantitative methods use items such as polls, questionnaires, and surveys to objectively measure the numerical analysis of data collected (Babbie, 2010).

Both descriptive and inferential statistics will be employed. Descriptive statistics will commonly report out items such as frequencies (Creswell & Creswell, 2018). For example, the number of males versus females in the study; and the breakdown of the professional levels. Inferential statistics will make inferences about the characteristics from the sample collected about the larger population (Urda, 2017).

### **Worldview**

George Kelly was an American psychologist and personality theorist and most notably was considered the father of cognitive clinical psychology (Madden et al., 1992). Kelly (1955) suggested that each person has a different way of viewing the world around them and that no one construct shows how someone might interpret the world thus this is the basis for my theoretical framework. This framework was originally called the psychology of personal constructs (Maher, 1969) but was later termed by Kelly as constructive alternativism (CA). My theoretical framework is constructive alternativism and is depicted in Figure 15.

## Figure 15

### *Researcher's Theoretical Overview*



The notion of Kelly's theory of personality started with two premises (a) that people might be better understood if they were looked at over time and (b) that each person has a bias (personal view) of how they see different events (Kelly, 1955). One conviction of CA is "The universe can be measured along a dimension of time... Since time is the one dimension which must always be considered if we are to contemplate change, we have chosen this particular way of saying that within our universe something is always going on" (Kelly, 1955, p. 7).

The theory goes on to posit that people represent their environment and then create alternative constructions, which can be changed if someone does not like what is happening. These constructs can be tested and then later used to predict future events and can quickly be changed based on the immediate happenings. An example is a person believes a new neighbor may be mean and decides to test out this assumption. The man sprays water at the neighbor's dog and the neighbor in a loud and angry manner yells at the man. The man now believes his neighbor has validated his assumption. Now, the man goes on to make further assumptions that the neighbor may want to know when he becomes ill, gets into trouble, or becomes vulnerable in any way. The next day the neighbor asks the man, "How are you today?" This further validates

the construct that the man made off the neighbor. Yes, the neighbor is mean, and he is trying to find out how the man is doing to take advantage of him. However, the construct of a mean and manipulative neighbor could be changed if the neighbor found out the man was not feeling well and served him a meal. The man reacts to the environment based on how he construes the happenings of events. The CA theory explicitly shares that people choose their behavior based on their interpretation of their surroundings, which can be quickly changed.

My paradigm was a postpositivist view. Kaplan (1968) suggest, “Positivism is sometimes used to denote a “scientific” approach, but positivism is far more than this. The approach asserts science can only deal with entities that can be directly experienced. Positivism is based upon an empiricist rejection of value judgements and argues that science must be confined to the ‘is’ rather than the ‘ought’” (p. 42).

The term post-positivist has been used to refer to scientific philosophies that arose after, and in reaction to, positivism. This use of the term would include phenomenology, which is one methodology the researcher will explore. Post-positivism is commonly seen in the social sciences for both conceptual and practical reasons (Lapid, 1989; Watson, 1924).

## **Methodology**

This study used a non-experimental research design in the form of correlational research, which is customarily used in the social sciences (Urdan, 2017; Wheeler & Archer, 2016). This common method is employed when needing to determine how strongly different variables are related to each other. In this case the researcher sought to explore whether if there is a relationship between the DISC personality styles and their attitude toward organizational change.

## ***Method***

A survey research method was used. Surveys provide numeric information around attitudes, trends, or opinions (Creswell & Creswell, 2018). Fowler (2014) emphasized survey designs can answer three questions, Descriptive questions. Example: What percentage of D, I, S, or C styles have an internal or external locus of control?

1. What is the relationship between variables? Example: Is there a relationship between low neuroticism and coping skills as it relates to what are the D, I, S, and C attitudes toward change?
2. Is there a relationship over time between variables? Example: If this survey was distributed pre or post COVID-19 and during the COVID-19 pandemic, what attitudes would the D, I, S, and C styles endorse?

The design of the survey should have three components. First, a section that just plainly identifies the purpose of the research. Second, acknowledge why a survey is being used; list both advantages (easy to take) and disadvantages (rater fatigue if a long survey). Last, indicate whether if the survey is a one-time event or part of a larger longitudinal study.

## **Tools**

An online survey was used for this research. Online surveys are very useful in expediting respondent results (Looney, 2008).

The dependent variables for this research were dominance, influence, steadiness, and compliance (DISC). The main independent variable measured was people's attitudes toward change. This included areas such as how people navigate organizational change. Other variables included for this study were gender, age, position, and education.

I deployed the online survey using a convenience sampling of my LinkedIn network,

consisting of 3,000+ contacts, as well as my social media outlets, such as Facebook. A convenience sampling represents people who are easy to access and are willing to participate. In addition, a snowball sampling was deployed. I asked my participants to pass along the survey to their network to gain the maximum number of participants from all over the globe.

### **Setting and Sample**

To ensure a robust sample size, the goal is to have a minimum of 1,000 participants from across North America, South America, Europe, Asia, Africa, and Australia. To participate, people must be 21 years or older. Robert (2015) emphasized, “The more participants in a study, the more protected the results of the study are from the influences of random error for which a researcher cannot control” (p. 1). It has been recommended I should seek to have a minimum of 700 valid survey respondents (R. Bonnstetter, personal communication, May 30, 2020).

I recruited participants using my 3,000+ network connections on LinkedIn, current client list of 100+ organizations, and LinkedIn groups with which I am affiliated. Participants were contacted via LinkedIn using LinkedIn’s “in mail” tool. Other participants were contacted via email. Lastly, the survey was posted to all social media outlets I used including Instagram, LinkedIn, and Facebook. The template (Appendix A) used for all social media and LinkedIn advertisements contained the suggested verbiage from the Institute Review Board at Pepperdine University.

### ***Sampling***

Merriam Webster Dictionary (2019) describes sampling as, “the act, process, or technique of selecting a representative part of a population for the purpose of determining parameters or characteristics of the whole population.”

This research employed two types of sampling: convenience and snowball sampling.

Convenience sampling, a type of non-probability sampling, more modernly known as model-based sampling (Battaglia, 2008) are conducted normally via web-based surveys. The advantage to this type of sample is convenience and speed. Convenience sampling allowed me to pick participants who are convenient to use and easily accessible (Sedgewick, 2013). Drawbacks to using convenience sampling include the sample not being representative of the population at large. Additionally, external validity may be difficult to prove if the participants are not representative of the population (Sedgewick, 2013), whereas in random sampling involves a random selection of participants, whereby any participant could have an equal chance of being chosen (Sedgewick, 2013).

Using a snowball sampling allowed people initially invited to redistribute the survey to their network. This procedure was of particular use as I sought a global response. Once individuals in particular countries have been identified they can then disseminate the survey (Chromy, 2008).

### **Human Subject Considerations**

This study met the requirements for exemption under Section 45 CFR 46.101(b)(2) of the U.S. Department of Health and Human Services (2009) that govern the protection of human subjects. The only risk anticipated was the time to participate in the study to reflect on inadequacies in the current competencies or lack thereof.

An online application for the claim of exemption was filed with the Institutional Review Board (IRB) at Pepperdine University. An application for waiver of informed consent was submitted (see Appendix B), thus allowing the researcher to eliminate the need for a signed response from each expert panelist. I received a letter back from IRB stating the waiver was accepted.

I completed the Collaborative Institutional Training Initiative (CITI). The certificate is valid through July 19, 2024 (Appendix D). I will abide by section Conduct Standard 8.02 of the American Psychological Association's Ethical Code which illuminates the type of information that needs to be shared with the participants (APA, n.d). The consent form included; (a) the purpose of the study; (b) the methodology of the study; (c) benefits of the study, if any; (d) estimated time commitment for the study; (e) a statement noting that the panelist's participation is voluntary and could be stopped at any time; and (f) a statement that said their participation will be anonymous and confidential to the other participants, unless they specify otherwise will be listed at the beginning of each survey. Anonymity is key and was maintained throughout the process. The responses from each panelist will not be tied to their name, but just organized by overall themes.

### **Benefits to Subjects or Society**

Benefits of subjects completing the research included a better understanding of personality and what their attitude toward change may be. This new knowledge can assist an organization, a team, a leader or an individual in understanding the needs different individuals may have. This can help inform people who may need to communicate a change at large and the language needed that can best impact the individuals. This research can also assist leaders in knowing how people want to have information regarding the change to be provided- e.g., in writing, a webcast, or in person. This information may allow leaders to understand why some teams embrace change and others do not. This information may allow the organization to be more successful and not be a statistic. Organizations may have less turnover during the change process if individuals can be understood better. If individuals are happier at work, this can translate into over better health and well-being. Family members of the individuals can have



improved well-being as well as they will be positively impacted by the individual's positive attitude toward the change.

### **Instrumentation**

One online survey was used that is comprised of four parts: behaviors, motivators, acumen, and attitudes. Target Training International (TTI) organized the survey into their online research platform and a link was provided to distribute to participants. The survey and consent form were provided to subjects in English only.

### **TriMetrix DNA**

The first instrument used is produced by Target Training International Success Insights, or more commonly known to industry affiliates as TTI. TTI has been working with instruments since 1984. To date over 30 million assessments have been administered world-wide, in 48 languages and in 115 countries. The company has three main instruments that measure; (a) the "how" people do things, called behaviors; (b) the "why" people do things, called motivators; and (c) the "what" people do, called competencies or soft skills (Boyatzis, 2008, 2009).

These measurements were accessed in a report called TriMetrix DNA®. A sample questionnaire is shown (Appendix D). The researcher has permission to use the TriMetrix DNA® assessment for this study (Appendix E).

Behaviors were measured in four domains: dominance (D), influence (I), steadiness (S), and compliance (C). There were 24 questions in this set. Respondents ranked the items in each phrase list. Respondents numbered their responses from 1 to 4, with 1 as the most like them.

Motivators were examined via six unique continuums: knowledge, utility, surroundings, others, power, and methodologies. In this section, respondents saw 12 groups of statements, each with six items to consider. In each group the respondent was asked to rank the six items as

follows; the statement they most identified with was 1, the statement they least identified with was 6. While responding, they kept focus on these prompts:

- what you use to guide your life decisions
- things that are important to you
- things that motivate you

Using a self-reporting instrument had with various pros and cons. Hofstede (1994) suggested, "...[the] self-report is privileged access: only the person himself or herself is in direct touch with his or her own feeling and emotions, motives and desires, attitudes, and values..." (p. 155). McCrae and Costa (1989) also supported this position of self-reporting stating, "...we might be able to document that an individual had attended 2,456 parties in the last five years- yet he might rightfully claim on a self-report inventory that he was not extraverted. He would be correct..." (p. 156). Two reasons could be deduced from McCrae's and Costa's example. First, the individual may truly had disliked being at the parties, or the individual may have put up a front that the time was enjoyable. Hogan (1994) disputes, "Responding to an item is as much a social act as responding to a question from your mother, and its meaning should be understood in terms of the actor's typical interpersonal goals rather than a [hypothesis]."

### **Clover Attitudes Model Survey (CAMS)**

The second component of the survey is to address the attitudes toward change. This survey is named the Clover Attitudes Model Survey (CAMS<sup>®</sup>). This survey is comprised of the following scales and items (Table 13). Permission to use the scales below was not needed as these are in the public domain and for use by any researcher.

**Table 13***Clover Attitudes Model Survey (CAMS©)*

Scales	Number of items	Item Statements
Coping Judge et al (1999)	12	<ul style="list-style-type: none"> <li>• When dramatic changes happen in this company, I feel I handle them with ease.</li> <li>• I have been a leader of transformation efforts within this company.</li> <li>• The rapid changes that have been occurring in this company are sometimes beyond the abilities of those within the company to manage (reverse scored).</li> <li>• Rapid change is something to adapt to, but not to embrace (reverse scored).</li> <li>• When changes happen in this company, I react by trying to manage the change rather than complain about it.</li> <li>• The changes occurring in this company cause me stress (reverse scored).</li> <li>• I see the rapid changes that are occurring in this company as opening new career opportunities for me.</li> <li>• Deep changes ultimately better the company.</li> <li>• Environmental turbulence presents opportunities to make overdue changes in this company.</li> <li>• When changes are announced, I try to react in a problem-solving, rather than an emotional, mode.</li> <li>• I often find myself leading change efforts in this company.</li> <li>• I think I cope with change better than most of those with whom I work.</li> </ul>
Tolerance for ambiguity Judge et al (1999)	18	<ul style="list-style-type: none"> <li>• I do not like to get started in group projects unless I feel assured that the project will be successful.</li> <li>• In a decision-making situation where there is not enough information to process the problem, I feel very uncomfortable.</li> <li>• I don't like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer.</li> <li>• I function poorly whenever there is a serious lack of communication in a job situation.</li> <li>• In a situation in which other people evaluate me, I feel a great need for clear and explicit evaluations.</li> <li>• If I am uncertain about the responsibility of a job, I get very anxious.</li> <li>• A problem has very little attraction for me if I don't think it has a solution.</li> <li>• It's satisfying to know pretty much what is going to happen on the job from day to day.</li> <li>• The most interesting life is to live under rapidly changing conditions.</li> <li>• When planning a vacation, a person should have a schedule to follow if he or she is really going to enjoy it.</li> <li>• Adventurous and exploratory people go farther in this world than do systematic and orderly people.</li> <li>• Doing the same things in the same places for long periods of time makes for a happy life.</li> <li>• I don't tolerate ambiguous situations well.</li> <li>• I find it difficult to respond when faced with an unexpected event.</li> <li>• I am good at managing unpredictable situations.</li> <li>• I prefer familiar situations to new ones.</li> <li>• I enjoy tackling problems which are complex enough to be ambiguous.</li> <li>• I prefer a situation in which there is some ambiguity</li> </ul>

Scales	Number of items	Item Statements
Self-efficacy Judge et al (1999)	10	<ul style="list-style-type: none"> <li>• I feel that I am a person of worth, at least on an equal basis with others.</li> <li>• I feel that I have a number of good qualities.</li> <li>• All in all, I am inclined to feel that I am a failure. (r)</li> <li>• I am able to do things as well as most other people.</li> <li>• I feel that I do not have much to be proud of. (r)</li> <li>• I take a positive attitude toward myself.</li> <li>• On the whole, I am satisfied with myself.</li> <li>• I wish I could have more respect for myself. (r)</li> <li>• I certainly feel useless at times. (r)</li> <li>• At times I think I am no good at all. (r)</li> </ul>
Neuroticism Eysenck and Eysenck 1968	12	<ul style="list-style-type: none"> <li>• My feelings are easily hurt.</li> <li>• I'm a nervous person.</li> <li>• I'm a worrier</li> <li>• I am often tense or "high strung."</li> <li>• I often suffer from "nerves."</li> <li>• I am often troubled by feelings of guilt.</li> <li>• My mood often goes up and down.</li> <li>• Sometimes I feel miserable for no reason.</li> <li>• I am an irritable person.</li> <li>• I often feel fed up.</li> <li>• I often worry too long after an embarrassing experience.</li> <li>• I often feel lonely.</li> </ul>
Locus of control Levenson (1981)	8	<ul style="list-style-type: none"> <li>• Whether or not I get to be a leader depends mostly on my ability.</li> <li>• When I make plans, I am almost certain to make them work.</li> <li>• When I get what I want, it's usually because I'm lucky. (r)</li> <li>• I have often found that what is going to happen will happen. (r)</li> <li>• I can pretty much determine what will happen in my life.</li> <li>• I am usually able to protect my personal interests.</li> <li>• When I get what I want, it's usually because I worked hard for it.</li> <li>• My life is determined by my own actions.</li> </ul>
Affective state	6	<ul style="list-style-type: none"> <li>• I look forward to change at work</li> <li>• I don't like change</li> <li>• Change frustrates me</li> <li>• Change tends to stimulate me</li> <li>• Most changes are irritating</li> <li>• I find most changes to be pleasing</li> </ul>
Cognitive state	6	<ul style="list-style-type: none"> <li>• Change usually benefits the organizations</li> <li>• Most of my co-workers benefit from change</li> <li>• Change often helps me perform better</li> <li>• Other people think that I support change</li> <li>• Change usually helps improve unsatisfactory situations at work</li> <li>• I usually benefit from change</li> </ul>
Behavioral state	6	<ul style="list-style-type: none"> <li>• I usually resist new ideas</li> <li>• I am inclined to try new ideas</li> <li>• I usually support new ideas</li> <li>• I often suggest new approaches to things</li> <li>• I intend to do whatever possible to support change</li> <li>• I usually hesitate to try new ideas</li> </ul>

A five-point Likert scale was used for all items above. The scale included 1 = not at all like me; 2 = a little like me; 3 = somewhat like me; 4 = a lot like me and 5 = definitely like me. The five-point Likert scale allows respondents to pick a neutral position.

Additionally, demographic information regarding age (broken down to Generation Z, Millennials, Generation X, Baby Boomers, and Silent Generation), country affiliation, educational level (some high school, high school / GED graduate, undergraduate degree, Master's degree, or doctorate degree), and professional level (individual contributor, first level manager, manager of managers, C-suite executive, and company owner/founder).

### **Online Survey Tool**

The online survey tool used for this study is the Target Training International Success Insights (TTI SI) online administrative platform called IDS (Internet Delivery System). This is a 24-hour on demand platform that allows assessments to be distributed and data collected.

### **Reliability and Validity**

The most basic type of validity is face validity (Creswell & Creswell, 2018; Messick, 1998), and the DISC assessment does appear to measure the behaviors of the four styles. Target Training International Ltd., has received a United States patent (Patent No. US 9,060,702 B2) for "Validation Process for Ipsative Assessments." Bonnstetter et al., 2015 was able to create a methodology for ipsative instrument validation. In their study, subjects were connected to an electroencephalogram (EEG), which measures and records the brain's activity. The purpose of this study was to evaluate participants self-reported ipsative responses and then compare these responses to their corresponding brain activity. This allowed the researchers to determine whether if the subject was answering with integrity (Bonnstetter, Bonnstetter, Hebets and Collura, 2015).

Additionally, it was determined after a search of ProQuest Dissertations and Thesis over the past 20 years that the scales used were found along with the frequency of the scale as follows: Locus of Control scale was found in 224,151 dissertations/thesis.

- Neuroticism Scale was found in 24,560 dissertations/thesis.
- Tolerance for Ambiguity was scale found in 83,574 dissertations/thesis.
- DISC personality assessment/test/profile/system was found in 66,680 dissertations/thesis.

Reliability can be demonstrated by various types of reliability as shown in Table 14.

**Table 14**

*Types of Reliability*

Type	Definition	Author
Inter-rater reliability	“The degree to what raters give consistent estimates of the same phenomena” (pg. 1)	Gehrig (2017)
Test-retest	“The consistency of a measure from one time period to another” (pg. 1)	Gehrig (2017)
Parallel reliability	“Assesses the consistency of the results of two tests constructed in the same way from the same content domain” (pg. 1)	Gehrig (2017)
Internal consistency reliability	“Assesses the consistency of results across items within an assessment” (pg. 1)	Gehrig (2017)

The measurement of internal reliability for the TTI<sup>®</sup> surveys (TTI Success Insights 2021 Reliability Study TTI Talent Insights<sup>(R)</sup>) utilized was Cronbach’s alpha (alpha), developed by Cronbach in 1951. Cronbach’s alpha is shown in ranges between 0 to 1. The ideal range is between .7 and .9 (Creswell & Creswell, 2018). TTI has measured the four D, I, S, and C scales across 27

languages and internal consistency reliability is presented in Table 15.

**Table 15**

*2021 Behaviors Cronbach's Alpha Measurement (n = 756,427)*

	Dominance	Influence	Steadiness	Compliance	N
Adriatic	.88	.81	.78	.80	1427
Arabic	.86	.75	.81	.76	940
Brazilian-Portuguese	.88	.90	.84	.86	37834
Chinese-Simplified	.87	.84	.85	.82	34238
Dutch	.90	.88	.85	.87	20282
English-AU/NZ	.89	.86	.86	.85	16742
English-Canada	.89	.86	.85	.85	23686
English-East Africa	.87	.82	.82	.83	924
English-Egypt	.85	.81	.80	.79	972
English-India	.86	.81	.82	.80	5242
English-Singapore	.88	.84	.85	.82	998
English-South Africa	.88	.84	.84	.83	1328
English UK	.89	.85	.85	.85	22866
English US	.89	.86	.85	.84	383886
French	.88	.84	.81	.84	53716
French-Canada	.88	.86	.80	.85	1842
German	.91	.85	.87	.86	49176
Hungarian	.90	.84	.82	.87	2728
Italian	.90	.82	.80	.86	4632
Japanese	.88	.88	.79	.86	534
Polish	.89	.86	.84	.87	642
Portuguese	.89	.83	.81	.84	5402
Russian	.91	.86	.82	.86	13116
Spanish-Americas	.86	.83	.80	.81	25852
Spanish-Spain	.87	.86	.81	.85	14356
Swedish	.90	.85	.84	.86	27548
Turkish	.85	.84	.83	.81	5518

TTI has measured the six driving forces scales across 25 languages and reliability is presented in Table 16.

**Table 16**

*2021 Motivation Insights Cronbach's Alpha Measurement (n = 266,637)*

	THE.	UTI.	AES.	SOC.	IND.	TRA.	N
Adriatic	.75	.73	.76	.84	.81	.68	995
Arabic	.86	.70	.66	.86	.84	.81	470
Brazilian-Portuguese	.82	.76	.79	.87	.83	.83	28002
Chinese-Simplified	.77	.71	.67	.83	.75	.65	9684
Dutch	.82	.82	.75	.86	.82	.75	5708
English-AU/NZ	.85	.83	.79	.87	.82	.80	3598
English-Canada	.85	.82	.80	.88	.84	.82	7134
English-East Africa	.86	.82	.75	.89	.78	.77	224
English-Egypt	.85	.78	.73	.84	.81	.76	420
English-India	.82	.74	.72	.85	.80	.80	428
English-Singapore	.82	.80	.77	.88	.83	.79	364
English-South Africa	.83	.82	.77	.91	.80	.79	308
English UK	.85	.78	.77	.85	.83	.81	2540
English US	.85	.81	.82	.88	.83	.83	128364
French	.76	.71	.72	.86	.83	.74	16696
French-Canada	.82	.80	.76	.88	.80	.78	752
German	.80	.71	.84	.84	.87	.70	33802
Hungarian	.79	.74	.77	.83	.83	.74	1508
Italian	.81	.69	.76	.85	.87	.78	2962
Japanese	.78	.77	.75	.82	.85	.74	198
Russian	.80	.78	.83	.84	.83	.72	4822
Spanish-Americas	.79	.80	.68	.86	.77	.76	6320
Spanish-Spain	.80	.75	.74	.85	.83	.76	2334
Swedish	.77	.80	.84	.88	.81	.74	5752
Turkish	.83	.78	.75	.86	.81	.80	3252

### **Data Collection**

A quantitative method was used for this research. One master survey was deployed that has five components. The survey platform was being provided by Target Training International, Ltd. (TTI), a personality assessment organization, located in Scottsdale, Arizona. TTI agreed to provide me unlimited complimentary assessments to distribute for the purpose of this research



proposal. The TTI assessment involved three components:

1. Behaviors- measured as D (dominance), I (influence), S (steadiness) and C (compliance).
2. Motivators- as measured by 12 Driving Forces®.
3. Behavioral hierarchy– displays a ranking of an individual’s natural behavioral style with a total of 12 areas commonly encountered in the workplace. The behaviors include urgency, versatile, interaction, competitive, frequent change, people-oriented, customer- oriented, persistence, analysis, following policy, organized workplace, and consistent.
4. The Clover Attitudes Model Survey, which is comprised of 67 items covering eight scales.

### **Data Management**

The TTI assessment results are managed through the organization (Appendix F), and they abide by the General Data Protection Regulation (GDPR). TTI provided assessment results directly to me. I kept the results in my [www.my.ttisi.com](http://www.my.ttisi.com) account platform. Results will be housed for a maximum of five years, at which point they will automatically be deleted. I used my private computer which is stored in my locked office at the back of my residence. The residence has 24-hour surveillance cameras that record 24 hours a day and seven days a week. The surveillance is conducted by Taylor Security and film is kept on the cloud.

The Clover Attitudes Model Survey will abide by the same GDPR policies and results will be kept for a maximum of five years. The Change Survey will be incorporated into the Clover Model® and the survey will be created, housed, and stored in my Qualtrics account.

## **Proposed Analysis**

I used Statistical Package for the Social Sciences (SPSS) to conduct the data analysis. SPSS is one of the world's most widely used statistical software programs (Davis, 2013). A user-friendly platform, SPSS provides robust features and ensures accuracy with its' statistical analysis and procedures (Babbie, 2010). Three statistical methods were used; Pearson correlation, partial correlation, and factor analysis, which are discussed in the following sections.

### **Pearson**

One of the basic approaches to measure the connection between variables is the correlation coefficient (Urdan, 2017). The most common of these correlations is the Pearson correlation. The direction of the correlation can be either positive or negative. If the scores on two variables being measured (for example, dominance and tolerance for ambiguity) go up, they are associated in a predictable manner. A negative correlation would show one variable going up and the other variable going down. A second attribute of correlation is strength. The strength of two variables is presented with the symbol "r" in either the case of a positive or negative correlation. A correlation coefficient will range from -1.00 to +1.00 and the closer the number is toward either side the stronger the relationship is. Urdan (2017) suggested, "Coefficients between -.20 and +.20 indicate a weak association between two variables; those between .20 to .50 (either negative or positive) represent moderate association, and those larger than .50 (either negative or positive) represent a strong association" (p. 167). One area that Pearson does not measure is causation; it merely shows the co-relation between two variables.

Researchers also want to understand whether if the correlation is statistically significant. To determine this, the null hypothesis would show there is no relationship between either of the variables being measured. Contrary, the alternative hypothesis would then show a statistic

connection between “the two variables in the population being measured and the population correlation coefficient is not equal to zero” (Urdañ, 2017, p. 173).

Pearson correlation was used for RQ1, which is: What are the relationships between each of the four DISC scales and the change survey scales?

### **Partial Correlation**

“A partial correlation is a measure of the relationship that exists between two variables after the variability in each that is predictable on the basis of a third variable has been removed” (Salkind 2010, p. 2). Simply stated it is the correlation between a set of scores. Scoring the partial correlation is done similarly as the Pearson correlation, having a score of --1.00 to +1.00. It is important to be aware of three possible issues in interpreting partial correlations. First, the residual score might now identify the construct being measured; second, the heuristic for understanding the meaning of partial correlation may not apply in the real-world application (Salkind, 2010); and third, only linear relationships amid variables are controlled for in partial correlations.

Partial correlation was used for RQ2, which is: What are the relationships between each of the four DISC scales and the change survey scale scores after controlling for respondent demographics (sex, age, education, professional level, etc.)?

### **Factor Analysis**

Factor analysis is an underutilized statistical tool (Cooper, 1983; Messick, 2005). This method is conducted to identify how well items in one construct are harmonized together (Messick, 1989; Messick, 1994), and how well the items are supposed to measure one construct separate from other constructs.

Essentially, factor analysis will look to determine what items are most correlated and then

seek to bundle them together. Cattell (1965) is best known for advancing factor analysis from Spearman (1904) in psychometric testing. Cattell first used factor analysis in his own 16 PF assessment, which served for discovery later of the “Big 5.”

Exploratory factor analysis (EFA) was used specifically for this study. EFA looked to see which items were most strongly correlated, and then grouped those items together. Then the program looked to see what the next set of items was most strongly correlated, grouped those together and this continued until no more groupings were found.

In the survey being used there were a total of 124 items that attempted to see whether if any correlation can be made with D, I, S, and C and the attitudes toward organizational change each style had.

### **Chapter Summary**

In Chapter 3, a description of the research design and further conceptual and theoretical perspectives were given. I discussed the setting, sample population, limitations, and human subject considerations. Validity and reliability were examined and shown through prior data analysis. Finally, the chapter concluded with data collection, management, and analysis.

## Chapter 4: Presentation of Findings

### Chapter Overview

This chapter contains the responses to the research questions and the data is presented in table format followed by commentary on the data.

### Purpose Statement

The purpose of this study is to examine how different personality styles, using the DISC personality theory specifically, respond to organizational change.

### Research Questions

- RQ1. What are the relationships between each of the four DISC scales and the change survey scales?
- Null 1. None of the four DISC scale scores will be related to any of the change survey.
- Alternative 1. At least one of the four DISC scale scores will be related to the change survey.
- RQ2. What are the relationships between each of the four DISC scales and the change survey scale scores after controlling for respondent demographics (sex, age, and race/ethnicity)?
- Null 2. None of the four DISC scale scores will be related to the change survey scores after controlling for respondent demographics (sex, age, and race/ethnicity).
- Alternative 2. At least one of the four DISC scale scores will be related to at least one of the change survey scores after controlling for respondent demographics (sex, age, and race/ethnicity)?

## Recruitment Process

My goal was to obtain 1,000 valid survey responses. However, Dr. Ron Bonnstetter, committee member and Senior Vice President of Research & Development at Target Training International initiated a goal of 700 valid responses. In total 1,684 surveys were collected, which included a global sample. After combing through the results and omitting invalid surveys a total of 984 surveys were used.

Initially I was going to use my LinkedIn network of 3,000 connections. Weekly posts were made on LinkedIn, Facebook, and Twitter. However, progress was extremely slow in capturing respondents. I then started posting and marketing to various LinkedIn groups (see Table 17).

**Table 17**

*Researcher LinkedIn Group Marketed*

GROUP NAME	NUMBER OF MEMBERS
South Africa Business Communities	121,649
The Five Behaviors Authorized Partners	1,599
Buyers-World Europe, North America, Pacific Rim	235,717
International Coach Federation- Orange County	79
Chief Learning Officer	56,565
Organization Development Network	63,084
Professional Women's Network	451,814
The Executive Coach	35,416
Elearning Edge	29,556
Organization Development, Learning Development	34,410
International Institute for Learning	4,327
Forbes Leadership	53,987
Association for Talent Development	150,580
Higher Education Management	126,016
The Leadership Challenge Discussion	7,112
TalentSmart Emotional Intelligence	531
Entrepreneur's Network	98,836
Consultants Network	528,611
Training Zone	31,667
The Leadership Development Group	30,380

GROUP NAME	NUMBER OF MEMBERS
Learning Think Tank	1,900
Global Supply Chain Council	28,750
Consumer Goods & Retail Professional	102,029
Saudi Arabia Business & Professional Network	154,572
The Emotional Intelligence Network	125,108
SHRM- Society for Human Resource Management	207,657
Sales Training	20,596
HR User of Psychometrics	6,639
Leadership, Change, and Culture	3,933
CPG Sales	6,357
NBCC Foundation	2,775
Situational Leadership	4,694
Korn Ferry Products	3,070
Hogan Independent Consultants Network	1,622
Blanchard Partner Network	124
<b>TOTAL POTENTIAL PARTICIPANT REACH</b>	<b>2,731,762</b>

A marketing assistant was hired to create social media marketing posts and make a post every Monday, Wednesday, and Friday to the above in addition to LinkedIn, Facebook, Twitter, and Instagram. Prior the marketing assistant being hired only 50 surveys were collected in a three-month period. The marketing assistant was hired in June 2021 and through August 30, 2021 the remaining 1,600 + surveys were collected. This was a wise investment for this study.

The minimum age to participate was 21. Participants had to complete both surveys.

### **Descriptive Statistics**

Table 18 displays the frequency counts for the demographic variables. The ages of the respondents ranged from 18 to 78 years old ( $M = 35.37$ ,  $SD = 10.23$ ). There were more men in the sample (55.6%) than women (44.4%). The most common racial ethnic groups were Caucasian (33.1%), American Indians/Alaska native (15.3%), and Hispanic or Latino (12.4%) (see Table 18). It should be noted that “Other” which counts for 16.7% just means participants did not choose an ethnic group.

**Table 18***Frequency Counts for Demographic Variables*

Variable	Category	<i>n</i>	%
Age Category <sup>a</sup>	18-24 years	74	7.5
	25-29 years	197	20.0
	30-34 years	358	36.4
	35-39 years	138	14.0
	40-49 years	100	10.2
	50-59 years	77	7.8
	60-78 years	40	4.1
Gender	Female	437	44.4
	Male	547	55.6
Race/Ethnicity	African American	116	11.8
	American Indian/Alaska Native	151	15.3
	Asian/Pacific Islander	89	9.0
	Caucasian	326	33.1
	Hispanic or Latino	122	12.4
	Two or More Races	16	1.6
	Other	164	16.7

*Note.*  $N = 984$ .

<sup>a</sup> Age:  $M = 35.37$ ,  $SD = 10.23$ .

Table 19 displays the psychometric characteristics for the eight summated scale scores. Cronbach alpha reliability coefficients ranged in size from  $\alpha = .63$  to  $\alpha = .94$  with the median sized coefficient being  $\alpha = .79$ . All but one of the scales (positive support change-behavioral state) had an acceptable level of internal reliability (Creswell & Creswell, 2018; see Table 19).



**Table 19***Psychometric Characteristics for the Summated Scale Scores*

Scale	Items	<i>M</i>	<i>SD</i>	Low	High	$\alpha$
Coping	12	4.16	0.72	1.00	6.00	.86
No Tolerance of Ambiguity	18	3.98	0.71	1.89	5.83	.89
Self-Efficacy	10	4.03	0.68	1.90	6.00	.72
Neuroticism	12	3.58	1.06	1.00	6.00	.94
Internal Locus of Control	8	4.18	0.70	1.88	6.00	.77
Like Change-Affective State	6	3.83	0.79	1.00	6.00	.71
Positive Thoughts-Cognitive State	6	4.20	0.78	1.00	6.00	.82
Positive Support Change-Behavioral State	6	4.06	0.68	2.00	6.00	.63

*Note.*  $N = 984$ .

Table 19 displays the descriptive statistics for the eight DISC scores. Inspection of the table found similar mean scores between the adapted and the natural score for each DISC category. In the examination of the adapted scores, the highest was the I adapted style ( $M = 59.01$ ) while the lowest was the D adapted style ( $M = 46.77$ ). In the examination of the natural scores, the highest was the I natural style ( $M = 57.66$ ) while the lowest was the C natural style ( $M = 47.43$ ; see Table 20).

**Table 20***Descriptive Statistics for the DISC Scale Scores*

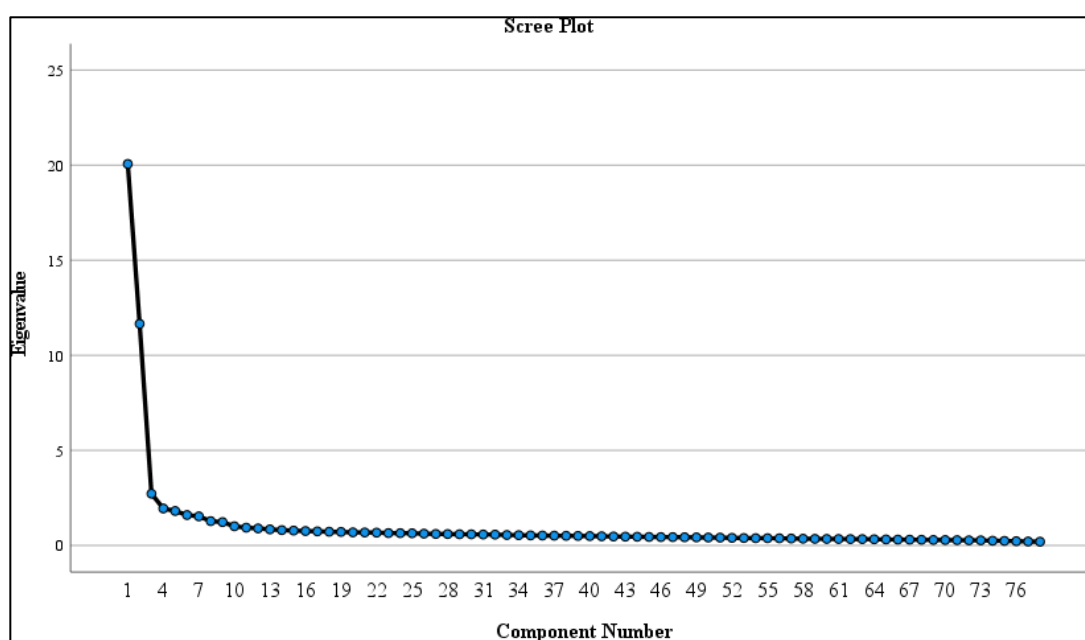
DISC Scale Score	<i>M</i>	<i>SD</i>	Low	High
D Adapted	46.77	14.75	2	95
D Natural	50.48	15.27	6	96
I Adapted	59.01	14.91	4	97
I Natural	57.66	15.65	6	100
S Adapted	56.52	15.32	6	94
S Natural	56.15	16.16	8	96
C Adapted	50.23	16.50	4	94
C Natural	47.43	16.72	7	100

*Note.*  $N = 984$ .

Figure 17 displays the scree plot for the results of the principal components analysis among the 78 change items. Inspection of the plot revealed a two-factor solution with the first component accounting for 25.73% of the variance and the second component accounting for 11.66% of the variance. The higher factor is called *negative*, and the second highest is called *positive*.

**Figure 16**

*Scree Plot for the Results of the Principal Components Analysis Model*



*Note.*  $N = 984$ . Component One accounted for 25.73% of the variance and Component Two accounted for 11.66% of the variance.

As a preliminary analysis, Table 21 displays the results of the principal components analysis based on the 78 individual change items. This two-component solution was subjected to a varimax rotation. The first factor was described as “negative appraisal.” The largest three loadings were as follows: all in all, I am inclined to feel that I am a failure (.796), I often feel fed up (.771), and I often suffer from “nerves.” (.768). The second factor was described as “positive

appraisal.” The three largest loadings were as follows: I feel that I have a number of good qualities (.694), I am able to do things as well as most other people (.667), and when changes are announced, I try to react in a problem solving, rather than emotional, mode (.667; see Table 21).

**Table 21**

*Factor Structure for the Cooper Scale Items Sorted by Highest Loading*

Scale Item	Negative	Positive
33. All in all, I am inclined to feel that I am a failure.	.796	
50. I often feel fed up.	.771	
45. I often suffer from "nerves."	.768	
48. Sometimes I feel miserable for no reason.	.767	
40. At times I think I am no good at all.	.764	
63. Change frustrates me	.764	
49. I am an irritable person.	.762	
47. My mood often goes up and down.	.760	
65. Most changes are irritating	.743	
42. I'm a nervous person.	.739	
73. I usually resist new ideas	.737	
39. I certainly feel useless at times.	.733	
62. I don't like change	.733	
44. I am often tense or "high strung."	.730	
46. I am often troubled by feelings of guilt.	.730	
78. I usually hesitate to try new ideas	.730	
52. I often feel lonely.	.728	
35. I feel that I do not have much to be proud of.	.712	
26. I find it difficult to respond when faced with an unexpected event.	.698	
41. My feelings are easily hurt.	.687	
43. I'm a worrier	.680	
51. I often worry too long after an embarrassing experience.	.662	
24. Doing the same things in the same places for long periods of time makes for a happy life.	.623	
55. When I get what I want, it's usually because I'm lucky.	.606	
15. I don't like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer.	.583	
19. A problem has very little attraction for me if I don't think it has a solution.	.553	
18. If I am uncertain about the responsibility of a job, I get very anxious.	.517	

Scale Item	Negative	Positive
6. The changes occurring in this company cause me stress	.514	
	.506	
28. I prefer familiar situations to new ones.		
13. I do not like to get started in group projects unless I feel assured that the project will be successful.	.482	
38. I wish I could have more respect for myself.	.462	
25. I don't tolerate ambiguous situations well.	.444	.300
22. When planning a vacation, a person should have a schedule to follow if he or she is really going to enjoy it.	.421	.325
14. In a decision-making situation where there is not enough information to process the problem, I feel very uncomfortable.	.420	.349
57. I can pretty much determine what will happen in my life.	.400	.346
16. I function poorly whenever there is a serious lack of communication in a job situation.	.398	.307
30. I prefer a situation in which there is some ambiguity.	.375	.340
4. Rapid change is something to adapt to, but not to embrace	.357	.332
32. I feel that I have a number of good qualities.		.694
34. I am able to do things as well as most other people.		.667
10. When changes are announced, I try to react in a problem-solving, rather than an emotional, mode.		.667
74. I am inclined to try new ideas		.658
31. I feel that I am a person of worth, at least on an equal basis with others.		.658
5. When changes happen in this company, I react by trying to manage the change rather than complain about it.		.657
36. I take a positive attitude toward myself.		.656
37. On the whole, I am satisfied with myself.		.654
77. I intend to do whatever possible to support change		.647
76. I often suggest new approaches to things		.645
59. When I get what I want, it's usually because I worked hard for it.		.639
8. Deep changes ultimately better the company.		.634
75. I usually support new ideas		.630
70. Other people think that I support change		.628
61. I look forward to change at work		.623
12. I think I cope with change better than most of those with whom I work.		.622
58. I am usually able to protect my personal interests.		.613
71. Change usually helps improve unsatisfactory situations at work		.613
60. My life is determined by my own actions.		.605

Scale Item	Negative	Positive
7. I see the rapid changes that are occurring in this company as opening up new career opportunities for me.		.603
67. Change usually benefits the organizations		.599
69. Change often helps me perform better		.593
72. I usually benefit from change		.586
27. I am good at managing unpredictable situations.		.584
11. I often find myself leading change efforts in this company.		.582
1. When dramatic changes happen in this company, I feel I handle them with ease.		.572
2. I have been a leader of transformation efforts within this company.		.563
54. When I make plans, I am almost certain to make them work.		.549
68. Most of my co-workers benefit from change		.545
9. Environmental turbulence presents opportunities to make overdue changes in this company.		.543
29. I enjoy tackling problems which are complex enough to be ambiguous.		.541
23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.		.516
17. In a situation in which other people evaluate me, I feel a great need for clear and explicit evaluations.		.511
53. Whether or not I get to be a leader depends mostly on my ability.		.498
66. I find most changes to be pleasing		.480
21. The most interesting life is to live under rapidly changing conditions.		.472
64. Change tends to stimulate me		.428
3. The rapid changes that have been occurring in this company are sometimes beyond the abilities of those within the company to manage		.411
56. I have often found that what is going to happen will happen.	.372	.398
20. It's satisfying to know pretty much what is going to happen on the job from day to day.	.377	.396

*Note.*  $N = 984$

### Answering RQ 1

RQ1 was: What are the relationships between each of the four DISC scales and the change survey scales? The related null hypothesis was, none of the four DISC scale scores will be related to any of the change survey. The related alternative hypothesis was, at least one of the four DISC scale scores will be related to the change survey. To answer this research question,

Tables 21 through 28 display the relevant Spearman correlations.

Table 21 displays the Spearman (1904) correlations between the 10 Cooper scale scores with the D adaptive and D natural scales. For the resulting 20 correlations, three were statistically significant. Specifically, the D adaptive score was positively related to the positive appraisal factor ( $r_s = .06, p < .05$ ), the no tolerance of ambiguity scale ( $r_s = .07, p < .05$ ), and the positive support change-behavioral state scale ( $r_s = .07, p < .05$ ; see Table 22).

**Table 22**

*Spearman Correlations for Cooper Scale Scores With D Adaptive/ D Natural Scales*

Scale Scores	D Adaptive	D Natural
Negative Appraisal Factor	.05	.06
Positive Appraisal Factor	.06 *	.05
Coping Scale	.05	.04
No Tolerance of Ambiguity Scale	.07 *	.05
Self-Efficacy Scale	.03	.03
Neuroticism Scale	.04	.05
Internal Locus of Control Scale	.06	.04
Like Change-Affective State Scale	.03	.04
Positive Thoughts-Cognitive State Scale	.06	.04
Positive Support Change-Behavioral State Scale	.07 *	.06

*Note.*  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 22 displays the Spearman (1904) correlations among the 78 individual items with the D adaptive and D natural scales only displaying those correlations that had an absolute value of at least  $|r_s| = .10$ . Inspection of the table found 10 of the correlations had an absolute value of at least  $|r_s| = .10$ . The largest correlations were for item 23, adventurous exploratory people go farther in this world than do systematic and orderly people with the D adaptive scale ( $r_s = .14, p < .001$ ) and item 30, I prefer a situation which there is some ambiguity ( $r_s = .14, p < .001$ ; see Table 23).

**Table 23***Spearman Correlations for Cooper Selected Items With D Adaptive/D Natural Scales*

Cooper Selected Items	D Adaptive		D Natural	
21. The most interesting life is to live under rapidly changing conditions	.11	****	.10	***
23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.	.14	****	.12	****
29. I enjoy tackling problems which are complex enough to be ambiguous	.12	****	.11	****
30. I prefer a situation in which there is some ambiguity.	.13	****	.14	****
44. I am often tense or "high strung."	.06		.10	***
49. I am an irritable person.	.09	***	.11	****

Note. N = 984.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 23 displays the Spearman (1904) correlations between the 10 Cooper scale scores with the I adaptive and I natural scales. For the resulting 20 correlations, 12 were statistically significant. The two largest correlations were for the I natural score with the negative appraisal factor ( $r_s = -.20$ ,  $p < .001$ ) and the neuroticism scale ( $r_s = -.19$ ,  $p < .001$ ; see Table 24).

**Table 24***Spearman Correlations for Cooper Scale Scores With I Adaptive/I Natural Scales*

Scale Scores	I Adaptive		I Natural	
Negative Appraisal Factor	-.11	****	-.20	****
Positive Appraisal Factor	.09	***	.15	****
Coping Scale	.06		.10	****
No Tolerance of Ambiguity Scale	-.05		-.09	***
Self-Efficacy Scale	-.02		-.07	*
Neuroticism Scale	-.11	****	-.19	****
Internal Locus of Control Scale	.02		.02	
Like Change-Affective State Scale	-.07	*	-.12	****
Positive Thoughts-Cognitive State Scale	.06		.09	**
Positive Support Change-Behavioral State Scale	.02		.01	

Note. N = 984.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 24 displays the Spearman (1904) correlations among the 78 individual items with the I adaptive and I natural scales only displaying those correlations that had an absolute value of at least  $|r_s = .10|$ . Inspection of the table found 41 of the correlations had an absolute value of at least  $|r_s = .10|$ . The largest correlations were for the I natural scale with item 33, all in all, I am inclined to feel that I'm a failure ( $r_s = -.20, p < .001$ ), item 44, I am often tense or "high strung." ( $r_s = -.19, p < .001$ ), item 45, I often suffer from "nerves." ( $r_s = -.19, p < .001$ ), and item 51, I often worry too long after an embarrassing experience ( $r_s = -.19, p < .001$ ; see Table 25).

**Table 25**

*Spearman Correlations for Cooper Selected Items With I Adaptive/I Natural Scales*

Cooper Selected Items	I Adaptive	I Natural
5. When changes happen in this company, I react by trying to manage the change rather than complain about it.	.07 *	.14 ****
7. I see the rapid changes that are occurring in this company as opening up new career opportunities for me.	.06 *	.11 ****
8. Deep changes ultimately better the company.	.07 *	.10 ****
10. When changes are announced, I try to react in a problem-solving, rather than an emotional, mode.	.03	.10 ***
<b>15. I don't like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer.</b>	-.04	-.11 ****
23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.	.08 **	.12 ****
<b>24. Doing the same things in the same places for long periods of time makes for a happy life.</b>	-.04	-.13 ****
<b>26. I find it difficult to respond when faced with an unexpected event.</b>	-.11 ****	-.18 ****
31. I feel that I am a person of worth, at least on an equal basis with others.	.07 *	.11 ****
<b>33. All in all, I am inclined to feel that I am a failure.</b>	-.10 ****	-.20 ****
<b>35. I feel that I do not have much to be proud of.</b>	-.08 **	-.17 ****
36. I take a positive attitude toward myself.	.10 ***	.11 ****
37. On the whole, I am satisfied with myself.	.10 ****	.14 ****
<b>39. I certainly feel useless at times.</b>	-.07 *	-.14 ****
<b>40. At times I think I am no good at all.</b>	-.09 ****	-.14 ****
<b>42. I'm a nervous person.</b>	-.11 ****	-.17 ****



Cooper Selected Items	I Adaptive	I Natural
<b>42. I'm a nervous person.</b>	-.11 ****	-.17 ****
<b>43. I'm a worrier</b>	-.09 **	-.13 ****
<b>44. I am often tense or "high strung."</b>	-.09 ***	-.19 ****
<b>45. I often suffer from "nerves."</b>	-.12 ****	-.19 ****
<b>46. I am often troubled by feelings of guilt.</b>	-.09 ***	-.15 ****
<b>47. My mood often goes up and down.</b>	-.03	-.10 ***
<b>48. Sometimes I feel miserable for no reason.</b>	-.06 *	-.14 ****
<b>49. I am an irritable person.</b>	-.04	-.12 ****
<b>50. I often feel fed up.</b>	-.10 ***	-.17 ****
<b>51. I often worry too long after an embarrassing experience.</b>	-.13 ****	-.19 ****
<b>52. I often feel lonely.</b>	-.05	-.11 ****
61. I look forward to change at work	.08 *	.10 ***
<b>62. I don't like change</b>	-.11 ****	-.16 ****
<b>63. Change frustrates me</b>	-.09 ***	-.18 ****
<b>65. Most changes are irritating</b>	-.09 ***	-.16 ****
<b>73. I usually resist new ideas</b>	-.07 *	-.12 ****
74. I am inclined to try new ideas	.05	.10 ***
<b>78. I usually hesitate to try new ideas</b>	<b>-.04</b>	<b>-.14 ****</b>

Note.  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 26 displays the Spearman (1904) correlations between the 10 Cooper scale scores with the S adaptive and S natural scales. For the resulting 20 correlations, five were statistically significant. The two largest correlations were for the S adaptive score with the positive appraisal factor ( $r_s = -.09, p < .01$ ) and the positive thoughts-cognitive state scale ( $r_s = -.08, p < .05$ ; see Table 26).

**Table 26**

*Spearman Correlations for Cooper Scale Scores With S Adaptive/S Natural Scales*

Scale Scores	S Adaptive	S Natural
Negative Appraisal Factor	.00	-.06
Positive Appraisal Factor	-.09 **	-.02
Coping Scale	-.07 *	-.04

Scale Scores	S Adaptive	S Natural
No Tolerance of Ambiguity Scale	-.03	-.03
Self-Efficacy Scale	.01	.00
Neuroticism Scale	-.01	-.05
Internal Locus of Control Scale	-.03	-.01
Like Change-Affective State Scale	.00	-.03
Positive Thoughts-Cognitive State Scale	-.08 *	-.03
Positive Support Change-Behavioral State Scale	-.07 *	-.07 *

Note. N = 984.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 27 displays the Spearman (1904) correlations among the 78 individual items with the S adaptive and S natural scales displaying only those correlations that had an absolute value of at least  $|r_s| = .10$ . Inspection of the table found four of the correlations had an absolute value of at least  $r_s = .10$ . The largest correlations were for the S adaptive scale with item 29, I enjoy tackling problems which are complex enough to be ambiguous ( $r_s = -.11, p < .001$ ), and the S natural scale with item 49, I am an irritable person ( $r_s = -.11, p < .001$ ; see Table 27).

**Table 27**

*Spearman Correlations for Cooper Selected Items With S Adaptive/S Natural Scales*

Cooper Selected Items	S Adaptive	S Natural
2. I have been a leader of transformation efforts within this company.	-.10 ***	-.06
29. I enjoy tackling problems which are complex enough to be ambiguous	-.11 ****	-.08 *
30. I prefer a situation in which there is some ambiguity.	-.10 ***	-.06 *
49. I am an irritable person.	-.06 *	-.11 ****

Note. N = 984.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 28 displays the Spearman correlations between the 10 Cooper scale scores with the C adaptive and C natural scales. For the resulting 20 correlations, 13 were statistically

significant. The largest correlations were for the C natural score with the negative appraisal factor ( $r_s = .14, p < .001$ ), the positive appraisal factor ( $r_s = -.15, p < .001$ ) and the neuroticism scale ( $r_s = .14, p < .001$ ; see Table 28).

**Table 28**

*Spearman Correlations for Cooper Scale Scores With C Adaptive/C Natural Scales*

Scale Scores	C Adaptive		C Natural	
Negative Appraisal Factor	.11	****	.14	****
Positive Appraisal Factor	-.11	****	-.15	****
Coping Scale	-.08	**	-.10	***
No Tolerance of Ambiguity Scale	.02		.03	
Self-Efficacy Scale	.00		.01	
Neuroticism Scale	.10	****	.14	****
Internal Locus of Control Scale	-.06		-.07	*
Like Change-Affective State Scale	.08	*	.08	**
Positive Thoughts-Cognitive State Scale	-.07	*	-.10	***
Positive Support Change-Behavioral State Scale	-.01		-.03	

*Note.*  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 29 displays the Spearman (1904) correlations among the 78 individual items with the C adaptive and C natural scales only displaying those correlations that had an absolute value of at least  $|r_s| = .10$ . Inspection of the table found 39 of the correlations had an absolute value of at least  $|r_s| = .10$ . The largest correlations were for the C natural scale with item 23, adventurous and exploratory people go farther in this world than do systematic and orderly people ( $r_s = -.18, p < .001$ ), and item 42, I am a nervous person ( $r_s = .16, p < .001$ ; see Table 29).

**Table 29***Spearman Correlations for Cooper Selected Items With C Adaptive/C Natural Scales*

Cooper Selected Items	C Adaptive		C Natural	
21. The most interesting life is to live under rapidly changing conditions.	-.11	****	-.12	****
23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.	-.17	****	-.18	****
26. I find it difficult to respond when faced with an unexpected event.	.11	****	.13	****
36. I take a positive attitude toward myself.	-.11	****	-.14	****
37. On the whole, I am satisfied with myself.	-.11	****	-.11	****
39. I certainly feel useless at times.	.09	***	.11	****
40. At times I think I am no good at all.	.07	*	.10	***
42. I'm a nervous person.	.10	****	.16	****
44. I am often tense or "high strung."	.11	****	.13	****
45. I often suffer from "nerves."	.14	****	.15	****
46. I am often troubled by feelings of guilt.	.08	**	.10	****
50. I often feel fed up.	.09	***	.11	****
51. I often worry too long after an embarrassing experience.	.14	****	.15	****
52. I often feel lonely.	.08	*	.12	****
60. My life is determined by my own actions.	-.09	**	-.11	****
61. I look forward to change at work	-.14	****	-.15	****
62. I don't like change	.12	****	.12	****
63. Change frustrates me	.13	****	.15	****
65. Most changes are irritating	.09	***	.12	****
69. Change often helps me perform better	-.11	****	-.11	****
73. I usually resist new ideas	.10	***	.10	***
74. I am inclined to try new ideas	-.08	*	-.11	****
78. I usually hesitate to try new ideas	.07	*	.10	***

*Note.*  $N = 984$ .\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

In summary, this research question was addressed based on the results of eight tables of Spearman (1904) correlations. Numerous correlations were related to the DISC scores. This combination of findings provided support to reject null hypothesis one (see Tables 20 through 29).

## Answering RQ 2

RQ2 is- What are the relationships between each of the four DISC scales and the change survey scale scores after controlling for respondent demographics (sex, age, and race/ethnicity)? The related null hypothesis was, none of the four DISC scale scores will be related to the change survey scores after controlling for respondent demographics (sex, age, and race/ethnicity). The related alternative hypothesis was, at least one of the four DISC scale scores will be related to at least one of the change survey scores after controlling for respondent demographics (sex, age, and race/ethnicity)? To answer this question, Tables 29 through 36 display the relevant partial correlations.

Table 30 displays the partial correlations for the Cooper scale scores with the D adaptive and D natural scores controlling for age, gender, and race/ethnicity. For the resulting 20 partial correlations, eight were statistically significant. The largest correlations were for the D adaptive score with the positive appraisal score ( $r_{ab.c} = .11, p < .001$ ) and the positive thoughts-cognitive state scale ( $r_{ab.c} = .09, p < .01$ ; see Table 30).

**Table 30**

*Partial Correlations for Cooper Scale Scores With D Adaptive and D Natural Scales*

*Controlling for Age, Gender, and Race/Ethnicity*

Scale Scores	D Adaptive	D Natural
Negative Appraisal Factor	-.02	.01
Positive Appraisal Factor	.11 ****	.07 *
Coping Scale	.08 **	.06
No Tolerance of Ambiguity Scale	.05	.04
Self-Efficacy Scale	.02	.02
Internal Locus of Control Scale	.07 *	.04
Like Change-Affective State Scale	.03	.04
Positive Thoughts-Cognitive State Scale	.09 **	.06 *
Positive Support Change-Behavioral State Scale	.07 *	.07 *

*Note.*  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 31 displays the partial correlations among the 78 individual items with the D adaptive and D natural scales only displaying those correlations that had an absolute value of at least  $|r_{ab.c} = .10|$ . Inspection of the table found 16 of the correlations had an absolute value of at least  $|r_{ab.c} = .10|$ . The largest correlations were for the D adaptive scale with item 23, adventurous and exploratory people go farther in this world than do systematic and orderly people ( $r_{ab.c} = .16, p < .001$ ), and the D natural score with item 30, I prefer a situation which there is some ambiguity ( $r_{ab.c} = .15, p < .001$ ; see Table 31).

**Table 31**

*Partial Correlations for Cooper Selected Items With D Adaptive/D Natural Scales*

Cooper Selected Items	D Adaptive		D Natural	
11. I often find myself leading change efforts in this company.	.11	****	.10	***
12. I think I cope with change better than most of those with whom I work.	.10	***	.09	**
21. The most interesting life is to live under rapidly changing conditions.	.12	****	.12	****
23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.	.16	****	.14	****
27. I am good at managing unpredictable situations.	.10	****	.08	**
29. I enjoy tackling problems which are complex enough to be ambiguous.	.14	****	.13	****
30. I prefer a situation in which there is some ambiguity.	.13	****	.15	****
36. I take a positive attitude toward myself.	.10	***	.08	*
61. I look forward to change at work	.11	****	.08	**
72. I usually benefit from change	.09	***	.10	***
74. I am inclined to try new ideas	.10	***	.08	**

Note.  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$

Table 32 displays the partial correlations for the Cooper scale scores with the I adaptive and I natural scores controlling for age, gender, and race/ethnicity. For the resulting 20 partial

correlations, ten were statistically significant. The largest correlations were for the I natural score with the negative appraisal score ( $r_{ab.c} = -.18, p < .001$ ) and the neuroticism scale ( $r_{ab.c} = -.17, p < .001$ ; see Table 32).

**Table 32**

*Partial Correlations for Cooper Scale Scores With I Adaptive/I Natural Scales*

*Controlling for Age, Gender, and Race/Ethnicity*

Scale Scores	I Adaptive	I Natural
Negative Appraisal Factor	-.09 ***	-.18 ****
Positive Appraisal Factor	.06 *	.11 ****
Coping Scale	.05	.08 *
No Tolerance of Ambiguity Scale	-.04	-.07 *
Self-Efficacy Scale	-.03	-.06
Neuroticism Scale	-.10 ***	-.17 ****
Internal Locus of Control Scale	.02	.02
Like Change-Affective State Scale	-.06	-.09 **
Positive Thoughts-Cognitive State Scale	.05	.07 *
Positive Support Change-Behavioral State Scale	.02	.01

Note.  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 33 displays the partial correlations among the 78 individual items with the I adaptive and I natural scales only displaying those correlations that had an absolute value of at least  $|r_{ab.c} = .10|$ . Inspection of the table found 29 of the correlations had an absolute value of at least  $|r_{ab.c} = .10|$ . The largest correlations were for the I natural scale with item 44, I am often tense or “high strung” ( $r_{ab.c} = -.18, p < .001$ ), and with item 51, I often worry too long after embarrassing experience ( $r_{ab.c} = -.18, p < .001$ ; see Table 33).

**Table 33**

*Partial Correlations for Cooper Selected Items With I Adaptive/I Natural Scales*

Cooper Selected Items	I Adaptive	I Natural
5. When changes happen in this company, I react by trying to manage the change rather than complain about it.	.05	.10 ****

Cooper Selected Items	I Adaptive		I Natural	
21. The most interesting life is to live under rapidly changing conditions.	.11	****	.06	
23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.	.10	***	.13	****
24. Doing the same things in the same places for long periods of time makes for a happy life.	-.02		-.09	***
26. I find it difficult to respond when faced with an unexpected event.	-.10	***	-.15	****
28. I prefer familiar situations to new ones.	-.10	***	-.09	***
33. All in all, I am inclined to feel that I am a failure.	-.07	*	-.16	****
35. I feel that I do not have much to be proud of.	-.07	*	-.15	****
37. On the whole, I am satisfied with myself.	.08	*	.10	****
39. I certainly feel useless at times.	-.06	*	-.12	****
40. At times I think I am no good at all.	-.08	*	-.12	****
42. I'm a nervous person.	-.11	****	-.17	****
43. I'm a worrier	-.09	***	-.13	****
44. I am often tense or "high strung."	-.10	****	-.18	****
45. I often suffer from "nerves."	-.11	****	-.17	****
46. I am often troubled by feelings of guilt.	-.08	*	-.12	****
48. Sometimes I feel miserable for no reason.	-.03		-.10	***
50. I often feel fed up.	-.10	***	-.16	****
51. I often worry too long after an embarrassing experience.	-.14	****	-.18	****
63. Change frustrates me	-.09	**	-.15	****
65. Most changes are irritating	-.08	**	-.13	****
73. I usually resist new ideas	-.04		-.10	***
78. I usually hesitate to try new ideas	-.03		-.10	***

Note.  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 34 displays the partial correlations for the Cooper scale scores with the S adaptive and S natural scores controlling for age, gender, and race/ethnicity. For the resulting 20 partial correlations, five were statistically significant. The largest correlations were for the S adaptive score with the positive appraisal score ( $r_{ab.c} = -.11, p < .001$ ) and the positive thoughts-cognitive state scale ( $r_{ab.c} = -.09, p < .005$ ; see Table 34).



**Table 34***Partial Correlations for Cooper Scale Scores With S Adaptive/S Natural Scales**Controlling for Age, Gender, and Race/Ethnicity*

Scale Scores	S Adaptive		S Natural	
Negative Appraisal Factor	.04		.00	
Positive Appraisal Factor	-.11	****	-.06	
Coping Scale	-.08	**	-.06	
No Tolerance of Ambiguity Scale	-.03		-.03	
Self-Efficacy Scale	.00		.00	
Neuroticism Scale	.03		-.01	
Internal Locus of Control Scale	-.04		-.02	
Like Change-Affective State Scale	-.01		-.03	
Positive Thoughts-Cognitive State Scale	-.09	***	-.05	
Positive Support Change-Behavioral State Scale	-.08	*	-.08	**

Note.  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 35 displays the partial correlations among the 78 individual items with the S adaptive and S natural scales displaying only those correlations that had an absolute value of at least  $|r_{ab.c} = .10|$ . Inspection of the table found nine of the correlations had an absolute value of at least  $|r_{ab.c} = .10|$ . The largest correlations were for the S adaptive scale with item 2, I have been a leader of transformational efforts within this company ( $r_{ab.c} = -.11, p < .001$ ), with item 27, I am good at managing unpredictable situations ( $r_{ab.c} = -.11, p < .001$ ) and with item 29, I enjoy tackling problems which are complex enough to be ambiguous ( $r_{ab.c} = -.12, p < .001$ ; see Table 35).

**Table 35***Partial Correlations for Cooper Selected Items With S Adaptive/S Natural Scales*

Cooper Selected Items	S Adaptive		S Natural	
2. I have been a leader of transformation efforts within this company.	-.11	****	-.09	**
11. I often find myself leading change efforts in this company.	-.10	****	-.09	***
23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.	-.10	***	-.10	***
27. I am good at managing unpredictable situations.	-.11	****	-.06	
29. I enjoy tackling problems which are complex enough to be ambiguous.	-.12	****	-.09	***
30. I prefer a situation in which there is some ambiguity.	-.10	***	-.07	*
76. I often suggest new approaches to things	-.10	***	-.08	*
77. I intend to do whatever possible to support change	-.10	****	-.08	**

*Note.*  $N = 984$ .\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 36 displays the partial correlations for the Cooper scale scores with the C adaptive and C natural scores controlling for age, gender, and race/ethnicity. For the resulting 20 partial correlations, 12 were statistically significant. The largest correlations were for the C natural score with the negative appraisal score ( $r_{ab.c} = .16, p < .001$ ) and the neuroticism scale ( $r_{ab.c} = .15, p < .001$ ; see Table 36).

**Table 36***Partial Correlations for Cooper Scale Scores With C Adaptive/C Natural Scales**Controlling for Age, Gender, and Race/Ethnicity*

Scale Scores	C Adaptive		C Natural	
Negative Appraisal Factor	.14	****	.16	****
Positive Appraisal Factor	-.11	****	-.13	****
Coping Scale	-.07	*	-.08	**
No Tolerance of Ambiguity Scale	.05		.05	
Self-Efficacy Scale	.02		.03	

Scale Scores	C Adaptive	C Natural
Neuroticism Scale	.12 ****	.15 ****
Internal Locus of Control Scale	-.04	-.05
Like Change-Affective State Scale	.08 *	.07 *
Positive Support Change-Behavioral State Scale	.00	-.01

Note.  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 37 displays the partial correlations among the 78 individual items with the C adaptive and C natural scales only displaying those correlations that had an absolute value of at least  $|r_{ab.c} = .10|$ . Inspection of the table found 47 of the correlations had an absolute value of at least  $|r_{ab.c} = .10|$ . The largest correlations were for both the C adaptive scale and the C natural scale with item 23, adventurous and exploratory people go farther in this world than do systematic and orderly people ( $r_{ab.c} = -.17, p < .001$ ), and ( $r_{ab.c} = -.18, p < .001$ ). Also, the C natural scale with item 42, I'm a nervous person ( $r_{ab.c} = .17, p < .001$ ; see Table 37).

**Table 37**

*Partial Correlations for Cooper Selected Items With C Adaptive/C Natural Scales*

Cooper Selected Items	C Adaptive	C Natural
15. I don't like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer.	.09 ***	.09 ***
20. It's satisfying to know pretty much what is going to happen on the job from day to day.	.08 **	.11 ****
21. The most interesting life is to live under rapidly changing conditions.	-.13 ****	-.14 ****
23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.	-.17 ****	-.18 ****
24. Doing the same things in the same places for long periods of time makes for a happy life.	.09 **	.10 ***
25. I don't tolerate ambiguous situations well.	.08 **	.11 ****
26. I find it difficult to respond when faced with an unexpected event.	.13 ****	.14 ****
33. All in all, I am inclined to feel that I am a failure.	.12 ****	.12 ****

Cooper Selected Items	C Adaptive		C Natural	
35. I feel that I do not have much to be proud of.	.09	***	.10	****
36. I take a positive attitude toward myself.	-.11	****	-.13	****
37. On the whole, I am satisfied with myself.	-.10	***	-.10	****
39. I certainly feel useless at times	.10	****	.12	****
40. At times I think I am no good at all.	.08	**	.10	****
42. I'm a nervous person.	.13	****	.17	****
43. I'm a worrier	.10	****	.10	****
44. I am often tense or "high strung."	.11	****	.14	****
46. I am often troubled by feelings of guilt.	.08	**	.10	***
50. I often feel fed up.	.11	****	.12	****
51. I often worry too long after an embarrassing experience.	.15	****	.16	****
52. I often feel lonely.	.08	**	.12	****
61. I look forward to change at work	-.13	****	-.14	****
62. I don't like change	.13	****	.13	****
63. Change frustrates me	.14	****	.15	****
65. Most changes are irritating	.12	****	.12	****
69. Change often helps me perform better	-.11	****	-.11	****
73. I usually resist new ideas	.11	****	.10	****
74. I am inclined to try new ideas	-.09	***	-.11	****
78. I usually hesitate to try new ideas	.09	**	.10	****

Note.  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

## Summary

In summary, this study used data from 984 survey respondents to examine how different personality styles, using DISC specifically, address the concept of change. RQ 1 (change scores with the DISC scores) was supported (see Tables 4 through 11). RQ 2 (change scores with the DISC scores controlling for demographics) was also supported (see Tables 12 through 19). Finally, this research question was addressed based on the results of eight tables of partial correlations. Numerous correlations were related to the DISC scores. This combination of findings provided support to reject null hypothesis two (see Tables 29 through 37).

In the final chapter, these findings are compared to the literature, conclusions and implications are drawn, and a series of recommendations are suggested.

## Chapter 5: Discussion of Findings

### Chapter Overview

This chapter includes an introduction notating the purpose and overarching research questions, along with the research findings, conclusions, implications, and recommendations.

### Introduction

The purpose of this study was to examine the attitudes toward change that different personality styles, using DISC specifically have. There will be identifiable attitudes towards change that are recognized by each of the D, I, S, C styles of personality.

### Research Questions

- RQ1. What are the relationships between each of the four DISC scales and the change survey scales?
- Null 1. None of the four DISC scale scores will be related to any of the change survey.
- Alternative 1. At least one of the four DISC scale scores will be related to the change survey.
- RQ2. What are the relationships between each of the four DISC scales and the change survey scale scores after controlling for respondent demographics (sex, age, and race/ethnicity)?
- Null 2. None of the four DISC scale scores will be related to the change survey scores after controlling for respondent demographics (sex, age, and race/ethnicity).
- Alternative 2. At least one of the four DISC scale scores will be related to at least one of the change survey scores after controlling for respondent demographics (sex, age, and race/ethnicity)?

## Discussion of Demographics

Out of 984 valid survey responses, a close split of male (55.6%) and female (44.4%) respondents participated. The largest ethnic group to participate in the study was Caucasian (33.1%) followed- by other (16.7%) and surprisingly by American Indian/Alaska Native (15.3%).

The mean age was 35 years. A break down age by generation gap is shown below in Table 38. The largest demographic group by year born is Generation Y.

**Table 38**

*DISC Participants by Generation Gap*

CATEGORY	YEAR BORN	N	%
Generation Z	1992-2012	74	7.5
Generation Y (Millennials)	1981-1996	693	70.4
Generation X	1965-1980	177	18.0
Baby Boomers	1946-1964	40	4.1

### Findings (F)

The following findings were revealed because of this research.

#### F1

**Highest Generation Gap Was Millennials.** Out of 984 valid survey responses, there was 693 participants, or 70.4% recognized as Millennials, who were born between 1981- 1996.

#### F2

**Attitudes Toward Change Can Be Viewed as Positive or Negative.** Based on the research of Avey et al. (2008), categorized change as either positive or negative (Çakıroğlu & Harmancı Seren, 2019). The research of Oreg et al. (2011) reviewed 79 change articles and deducted that employee's attitudes towards change are segmented into either positive or negative attitudes. While this seems obvious at a surface level, digging down deeper into how

personalities play into attitudes is often ignored by employers. In the United States employers often initiate a change and just expect their employees to get on board with the change.

### F3

**More Correlations When Accounting for Demographics.** There were more Partial Correlations for Cooper Scale Scores with Adaptive and Natural Scales Controlling for Age, Gender, and Race/Ethnicity in comparison to the Spearman Correlation without controlling for the above demographics.

### F4

#### Correlation at the Scale Level for All Adapted and Natural D, I, S, C Styles.

Reviewing Table 39 shows all styles at the scale level.

**Table 39**

*Correlation at the Scale Level for All Adapted and Natural D, I, S, C Styles*

Scale Scores	D ADAPT	D NAT.	I ADAPT	I NAT.	S ADAPT	S NAT.	C ADAPT	C NAT.
Negative Appraisal Factor	.05	.06	-.11****	-.20****	.00	-.06	.11****	.14****
Positive Appraisal Factor	.06*	.05	.09***	.15****	-.09**	-.02	-.11****	-.15****
Coping	.05	.04	.06	.10****	-.07*	-.04	-.08**	-.10***
No Tolerance of Ambiguity	.07*	.05	-.05	-.09***	-.03	-.03	.02	.03
Self-Efficacy	.03	.03	-.02	-.07*	.01	.00	.00	.01
Neuroticism	.04	.05	-.11****	-.19****	-.01	-.05	.10****	.14****
Internal Locus of Control	.06	.04	.02	.02	-.03	-.01	-.06	-.07*
Like Change-Affective State	.03	.04	-.07	-.12****	.00	-.03	.08*	.08**
Positive Thoughts-Cognitive	.06	.04	.06	.09**	-.08	-.03	-.07*	-.10***
Positive Support-Behavioral	.07*	.03	.02	.01	-.07	-.07*	-.01	-.03

Note.  $N = 984$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

### F5

Correlation at the Item level for all Adapted and Natural D, I, S, C Styles controlling for demographics is shown in Table 40.



**Table 40**

*Correlation at the Scale Level Accounting for Demographic Equalization*

Scale Scores	D ADAPT	D NAT.	I ADAPT	I NAT.	S ADAPT	S NAT.	C ADAPT	C NAT.
Negative Appraisal Factor	-.02	.01	-.09***	-.18****	.04	.00	.14****	.16****
Positive Appraisal Factor	.11****	.07*	.06*	.11****	-.11****	-.06	-.11****	-.13****
Coping	.08***	.06	.05	.08*	-.08**	-.06	-.07*	-.08**
No Tolerance of Ambiguity	.05	.04	-.04	-.07*	-.03	-.03	.05	.05
Self-Efficacy	.02	.02	-.03	-.06	.00	.00	.02	.03
Neuroticism	.00	.02	-.10***	-.17****	.03	-.01	.12****	.15****
Internal Locus of Control	.07*	.04	.02	.02	-.04	-.02	-.04	-.05
Like Change-Affective State	.03	.04	-.06	-.09**	-.01	-.03	.08*	.07*
Positive Thoughts-Cognitive	.09**	.06*	.05	.07*	-.09***	-.05	-.08*	-.09**
Positive Support-Behavioral	.07*	.07*	.02	.01	-.08*	-.08**	.00	-.01

### **F6**

How the scales connect to Bridges (2009) Transitions Model. Referring to [Figure 13](#) and Table 39 which shows the 10 scales it appears to be commonsensical to place certain scales within the transitions model (Table 40).

**Table 40**

*Scales Within the Transitions Model as the Data Relates to the D Style*

Transition Stage	Scales
Ending	Positive Appraisal Factor (PAF) <ul style="list-style-type: none"> <li>Both D adapted and natural are correlated positively to the PAF.</li> </ul> Coping (COP) <ul style="list-style-type: none"> <li>Correlated to Adapted D</li> </ul> Internal Locus of Control <ul style="list-style-type: none"> <li>Correlated to Adapted D</li> </ul> Neuroticism <ul style="list-style-type: none"> <li>No statistically significant correlation</li> </ul> Like Change – Affective State <ul style="list-style-type: none"> <li>No statistically significant correlation</li> </ul> Positive Thoughts- Cognitive <ul style="list-style-type: none"> <li>Both D adapted and natural are correlated</li> </ul> Positive Support – Behavioral <ul style="list-style-type: none"> <li>Both D adapted and natural are correlated</li> </ul>

Transition Stage	Scales
Neutral zone	<p><b>Positive Appraisal Factor (PAF)</b></p> <ul style="list-style-type: none"> <li>• Both D adapted and natural are correlated positively to the PAF.</li> </ul> <p><b>Self-Efficacy</b></p> <ul style="list-style-type: none"> <li>• No statistically significant correlation</li> </ul> <p><b>Coping (COP)</b></p> <ul style="list-style-type: none"> <li>• Correlated to Adapted D</li> </ul> <p><b>Internal Locus of Control</b></p> <ul style="list-style-type: none"> <li>• Correlated to Adapted D</li> </ul>
	<p><b>No Tolerance of Ambiguity</b></p> <ul style="list-style-type: none"> <li>• No statistically significant correlation</li> </ul>
New beginnings	<p><b>Positive Thoughts- Cognitive</b></p> <ul style="list-style-type: none"> <li>• Both D adapted and natural are correlated</li> </ul> <p><b>Positive Support – Behavioral</b></p> <ul style="list-style-type: none"> <li>• Both D adapted and natural are correlated</li> </ul>

**Table 41**

*Scales Within the Transitions Model as the Data Relates to the I Style*

Transition Stage	Scales
Ending	<p><b>Negative Appraisal Factor (NAF)</b></p> <ul style="list-style-type: none"> <li>• Both I adapted and natural are not correlated positively to the NAF</li> </ul> <p><b>Positive Appraisal Factor (PAF)</b></p> <ul style="list-style-type: none"> <li>• Correlated to Natural I</li> </ul> <p><b>Coping (COP)</b></p> <ul style="list-style-type: none"> <li>• Correlated to Natural I</li> </ul> <p><b>Internal Locus of Control</b></p> <ul style="list-style-type: none"> <li>• No correlation</li> </ul> <p><b>Neuroticism</b></p> <ul style="list-style-type: none"> <li>• Both I adapted and natural have a negative correlation</li> </ul> <p><b>Like Change – Affective State</b></p> <ul style="list-style-type: none"> <li>• Both I adapted and natural have a negative correlation</li> </ul> <p><b>Positive Thoughts- Cognitive</b></p> <ul style="list-style-type: none"> <li>• Correlated to Natural I</li> </ul> <p><b>Positive Support – Behavioral</b></p> <ul style="list-style-type: none"> <li>• No correlation</li> </ul>
Neutral zone	<p><b>Positive Appraisal Factor (PAF)</b></p> <ul style="list-style-type: none"> <li>• Both I adapted and natural are correlated positively to the PAF.</li> </ul> <p><b>Self-Efficacy</b></p> <ul style="list-style-type: none"> <li>• Both I adapted and natural have a negative correlation</li> </ul> <p><b>Coping (COP)</b></p> <ul style="list-style-type: none"> <li>• Correlated to Natural I</li> </ul> <p><b>Internal Locus of Control</b></p> <ul style="list-style-type: none"> <li>• No correlation</li> </ul> <p><b>No Tolerance of Ambiguity</b></p> <ul style="list-style-type: none"> <li>• Natural I has a negative correlation</li> </ul>
New beginnings	<p><b>Positive Thoughts- Cognitive</b></p> <ul style="list-style-type: none"> <li>• Natural I is correlated</li> </ul> <p><b>Positive Support – Behavioral</b></p> <ul style="list-style-type: none"> <li>• No correlation</li> </ul>

**Table 42***Scales Within the Transitions Model as the Data Relates to the S Style*

Transition Stage	Scales
Ending	Positive Appraisal Factor (PAF) <ul style="list-style-type: none"> <li>Negative correlation to Adapted S and no correlation to Natural S</li> </ul> Coping (COP) <ul style="list-style-type: none"> <li>Adapted S has negative correlation</li> </ul> Internal Locus of Control <ul style="list-style-type: none"> <li>No correlation</li> </ul> Neuroticism <ul style="list-style-type: none"> <li>No correlation</li> </ul>
	Like Change – Affective State <ul style="list-style-type: none"> <li>No statistically significant correlation</li> </ul> Positive Thoughts- Cognitive <ul style="list-style-type: none"> <li>Negative correlation to Adapted S</li> </ul> Positive Support – Behavioral <ul style="list-style-type: none"> <li>Both Adapted and Natural S are negatively correlated</li> </ul>
Neutral zone	Positive Appraisal Factor (PAF) <ul style="list-style-type: none"> <li>Negative correlation to Adapted S and no correlation to Natural S</li> </ul> Self-Efficacy <ul style="list-style-type: none"> <li>No statistically significant correlation</li> </ul> Coping (COP) <ul style="list-style-type: none"> <li>Adapted S has negative correlation</li> </ul> Internal Locus of Control <ul style="list-style-type: none"> <li>No correlation</li> </ul> No Tolerance of Ambiguity <ul style="list-style-type: none"> <li>No statistically significant correlation</li> </ul>
New beginnings	Positive Thoughts- Cognitive <ul style="list-style-type: none"> <li>Negative correlation to Adapted S</li> </ul> Positive Support – Behavioral <ul style="list-style-type: none"> <li>Both Adapted and Natural S are negatively correlated</li> </ul>

**Table 43**

*Scales Within the Transitions Model as the Data Relates to the C Style*

Transition Stage	Scales
Ending	Positive Appraisal Factor (PAF) <ul style="list-style-type: none"> <li>Both C adapted and natural are negatively correlated</li> </ul> Coping (COP) <ul style="list-style-type: none"> <li>Both C adapted and natural are negatively correlated</li> </ul> Internal Locus of Control <ul style="list-style-type: none"> <li>No correlation</li> </ul> Neuroticism <ul style="list-style-type: none"> <li>Both Adapted and Natural C are positively correlated</li> </ul> Like Change – Affective State <ul style="list-style-type: none"> <li>No statistically significant correlation</li> </ul> Positive Thoughts- Cognitive <ul style="list-style-type: none"> <li>Both C adapted and natural are positively correlated</li> </ul> Positive Support – Behavioral <ul style="list-style-type: none"> <li>No correlation</li> </ul>
Neutral zone	Positive Appraisal Factor (PAF) <ul style="list-style-type: none"> <li>Both C adapted and natural are negatively correlated</li> </ul> Self-Efficacy <ul style="list-style-type: none"> <li>No statistically significant correlation</li> </ul> Coping (COP) <ul style="list-style-type: none"> <li>Both C adapted and natural are negatively correlated</li> </ul> Internal Locus of Control <ul style="list-style-type: none"> <li>No correlation</li> </ul> No Tolerance of Ambiguity <ul style="list-style-type: none"> <li>No statistically significant correlation</li> </ul>
New beginnings	Positive Thoughts- Cognitive <ul style="list-style-type: none"> <li>Both C adapted and natural are negatively correlated</li> </ul> Positive Support – Behavioral <ul style="list-style-type: none"> <li>No correlation</li> </ul>

## Conclusions

### *CI*

**Millennials as the Majority.** The data collection process was conducted by surveys and the method of informing the public about the survey was social media. Referring to Table 16, it shows the 35 LinkedIn groups to which they were marketed to. The population of all these groups totaled 2,731,762. Since surveys were collected via social media that may be one reason for a high population of Millennials who participated in the survey.

**C2**

**Processing Time.** From a psychological perspective, organizations may not provide ample time to process the change so that employee can understand what they may be giving up. Looking at the research by Bridges (2009) on managing change as managing transitions should then be considered.

**C3**

**Control for Demographics.** Table 29 shows how closely the factors relate, the three independent factors: (age, gender, and race) are controlled for. While Table 29 and 30 are both important controlling for demographics lets the “noise” be removed from the data. Comments are documented in C4.

**C4**

**Correlation at the Scale Level for all Adapted and Natural D, I, S, C Styles.** The chart depicts all D, I, S, C styles at the scale level to be viewed in one snapshot.

**Table 44***Findings With Controlling for Demographics for Conclusion Discussion*

Scale Scores	D ADAPT	D NAT.	I ADAPT	I NAT.	S ADAPT	S NAT.	C ADAPT	C NAT.
Negative Appraisal Factor	-.02	.01	-.09***	-.18****	.04	.00	.14****	.16****
Positive Appraisal Factor	.11****	.07*	.06*	.11****	-.11****	-.06	-.11****	-.13****
Coping	.08***	.06	.05	.08*	-.08**	-.06	-.07*	-.08**
No Tolerance of Ambiguity	.05	.04	-.04	-.07*	-.03	-.03	.05	.05
Self-Efficacy	.02	.02	-.03	-.06	.00	.00	.02	.03
Neuroticism	.00	.02	-.10***	-.17****	.03	-.01	.12****	.15****
Internal Locus of Control	.07*	.04	.02	.02	-.04	-.02	-.04	-.05
Like Change- Affective State	.03	.04	-.06	-.09**	-.01	-.03	.08*	.07*
Positive Thoughts- Cognitive	.09**	.06*	.05	.07*	-.09***	-.05	-.08*	-.09**
Positive Support- Behavioral	.07*	.07*	.02	.01	-.08*	-.08**	.00	-.01

## **D Style**

The adapted D style has a higher number of scales that are statistically significant at the adapted level compared to the natural D style. In particular, positive appraisal factor, coping, and internal locus of control is correlated. With the D style this would be expected since this style has a drive to get things done, along with the ability to set their own course and navigate through any roadblocks quickly.

## **I Style**

The I Style has the highest correlation at both the scale and item level. At the scale level there is a negative correlation with Negative Appraisal Factor (NAF), and since the I style can be viewed as optimistic this would be one clear reason for a negative correlation. The negative correlation on NAF is aligned with a high correlation on Positive Appraisal Factor. The natural style is higher than the adapted style. The assumption made here is that an I style may tone down their behavior as the amount of positivity or enthusiasm shown may be more than what is needed for the situation and therefore is adapted down.

## **S Style**

An interesting finding with the S Style on the PAF, and coping and scales, which shows their adapted style are highly correlated in comparison to the natural style. The determination with a high negative correlation to PAF would indicate they do not have a positive view of change, which could be attributed to their underlying need or desire for harmony. With change this can be viewed as a time of anxiety, uncertainty, and ambiguity which leave the S style with an uneasy feeling. This is supported further by the negative correlation to Positive Thoughts-Cognition which would suggest the S Style does not like to try new things, support new ideas, or even have new ideas. If a change was going to occur, this personality style would need to

understand how the change will impact not just themselves yet the team at large.

## **C Style**

Correlation can be visibly seen with NAF, and a negative correlation with PAF, both of which can be further reinforced with a high correlation to neuroticism. Neuroticism is a well-established and empirically validated personality domains (Widiger & Oltmans, 2017) and has well-being considerations (Widiger & Oltmans, 2017). First, neuroticism is seen as experiencing what could be viewed as a minor setback to an event that is overwhelming.

Individuals who have higher levels of neuroticism respond poorly to stress, may have more anxiety, irritability, and even depression. The C style and one who has a high neuroticism scale is more likely to face physical issues, such as cardiac conditions, asthma, irritable bowel syndrome, and even an increased risk of death. Even looking back to ancient theorist, Galan, the C style, which Galan would call melancholic can be seen as sad or having depressive traits.

## **C5**

### ***Correlation at the Item Level for all Adapted and Natural D, I, S, C Styles With Statistical Significance***

**D Style.** Questions at the item level (from Table 23) that were shown to be highly correlated with the D style are:

- 21. The most interesting life is to live under rapidly changing conditions
- 23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.
- 29. I enjoy tackling problems which are complex enough to be ambiguous
- 30. I prefer a situation in which there is some ambiguity.
- 44. I am often tense or "high strung."

- 49. I am an irritable person.

Not surprisingly, the D style stated, “I prefer a situation in which there is some ambiguity (#30).” It could be said the D style may likely enjoy ambiguity as it might afford this style the opportunity for more autonomy and possibly even be able to set their own rules along the way. If the D style is allowed to set their own path or rules, they will embrace the change more fully and with less resistance.

Statement 23 will reference an opposite preference compared to the C style. The C style will be discussed later and has a negative correlation to statement 23. The D style has a higher degree of risk-taking, unlike the C style which is more likely to be risk adverse.

Statement 44, “I am often tense or high-strung” might come from the drive a D style innately has. The term a-type personality has been used to define someone who is ambitious, competitive, has a high sense of urgency and demonstrating higher levels of impatience. Therefore, the higher correlation of the D Style should correspond with this statement having a higher correlation with both natural and adapted styles.

**I Style.** Questions at the item level from Table 25 showed that were 31 items correlated to the I style. They are:

- 5. When changes happen in this company, I react by trying to manage the change rather than complain about it.
- 7. I see the rapid changes that are occurring in this company as opening up new career opportunities for me.
- 8. Deep changes ultimately better the company.
- 10. When changes are announced, I try to react in a problem-solving, rather than an emotional, mode.



- 15. **I don't like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer.**
- 23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.
- 24. **Doing the same things in the same places for long periods of time makes for a happy life.**
- 26. **I find it difficult to respond when faced with an unexpected event.**
- 31. I feel that I am a person of worth, at least on an equal basis with others.
- 33. **All in all, I am inclined to feel that I am a failure.**
- **35. I feel that I do not have much to be proud of.**
- 36. I take a positive attitude toward myself.
- 37. On the whole, I am satisfied with myself.
- **39. I certainly feel useless at times.**
- **40. At times I think I am no good at all.**
- **42. I'm a nervous person.**
- **43. I'm a worrier**
- **44. I am often tense or "high strung."**
- **45. I often suffer from "nerves."**
- **46. I am often troubled by feelings of guilt.**
- **47. My mood often goes up and down.**
- **48. Sometimes I feel miserable for no reason.**
- **49. I am an irritable person.**
- **50. I often feel fed up.**
- **51. I often worry too long after an embarrassing experience.**

- 61. I look forward to change at work
- **62. I don't like change**
- **63. Change frustrates me**
- **65. Most changes are irritating**
- **73. I usually resist new ideas**
- 74. I am inclined to try new ideas
- **78. I usually hesitate to try new ideas**

There are 22 items presented in **bold (above)** that are all highly negatively correlated. Of particular interest in this item grouping are the statements, “I don’t like change,” “Change frustrates me,” “Most changes are irritating,” and “I usually resist new ideas.” These five statements show the I style embraces change, likely sees the change as exciting, and invigorating. The I style would be a good person to champion a change and to seek to get others on board with a new change initiative. This is the intersection of change and personality that would be useful to know the DISC composite of the team to allow the organization to be as effective as possible with change.

**S Style.** At the item level there are only four items correlated to the S Style. All four items are negatively correlated and thus shown in bold:

- **2. I have been a leader of transformation efforts within this company.**
- **29. I enjoy tackling problems which are complex enough to be ambiguous**
- **30. I prefer a situation in which there is some ambiguity.**
- **49. I am an irritable person.**

To first interpret the items, look at statement 49, “I am an irritable person.” With a negative correlation, participants are suggesting they are not irritable, which would align with an S style’s need for harmony. It would be highly unlikely that an S style would show up always as

irritable. Perhaps, if a situation continued, then like the cork being popped off a champagne bottle

**C Style.** Only four items showed up that were correlated to the C style. Those items with a high negative correlation are shown in bold.

- 21. **The most interesting life is to live under rapidly changing conditions.**
- **23. Adventurous and exploratory people go farther in this world than do systematic and orderly people.**
- 26. I find it difficult to respond when faced with an unexpected event.
- 33. All in all, I am inclined to feel that I am a failure.

The first items, statements 21 and 23 are the opposite results of the D Style. Not surprisingly, items 21 and 23 might be viewed on the two-dimensional DISC axis as the behavioral inhibition system. The C style may be slower to react and more contemplative by nature and therefore actions viewed as risk-taking or too fast go against the belief of being systematic and orderly is the best outcome for the best results. Item 26, “I find it difficult to respond when faced with an unexpected event,” would suggest the C style needs more processing time. With that said, the C Style would need more time to mentally process change. Allowing the C style the time and space to contemplate change and then come back and ask questions later may allow for better buy-in of change.

### ***C6. Scales Within the Transitions Model***

Looking at the Bridges (2009) model as a framework for the changes scales in this survey showed many scales that would seem obvious, however, there were a few surprises. One of those surprises was the lack of correlation between internal locus of control and all the DISC styles. There were no correlations with the ending, neutral zone, or new beginnings model. I believed there might be a correlation with the D and I style.

It should come as no surprise that the D style was correlated to internal locus of control, coping, along with positive appraisal and positive support. What was a bit surprising was there was no correlation between the D styles and no tolerance of ambiguity. With the D's ability to be more risk-taking, it was predicted me that a correlation would be found with these two.

### **Implications for the Field**

While correlations were found with the I and C DISC styles to the change survey, further research should be conducted to illuminate how the attitudes from different DISC personality styles handle change. The literature review showed it is still apparent that there is far more empirical research that should be explored to avoid the high failure rates of change management programs.

A Willis Towers Watson (2013) survey showed that of the 87% of companies that train managers to convey a change, only 22% of the companies believed the training was effective. This should be a message that is sent loud and clear to internal or external consultants that conducting effective training on change needs to be enhanced and made more "sticky."

Based on a review of the research Oreg et al (2011) found that most of the behavioral reactions toward change are negative. Organizations should realize that every intended change intended will likely have some type of negative connotation or reaction toward the change. Knowing this organizations must provide support for employees to understand the change. Using the Bridges (2009) managing transitions model along with a personality assessment, such DISC, would be useful for all involved.

### **Recommendations**

This study looked at the high D, I, S, and C score of the various styles only. Therefore, the following suggestions are being made for future research:

- Look at the low scores, which does not equate to bad, could be reviewed to see if there are any correlations.
- Using a different set of questions related to change.
- Framing the context of the change questions to be specific to a “recent major organizational change.”
- Use Bridges (2009) model more implicitly and identify change question for the three areas of transition: endings, neutral zone, and new beginnings. Find questions to understand how each of the DISC styles approach change and what they need in times of change in each of the three transition categories.
  - Specifically find the relevant questions how the C style wants to learn about and be supported during times of change.

## **Evaluation**

In retrospect a few immediate actions could have been taken that may have expedited the results of this research. Those actions are:

1. **Question design.** A small group of subject matter experts were asked to review a first pass of change questions that I created using the International Personality Item Pool (Goldberg, et al., 2006); however, it was later determined to not use these. Instead, I decided to use a combination of other scales that had been previously validated. The process to create the change survey questions took about 60 days to complete.
2. **Hire marketing intern.** The total time to collect surveys was over 12-months. Once I hired a marketing intern to assist with social media survey posts, the process to collect surveys went much faster. In the first six months about 100 surveys were completed. I was stalled on survey collection due to work factors. Then in about 4-

months over 1,000 surveys were collected, bringing the total number of surveys collected to 1,684.

3. **Use a shorter survey.** The assessment provided by TTI contained DISC questions and Driving Forces questions. The Driving Forces questions were not utilized in the findings. Deleting these questions would have saved about 15-minutes time for survey-takers.
4. **Data cleansing.** Nearly 50% of the 700 invalid surveys came from bad data. Bad data refers to participants taking perhaps the easy way out and answering with all “3” responses. Upon further investigation of the responses and looking question by question, it was determined these surveys were answered haphazardly and therefore were removed.

### **Chapter Summary**

After four years of research this study is now complete. The specific title of the study is DISC Attitudes Toward Change, and it has been an arduous journey trying to decipher and interpret exactly what that means. I can say without a doubt much more empirical research should be conducted looking at personality and change as the gap of such empirical research is significant.

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## APPENDIX A: Social Media Templates



## APPENDIX B: Notice of Approval for Human Research



Pepperdine University  
24255 Pacific Coast Highway  
Malibu, CA 90263  
TEL: 310-506-4000

**NOTICE OF APPROVAL FOR HUMAN RESEARCH**

Date: July 30, 2020

Protocol Investigator Name: Christie Cooper

Protocol #: 20-06-1394

Project Title: Exploring DISC Attitudes Toward Organizational Change

School: Graduate School of Education and Psychology

Dear Christie Cooper:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at [community.pepperdine.edu/irb](http://community.pepperdine.edu/irb).

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

cc: Mrs. Katy Carr, Assistant Provost for Research

Informed Consent Form

IRB#

DISC Attitudes Toward

Organizational Change [DATE]

Dear [Name],

My name is Christie Cooper, and I am conducting a study using DISC to explore the various attitudes the DISC personality styles have toward organizational change. If you are 21 years of age or older you may participate in this research.

**What is the reason for doing this study?**

For over numerous decades change practitioners have shared that as many as 70% of change management initiatives fail. The United States tends to focus on the change itself and expect people involved in the change to just get on board with the new change. However, other countries in Asia or Europe tend to focus on the individual and prepare the person first before expecting people to learn about the new process or change. By doing so, these other countries tend to have a smaller fail rate than the US does.

Therefore, this research is exploring what various personality types of attitudes are toward organizational change. Furthermore, this research aims to add to the body of knowledge, as this topic is very limited.

**What will be done during this research study?**

Participation in this study will require between 50 to 60-minutes to complete an online survey. The survey will need to be completed in one-sitting.

**What are the possible risks of being in this research study?**

There are no known risks expected to be associated with this research. Some

participants might have rater-fatigue by completing the survey in one sitting. Other participants might become bored.

**What are the possible benefits to you?**

The results of this study will be used to alert managers, leaders, change practitioner's or anyone that may benefit from positive results from change, what the different DISC styles attitudes are toward organizational change. Knowing the attitude's, the different personality styles may have can help inform organizations better.

**How will information about you be protected?**

Your responses to this survey will be kept anonymous. Data will be housed on the Researcher's online account with Target Training International. The information provided by the participant will allow results to be generated. After a minimum of three years with a maximum of five years, all data will be deleted from this account.

**What are your rights as a research subject?**

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study.

For study related questions, please contact the investigator at: [Christie.cooper@pepperdine.edu](mailto:Christie.cooper@pepperdine.edu)

For questions concerning your rights or complaints about the research contact the Institutional Review Board (IRB):

Phone: 1-310-568-2305

Email: [gpsirb@pepperdine.edu](mailto:gpsirb@pepperdine.edu)

You can decide not to be in this research study, or you can stop being in this

research study (“withdraw”) at any time before, during, or after the research begins for any reason. Deciding not to be in this research study or deciding to withdraw will not affect your relationship with the investigator or with Pepperdine University.

You will not lose any benefits to which you are entitled.

***Documentation of Informed Consent***

You are voluntarily deciding whether to participate in this research study. By clicking on the I Agree button below, your consent to participate in the study is implied. You should print a copy of this page for your records.

I

I DO NOT



## APPENDIX C

## Collaborative Institutional Training Initiative (CITI) Certificate



Completion Date 18-Jul-2019

Expiration Date 16-Jul-2024

Record ID 32485574

This is to certify that:

**Christie Cooper**

Has completed the following CITI Program course:

**GSEP Education Division****GSEP Education Division - Social-Behavioral-Educational (SBE)****1 - Basic Course**

(Curriculum Group)

(Course Learner Group)

(Stage)

Under requirements set by:

**Pepperdine University**Verify at [www.citiprogram.org/verify/?wb32db25d-cbf5-45a6-b2f5-9093c00a33d8-32485574](http://www.citiprogram.org/verify/?wb32db25d-cbf5-45a6-b2f5-9093c00a33d8-32485574)

## APPENDIX D: TriMetrix DNA Questionnaire

## Demographic Survey

1. What is your gender?
  - Male
  - Female
  - Transgender
  - Other
  - Prefer not to answer
  
2. What year were you born?
  - 1997-1999 (Generation Z)
  - 1981 – 1996 (Millennials)
  - 1965 – 1980 (Generation X)
  - 1946 – 1964 (Baby Boomers)
  - 1928 – 1945 (Greatest Generation)
  
3. What is your education level?
  - No formal education
  - High school diploma or equivalent
  - Some College
  - Bachelor's degree
  - Master's degree
  - Professional degree
  - Doctorate degree
  - Vocational training/certificate
  
4. What is your employment position?
  - Individual contributor (no management responsibilities- only responsible for yourself)
  - First-level supervisor/manager
  - Mid-level manager – you supervise other people, including other managers
  - C-suite
  - Owner/founder
  - Retired
  
5. How do you describe your ethnicity?
  - Asian
  - Black or African American
  - Native American Indian or Alaska native
  - Native Hawaiian or other Pacific Islander
  - White
  - Other
  - Don't wish to answer
  
6. What is your continent of origin?
  - Africa
  - Antarctica

- Asia
- Australia
- Europe
- North America
- South America
- 

Rank the items in each list. Number them from 1 to 4, with 1 as the MOST like you. Continue to rank until you have ordered all the phrases from MOST (1) to LEAST (4). Repeat the process until complete.

- |   |  |
|---|--|
| <p>1.</p> <p><input type="checkbox"/> Enthusiastic</p> <p><input type="checkbox"/> Contented, satisfied</p> <p><input type="checkbox"/> Positive, confident</p> <p><input type="checkbox"/> Peaceful, tranquil</p>  | <p>2.</p> <p><input type="checkbox"/> Careful, calculating</p> <p><input type="checkbox"/> Bold, daring</p> <p><input type="checkbox"/> Supportive</p> <p><input type="checkbox"/> Charming, delightful</p>  |
| <p>3.</p> <p><input type="checkbox"/> Expressive</p> <p><input type="checkbox"/> Daring, risk-taker</p> <p><input type="checkbox"/> Diplomatic, tactful</p> <p><input type="checkbox"/> Satisfied, content</p>  | <p>4.</p> <p><input type="checkbox"/> Respectful, shows respect</p> <p><input type="checkbox"/> Pioneering, exploring, enterprising</p> <p><input type="checkbox"/> Optimistic</p> <p><input type="checkbox"/> Accommodating, willing to please, ready to help</p>               |
| <p>5.</p> <p><input type="checkbox"/> Willing, agreeable</p> <p><input type="checkbox"/> Eager, impatient</p> <p><input type="checkbox"/> Methodical</p> <p><input type="checkbox"/> High-spirited, lively, enthusiastic</p>  | <p>6.</p> <p><input type="checkbox"/> Logical</p> <p><input type="checkbox"/> Obedient, will do as told, dutiful</p> <p><input type="checkbox"/> Unconquerable, determined</p> <p><input type="checkbox"/> Playful, frisky, full of fun</p>                                      |
| <p>7.</p> <p><input type="checkbox"/> Adventurous, willing to take chances</p> <p><input type="checkbox"/> Analytical</p> <p><input type="checkbox"/> Cordial, warm, friendly</p> <p><input type="checkbox"/> Moderate, avoids extremes</p>                         | <p>8.</p> <p><input type="checkbox"/> Good mixer, likes being with others</p> <p><input type="checkbox"/> Structured</p> <p><input type="checkbox"/> Vigorous, energetic</p> <p><input type="checkbox"/> Lenient, tolerant of others' actions</p>                                |
| <p>9.</p> <p><input type="checkbox"/> Competitive, seeking to win</p> <p><input type="checkbox"/> Considerate, caring, thoughtful</p> <p><input type="checkbox"/> Outgoing, fun-loving, socially striving</p> <p><input type="checkbox"/> Harmonious, agreeable</p> | <p>10.</p> <p><input type="checkbox"/> Aggressive, challenger, takes action</p> <p><input type="checkbox"/> Life of the party, outgoing, entertaining</p> <p><input type="checkbox"/> Easy mark, easily taken advantage of</p> <p><input type="checkbox"/> Fearful, afraid</p>   |
| <p>11.</p> <p><input type="checkbox"/> Stimulating</p> <p><input type="checkbox"/> Sympathetic, compassionate, understanding</p> <p><input type="checkbox"/> Tolerant</p> <p><input type="checkbox"/> Aggressive</p>  | <p>12.</p> <p><input type="checkbox"/> Talkative, chatty</p> <p><input type="checkbox"/> Controlled, restrained</p> <p><input type="checkbox"/> Conventional, doing it the usual way, customary</p> <p><input type="checkbox"/> Decisive, certain, firm in making a decision</p> |

Rank the items in each list. Number them from 1 to 4, with 1 as the MOST like you. Continue to rank until you have ordered all the phrases from MOST (1) to LEAST (4). Repeat the process until complete.

- |   |   |
|---|---|
| <p>13.</p> <p><input type="checkbox"/> Well-disciplined, self-controlled</p> <p><input type="checkbox"/> Generous, willing to share</p> <p><input type="checkbox"/> Animated, uses gestures for expression</p> <p><input type="checkbox"/> Persistent, unrelenting, refuses to quit</p> | <p>14.</p> <p><input type="checkbox"/> Sociable, enjoys the company of others</p> <p><input type="checkbox"/> Patient, steady, deliberate</p> <p><input type="checkbox"/> Self-reliant, independent</p> <p><input type="checkbox"/> Soft-spoken, mild, reserved</p> |
| <p>15.</p> <p><input type="checkbox"/> Gentle, kindly</p> <p><input type="checkbox"/> Persuasive, convincing</p> <p><input type="checkbox"/> Humble, reserved, modest</p> <p><input type="checkbox"/> Magnetic, attracts others</p>   | <p>16.</p> <p><input type="checkbox"/> Captivating</p> <p><input type="checkbox"/> Kind, willing to give or help</p> <p><input type="checkbox"/> Resigned, gives in</p> <p><input type="checkbox"/> Force of character, powerful</p>                                |
| <p>17.</p> <p><input type="checkbox"/> Companionable, easy to be with</p> <p><input type="checkbox"/> Easygoing</p> <p><input type="checkbox"/> Outspoken, speaks freely and boldly</p> <p><input type="checkbox"/> Restrained, reserved, controlled</p>                                | <p>18.</p> <p><input type="checkbox"/> Factual</p> <p><input type="checkbox"/> Obliging, helpful</p> <p><input type="checkbox"/> Willpower, strong-willed</p> <p><input type="checkbox"/> Cheerful, joyful</p>  |
| <p>19.</p> <p><input type="checkbox"/> Attractive, charming, attracts others</p> <p><input type="checkbox"/> Systematic</p> <p><input type="checkbox"/> Stubborn, unyielding</p> <p><input type="checkbox"/> Pleasing</p>   | <p>20.</p> <p><input type="checkbox"/> Restless, unable to rest or relax</p> <p><input type="checkbox"/> Neighborly, friendly</p> <p><input type="checkbox"/> Popular, liked by many or most people</p> <p><input type="checkbox"/> Orderly, neat</p>               |
| <p>21.</p> <p><input type="checkbox"/> Challenging, assertive</p> <p><input type="checkbox"/> Critical thinker</p> <p><input type="checkbox"/> Casual, laid-back</p> <p><input type="checkbox"/> Light-hearted, carefree</p>  | <p>22.</p> <p><input type="checkbox"/> Brave, unafraid, courageous</p> <p><input type="checkbox"/> Inspiring, motivating</p> <p><input type="checkbox"/> Avoid confrontation</p> <p><input type="checkbox"/> Quiet, composed</p>                                    |
| <p>23.</p> <p><input type="checkbox"/> Cautious, wary, careful</p> <p><input type="checkbox"/> Determined, decided, unwavering, stand firm</p> <p><input type="checkbox"/> Convincing, assuring</p> <p><input type="checkbox"/> Good-natured, pleasant</p>                              | <p>24.</p> <p><input type="checkbox"/> Jovial, joking</p> <p><input type="checkbox"/> Organized</p> <p><input type="checkbox"/> Nerve, gutsy, brazen</p> <p><input type="checkbox"/> Even-tempered, calm, not easily excited</p>                                    |

*For each category, rank the 6 items by indicating your choices as follows: your first choice is 1, your second choice is 2, etc. Continue ranking until your last choice is number 6. When all six items have been ranked, move on to the next one. Please complete the survey in no more than 15 minutes and in one uninterrupted sitting.*

1.  Knowledge & Theory  
 Achieve & Advance  
 Structure & Traditions  
 Harmony & Unity  
 Financial Return & Rewards  
 Sympathetic & Generous
  
2.  Being a leader  
 Protecting my beliefs  
 Appreciating beauty or nature  
 Maximizing my time  
 Serving others  
 Expanding my knowledge
  
3.  Volunteer work  
 Studying new concepts  
 Coaching and organizing others  
 Investing/Spending money  
 Experiencing a performance  
 Daily routines
  
4.  Recognition  
 Continuing education  
 Traditional values  
 Assisting others  
 Increasing my personal assets  
 Tranquil situations

5.  Enjoying the experience  
 Researching new ideas  
 Growing a business  
 Leading others  
 Applying my principles  
 Promoting humanitarian efforts
6.  Establishing structure and customs  
 Helping groups in need  
 Leadership roles  
 Generating resources for the future  
 Additional education  
 Beautify my surroundings
7.  Creating harmony and balance  
 Achieving position of recognition  
 Making a charitable contribution  
 Maximizing resources  
 Gaining knowledge  
 Working within a structured framework
8.  Help for the homeless  
 Creating a winning strategy  
 Life long learning  
 Harmony in all areas of life  
 Improving productivity  
 Living by principles

A five-point Likert scale will be used for all items below. The scale will go from 1 = not at all like me; 2 = a little like me; 3 = somewhat like me; 4 = a lot like me and 5 = definitely like me.

ITEM STATEMENTS
<ul style="list-style-type: none"> <li>• When dramatic changes happen in this company, I feel I handle them with ease.</li> <li>• I have been a leader of transformation efforts within this company.</li> <li>• The rapid changes that have been occurring in this company are sometimes beyond the abilities of those within the company to manage (reverse scored).</li> <li>• Rapid change is something to adapt to, but not to embrace (reverse scored).</li> <li>• When changes happen in this company, I react by trying to manage the change rather than complain about it.</li> <li>• The changes occurring in this company cause me stress (reverse scored).</li> <li>• I see the rapid changes that are occurring in this company as opening new career opportunities for me.</li> <li>• Deep changes ultimately better the company.</li> <li>• Environmental turbulence presents opportunities to make overdue changes in this company.</li> <li>• When changes are announced, I try to react in a problem-solving, rather than an emotional, mode.</li> <li>• I often find myself leading change efforts in this company.</li> <li>• I think I cope with change better than most of those with whom I work.</li> </ul>
<ul style="list-style-type: none"> <li>• I do not like to get started in group projects unless I feel assured that the project will be successful.</li> <li>• In a decision-making situation where there is not enough information to process the problem, I feel very uncomfortable.</li> <li>• I don't like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer.</li> <li>• I function poorly whenever there is a serious lack of communication in a job situation.</li> <li>• In a situation in which other people evaluate me, I feel a great need for clear and explicit evaluations.</li> <li>• If I am uncertain about the responsibility of a job, I get very anxious.</li> <li>• A problem has very little attraction for me if I don't think it has a solution.</li> <li>• It's satisfying to know pretty much what is going to happen on the job from day to day.</li> <li>• The most interesting life is to live under rapidly changing conditions.</li> <li>• When planning a vacation, a person should have a schedule to follow if he or she is really going to enjoy it.</li> <li>• Adventurous and exploratory people go farther in this world than do systematic and orderly people.</li> <li>• Doing the same things in the same places for long periods of time makes for a happy life.</li> <li>• I don't tolerate ambiguous situations well.</li> <li>• I find it difficult to respond when faced with an unexpected event.</li> <li>• I am good at managing unpredictable situations.</li> <li>• I prefer familiar situations to new ones.</li> <li>• I enjoy tackling problems which are complex enough to be ambiguous.</li> <li>• I prefer a situation in which there is some ambiguity</li> </ul>

<ul style="list-style-type: none"> <li>• I feel that I am a person of worth, at least on an equal basis with others.</li> <li>• I feel that I have several good qualities.</li> <li>• All in all, I am inclined to feel that I am a failure. (r)</li> <li>• I am able to do things as well as most other people.</li> <li>• I feel that I do not have much to be proud of. (r)</li> <li>• I take a positive attitude toward myself.</li> <li>• Overall, I am satisfied with myself.</li> <li>• I wish I could have more respect for myself. (r)</li> <li>• I certainly feel useless at times. (r)</li> <li>• At times I think I am no good at all. (r)</li> </ul>
<ul style="list-style-type: none"> <li>• My feelings are easily hurt.</li> <li>• I'm a nervous person.</li> <li>• I'm a worrier</li> <li>• I am often tense or "high strung."</li> <li>• I often suffer from "nerves."</li> <li>• I am often troubled by feelings of guilt.</li> <li>• My mood often goes up and down.</li> <li>• Sometimes I feel miserable for no reason.</li> <li>• I am an irritable person.</li> <li>• I often feel fed up.</li> <li>• I often worry too long after an embarrassing experience.</li> <li>• I often feel lonely.</li> </ul>
<ul style="list-style-type: none"> <li>• Whether or not I get to be a leader depends mostly on my ability.</li> <li>• When I make plans, I am almost certain to make them work.</li> <li>• When I get what I want, it's usually because I'm lucky. (r)</li> <li>• I have often found that what is going to happen will happen. (r)</li> <li>• I can pretty much determine what will happen in my life.</li> <li>• I am usually able to protect my personal interests.</li> <li>• When I get what I want, it's usually because I worked hard for it.</li> <li>• My life is determined by my own actions.</li> </ul>
<ul style="list-style-type: none"> <li>• I look forward to change at work</li> <li>• I don't like change</li> <li>• Change frustrates me</li> <li>• Change tends to stimulate me</li> <li>• Most changes are irritating</li> <li>• I find most changes to be pleasing</li> </ul>



- Change usually benefits the organizations
- Most of my co-workers benefit from change
- Change often helps me perform better
- Other people think that I support change
- Change usually helps improve unsatisfactory situations at work
- I usually benefit from change

- I usually resist new ideas
- I am inclined to try new ideas
- I usually support new ideas
- I often suggest new approaches to things
- I intend to do whatever possible to support change
- I usually hesitate to try new ideas

## APPENDIX E: TTI Instrument Permission Letter



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July 3, 2020

To Whom It May Concern:

This letter is to grant permission for Christie Cooper to use the following copyrighted material for her research titled, "Exploring DISC Attitudes Toward Organizational Change."

Instrument: TriMetrix HD Online Assessment

Authors: Target Training International, the parent company of TTI Success Insights, Inc.  
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This instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Bonnstetter".

Ronald J Bonnstetter  
Senior Vice President for Research and Development

## APPENDIX F: TTI Success Insights Global Data Protection Regulation Statement

TTI Success Insights (TTISI) is committed to follow the General Data Protection Regulation (GDPR) policies so that our customers can use TTISI products with GDPR compliance in mind. At TTISI, we take data privacy seriously, and have taken the steps to meet the GDPR data protection obligations across the globe.

### Right to Rectification (GDPR Article 16)

If you need to correct the spelling of your name or email, please contact the company that

**After you have been verified as a data subject of our IDS system, you will be given the following options:**

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Please use one or more of the following links to access your information:

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