

2022

Self-Monitoring in Military Consumer Research

Alan Oliver Wright
Walden University

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Walden University

College of Psychology and Community Services

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Alan Oliver Wright

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Walden University

2022

Abstract

Self-Monitoring in Military Consumer Research

by

Alan Oliver Wright

MS, Brigham Young University, 2002

BS, Brigham Young University, 1995

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

November 2022

Abstract

Underutilized military products exist among soldiers and can reduce safety, performance, and morale. The purpose of this study was to determine the extent to which self-monitoring constructs (Self-Monitoring, Acting, Extraversion, and Other-Directedness), gender, leadership, length of service, deployments, and combat experience predict military consumer attitudes. Self-monitoring theory describes differences in expressive control and self-presentation to predict consumer attitudes and behavior. High self-monitors alter their consumer behavior to gain social favor and low self-monitors base their consumer decisions on product quality, functionality, and internally held views of self. An archival dataset was used with 220 active-duty soldiers who provided liking ratings of military food, clothing, and equipment presented in written scenarios. A quantitative, nonexperimental, correlational design was used. Standard multiple regression analyses determined that none of the self-monitoring constructs predicted liking ratings except Extraversion. Higher levels of Extraversion predicted higher liking ratings. Females rated all product scenarios significantly lower than males did. Leadership, years in service, and combat experience were also significant predictors of liking ratings in some of the product scenarios. Liking ratings appeared to be related to military cultural conditions and a need for social connectedness among soldiers. These results suggested that evaluation of military products is influenced by military culture, gender, and social connectedness. The results from this study may be used for positive social change by military product developers to reduce waste of military resources and improve soldier morale through more desirable product offerings.

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Dedication

I have heartfelt feelings for military veterans and hope in some way this work helps those who have served, who do now serve, or who may yet serve. This work is dedicated to them.

Acknowledgements

With deep humility and appreciation, I acknowledge my dependence upon my three great loves, strengths and allegiances: God, family, and country. Without their support, this work would never have been possible. As a beloved son of God, I've learned He has a work for me to do. As a husband and father of eight amazing children, I've learned the power and sustainment of love. As a military veteran, I have felt and learned of sacrifices given by many to allow a free people to endure. As a student at Walden University, I've learned the value of dedicated and caring mentors and staff—thank you Dr. Anthony Perry, Dr. Hedy Dexter, Dr. Amy Sickel, and Mr. Greg Murphy for your enduring and meaningful support. As a human being, I have learned the exceptional worth of all people and am grateful that countless individuals in their own unique ways have had a positive impact in my life and contributed to my joy and success in this difficult but worthy journey.

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Chapter 1: Introduction to the Study

Some military consumer decisions are made in fast-paced, complex environments of threat and risk. Studies have shown soldiers may underutilize resources such as food when compared with civilian counterparts (Hirsch et al., 2005; Kramer, 1995; Kullen et al., 2016; Tassone & Baker, 2017). Assessing and predicting how well soldiers receive and use rations, clothing, and personal equipment is difficult (Ahmed et al., 2017, McClung et al., 2009) but important to war-fighting efforts. Military consumer researchers have worked for decades to address a persistent need to better understand and predict military consumer attitudes and behavior (Meiselman & Schutz, 2003). Self-monitoring theory is a psychological construct that defines how people differ in their degree of expressive control. High self-monitors act in ways to gain social favor. Low self-monitors act in ways to validate intrinsic self-definitions (DeBono, 2006; Laverie et al., 2002). Self-monitoring theory has not been used in military consumer research before. However, it has been used to predict consumer attitudes and behavior (DeBono 2006) in the civilian sector. Therefore, it is logical to assume that self-monitoring theory may also help military planners make similar predictions for military consumers about food, clothing, and equipment. This will occur through better understanding of military consumer motivations and making products that appeal better to those motivations resulting in better utilized products, improved soldier morale, and less waste of military resources.

The purpose of this study was to determine the extent to which self-monitoring can be used to predict military consumer attitudes and behavior. More specifically, the

study determined the extent to which self-monitoring constructs (Self-Monitoring, Acting, Extraversion, and Other-Directedness), gender, leadership, length of service, deployment, and combat experience predicted military consumer responses in scenario-based ratings of liking/disliking of military food, clothing, and equipment products. In Chapter 1, I discuss the background, problem statement, purpose of the study, research questions and hypotheses, theoretical framework, nature of the study, definitions, scope and delimitations, limitations, and significance.

Background

Snyder (1974) suggested that people differ in the degree of self-monitoring related to executive control and social presentation. Politicians, for example, were seen to pick up on social cues and engage with their constituents. Actors observed and reacted to attitudes conveyed by their audiences. Patients in psychiatric wards lacked social awareness and did not interact well with others. Self-monitoring theory uses these differences to predict behavior. DeBono (2006) and others (Hye-Jin et al., 2008; Shavitt et al., 1992; Slama & Singley, 1996) have reported use of self-monitoring theory in civilian consumer research. The theory has not been used to predict military consumer behavior.

Civilian consumer research has shown that high self-monitoring consumers possess attitudes and behaviors different from their low self-monitoring counterparts. Differences can be seen in consumer activities. For example, high self-monitoring consumers make consumer decisions that help them gain social favor. External circumstances, culture, and audiences influence high self-monitoring consumers'

attitudes and behavior (DeBono, 2006; Slama & Singley, 1996). The term “audiences” is used because high self-monitoring consumers tend to perform for their audience (others they desire social reward from). Their actions can seem chameleon-like as they possess a persona adapted to appeal to various audiences. The appeal effort may be directed to those who see the way they dress, the cars they drive, the homes they live in, the food they buy, and other types of consumer behavior. When dining, an audience might be dining companions. When purchasing a car, an audience may be work clients, esteemed colleagues, supervisors, romantic interests, family members, or others a high self-monitoring consumer wants to impress.

Low self-monitoring consumers are driven differently. Instead of a changing external audience, the more constant internal audience of “self” matters. The low self-monitoring consumer looks at her/himself and adjusts consumer behavior to be congruent with the attitudes and behaviors of the persona of who they think they are. Low self-monitoring consumer behavior is more consistent and predictable. Nantel and Strahle (1986) demonstrated this concept. Consumers were privately asked about their interest in music types and their intentions to buy music. Later in the study, the consumers were afforded an opportunity to receive significant discount coupons for music they had expressed interest in, yet a style of music that lacked uniform social appeal. To receive the coupons, the consumers simply had to publicly raise their hands amongst a group of other consumers. All the low self-monitoring consumers raised their hands and accepted the coupons. However, less than half of the high self-monitoring consumers were willing to raise their hands publicly and receive the coupons.

Prior to self-monitoring theory's introduction, most consumer research used personal disposition or situational context to examine consumer behavior. Becherer and Richard (1978) demonstrated that self-monitoring theory allowed researchers to see consumer behavior differences between low and high self-monitoring consumers. Low self-monitoring consumers began to emerge as consumers who made decisions more to reinforce self-concepts whereas high self-monitoring consumers emerged as consumers who gave more regard to external social influences and cues (DeBono, 2006). Consequently, low self-monitoring consumer behavior was more predictable if a targeted consumer group's personal values were known, whereas high self-monitoring consumer groups were more predictable if social and cultural values were known. Effects have not been seen in all product types. Products that communicate something about image tend to be those products where self-monitoring theory is best expressed (DeBono, 2006).

Civilian consumer research based on self-monitoring theory acts as a springboard to initiate and explore the use of self-monitoring theory in military consumer behavior. Currently, there are no studies reporting use of self-monitoring theory to predict military consumer behavior. Therefore, this research fills a gap by evaluating basic self-monitoring theory assumptions with military consumers like those explored in civilian consumer research. The extent of a military culture's influence on discriminating factors of self-monitoring theory have yet to be researched. In this study, I examined the utility of self-monitoring constructs in military consumer attitudes about products with assumed meaningful social cues and limited product types. Differences between military and civilian cultures exist and are not always known or fully understood (Hajjar, 2014). Self-

monitoring theory helps explain influences of social cues with low and high self-monitoring military consumers. According to Snyder (1974) and DeBono (2006), social favor, image, and utility mark differences between high and low self-monitoring consumers. Debono (2006) showed that high self-monitoring consumers liked certain products more when they were associated with social prominence. The same products were liked more by low self-monitoring consumers when associated with quality and pragmatic usefulness.

Military consumers are often issued, rather than allowed to choose, consumable items. They are also expected to use those items and function as a team regardless of personal preferences for those items. These two aspects of consumerism are not typical of civilian consumer behavior. Many such atypical influences may exist with the military consumer. These differences might impact military consumer responses differently than civilian consumers as distinguished by self-monitoring. This research seeks to understand the theory's application to military consumers and the extent to which self-monitoring constructs predict military consumer attitudes related to scenarios of military products.

Scales (2018) underscored the need for predictive power and understanding of military consumer motivation factors and dispositions. Similarly, Major General Cedric T. Wins (2019) recently reaffirmed the need for military research entities to modernize, adapt, and get more in alignment with civilian research capabilities. This research helps fulfill that need in the area of consumer research methods utilizing a new method of gathering consumer information through application of the self-monitoring construct.

Problem Statement

Scales (2018) and Wins (2019) encouraged Army researchers to continue to innovate, make new products, and explore new research practices to understand soldiers and make products that help them be more efficient, lethal, and overmatched against adversaries who are constantly seeking to match or exceed U.S. military soldier capabilities. Those capabilities fall into an unnecessary deficit when soldiers do not like and fully use products in their possession. Inefficient military product usage may reduce morale and create waste and risks to soldier safety (Tassone & Baker, 2017). To address this problem, product developers need to understand military consumer's attitudes and behaviors to create products that appeal to soldiers. Applying self-monitoring constructs to military consumer research may bridge gaps of understanding about soldiers' level of liking and use of military products. One issue is that no data have been reported of self-monitoring constructs being used to predict military consumer attitudes or behaviors. These constructs have been applied successfully to predict civilian consumer attitudes and behaviors.

Conducting this research with soldier-consumer data using constructs from self-monitoring theory fills a gap of understanding about what drives soldiers' attitudes of liking about military products. A first step is to apply self-monitoring theory by testing constructs of self-monitoring with military consumers and see if those constructs help predict attitudes and behavior.

O'Cass (2000) emphasized the benefit of new knowledge that self-monitoring theory offered and that it could be very useful in understanding many consumer behavior

issues if researchers would continue to examine theoretical elements and push for congruency in how self-monitoring is measured. This research fills an important gap because soldiers' use of resources can impact their survival and lethality rates during military operations. The dynamics of the battlefield have changed significantly over the last few decades and existing consumer research may not be applicable in the military culture (Hajjar, 2014; Scales 2018; Wins 2019). A soldier's underutilization of military consumable products is based on multiple factors. Motivational factors related to consumer behavior may be difficult to pinpoint, however primary motivational factors such as liking a product are known to drive military consumer behavior (Baker-Fulco, 1995; Cardello, 1995). This research seeks to fill a gap in the consumer behavior literature by using self-monitoring constructs to determine the extent to which soldiers' degree of self-monitoring is related to liking/disliking ratings of military products after reading written product scenarios from three military product categories: clothing, food, and equipment.

Attendant to maximizing soldier lethality and effectiveness is the need to maximize utilization of products available to soldiers. Products are underutilized when they are not liked. To increase liking of products, an associated research problem is that typical self-monitoring assumptions have not been examined in military consumer behavior research. In this research, I evaluated typical assumptions with military consumers. Scales (2018) explained that the military is aligning its research organizations to better use civilian research efforts. Although the self-monitoring theory has not been used with military consumers, it is considered an emerging method of promise in civilian

consumer research (Wilmot, 2011). It has been used to identify motivational differences between low and high self-monitors in civilian consumer populations and may do the same with military consumer populations. Too often, food, clothing, and equipment have gone underutilized because soldiers were not motivated to use them despite the intended benefits of the items. Self-monitoring theory offers a framework to evaluate and explain attitudes and behaviors of military consumers.

Social expectation differences between collective and individual cultures can also elicit different consumer behaviors (Gregory et al., 2002; Sharma et al., 2010). Military culture is unique and exhibits characteristics of both individualist and collectivist cultures (Hill, 2015). Teamwork is fundamental to the military but so is individual character. Soldiers are faced with significant challenges such as battlefield dynamics, society gender role expectations, warrior ethos changes, and ever-increasing complexity of military operations and rules of engagement (Dunivin, 1994; Hajjar, 2014; Lawrence, 2011). These conditions put soldiers in a unique group of consumers whose consumer choice context is different from that of typical civilian consumers (Hill, 2015). Self-monitoring theory is based on social expectations which are impacted by culture. Testing similar assumptions of civilian and military consumers may reveal military consumer motivations and the validity of assumptions used by researchers.

Self-monitoring theory has been used with civilian consumer populations successfully to discriminate liking of products. Constructions of the theory have shown predictive power for various products in branding influence on high and low self-monitoring groups. Individual differences between low and high self-monitoring

personalities cause different responses to product branding attempts (DeBono, 2006). Self-monitoring theory was anticipated to explain motivations and why some products are better received by military consumers.

Purpose of the Study

For this study, I used a quantitative, nonexperimental, correlational design to analyze archival survey data. The purpose of this study was to determine the extent to which self-monitoring constructs (i.e., Self-Monitoring, Acting, Extraversion, and Other-Directedness) and specific demographic variables (i.e., gender, leadership, time in service, deployment experience, and combat experience) predicted military consumer ratings (i.e., liking/disliking). The relevance was that self-monitoring research could open new avenues to predict attitudes and behaviors of military consumers towards products and make them more desirable.

Research Questions

The research questions and the hypotheses for this study included the following:

Research Question 1: To what extent does gender relate to military consumer liking/disliking ratings (as measured by a 9-point Hedonic scale)?

H₀1: Gender is not a significant predictor of liking/disliking ratings by military consumers.

H₁1: Gender is a significant predictor of liking/disliking ratings by military consumers.

Research Question 2: To what extent does the military consumer profile attribute of rank/grade (labelled as leader vs. nonleader) relate to military consumer liking/disliking ratings?

H₀2: Leadership role is not a significant predictor of liking/disliking ratings by the military consumer.

H₁2: Leadership role is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 3: To what extent does the military consumer profile attribute of years of service relate to military consumer liking/disliking?

H₀3: Years of service is not a significant predictor of liking/disliking ratings by the military consumer.

H₁3: Years of service is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 4: To what extent does the military consumer profile attribute of deployment experience relate to military consumer liking/disliking ratings?

H₀4: Previous deployment is not a significant predictor of liking/disliking ratings by the military consumer.

H₁4: Previous deployment is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 5: To what extent does the military consumer profile attribute of combat experience relate to military consumer liking/disliking ratings?

H₀₅: Prior combat experience is not a significant predictor of liking/disliking ratings by the military consumer.

H₁₅: Prior combat experience is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 6: To what extent does self-monitoring (total score) as measured by the Self-monitoring Scale-Revised (SMS-R), relate to military consumer liking/disliking ratings?

H₀₆: Self-monitoring is not a significant predictor of liking/disliking ratings by the military consumer.

H₁₆: Self-monitoring is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 7: To what extent does the Acting subscale of the SMS-R relate to military consumer liking/disliking ratings?

H₀₇: The Acting subscale is not a significant predictor of liking/disliking ratings by the military consumer.

H₁₇: The Acting subscale is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 8: To what extent does the Extraversion subscale of the SMS-R relate to military consumer liking/disliking ratings?

H₀₈: The Extraversion subscale is not a significant predictor of liking/disliking ratings by the military consumer.

H₁₈: The Extraversion subscale is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 9: To what extent does the other-directedness subscale of the SMS-R relate to military consumer liking/disliking ratings?

H₀₉: The other-directedness subscale is not a significant predictor of liking/disliking ratings by the military consumer.

H₁₉: The other-directedness subscale is a significant predictor of liking/disliking ratings by the military consumer.

Theoretical Framework

Self-monitoring theory is based on individual differences in the way people monitor and express behavior within a social context (Snyder, 1974). The theory first assumed that self-monitoring was a single categorical trait (someone was a high self-monitor or was not). Now, researchers and theorists lean toward the assumption that self-monitoring tendencies are multivariate and exist along a continuum like other personality traits. For example, one could possess high self-monitoring tendencies in degrees from very little to very much (Wilmot et al., 2017). Self-monitoring theory says that self-monitoring styles are personality propensities towards high or low self-monitoring. Behavior and attitudes are driven differently between the styles. High self-monitors have an external focus (concerned with how others perceive things), whereas low self-monitors have an internal focus (concerned with self-perceptions). High self-monitors recognize and respond to social cues and social values as others would see them. With that perspective, the theory proposed that high self-monitors act in ways to acquire or

preserve social favor. For example, high self-monitors may express their motivation to gain social status by acting assertively and telling amusing sports stories in order to appeal to a crowd of sports enthusiasts from whom they want recognition. Wilmot et al. (2017) discussed styles of high self-monitoring. One is *acquisitive* in nature as it pertains to gains in social status. Another high-self monitoring style is *protective* in nature and is motivated by fear or a desire to avoid a loss of social status. This style of high self-monitoring could be expressed, for example, in dressing modestly and using conservative speech to avoid negative attention from a conservative group of church goers whose esteem is desired.

Low self-monitors differ in that their focus is inward on their own self-perceptions. They are not motivated to recognize and respond to social cues like high self-monitors. Low self-monitoring styles rely on internal self-concepts and self-identity traits to guide attitudes and behaviors. Low self-monitors seek to maintain behavioral alignment with their internally held views and values (Kauppinen-Räsänen et al., 2018; O’Cass, 2000). The presumption was that self-monitoring constructs would capture differences in self-monitoring styles and distinguish between low and high self-monitors.

The general self-monitoring construct identifies both high and low self-monitors. The construct captures acquisitive and protective styles of high self-monitoring. Scoring allows low self-monitors to be identified (Wilmot et al., 2017). An even more fine-grained distinction is made for high self-monitors such that the *Acting* and *Extraversion* subdomains are associated with *Acquisitive* high self-monitors, whereas the *Other-Directedness* (i.e., desire to please others over one’s own self) subdomain is associated

with *Protective* high self-monitors. The Acting and Extraversion self-monitoring constructs both identify high self-monitors with an Acquisitive self-monitoring style. The Other-Directedness self-monitoring construct identifies those high self-monitors who are likely to engage in a Protective self-monitoring style (i.e., they protect themselves from social status losses). The Other-Directedness style of high self-monitors includes acts to lose oneself to please others. Actions of this high self-monitoring style are associated with shyness, low self-esteem, anxiety, and neuroticism (Wilmot, 2015).

In this study, I looked at military consumer responses to product scenarios oriented to appeal to social favor or to appeal to product quality and utility (a focus of low self-monitors). Military consumers rated their liking/disliking of each of the product scenarios. The theory of self-monitoring suggests that scenarios with the higher product quality and utility should appeal more to low self-monitors, and product scenarios with higher social favor should appeal more to high self-monitors. Self-monitoring theory provides a framework for comparing motivations inherent in low and high self-monitoring military consumers. Self-monitoring theory is discussed in greater detail in Chapter 2 along with research applied to consumer behavior.

Nature of the Study

For this quantitative correlational study, I used archival survey data obtained from active-duty soldiers at Fort Riley, Kansas. There were nine independent variables used. They fall into one of two independent variable groupings. The one group of independent variables consisted of four self-monitoring constructs. These included the general Self-Monitoring scale and three subscales of self-monitoring (Wilmot, 2015). The three

subscales are Acting, Extraversion, and Other-Directedness. Researchers believe self-monitoring theory is not unidimensional and therefore recommend using subdimensions as well as the entire scale (Lennox & Wolfe, 1984; O’Cass, 2000; Slama & Celuch, 1995; Wilmot, 2015). The other group of independent variables consisted of demographic attributes often used on survey forms to characterize military consumers. Those attributes were gender, leadership roles, service years, deployments, and combat experience.

The dependent variable was the military consumer rating of liking/disliking for each military product scenario. The choice of factors used for evaluation was based on the data from an archival data set that was provided by the Consumer Research Team (CRT) of the U.S. Army Natick Soldier Research, Development and Engineering Center. The data were analyzed with a quantitative, nonexperimental, correlational design using IBM SPSS Statistics 28.0.1 to calculate descriptive statistics, evaluate statistical assumptions, and perform standard multiple linear regression analyses.

Definitions

Self-monitoring—a psychological construct that says individual differences exist between people in the degree to which they express control over their self-presentation in public (Snyder, 1974; Wilmot, 2015).

Acting—a psychological construct of self-monitoring that reflects a person’s proclivity to spontaneous public speaking, acting, and entertaining. Acting is associated with the ability to lie and present oneself in ways not congruent with one’s true self (Briggs & Cheek, 1988; Briggs et al., 1980; Wilmot, 2015).

Extraversion—a psychological construct of self-monitoring that reflects a person's social self-confidence and willingness to exert oneself into social presentation acts such as telling stories, jokes, and being the center of attention. Extraversion and Acting are moderately correlated and have positive relations to self-esteem, social competence, and adjustment (Wilmot, 2015).

Other-Directedness—a psychological construct of self-monitoring that reflects a person's willingness to change oneself to suit others. Other-Directedness is positively correlated with shyness and neuroticism. It is inversely correlated with self-esteem (Wilmot, 2015).

High self-monitors—people who monitor and regulate their behavior to achieve a desired public appearance. High self-monitors are very responsive to interpersonal and social cues related to situational appropriateness (Snyder, 1974; Wilmot, 2015).

Low self-monitors—people who are less responsive to social contexts but instead are more motivated to act in ways that are more in alignment with internal dispositions and attitudes (Snyder, 1974; Wilmot, 2015). Low self-monitors tend to be more consistent in their consumer behavior because product value is placed on quality and utility factors that reinforce internally held views of self which are less dynamic than social cues and social environmental factors (DeBono, 2006; Kauppinen-Räsänen et al., 2018).

Military consumer—an active-duty person serving in the U.S. military who is a user and consumer of military products that are typically issued and not purchased. Includes things such as food, clothing and equipment. These types of products are often

provided by the government or “issued” to the military consumer because of their duties and rank (Baker-Fulco, 1995; Scales 2018).

Leader—military leaders will be based upon their grade. Enlisted Grade 5 and above, all Officers, and all Warrant Officers will be considered as leaders. Ranks of Enlisted Grades 1-4 are not considered leaders.

Deployment—means to have been activated into service as a scheduled time away from a normal duty station and usually outside of the United States. But it can also mean 7 months on a ship, 12 months at a forward operating base or a few months stateside during a natural disaster or civic distress. Deployment durations can vary and may be for various situations that involve movement of military personnel and equipment in preparation for military engagements typically away from peace-time military locations.

Combat—physical engagement with an enemy, oppositional force. Typically involving weapons.

Military culture—a pattern of basic assumptions (invented, discovered, or developed) and used by the military to cope with its challenges of internal integration and external adaptation related to the challenges. The assumptions have worked well enough in the past to be accepted as valid and are taught to new members as the correct way to perceive, think, and feel relative to challenges faced by military personnel (Hill, 2015; Schein, 2010).

Assumptions

Scenario-based surveys with vignettes describing products and circumstances were assumed able to provide useful military consumer research data. Evaluations using

scenarios and vignettes have been used previously to present manipulated information to respondents to elicit responses that provide consumer insights about products (Cardello et al., 1996; Otterbring & Bhatnagar, 2022; Pitts et al., 1991; Sánchez et al., 2012). Scenario use in product surveys is considered a valid means to conduct research (Otterbring & Bhatnagar, 2022; Robinson & Clore, 2001).

The three product types (i.e., socks, snacks, and ammo magazine) were assumed adequate to represent military consumer products and yield meaningful results because they are frequently used by soldiers. They also represent major product categories (i.e., clothing, food, equipment) often used in civilian self-monitoring research (DeBono, 2006; DeBono & Rubin, 1995; Hogg et al., 2000; Hu & Parsa, 2011; Lovaas, 2020; O’Cass, 2001; Shavitt et al., 1992; Snyder & DeBono, 1985). In prior studies, written product scenarios were manipulated to appeal to low or high self-monitors. For example, Hogg et al. (2000) created various scenarios for consumers to consider and then evaluated aspects of adult beverages. Specific aspects of the adult beverages were written to appeal to a positive or negative social image, after which the beverage evaluations were compared and demonstrated differences between low and high self-monitoring consumers. Generally, clothing, food, and equipment products have resulted in consumer attitude and behavior differences between low and high self-monitoring consumers if some social image conveyance was related to the use of those items. Equipment items that are strictly utilitarian in nature usually are rated similarly for quality between low and high self-monitors. This was the case with air conditioners (Shavitt et al., 1992). It is assumed that the scenarios used in this research appeal to a positive or negative social

image and thus will evoke different response ratings of liking between low and high self-monitoring military consumers. The details of the manipulated product scenarios are discussed in Chapter 3.

A final assumption was that the archival data collected from respondents included honest responses not influenced by data collection methods. Those administering the surveys were skilled practitioners of the process. The anonymous nature of the data does not allow follow-up confirmation or further questions.

Scope and Delimitations

To support soldier lethality and efficiency by improving liking of military products, the aim of this consumer research was to predict military consumers' liking of socially favorable and unfavorable scenarios of socks, snacks, and ammo-magazine complaint resolutions. More specifically, I determined the extent to which self-monitoring constructs (i.e., Self-Monitoring, Acting, Extraversion, and Other-Directedness) and demographic variables (i.e., gender, leadership, length of service, deployments, and combat experience) predicted liking/disliking ratings of military products.

Archival data included soldier evaluations of six scenarios with products and consumer complaint choices where the dependent variable was the degree of liking on a 9-point Likert-type scale. Product scenarios were written to appeal to low or high self-monitoring traits. No products were directly used or evaluated. Rather, soldiers read written scenarios about the products. The study did not attempt to compare or test cultural differences between military and civilian consumer populations.

This study focused on the consumer dependent variable referred to as “liking.” Degree of liking is a common consumer indicator associated with consumer products (O’Sullivan, 2017). Other consumer variables such as cost, convenience, and availability were not considered in this research.

The respondents were from combat units stationed at Fort Riley, Kansas, USA in 2013. The sampling was intended to be a convenience sampling. Convenience sampling is commonly used in military consumer studies due to the need to minimize interference in training regimens and to respect the soldier’s privacy and agency. Soldiers are controlled to the degree that they can be required to receive briefings. But after being briefed on the study, they were then given a choice whether to participate or not.

Limitations

This research included a convenience sample (i.e., sampling based on self-selection). Thus, the sample may not be representative of the population. This may limit my ability to make generalizations and inferences about the entire population. The target population was combat arms personnel on foot or mounted on vehicles. This population of soldiers may also demonstrate different tendencies than soldiers in noncombat arms positions. The survey site location was geographically in the Midwestern United States and did not include any other military sites. Sampling and data collection occurred over a 2-week period on the Fort Riley installation at various sites, in moderate weather conditions, and during standard training events. The results may not be generalized across multiple environmental conditions or locations.

Scenario-based surveys also have limitations. Some of these are ecological limitations. For example, text-based shopping scenarios have been shown to have less real-world generalizability compared to observable behavior from actual contexts (Otterbring et al., 2022). The use of scenarios may have unanticipated effects different from those for actual product use since scenarios themselves are not true experiments with actual product being examined.

Time and funding constraints available at the time of the evaluation limited the extent of the data collection. Only three product categories were used (food, clothing, equipment). Two scenarios were used for each product category. In each category, one scenario was written to appeal to low self-monitoring traits and the other scenario was written to appeal to high self-monitoring traits. Two sample scenarios for each product category (one socially favorable, the other not) may not be sufficient to fully explain self-monitoring's effects within each product category. However, the survey was five pages long and survey fatigue was a concern. The decision to not add more scenarios was considered an acceptable risk.

Another limitation was that there was no validity check of the written product scenarios. The product scenarios were written to appeal to low and high self-monitoring traits. However, there was no data demonstrating the validity of the written scenarios. Though undesirable, this limitation is considered an acceptable short-coming because the wording of the scenarios was written to specifically appeal to main construct elements of quality/utility (low self-monitors) and social favor (high self-monitors). In a review of the scenarios designed to appeal to the high self-monitoring group, an obvious appeal to a

sense of social favor was made. For example, specific phrases were used such as: “wearing these socks usually invites praise from your peers,” “this snack is popular and praised by some people you know,” and “leaders and peers ... will think well of you.” Other scenarios emphasized quality and utility with statements such as: “functionally above average,” “greater nutritional value than most MRE snacks,” and “strong resolution chain ... works effectively.”

Another limitation pertains to the use of correlational designs. Correlational assessments can measure relationships between two or more variables, but one cannot conclude from those relationships that there are causal relationships between the variables. Causal effects may exist but to infer they exist requires a true experiment. For example, suppose research demonstrated higher self-monitoring scores were positively and significantly correlated with higher liking ratings of stylish socks. A true experiment with controls and manipulation of independent variables would be needed to confirm a cause-and-effect relationship was driven by the independent variables.

Significance

The results of this study determined the relative strength of relationships between different self-monitoring styles and military consumers’ liking of military products under certain conditions. The study served to identify which self-monitoring styles to follow up on with further research. The study confirmed usefulness of self-monitoring theory constructs in predicting military consumer behavior. Ultimately, this research may lead to new strategies in the development, packaging, and marketing of military products. Potential benefits also included increased soldier morale and positive social change for

the military culture's approach to consumerism. Increased consumer behavior knowledge leads to improved product designs and training relative to the use of such products. These refinements increase the efficiency of soldier performance and resource management.

Summary

Self-monitoring theory provides a framework to understand military consumer attitudes and behavior relative to low and high self-monitoring tendencies. Self-monitoring theory's relative value to military consumer research had not been tested. This study filled a gap in the literature on consumer research for military consumers using self-monitoring constructs. High self-monitors pursue social favor in consumer choices. Low self-monitors make consumer choices based on functional quality that supports their self-identity. The purpose of this study was to assess the extent to which self-monitoring constructs predicted military consumer liking of military products. Results of this study may lead to positive social change by providing military consumer knowledge used to enhance liking of military products that improves product use and soldier morale. Improved liking also leads to reduced waste of military resources. Chapter 2 provides a review of the theoretical foundation and practical applications of self-monitoring theory with examples of consumer research that used the construct to understand consumer behavior.

Chapter 2: Literature Review

Warfighters who underutilize products like food, clothing, and equipment increase threats to their safety from adversaries, reduce their effectiveness in carrying out their duties, and waste resources (Ahmed et al., 2017; Baker-Fulco, 1995; Hirsch et al., 2005; Kullen et al., 2016; O’Leary et al., 2020; Tassone & Baker, 2017). Army researchers are charged with developing and providing optimal products that increase warfighters’ lethality and effectiveness (Scales, 2018; Wins 2019). The purpose of this study was to determine the extent to which self-monitoring constructs (i.e., Self-Monitoring, Acting, Extraversion, and Other-Directedness) and specific demographic variables (i.e., gender, leadership, time in service, deployment experience, and combat experience) predict military soldiers’ ratings (liking/disliking) of military products. This can be done by adopting new consumer research tools such as those based on self-monitoring theory.

Underutilization of food is a dilemma that illustrates the relevance of the problem. This common problem persists across many militaries around the world (O’Leary et al., 2020). The underutilization of rations is associated with reduced performance, weight loss, and increased health vulnerability (O’Leary, et al., 2020). One of the causes for the underconsumption has been that the products simply were not liked. But liking is not a univariate problem (such as physical flavor). Liking is considered contextually related to various factors and expectations of the soldiers (Baker-Fulco, 1995). Soldiers have repeatedly not eaten enough food even when there was an abundance of food (Baker-Fulco, 1995; Cardello, 1995). In an overview of military dietary intakes during military

exercises, six studies spanning 5 years listed an average soldier energy expenditure of 4,319 kcal/day (Baker-Fulco, 1995). At the same time, average intakes were 2,840 kcal/day, leaving an average energy-expenditure deficit of 1,479 kcal/day. That translates to a loss of nearly 3 pounds of body fat per week, which exceeds healthy weight-loss recommendations of the National Institutes of Health and is a rate that over time leads to a loss of muscle mass and performance ability (Nesheim et al., 1995). Other researchers reported daily calorie expenditures of very active soldiers to be over 6,000 kcal/day (Ahmed et al., 2017). The U.S. Surgeon General recommended that military meals contribute 3600 kcal/day for active young male soldiers (Hirsch et al., 2005). When consumption deficits occur over a prolonged period, it is detrimental to health and performance (Tassone & Baker, 2017). Some of the deficits are attributed to disliking products, supporting the need to increase product appeal where possible.

Self-monitoring theory can address the issue in part. It describes individual differences in self-expression where high self-monitors, seeking others' approval, will comply with situational norms whereas low self-monitors seek to maintain internally held self-identity values. Understanding the role of social and self-identity values to different consumers helps researchers use factors of *liking* in product designs to make them more appealing. This research offered a chance to fill a gap in understanding about what drives soldiers' liking preferences with the aim of fostering better utilization of military products.

Chapter 2 reviewed the literature related to self-monitoring theory and consumer research and some of the attendant problems in conducting that research. Studies that

have applied self-monitoring were reviewed. This was followed by an exhaustive review of the literature related to self-monitoring in civilian consumer behavior, consumer research and information related to military consumer behavior, and self-monitoring as it may related to military consumer behavior. The chapter ends with a summary and conclusion.

Literature Search Strategy

The strategy used to conduct the literature search included the use of multiple data bases and search engines. These included Walden Library's collection EBSCO, PsycINFO, PsycARTICLES, SAGE Premier, Google Scholar (linked with Walden), Purdue OWL, Walden's Thoreau, PubMED, PsycEXTRA, MEDLINE, PsycTESTS, APA PsycNET, ISI web of knowledge (Reuters Web of Science), ORCA (Cardiff University), ILLIAD interlibrary loan system, R&E Gateway (DoD research), and ScienceDirect. Additional resources included the Alvin O. Ramsey library at U.S. Army NSRDEC, the National Archives, and Brigham Young University library. Initially, the literature search included all years from 1974 to the present with the key words: *self-monitoring scale, military, leader, soldier, self-monitoring axis, consumer, behavior, prediction, food, liking, acceptance, self-monitor, theory of self-monitoring, self-monitoring, and personality*. After reviewing the literature from those searches and the seminal writings of Snyder (1974), Snyder and Gangestad (1986), and Gangestad and Snyder (1985, 2000), further searches included following the citation trails of the works cited within those seminal works and other key word combinations such as *purchasing behavior, product, or advertising with self-monitoring*. Key words provided in these

resources included: *self-monitor, military, consumer, mindset, signaling, cues, behavior, culture, individualist, individualistic, collective, self-identity, self-expression, social-identity, implicit theory, functional theory, individualism, acquisitive, protective, alternative bivariate model, and self-identity*. Additional searches focused on 2010 to the present.

Theoretical Foundation

The theory of self-monitoring proposed by Snyder (1974) was introduced to explain individual differences of self-control in expressive and self-presentational behaviors related to social situations (Fuglestad & Snyder, 2009). Snyder (1974) recognized that actors and politicians had an ability to create audience appeal by being attentive and responding expressively to social cues such as body language, facial expressions, and voice. This recognition helped Snyder develop and propose the theory. Surveys conducted with Stanford University undergraduates, professional actors, and psychiatric patients provided initial evidence that self-monitoring was tied to individual differences where high self-monitors could express emotions that were sensitive and appropriate to social cues. Low self-monitors were lacking in this regard. Their expressions instead appeared controlled from within based on their experience rather than interpersonal conditions of social appropriateness (Snyder, 1974).

Eric Goffman influenced Snyder's theory development (Snyder, 1974). Goffman (1959) advanced the concept of self-presentation as a type of character portrayal whereby expressive control was used to manage social impressions. In self-monitoring, the general concept was that high self-monitors' dispositions would lead to predictable behaviors

because of social circumstances. High self-monitors acted as social chameleons, responding to social cues in order to win social rewards. Low self-monitors, less concerned with winning the approval of others, sought to act in harmony with their own internal self-concepts, making it harder to predict their attitudes and behavior (Snyder, 1974).

After Snyder (1974) introduced self-monitoring theory, considerable effort was expended by researchers for the next 40 plus years clarifying nuances in meaning as pertains to low and high self-monitors (Briggs et al., 1980; Briggs & Cheek, 1988; Gangestad & Snyder, 1985, 2000; Lennox & Wolfe, 1984; O’Cass, 2000; Snyder & Gangestad, 1986; Wilmot, 2011, 2015; Wilmot et al., 2017). In that period, self-monitoring evolved from its original conception as a categorical trait to a continuous personality trait (Wilmot, 2015). Low self-monitors focused on maintaining congruity between their behavior and their internal self-concepts (Aaker, 1999; Kwak, 2021) whereas high self-monitors were sensitive to social cues and adept at responding to situational demands in order to acquire or maintain social influence (Kauppinen-Räsänen, 2018; Kwak, 2021). High self-monitors were thought to be of two types: *acquisitive* self-monitors sought social influence, praise, and status, whereas *protective* self-monitors sought to avoid reprisal, criticism, or negative social attention (Wilmot, 2015; Wilmot et al., 2017). These two tendencies were referred to as the *bivariate model* of acquisitive and protective self-monitoring. Self-monitoring subscales offered an even more fine-grained distinction between the two high self-monitoring types: Acquisitive self-monitors were characterized as *actors* (i.e., likes and is good at entertaining) and

extraverts (i.e., is sociable and assertive; Gangestad & Snyder, 2000; Wilmot et al., 2017). On the other hand, protective self-monitors were characterized as *other-directed* (i.e., seeks to please others).

As a personality trait, self-monitoring offers predictable and measurable consumer information that can guide product development and marketing by linking product image to preferences associated with differences between high and low self-monitors. For example, to appeal to high self-monitoring consumers, a high-profile person could be shown making a public purchase from a known, environmentally responsible company. Marketing agents could highlight the company's environmental activity and have the high-profile person mention the social responsibility practiced by the company as the reason why she/he shops there. Then marketing could show the high-profile person being admired by others as a patron of a socially responsible company. Because the low self-monitor's product choices will necessarily align with their self-perception, appealing to the low self-monitoring consumer can be difficult if the consumer's self-image and personal values are not known. Focus groups of targeted customers may help reveal this. Otherwise, it is generally safe to emphasize the quality aspects of the product being sold as low self-monitors tend to value product quality and focus on those product attributes to determine interest. The social aspects are likely to have little effect on them.

Recent research examined both aggregate (i.e., the general self-monitoring scale) and parsed self-monitoring datasets (i.e., the Acting, Extraversion, and Other-Directed subscales). Fuglestad et al. (2019) aimed to determine whether self-monitoring is best understood as two or more separate and distinct self-monitoring types. Their research

examined participants' motivations in interpersonal relationships through self-reporting questionnaires and self-monitoring measures. Using an adult attachment questionnaire (Simpson et al., 1996) and Experiences in Close Relationships, Relationship Structures scale (ECR-RS; Fraley et al., 2011), Fuglestad et al. found significant differences between acquisitive and protective self-monitoring and their relationships to significant others (i.e., parents, best friends, romantic partners). Essentially, those high in protective self-monitoring were found to express more avoidance, anxiety, and general uneasiness with intimacy. Fuglestad et al. also noted that a reliable (but weak) relationship between self-monitoring and gender and age was seen such that acquisitive and protective self-monitoring tendencies were more prevalent for males and younger study participants. These results demonstrated how high self-monitoring consumers were motivated in close relationships differently when viewed using Acquisitive and Protective self-monitoring scales. Those motivations influenced the way they interacted in relations with people they deemed important. Understanding self-monitoring subdomains helped distinguish interpersonal motivations.

Wilmot (2015, 2016) and others (Fuglestad et al., 2019; Pillow et al., 2017) made a case for studying self-monitoring as a multidimensional construct. To better predict soldier behaviors and capture moderating effects of self-monitoring, the multidimensional nature of self-monitoring must be understood. Wilmot's 2015 report helped the field of self-monitoring move forward and embrace a view that self-monitoring is more valuable as a multidimensional rather than univariate trait. Use of the subdomains was shown to help researchers better identify the motivating elements in behavior. Researchers who

rely upon Wilmot's (2015) alternate bivariate model or at least view self-monitoring multi-dimensionally, will want to parse their data to determine if high self-monitoring behavior is more acquisitive or more protective in nature. Wilmot et al. (2017) concluded that past findings in self-monitoring research and theoretical progress can now be largely attributable to acquisitive self-monitoring. Wilmot et al. pointed out that too little attention had been given to analyzing self-monitoring's subdomains. For purposes of this research, the global Self-Monitoring construct and its three subscales (i.e., Acting, Extraversion, and Other-Directedness) may contribute information that help explain military consumers' failure to fully utilize products.

Self-monitoring theory has been used often to explain behavioral differences across various contexts. One reason for varying appeal suggested by Kardes et al. (1986) dealt with choice-making processes. They hypothesized that low self-monitors form attitudes differently from high self-monitors. They compared low and high self-monitoring groups using object-evaluation associations that are more easily and quickly accessed from memory. Object-evaluation associations included relationships where attitude objects such as bombs, war, pizza, beer, and taxes were related to attitudes of good and bad. Examples included bombs-bad, war-bad, pizza-good, beer-good, taxes-bad, and so forth. As attitude-object words emerged on a computer screen, people would respond "good" or "bad" to the word as quickly as they could determine the object-attitude relationship. The researchers measured latency of responses to inquiries about an attitude object. Participants were 34 students who responded in three sessions (a 1-hour session for each of the 3 weeks). Recognition timing of 125 attitude objects revealed that

low self-monitors were faster at responding, indicating relatively more accessible attitudes. Internal consistency was good. The average of the accessibility scores was used to compare low and high self-monitors. Kardes et al. (1986) reasoned that low-self monitors' internal values were already reviewed and in place, so they did not rely upon an external assessment of the social conditions to make a choice. They also reasoned that delayed decision-making for high self-monitors was moderated by the importance of the decision (e.g., when participants were led to expect that the experimenter would review their data or not review it afterwards).

Consumer product evaluations have been difficult to interpret when test product images lacked saliency and congruency with consumer expectations (Pillow et al., 2017). Studies have found that acquisitive self-monitoring was more prevalent and more influential than protective self-monitoring (Wilmot et al., 2015). When conducting consumer research where product image is presented, products have greater appeal when a salient image is congruent with a salient, value-constructed goal or need. Those needs can be derived from the consumer's self-monitoring style. For example, acquisitive self-monitors value social status and protective self-monitors want to avoid negative social consequences. Depending on the targeted customer, marketing cues should align with those acquisitive and protective values in salient ways that accentuate product value to the targeted consumer's value system (Lee & Shavitt, 2006).

Czellar (2004) sought to determine whether the attitude accessibility hypothesis or the alternative self-presentation hypothesis would better explain the latency task response differences of low and high self-monitors. Czellar found a similar effect to Kardes et al.'s

(1986), demonstrating that when persons were tasked to respond in high motivation conditions (i.e., they knew that their responses would be reviewed and discussed with others as opposed to low motivation conditions where they knew their responses were anonymous), the high self-monitor had longer response latencies than did the low self-monitor. Using the implicit association test (Greenwald et al., 1998), Czellar noted that high self-monitors deliberated more in certain attitude-response tasks. A longer response for high self-monitors was found for high-motivation conditions. This contrasted with DeBono et al.'s (1995) related work that found no significant difference between low and high self-monitors. However, that work used group sessions that minimized the high motivation condition.

The differences seen by both Czellar (2004) and Kardes et al. (1986) suggested that when more cognitive resources are needed, responses to consumer decisions will take longer. High self-monitors with social ramifications at stake are in a condition of "higher motivation." High self-monitors appeared to consider more information that led to slowed responses. They also appeared to invest more time because they naturally looked at social factors with added regard for deeper levels of consideration to the greater number of implications and concern for achieving desirable social consequences. Czellar concluded that in conditions of high motivation, high self-monitors deliberated more than in low-motivation conditions where high and low self-monitors compared similarly. Czellar said that like explicit cognition tasks, there was strong evidence that implicit cognition tasks were sensitive to the effects of self-presentation under lab conditions with high self-monitors who acted with expressive control over their behavior.

Other influences on self-monitoring and consumer behavior worth mentioning include a product's intended use, context of use, frequency of use, whether the product is used in public or in private, and other aspects of functionality that tie into functional theory. Functional theories (Katz, 1960; Smith et al., 1956) suggested attitudes serve a functional purpose. In consumer behavior, that means the attitudes provide meaning and mental classification for a product's value and use. The product's function needed to align with or be congruent with an attitude. These thought process connections were deemed fundamental to how self-monitoring theory was operationalized in consumer behavior. Product conveyances that were salient and congruent with notions of self would be expressed for low self-monitors. Product conveyances that were salient with congruent notions of social approval would be expressed for high self-monitors. A few other points that influence self-monitoring theory are worth a brief mention.

Whenever consumers evaluate products, they use decision-making strategies (Bettman et al., 1998). When consumers consider their identity, they use a self-appraisal process that also involves a strategy of identification. This strategy involves mediation between social presentation and self-definitions (Laverie et al., 2002). Disruptions to those strategies may occur at any point through priming. Priming may appear in the form of advertising or through other means that redirect a person's attention. Further discussion of priming and self-identity is discussed in the next section. One outcome of the redirection is that it leads to inconsistency between consumer choices and attitudes. Strength and type of cue can trigger behavior related to the consumer's redirected attention and different versions of self (interdependent vs. independent or utilitarian vs.

social identity). Those views influence the expressions governed by self-monitoring. As per self-monitoring theory, if marketing efforts trigger a social identity focus on self, a high self-monitor is more likely to view the product in terms of how it will help them achieve social influence.

Literature Review Related to Key Variables

Self-Monitoring and Civilian Consumer Behavior

Value in the Consumer Mind

Finding what the consumer values in a product is critical to addressing better product utilization challenges among military consumers. Using self-monitoring theory in consumer research enables researchers to understand motivating factors for consumer behavior. Understanding those factors allows product developers to appeal to them through the products they offer. Applications of self-monitoring theory in civilian consumer research have increased understanding of motivating factors in the civilian consumer sector (DeBono, 2006; Kudret et al., 2019). Applications using protective self-monitoring are more limited historically. Insights are expected from greater use of acquisitive and protective self-monitoring (Lovaas, 2020; Wilmot 2017).

According to Shavitt (1989), there are two functions that distinguish low and high self-monitors. They are utility for low self-monitors and social identity for high self-monitors. Low self-monitoring consumers fall under a private identity, utilitarian function that is quality based, whereas high self-monitoring consumers fall under a social identity, situational function that is image based. Functional theories suggest that marketing messages are persuasive to the extent that they align with an attitude's functional

underpinnings, meaning that low and high self-monitors could hold equally favorable but differently derived attitudes towards products. Shavitt et al. (1992) looked at products with clear utilitarian functions, products with clear social identity functions, and products spanning both functions to see if low and high self-monitoring attitude differences would emerge. Consumers involved in the study described their attitudes about various products; descriptions were coded and evaluated for social identity (products that were primarily image enhancing), utilitarian (products that primarily fulfilled a functional or utility purpose), and multiple function (products that could fulfill both image enhancing and utilitarian perceptions). Consumers also wrote advertisements for products and their arguments were evaluated. For social identity products, high self-monitors used social terms (e.g., “don’t be left out,” “stylish,” and “loyalty”) and less utilitarian terms (e.g., “sour,” “durable,” and “over-priced”) to describe the products. Low self-monitors used more quality-based thoughts, whereas high self-monitors’ attitudes were influenced by image-based thoughts.

Though the basis of their attitudes differed, low and high self-monitors held equally favorable attitudes with advertising of products that appealed solely to utilitarian or social identity products (e.g., air conditioners and aspirin or class ring and flag, respectively). It is logical to assume that by refining one’s understanding of the notions of self and the constructive processes consumers used for basing their attitudes and decision making, there would also be an opportunity to increase understanding of the motivational underpinnings behind self-monitoring (Bettman et al., 1998). These processes have

differed between individualist and collectivist cultures, the latter being where norms work better (Shavitt & Nelson, 2002).

Markus and Kitayama (1991) provided a clear narrative on individualistic vs. collectivistic cultures and the culture's impact on thinking, cognition, and notably for this discussion—self. Because of the relationship between self-concept and self-monitoring, it is important to account for the impact things like culture, context, and indoctrination may have on self-conceptualizations. Their findings of collective cultures indicated that views of self being interdependent on each other were a hallmark of collective cultures. Those views included the fundamental relatedness of individuals to each other. They emphasized harmonious interdependence, fitting in, and attending to others. Whereas the individualist self-view was based on discovery of self, expressing one's unique inner attributes, and maintaining one's independence from others by attending to the self. Markus and Kitayama believed that self-construal differences impacted cognition and the way high self-monitors were motivated and made decisions. They even questioned the ability to use self-monitoring across cultures because of those differences. Things such as culture that impact the notion of self are important considerations in self-monitoring theory because a consumer's view of self appears to mediate behavior related to self-monitoring (Markus & Kitayama, 1991). The different notions of "self" can help explain some of the mixed results found in self-monitoring literature. Certainly, there are influences military culture has on aspects of self that need to be considered through the lens of self-monitoring to obtain a better understanding of military consumer behavior.

Researchers have sought to understand the values motivating consumers. Kardes et al. (1986) discussed consumer choice-making thought processes. Such processes included consumers' views of themselves. Delayed choice responses were seen in high self-monitors and attributed to the additional cognitive load of considering how others might perceive them. Whereas primary decision factors of low self-monitors were based on already developed self-perception models that allowed them to have faster, more easily accessed cognitive processes.

Constructions of self-monitoring theory tap into consumer motivations related to consumer self-concepts. These are integral to building a consumer's value proposition for goods and services. When consumers develop a value proposition, they appraise a product's value by considering product attributes that are salient to them (Lee & Shavitt, 2006; Shavitt et al., 1992). Some products convey salient meanings that cause consumers to feel good and validate perceptions of self-worth. A consumer's source of self-esteem and self-worth provide motivation and logic to the consumer about how, where, when, and why a product has worth. Those sources differ for low and high self-monitors. Low self-monitors focus on intrinsic sources like self-identity and quality of products and behavior that are congruent with that self-identity. High self-monitors may likewise use intrinsic sources for utilitarian items, but they also focus on external sources (people they esteem, social approval, etc.) for products that can provide social identity benefits. Consumer products and services can convey a variety of meanings and images such as simple utilitarian functionality, elite public social personas, and privately held value symbolisms. The conveyances appeal in different ways to low and high self-monitors.

According to Hogg et al. (2000), a product's symbolic meanings influence the consumer's evaluation and choice of products. Hogg et al. developed a conceptual model that illustrated how self-esteem and self-worth are maintained and supported differently for low and high self-monitors. Their evaluations of consumer products led them to acquire products that reinforce self-identity and self-worth. The low self-monitor's path to self-worth is through self-identity. The high self-monitor's path includes social identity.

Consumer tendencies and perceptual abilities are individualized and limited (Buschman et al., 2011, Miller, 2020, Rigotti et al., 2013). Consequently, a consumer's ability to focus on product attributes is also limited. Attributes that do catch the consumer's interest are associated with the consumers' self-identity which acts as a guide for attaching value to a product. Other researchers have modeled consumer thought processes. Kleine et al. (1993) conceptualized a consumer appraisal process model that includes emotional and cognitive components. The process model stated that ordinary consumer consumption activities could be organized and understood through self-definition (Laverie et al., 2002).

Self-identity is influenced by things like employment, gender, physical appearance, race, and culture. And according to the model of Hogg et al. (2000), social identity functions of low and high self-monitors can function on entirely different mental pathways. This matters for this study because identity functions might be very different between groups of people who have strong cultural differences. Military culture has strong cultural differences. For example, the military does not operate the same way as

civilian legal systems of constitutional law. They instead operate somewhat as a distinct society governed by their own criminal code (Beaumont, 2009). They have a Uniform Code of Military Justice (UCMJ) that holds them accountable and can impose severe penalties for violations of military law. According to Hogg et al. (2000), strong cultural differences should be possible to discriminate using self-monitoring. Using research and knowledge explained by the model, developers should be able to tailor and market products and services that appeal to the respective social identity functions that can vary between low and high self-monitoring military consumers. This is done by creating valued and salient product images that appeal to the salient identity functions characteristic of low and high self-monitoring military consumers.

Saliency of product image and self-image of the consumer are important factors to consider when looking to observe self-monitoring effects. A salient product image relevant to the consumer allows high self-monitoring consumers to perceive a social benefit to be derived from use of a consumer product when others see them using it. Likewise, a tailored image allows the low self-monitoring consumer to see a benefit when the image reinforces internally held self-identity views. Lee and Shavitt (2006) demonstrated that store reputation and product image carried different weights depending on their context and relevance to the consumer. Saliency of conveyed images coupled with relevance to the consumer distinguished low and high self-monitors, especially when goals were in alignment with those images.

Goals often differ between low and high self-monitoring consumers. For low self-monitoring consumers, alignment of salient self-identities with salient images conveyed

through consumer products and services allowed self-monitoring theory to be useful in making predictions of consumer behavior more easily (Graeff, 1996; Lee & Shavitt, 2006). For high self-monitors, the salient self-identity may not matter if the social identity function is fulfilled. Failure to provide products that have saliency and congruency between low self-monitor consumer self-views or high self-monitor consumer views of social value, cause self-monitoring guided efforts to fail or lack consistency (Hogg et al., 2000).

Even if a consumer has a clear self-view and consumer behavior very much in alignment with motivations supporting that view, a researcher's wrong assumptions about the motivations of the consumer can yield mixed results due to poor experimental design measures. At other times, the wrong assumptions become learning points. For example, researchers studied high self-monitoring consumers to understand consumer complaint processes and wrongly assumed that high self-monitors from both cultures would share the same aversion to complaining in public. The researcher's hypothesis failed because the two cultures esteemed public behavior differently. Nevertheless, researchers were able to determine that high self-monitors from a Western culture sought public esteem by complaining publicly. Consumers in Asian culture sought public esteem by not complaining publicly (Sharma et al., 2010). Such assumption failures are understandable when one considers the complex and dynamic nature of how consumers evaluate products over a broad set of dimensions within a malleable self (Aaker, 1999).

When using self-monitoring, the idea of a malleable self needs to be factored into a consumer's thinking of value. Factors like environmental priming can change the

saliency of social identity goals (Lee & Shavitt, 2006). When this happens, consumer decisions can be made with a view of self that is temporary or altered from a predominant state. Aaker (1999) described the self as being relatively stable even though it is malleable and subject to situational conditions. Aaker showed a significant difference between low and high self-monitors' attitude effects based on different forms of priming. Low self-monitors attitudes improved when a brand's image increased in congruency with the consumer's self traits. High self-monitors' attitudes improved when the brand's image increased congruency with situational expectations.

Aaker's research looked at conceptions of self that are more chronologically accessible as well as at aspects of self that are malleable and made to be more salient and thus accessible based on social situations and cues. She discussed low and high self-monitoring, and how self-concepts include malleability that can change across situations. She also discussed forms of congruency a consumer seeks that can enhance self-esteem. Aaker (1999) suggested that a person's self-definition had a malleable nature and included various notions of oneself. These could include the ideal self, the actual self, the private self, and the public self. These various identities of self might mediate how brand identity influences consumer behavior. Aaker used the Harley Davidson motorcycle and its corporate businessman-rider as an example to illustrate how an apparent incongruity might be explained. In this case, the Harley Davidson motorcycle had a certain rugged, tough, and outdoorsy brand image that the corporate businessman did not perceive in himself. Yet, he desired or hoped for that image and therefore owned and rode a Harley

on the weekends to obtain congruency with his ideal self-identity vs. the actual identity he saw in himself as a corporate businessman.

Another form of congruency Aaker (1999) discussed pertained to consumer expectations of their activity outcomes. A consumer might have judged a past consumer behavior motivated to gain social favor as a failure. That failure was incongruent with the consumer's expectations and weakened their self-esteem. If the behavior had been successful in gaining the social favor, that would have been congruent with the consumer's expectations and seen as successful impression management that reinforced the behavior; that congruency increased self-esteem (Schlenker, 2011). Aaker suggested that product brands had power when associated clearly with both a personality trait and situational cues that were salient because of message congruity. The congruency traits that mattered would be associated with the social identity function (low or high self-monitoring) and its attendant attitudes, self-concept, strategies to achieve 'self-worth,' and any reinforcing of products and brands that coincided with the consumer's respective self-monitoring type (Hogg et al., 2000). Aaker suggested that low self-monitors used self-identities to establish congruity whereas high self-monitors relied more on situational congruity.

Aaker (1999) suggested that self-schemas played a greater role in determining brand preference for low vs. high self-monitors. She hypothesized that situational cues played a greater role in determining brand preference for high vs. low self-monitors. She further hypothesized that self-schemas played a greater role in determining brand preference for low vs. high self-monitors when exposed to a salient situational cue, and

that situational cues were more influential in determining brand preference in aschematic vs. schematic high self-monitors. The results supported the hypotheses such that situational cues influenced high self-monitors more and self-congruity cues influenced low-self monitors more.

Aaker (1999) challenged the notion that multiple aspects of self were worth looking at individually and that all were relevant. Instead, she asserted that the more important factors relating to consumer behavior and valuation of products were based upon a more frugal framework where the chronically available aspects of self would integrate themselves with the set of personality traits that were salient in the usage situation. This created a more elegant problem by making prediction of consumer thoughts and behavior a more thoughtful problem to resolve because it was based on a limited selection of chronic and salient traits. It was perhaps more difficult because the salient traits were dynamic and based on the situation and context at hand.

Aaker's (1999) descriptions included the public vs. private self. Graeff (1996) wanted to examine the effects of self-monitoring within the context of image congruence because of the belief that high self-monitoring consumers would be more responsive to branding that reflected the ideal self-image or social identity they sought for themselves. Graeff's study included 132 high and low self-monitors who evaluated two publicly and two privately consumed brands. The brands were described as well as the actual and ideal self-images. Scores were calculated that represented the amount of congruence between brand image and actual self-image (actual congruence) or ideal self-image (ideal congruence). Those scores were then correlated with scores of the overall brand

evaluation. Then the congruence scores were analyzed to see if the effect was greater with high self-monitoring consumers than with low self-monitoring consumers. Four items were evaluated for effect and intention to buy and then a composite score was determined to reflect an overall evaluation of the brand. The public brands were Camaro and Reebok. The private brands were Budweiser, and Reader's Digest. A Euclidean distance model was used such that the smaller the distance between the image congruence and brand evaluation, the more favorable was the brand evaluation. Camaro and Reebok (the two public brands) had much higher correlations for the ideal congruence than the actual congruence. Whereas Budweiser and Reader's Digest (the two private brands) were not significantly correlated for ideal or actual congruence. This suggested that product preference and ideal congruence were more closely related than product preference and actual congruence.

In the latter part of Graeff's (1996) study, image congruence was hypothesized to have a stronger effect on brand evaluations for high self-monitoring consumers with publicly consumed but not with privately consumed brands. This bore out to be true. Self-monitoring had a significant moderating effect on Camaro and Reebok's actual congruence as well as on Camaro and Reebok's ideal congruence. Whereas self-monitoring had no significant moderating effect on Budweiser and Reader's Digest actual congruence or on Budweiser and Reader's Digest ideal congruence. Graeff's work supports the importance of image congruence as well as the moderating effects of self-monitoring for publicly and privately consumed products.

When a consumer prepares to make an exchange with a vendor, there may be multiple versions of self the consumer draws upon to think about the value of a purchase. But to Aaker's (1999) pursuit of a more parsimonious framework, those multiple versions may not matter as much as the salient and chronological views of self. If that is the case, Lee and Shavitt's (2006) ideas about cues may be very relevant in predicting consumer behavior, especially if those cues can be controlled to make salient factors instrumental to consumer thinking and behavior.

When consumer self-views are moderated by cues in the environment, it allows marketing agents a means to influence consumer thinking and behavior through branding and advertising. Lee and Shavitt's (2006) investigated the role cues played in a customer's judgment of product quality. Two consumer identity groups were created, one was told to think of themselves and their goals in interdependent social settings (i.e., social identity made salient) and the other group was told to think of themselves and their goals in individual independent settings (i.e., individual identity and utility made salient). Participants sat in front of a computer screen where product information, including which store the products came from, was presented. Both groups saw the same information/products (ASICS running shoes and GE microwaves). However, one group was shown retailers that were low reputation stores (Sears and Kmart) as the retailers providing the products while the other group was shown high reputation stores (Nordstrom and Marshall Fields) as the retailers providing the products. Two influences were observed. Results indicated that interdependent social identity groups were more sensitive to the store reputations and rated the products to be of lower quality that came

from the lower reputation retailers whereas individual identity groups were less sensitive to the store reputations and rated the products similarly regardless of the retailer's reputation. Chronically salient social identity goals could change consumer reception of products and services. Goal salience was primed by questionnaires completed prior to product evaluations such that questionnaires designed to prime social identity goals vs. independent individual goals primed high and low self-monitoring goals, respectively. Thus, one sees how value in the consumer's mind is influenced. Salient goals heightened by meaningful contextual cues congruent with self-construals, positively influence the consumers' quality judgments (Kim et al., 2012; Lee & Shavitt, 2006).

As mentioned earlier, consumer goals often differ between low and high self-monitors. Aaker (1999) described the self as being generally stable (i.e., having a certain set of self-conceptions that are chronically accessible) "while also being malleable" (i.e., having self-conceptions that could be made available depending on social situations). The malleable nature of self leaves the consumer goals subject to influence from cues and prompts. Consumers' goals are related to self-monitoring via the way 'self' is supported when consumer goals are formed and even at the moment consumer decision making occurs. Lee and Shavitt (2006) established that the cues used by self-monitors for decision making have limits to their effect. The power of the cue can be mediated and even superseded by other information and environmental conditions. For example, one's attention can be temporarily hijacked due to other influences such as a previously run radio jingle that is heard again in a store while the consumer is shopping. The jingle may influence the consumer to think thoughts of a particular self-identity which influences the

consumer to make an impulse purchase that a different version of self would avoid.

Versions of self can be mediated by a functional role consumers see themselves in (such as a caretaker, a coach, a judge, a teacher, etc.). When these roles are considered at the time of a purchase, the thought of fulfilling the role influences how products are valued. Thinking about roles, consequently, influences a person's purchasing decisions.

For example, variables of store reputation and the salience of social identity goals (independent vs. interdependent self-construals) were believed to be related (Lee & Shavitt, 2006). Lee and Shavitt (2006) argued that when social identity goals are salient and that when image-relevant information like store reputation is available in the consumer evaluation process, consumers will use that information to determine a product's quality. They formed hypotheses that tested a consumer's quality ratings of a utility product (General Electric microwave) sold at K-Mart (low reputation store) and the same microwave sold at Marshall Field's (high reputation store). They also looked at consumer evaluations of a social identity product (ASICS running shoes) when it was sold at Sears (low reputation store) and when it was sold at Nordstrom (high reputation store). The consumers were primed with procedures that could influence their thinking and focus relative to notions of self. One procedure involved heightening the salience of social identity. Another procedure involved heightening the salience of utilitarian goals. These two groups and their consumer choices were compared.

Participants were primed through use of questionnaires designed to heighten the salience of social identity or utilitarian goals (Shavitt & Fazio, 1991). Priming of social identity significantly influenced the weight of store reputation in the evaluation of

microwaves. Results indicated a significant effect for product evaluations (social identity vs. utilitarian; Kmart vs. Marshall Field's). Store reputation mattered more when social identity goals were heightened, but there was no effect seen with priming for heightened utilitarian goals. Those primed for utilitarian goals did not differ in their evaluations of the microwaves due to the store's reputation. These results demonstrated (irrespective of self-monitoring) that a person's focused attention and consumer behavior could be variably influenced by priming in the environment. This research suggested that self, within the context of social identity could be influenced by environmental conditions. Furthermore, it was not too far a stretch to conceive how this type of sensitization can occur within the domain of self-monitoring and influence high self-monitoring consumer behavior.

As another example of consumer thinking and valuation processes, DeMarree et al. (2005) used an active-self account approach to alter self-perceptions temporarily. They wanted to see if priming low and high self-monitors with already established predispositions would be influenced to feel and act differently after the priming. The belief was that they would alter self-perceptions and, theoretically, this would translate to altered behavior as well. Self-monitoring was used to establish the predispositions of the participants. The active-self account suggested that a person was potentially capable of being biased temporarily in their self-representations and behave consistent with the prime while in the activated-self state (Americas et al., 2010). According to this approach, the low self-monitor would behave differently because the prime would influence the self-representation. The reason behavior change was expected was that low

self-monitors were believed to make decisions guided by internal factors based on their sense of self, which, in this case, was altered through a stereotyping priming activity. High self-monitors' behavior was not expected to be influenced because their behavior was guided by cues from the external environment which had not changed. Three dependent variables were evaluated: a) implicit aggressive feelings, b) implicit lucky feelings, and c) information-processing behavior. In each case, the prime type influenced the result for low self-monitors. As predicted, the prime did not impact the result for the high self-monitoring consumers. This manipulation demonstrated that a low self-monitoring consumer's sense of self did influence their feelings and behavior and that advertising and marketing cues impact consumer behavior by influencing the low self-monitor's sense of self (DeMarree et al., 2005).

This study looks at self-monitoring as a tool for consumer research in the military. To be effective, it is important to understand that the theoretical basis for self-monitoring rests on the consumer's self-concept and the consumer's strategies to achieve self-worth through consumer behavior. Self-monitoring style directs consumers' attention to value areas important to the consumer. Consequently, one should intuitively as well as empirically be able to see significant relationships between consumer behavior, self-monitoring, and notions of self which in concert work to regulate consumer behavior (Hogg et al. 2000).

One aspect of self is the consumer's ideal self and its relationship to the interdependent self and the environment. Kim et al. (2012) demonstrated that people pay more attention when a public outcry against a manufacturer is in the media spotlight for

their influence on global warming or when there is another issue of neglected corporate social responsibility that gets consumer attention. When this happens, consumer responsiveness to ads that highlight a socially responsible company will translate to greater consumer interest in the use of products made by that company. As Kim et al. (2012) pointed out, this becomes a social influence that high and low self-monitors can respond to differently or even respond to in the same way but for different motivational reasons. The high self-monitor may purchase and publicly use a product because of the impression of supporting corporate responsibility but not use the product privately, whereas the low self-monitor may purchase the same product and use it privately because it represents the consumer's intrinsically held values. Shavitt and Nelson (2002) explained that high self-monitors' general attitudes work to support a public identity that the consumer may want to keep, maintain, or develop. The social role of attitudes is significantly integrated in many aspects of people's lives. Attitude functions are part of public and private identity motives. The social role of attitudes is referred to as the social identity function (Shavitt, 1989) and has been mentioned previously. Products convey various images that can meet this function. Some are utilitarian in nature. Others are image oriented, and other products are combinations of these two primary product attributes.

Self-monitoring identifies paths consumers use to ascribe product value. The path is a function of their self-monitoring style. High self-monitoring consumers have multiple paths to ascribe value, while low self-monitoring consumers choose products consistently that reinforce their intrinsic views of self. In some cases, the value path will be the same

for high and low-self monitoring consumers alike (particularly for utility products). Otherwise, high self-monitoring consumers are motivated to choose products and services based on the external perceptions others have of them. These are situational perceptions based on culture and other factors. This personality difference between high and low self-monitors makes self-monitoring useful for developing and marketing products. It makes sense, therefore, to consider what is known from the literature about self-monitoring and civilian consumers.

Since the ultimate purpose of the study was to consider self-monitoring theory's applicability to the military consumer, it was important to understand why culture (military or any significant cultural or group effect) matters. The simple answer is that culture directly influences the notions of self that one possesses and the norms and expectations of the society at large. Two primary cultures (Western and Eastern) illustrate the fundamental differences in their notions of 'self.' Western cultures are more self-centric and individualistic. They focus more on individual progress and accomplishment. Eastern cultures are more collectivistic and view the self as part of a group and in relation to others and choices that impact others are weighed more heavily.

Choi et al. (2003) demonstrated that those from an integrated self (collectivistic) culture were typified and shown to have a much more holistic and complex way of judging and making decisions. In Choi et al.'s (2003) study of Americans and Koreans, a method of inclusion and exclusion practices helped determine how much information from a list was important in judging/making decisions. Koreans consistently had larger lists of both inclusionary and exclusionary types of information, with the exclusionary

lists consistently longer. Markus and Kitayama (1991) provided illustrative anecdotes of social norm differences in American and Asian cultures. For example, in America “the squeaky wheel gets the grease.” In Japan, “the nail that stands out gets pounded down.” Another example is what parents say to induce their children to eat their dinners. In America it is: “think of the starving kids in Ethiopia and appreciate how lucky you are to be different from them.” In Japan it is: “think about the farmer who worked so hard to produce this rice for you; if you do not eat it, he will feel bad, for his efforts will have been in vain.” These types of influences on consumer value perceptions affect the social identity and judgments of consumers in different cultural or group settings where group dynamics can exert a strong influence. Such influences were expected to exist for reasons unique to the military.

Consumer Research With Self-Monitoring

Consumer behavior is related to self-monitoring styles (Snyder & DeBono, 1985) and these styles are related to maintenance of self-esteem associated with image congruence hypothesis (Grubb & Grathwohl, 1967; Hogg et al. 2000). The hypothesis model essentially says that a consumer’s evaluation of a product is influenced by what the item will do for them in reinforcing their self-concept through internal messages to self and external messages to important reference groups (parents, peers, teachers, or significant others). The model shows that high self-monitoring consumers have a more complex evaluation system that includes a value-expressive attitude for the private self-concept separated from a social adjustment attitude for both a public and a collective self. On the other hand, low self-monitoring consumers make all decisions from a single

value-expressive attitude where the point of views for both private and public self are part of an integrated self-concept.

Self-defined concepts seem to have a contextual element for both types of self-monitoring consumers. Hogg et al.'s (2000) self-esteem maintenance model of congruency (developed by both qualitative and quantitative methods) and Aaker (1999) explained that self-monitoring consumers have multiple views of self that differ in their meanings as well as their intensities. These types of variances were triggered differently by situational cues. Aaker's malleable self-research confirmed not only cue difference effects between low and high self-monitors but also how consumer valuations can vary due to different cues in time and place for the individual consumer.

Hogg et al. (2000) used alcohol (names, images, flavor, packaging, alcohol content, etc.) to demonstrate distinct differences between self-monitoring groups. For example, low self-monitors were shown to avoid drinking situations which required them to project a self-image different from their own. Similarly, consumers considered the audience and whether the situation was "public" or "private" in making an appraisal as to which alcohol they would use. The "audience" could be peers or even the consumers themselves. Social cues, such as work associates or a boss, prompted high self-monitoring consumers to act differently from how they acted with family members. Products that conveyed an image were evaluated differently by low and high self-monitoring consumers. Variances in value occurred based on the consumer's perceived image conveyed by the product and the context of how the product was anticipated to be used.

DeBono (2006) discussed how qualitative consumer research showed low self-monitoring consumers to be perceptive of favor-enhancing social image cues with alcohol packaging but less inclined to use the cues to impress others like they observed in high self-monitoring consumers. Instead, low self-monitoring consumers looked for products that matched internally held values such as flavor quality and alcohol content. Low self-monitoring consumers acknowledged that high self-monitoring consumers chose to have ornately packaged beverages in one's possession to impress others. In the case of alcohol, it appeared that high self-monitoring consumers sought to raise their status by serving ornately packaged alcohol they thought would impress esteemed guests. Low self-monitoring consumers judged quality and value by internal views and standards such as how they perceived beverage flavor and alcohol content. This was irrespective of a costly package appearance.

Becherer and Richard (1978) conducted consumer research to evaluate the influence of disposition (internal personality) versus situation (external context) variables as moderated by self-monitoring. They found that dispositional factors (personality) were more influential with low self-monitors and situational factors (group situations) were more influential with high self-monitors in regulating consumer behavior. Differences were seen in consumer affinities towards product brands. Using regression analyses, they found that low self-monitoring consumer behavior was driven more by personality for both socially and nonsocially prominent products than it was for high self-monitoring consumers. Personality dispositions were significantly different in degrees of proneness towards socially prominent and nonprominent products. Becherer and Richard (1978)

hypothesized that students' proneness to private brands (affinity to brand names associated with the retailer) as opposed to proneness for national brands (affinity to brand names branded by the manufacturer) would be influenced by how socially visible the product was. Products used were cologne, mouthwash, complexion aides, and alcohol (all of which were considered social products) and vitamins, pocket calculators, coffee, and candy bars (all of which were considered nonsocial products). Private brand proneness (preference for a private brand versus a national brand) was the dependent variable. Participants were asked to rate private and national brands to create private brand proneness indices. Eighteen personality variables were measured with the California Psychological Inventory. The results from this evaluation showed private brand proneness differed between the low and high self-monitoring groups. A significant difference was found between low and high self-monitoring groups such that appealing product bands were preferred by high self-monitoring consumers. Overall, results suggested that personality variables had a moderating effect on consumer behavior for both low and high self-monitoring consumers. For high self-monitoring consumers, situational factors were more likely to be related to consumption whereas for low self-monitoring consumers, personality factors were related to private brand proneness for products that were both nonsocial and social.

Related to Becherer and Richard's (1978) work that characterized self-monitoring style's relationship to product brands, Hogg et al. (2000) indicated that low self-monitoring consumers' value-expressive attitude caused consumers to integrate consumer decisions with self-concept in similar ways for both public self and private self without a

need for a social adjustment attitude. They claimed a low self-monitoring consumer's motivation for self-worth fell under a single value expressive attitude that could accommodate both private and public forms of self-concept. Both forms derived self-worth solely from internalized standards. Low self-monitoring style was deemed compatible with the idea that internal standards were achieved through product and brand choices congruent with internalized standards used to maintain self-worth.

A high self-monitoring consumer style needed a social adjustment attitude to maintain self-worth. Maintenance in the high self-monitoring style was a more complex path wherein product/brand choices were made based upon both internal and external standards. Like low self-monitoring style, internal standards pertained to a private self-concept. But additional external standards were derived from the evaluations and expectations of others used in a public and/or collective self-concept. Achievement of those standards relied on consumer behavior congruent with those standards. High self-monitoring style allowed consumers to see if their consumer behavior was congruent with those standards. Congruency with either internal or external standards reinforced self-worth for the high self-monitoring consumer. High self-monitoring consumers need to be adept at securing positive evaluations from others as well as adept at meeting goals of important reference groups in order to have their self-worth reinforced. Hence the motivation to be as some have termed, a "social chameleon." In short, self-monitoring styles were seen to govern a consumers' use of situational and dispositional factors.

Consumer complaint behavior of low and high self-monitoring consumers illustrate differences between low and high self-monitoring consumers. Bearden and

Crocket (1981) examined consumers of automobile services. They demonstrated that the intentions formed to complain about service failures differed significantly between low and high self-monitoring consumers. High self-monitoring consumers had a greater tendency to consider variations in social standards than did low self-monitoring consumers. Low self-monitoring consumers differed significantly from high self-monitors in their greater tendency to consider internal moral standards.

Liu and McClure (2001) discussed differences in the U.S. (individualist) and South Korean (collectivist) cultures. They pointed out that South Koreans are more likely to engage in private complaint behavior responses with those of their 'in-groups' (close-knit circles of families, friends, and others they thought had an interest in their welfare). United States consumer in-groups were composed of those similar in social class, race, values, and attitudes (Triandis, 1972). Wan (2013) argued that Asian consumers were not necessarily less likely to complain about service failures than Western consumers. Degree of embarrassment involved in a failure was integral to collectivist social standards and drove the type and degree of complaining. Chinese consumers were significantly less likely than American consumers to complain in nonembarrassing failures (i.e., when a product or service is not witnessed by others such in a private moment alone with a salesman). But the pattern reversed when the service failure was embarrassing (i.e., when the product or service is witnessed in a group such as a disrespectful waiter treating the host with contempt in front of all the host's guests). Chinese consumers in that instance were significantly more likely to complain than American consumers.

Sharma et al. (2010) conducted survey studies on consumer complaint behavior in Singapore, South Korea, and the United States. Study results suggested cultural standards and personality differences helped explain the different consumer complaint behaviors. Sharma et al. (2010) showed that high self-monitoring U.S. consumers were significantly more likely to complain about a computer product and mobile phone service failures than high self-monitoring South Korean consumers who were significantly less likely to complain about the same computer product and mobile phone service failures.

Sharma et al. (2010) suggested that a company's practice of consumer complaint behavior typing (placing behaviors into categories) did not get at the root cause nor help companies understand and effectively resolve complex and variable consumer complaint behaviors. Relative to the example mentioned in the preceding paragraph, Sharma et al. examined situational variables (customer dissatisfaction and involvement) along with two consumer traits (impulsivity and self-monitoring). Students participated from three countries (Singapore, South Korea, and the United States). Two consumer complaint situations were presented: (a) a product failure (a recently purchased laptop computer with a screen that went blank) and (b) a service failure (a new mobile phone plan with a recent bill where the rate had doubled). The purpose of the study was to explore individual differences in complaint behavior. Involvement, impulsivity, and self-monitoring were considered factors of influence. Consumer complaint behavior was significantly and positively associated with impulsivity (i.e., the tendency to act spontaneously without reflection or deliberation) and involvement (i.e., effort and time involved personally with a product). The more impulsive a person was, the more they

tended to complain and the more involved they were with the product or service, the more likely they were to complain when there was a failure. Self-monitoring had mixed results across cultures. This was true of complaint behavior for both service and product failures. High self-monitoring consumers in collective cultures were less likely to complain compared to high self-monitoring U.S. consumers. In an individualistic culture, a standard of one's strength of character was to voice dissatisfaction and expect resolution to service and product failures. The collectivist cultural standard, on the other hand, recognized that a person's strength of character was manifested in self-restraint such that complaints about service or product failures would be withheld. Collectivist cultures view individual behavior such as consumer complaint behavior as a reflection on the collective self and therefore avoid it as a negative societal behavior. In these cases, consumer complaint behavior was expressed differently for high self-monitoring consumers and could be a status enhancing or diminishing behavior for high self-monitors, depending on the cultural context.

The ability to predict consumer responses to advertising and marketing efforts is a desirable skill that requires an understanding of consumer behavior as it relates to self-monitoring styles. In terms of self-monitoring theory, understanding how a consumer perceives social benefit is critical. For example, alignment of an advertiser's appeal to be salient and congruent with consumers' value perceptions would be a useful marketing strategy. Low self-monitoring consumer appeal might be directed at utility in vision acuity and protection for sunglasses. For high self-monitoring consumers, social identity status conveyed by the sunglasses could be emphasized. Aaker's (1999) ideas discussed

previously support the concept that salient messages about products need to be in alignment with low or high self-monitoring consumer goals in order to be effective.

DeBono (2006) discussed how some products can appeal well to both low and high self-monitoring types of consumers. A multiple-function product such as sunglasses can present both quality and image enhancing aspects that appeal to the value-constructed thought processes of both low and high self-monitors. With sunglasses, for example, a high self-monitor's reasons could be linked to social influence such as branding and style. Whereas the low-self monitor's reasons could be linked to functional utility such as durability, lens hardness, light polarization, and UV protective qualities. Aaker (1999) noted that successful consumer advertising of dual-purpose products (those that can serve both value expressive and social adjustment attitudes) would need to emphasize mixed information that appealed to factors important to the different self-monitoring consumer types. In other cases, the functional cooling quality of an air conditioner not seen in public, or the functional effect of an aspirin may only require a one dimensional, value-expressive-function advertisement in order to appeal to both low and high self-monitoring consumers. That is why self-monitoring theory has more discrimination power for some product categories than in others. This awareness helps utilize self-monitoring in consumer research.

Self-monitoring theory has been used to guide consumer research in predicting things such as purchase intent, consumer satisfaction, liking, and complaint behavior. Self-monitoring theory provides a framework for researchers to use with other psychological principles in order to consider consumer decision making based on a self-

monitoring style that includes an appraisal process made of a series of back-and-forth reviews that help consumers establish and maintain a self-concept that allows for consumer behavior that supports it. Consumers' mental mediation processes augment social presentation and self-definitions. Laverie et al. (2002) observed that the appraisal process is a proximal cognitive antecedent to emotion and therefore important in predicting the importance of an identity that is, in turn, strongly related to consumer behavior manifestations.

Degree of liking is commonly used to predict success of a product and has been measured in civilian and military consumer products for decades (Meiselman & Schutz, 2003; Peryham et al. 1954; Peryham & Hanes, 1957). Product quality is a dimension used by consumers to determine acceptance and liking of a product. Perceptions of what constitutes quality in a product vary between low and high self-monitoring consumers. Some consumers consider country of origin to be a factor of finer quality foods (DeBono & Rubin, 1995). In a study by DeBono and Rubin (1995), 117 college students were told by a researcher that she was interested in taste preferences. Two cheeses were presented to consumers who were misled to believe the cheeses were from Mulberry, Kansas, USA or from Strasbourg, France. One cheese was a higher quality cheddar cheese, the other a lower quality and less pleasant tasting Edam cheese. With misleading product origin information, students were asked to taste the cheese and rate it for quality and other items related to acceptance such as "would you buy this cheese?" and "would you recommend this cheese to a friend?" Ten items were rated using a 10-point scale. As participants left, they were asked if they would help a fellow researcher who was collecting survey data.

All participants agreed and completed the self-monitoring scale. Results showed that there was a significant main effect for country of origin for high self-monitors such that the cheese was rated significantly higher for quality when they thought it was from France. No significant differences were due to actual cheese quality for high self-monitors. In contrast, there was a significant main effect for cheese quality for low self-monitors; the pleasant-tasting cheese was rated significantly more favorably than the less pleasant-tasting cheese. The results indicated that low self-monitoring consumers relied on objective information for product quality and high self-monitoring consumers relied on what they perceived was more socially valued.

Similar effects were obtained in other studies. DeBono and Snyder (1989) tested consumer acceptance of different types of products with different types of packaging. DeBono et al. (2003) conducted two studies. In the first, results showed that when product quality was held constant, high self-monitors rated products significantly higher in quality when packaged more attractively. In the second study with perfumes of different quality, consumers high in self-monitoring again rated perfumes significantly higher in quality when container and packaging were more attractive. Low-self monitoring consumers used product quality aspects to form their evaluation of the product, focusing on perfume scent quality to rate the perfumes. As in the cheese study, results revealed that low self-monitoring consumers judged products by more objective and stable product quality standards. High self-monitoring consumers judged product quality by more subjective and external social standards relative to the situation.

Quality assessment differences between high and low self-monitoring consumer groups suggest the two groups differ in how they focus their attention and determine product value. In fact, Kjeldal (2003) reviewed consumer research related to self-monitoring and found that theorists were characterizing the focus of low and high self-monitoring consumers along one of two general paths—quality and image. Low self-monitoring consumers were primarily focused on product quality-based characteristics. High self-monitoring consumers were focused mainly on image-related product characteristics. Kjeldal (2003) noticed that researchers used various words besides “quality” and “image” and that these terms appeared to be treated with assumed equivalency to “quality” and “image.” Other words in lieu of “quality” were “utility” and “function.” In lieu of “image,” other terms were “social identity,” “form,” and “value-expressiveness.” Kjeldal (2003) was concerned that treating the terms “quality” and “image” with equivalency to other related words was a definitional problem that could be blamed for sometimes tepid or weak comparisons of self-monitoring styles in consumer research. She could not see where research had been conducted to confirm that the terms were conceptual equivalents that should be used interchangeably. Kjeldal conducted a qualitative-in-nature study in response to that concern. She looked for a conceptual link for low and high self-monitors. The terms and concepts used were in two groups: (1) image/social identity/form/value-expressive and (2) quality/utilitarianism/function.

Kjeldal (2003) used word-association in an unstructured, context-free environment wherein 337 respondents looked at images of 10 fruits and 10 vegetables then provided up to ten associations for each image. Words were coded into major and

minor categories with five primary categories, including sense, function, horticulture, idiosyncratic, and evaluation. Kjeldal found a clear conceptual link between low and high self-monitors and their consumer behavior areas of focus. The link was not to quality and image. Instead, she found that low self-monitors focused on intellectual, nonpersonal, and factual information when describing fruits and vegetable products while high self-monitors focused on experiential and highly individualized ideas. In summary, using the words 'quality' and 'image' to represent low self-monitor and high self-monitor styles, respectively, yields the most definitive consumer behavior research.

Kjeldal suggested refinements are needed to conceptual links for a few areas such as 'sense' (appearance factors) and 'function' (utilitarianism). More word association differences were expected between low and high self-monitoring respondents in some areas, likely due to an overly broad application of these terms (Kjeldal, 2003). Theorists use similar terms too broadly as if they were equivalent in meaning for quality and image-based characteristics of products. This may be weakening the ability of self-monitoring to discriminate to compare research findings. More consistent and universally understood terms by researchers could help. Yet, if self-monitoring has a moderate effect on consumer behavior, as suggested by several researchers (Kjeldal, 2003), then insightful diligence will be required to identify and use subtle influences.

Kauppenen-Räisänen et al. (2018) discovered the complexity of identifying subtle influences when they sought to understand how social and personality traits impact luxury brand prominence. The authors conducted a study using a convenience sample of students from three European universities (Hanken School of Economics in Finland,

University of Milan in Italy, and Bordeaux École de Management in France). The average age was 22.6 years old with 139 females and 76 males. The students were presented with paired images of the same brand luxury item (e.g., Prada, Gucci, Louis Vuitton, Mulberry and Burberry). Each pair included a prominent logo on one image of the item and on the other image of the same item the branding was hidden. The researchers hypothesized that high self-monitoring consumers would select the prominent brand. Contrary to expectations, the majority of both female and male high self-monitoring consumers selected the less prominent brand. Kauppenen-Räisänen et al. (2018) found significant relationships between self-expression and self-monitoring as well as between brand prominence and self-monitoring (but in the reverse direction of their hypotheses). Nine of their fourteen hypotheses were rejected, acknowledged as evidence of the complex structure existing between brand, personality, and social, traits.

Kauppenen-Räisänen et al. (2018) reasoned that some high self-monitors preferred low prominent branded luxury items because they were content to have a smaller and closer circle of social recognition from significant people who were more brand savvy. Their findings did not allow them to construct a theoretical framework that explained how the degree of brand prominence related to the function of social identity and social needs. Some of the limitations of the study included a disproportionate number of females and the fact that the participants (students) were aspiring owners of luxury items and not actual owners. Also, the self-monitoring measure was based on a poorly defined and limited sub-dimension of self-monitoring (Lennox & Wolfe, 1984)—a poorly defined dimension by Lennox and Wolfe's own admission. Nevertheless,

Kauppenen-Räsänen et al.'s (2018) reasoning is in line with other theories related to needs for uniqueness.

Abosag et al. (2020) discussed the tension between two theories whereby consumers are pulled in two directions: brand congruence theory and need for uniqueness theory. Theory of brand congruence emphasizes brand images that are congruent with self-concepts will be more favorable to consumers. However, need for uniqueness theory states consumers have a need for uniqueness. As brands become more common, consumers look for ways to distinguish themselves through more unique aspects of consumerism. This is supported by Vainikka (2015) who discussed the foundations of consumer behavior and consumer decision-making processes, explaining that the basis of this tension is rooted in the consumer's need to validate their self-concepts. Less prominent branding fulfills self-worth notions because blending into excessively large groups is perceived to diminish self-identity, whereas belonging to a smaller, more distinctive group is perceived to add value to the self-concept.

Harnish and Bridges (2016) believed that some forms of advertising were motivated by and could be distinguished by self-monitoring propensities. They believed that low self-monitors were motivated by a value-expressive function and high self-monitors by a social adjustive function. They looked at consumers and video bloggers of young women with "Mall Haul Videos" or vlogs, which are short videos where young women present beauty and fashion purchases along with evaluations and opinions about the deals to other potential buyers. This form of advertising was akin to word-of-mouth feedback and deemed valuable to consumers who trust 92% of that form of consumer

information. This was comparatively higher than trust in consumer opinions posted online (70%) and ads on TV (47%). Vlogs, therefore, were seen as an important marketing medium. To see if the motivation existed, three vlogs were created to represent retailers who were high status (Nordstrom), medium status (JC Penny), and low status (Walmart). The videos were pretested to insure they were perceived with those brand equity status differences. Participants viewed the videos after which they were asked to rate how much they would like to view another mall hall video using a 7-point Likert-type scale (1 = *not at all* to 7 = *very much*). After that, participants completed the SMS-R 18-item Self-Monitoring Scale (Snyder, 1986; Snyder & Gangestad, 1986). The results showed that high self-monitoring consumers were significantly more likely to watch another vlog when the retailer portrayed in the first video was a higher status retailer and, predictably, low self-monitoring consumers were more likely to watch another vlog when the retailer portrayed in the first video was a lower status retailer. Harnish and Bridges (2016) concluded that high self-monitors were fulfilling a social-adjustive function (i.e., gaining status) and that low self-monitors were fulfilling a value-expressive function (i.e., finding functional value such as variety, pricing, and convenience).

Past mixed results for self-monitoring appear largely avoidable if self-monitoring's dimensionality and the complexities of consumer motivations are considered. Other researchers have given cause to consider other dimensions of self-monitoring that may matter. Fuglestad et al. (2019) argued that broader personality traits should be considered to frame self-monitoring theory. They discussed for example, acquisitive and protective self-monitoring (subsets of the general self-monitoring

personality trait) how they were differentially related to facets of neuroticism. For the acquisitive self-monitor, there was a negative relationship and for the protective self-monitor, there was a positive relationship to neuroticism (facets such as depression, anxiety, impulsivity, vulnerability, and self-consciousness). Wilmot et al. (2016) found that acquisitive self-monitoring had a strong, positive relationship to the plasticity meta trait.

Snyder and DeBono (1985) looked at the impact of quality-based and image-based advertisements for Canadian Club whiskey, Barclay cigarettes, and Irish Mocha Mint flavored instant coffee among low and high self-monitors, measuring their evaluative and behavioral reactions. Two advertising strategies were used, one to appeal to product image and the other to appeal to product quality. Participants were presented with three experiences: (a) questionnaires comparing advertisements and their evaluative responses, (b) image-oriented or quality-oriented words in picture ads presented and then surveyed to see what they would pay for the products, and (c) participants contacted in phone survey and presented with either an image-based or quality-based description about a shampoo and then asked to rate their degree of willingness to try the product. In each situation where products were presented to low and high self-monitors, the graphics were the same, but the print was different to represent the two general situations. One focused on the product with the print highlighting the product's quality and content while the other print focused on social benefits by explaining how owning or using the product defined the kind of person one could be. Snyder and DeBono (1985) demonstrated that high self-monitors were significantly more responsive to image-enhancing appeal

advertising and willing to pay more for the product. Also, the quality-based advertising appeals were significantly more influential with low self-monitors who would pay more for quality-promoted products.

DeBono et al. (2003) used perfumes and colognes to assess how low and high self-monitors characterized consumer choices and perceptions. Two variables were manipulated: (a) the packaging (different levels of attractiveness and image association) and (b) the aroma (scents with more or less degree of pleasantness). The participants assessed the perfume/cologne's quality. The low self-monitors utilized functional properties of the perfume and cologne products to determine their quality. Regardless of the bottle's attractiveness, low self-monitors used the pleasantness of aroma to determine the quality. As expected, high self-monitoring consumer ratings were driven by image enhancing attributes such as the packaging. High self-monitors found the attractiveness of the packaging more influential to determining product quality than the pleasantness of perfume or cologne scent.

DeBono (2006) pointed out that decades of research have established dispositional differences shown as important factors in attempting to influence consumer behavior. Normally, the objective is to increase the likelihood that the target consumer will be influenced to act more favorably towards the product(s) being represented. The dispositional traits within self-monitoring theory have been used to tailor ad campaigns. The campaigns varied according to the appeal sought for, the context of use of the product, and whether the product was used for private or public consumption. In some cases, appeal was generated by the type of spokesperson being used. For example, a

physically attractive or famous spokesperson used to achieve social influence appeal. In other cases, an expert spokesperson was used to establish a quality, utilitarian appeal. For example, low self-monitors were responsive to quality-based versions of the advertisement that explained in detail the quality of the coffee; for example, Irish Mocha Mint was described as “a delicious blend of three great flavors—coffee, chocolate, and mint.” Though there were exceptions, DeBono (2006) indicated that low self-monitors were not always responsive to quality-based ads, particularly when the quality arguments were weak. The reasons appeared due to construct generalizations and lack of congruency between the advertisement’s quality appeal and the consumer’s quality objectives.

Hu and Parsa (2011) examined the effects of self-monitoring, dining companions, and segments of industry with respect to using alternative currencies in dining out situations. They observed that low and high self-monitoring consumers differed in spending practices when dining. High self-monitors were more inclined to pay with cash than with other more economical means. They avoided appearing “cheap” with high-status dining companions such as a boss who they wanted to impress, whereas with friends or alone, the high self-monitoring consumer was more inclined to utilize discount meal purchase mechanisms. The changes in their behavior were based on dining companions and other social influence factors such as the amount of the purchase, vendor-listed currency types, demographic factors, and the type of purchase unit (i.e., single restaurant or restaurant chain). While high self-monitors were significantly more likely to make spending choices to impress, low self-monitors were significantly more

likely to purchase in ways that were more economical and pragmatic, such as getting a discount by using frequent user points. At other times, high self-monitoring consumers sought to impress associates by conveying other attributes such as frugality and resource efficiency, being interesting, being grateful, being prestigious, or being vested in the eating companion(s). In general, the motivation for high self-monitoring consumers appeared driven by impression management. Whereas low self-monitoring consumers were more consistent and congruent with a fixed, internal self-definition.

According to DeBono (2006), self-monitoring theory demonstrated a degree of utility for consumer research relative to product evaluations and advertising. His research and writings demonstrated the existence of moderating effects in predictive power of self-monitoring theory due to multiple factors, including value differences in the consumers, cultural influences, the context wherein the product was to be used, the product type, the audience who would see the product, and whether the use was public or private. The study provides important information regarding military consumers and the potential for self-monitoring theory to explain/predict consumer attitudes and behavior. Using an important consumer variable of product liking to assess military consumer behavior, this study offers a first application of self-monitoring theory to military consumers.

In sum, differences between low and high self-monitors can reliably predict consumer behavior when there is congruency between what the product is perceived to stand for and the internalized standards (goals) important to the consumer. High self-monitoring consumers have more complexity with both internal and external standards; internal standards are based on whatever is important to the individual consumer and

external standards are based on what the consumer perceives to be valued by others who are deemed important. High self-monitors adjust their behavior to appeal to external standards to secure positive evaluations from significant others or to meet goals of important reference groups. High self-monitoring consumers tend to be adept at adapting their behavior. Low self-monitoring consumers tend to be consistent in their allegiance to their internal standards. Mixed results tend to come from marginal or poor congruence between internal or external consumer standards and product-image conveyances. Saliency of product-image conveyances and saliency of the consumer's valued standards are essential to efficient use of self-monitoring. Over-generalized product-image conveyances and vague consumer-valued standards produce less clear and less consistent results.

Consumer Research in the Military

Military culture is unique, complex, and not fully understood (Dunivin, 1994; Hajjar, 2014; Scales, 2018). The complex (Hajjar, 2014) and changing nature of military culture (Dunivin, 1994; Rueb et al., 2008) can put the soldier in a position where self-identity is challenged, and an appraisal process can lead to changes that influence what kind of military consumer products will validate the self-worth of both low and high self-monitoring military consumers. Soldiers are trained to work in teams and rely on individual and group strengths, roles, and identities. Soldiers are taught to exercise selflessness and courage in the face of danger (TRADOC, 2019). These factors likely influence self-identities and social expectations and, therefore, how self-monitoring is expressed in consumer behavior. Studying these influences should provide information

useful in marketing products that are more appealing and better utilized by military consumers. Self-monitoring has the potential to predict military consumer behavior if the notions of self, group expectations, and product image are salient and congruent with salient consumer values.

Within the military there are unique social conditions such as being deployed, reduced contact with family, strenuous team expectations and drills, austere environments, loss of personal freedom, violence, and death. The environmental conditions naturally raise and lower the importance of some consumer decisions. For example, a meal changes from a relaxed social event to a rushed event focused on refueling the body's energy stores. Situational cues may become vague or become more salient and as Aaker (1999) points out, the malleable self-concept associated with those changes will result in changes to how brands and products are used. Disruptions and dynamics of military culture leave military consumers in a position where influences on consumer behavior and the interrelated notions of self, self-esteem, self-worth, and self-monitoring are worth studying. Especially since some of these disruptions are complex and commonplace in the military.

Things can be learned from self-monitoring even if cultural influences are not understood. For example, using self-monitoring theory, Sharma et al. (2010) discovered a difference between collectivist and individualist cultures on civilian consumer complaint behavior. They assumed that civilian consumers who were high self-monitors would avoid consumer complaints because they believed all cultures viewed consumer complaint behavior as something socially undesirable. However, the results showed that

high self-monitoring consumers from the United States (predominantly an individualistic culture) regarded speaking up as a positive individual trait that garnered social enhancement. High self-monitors from Asian societies (predominantly interdependent/collectivistic cultures), avoided consumer complaints as socially undesirable behavior. Researchers were not expecting this. They assumed the behavior and values would be the same across cultures. Generally, cultural impact is understood as a mediating variable to be reconciled (Arnould & Thompson, 2005), but it sometimes is neglected. Just as differences in collectivist and individualist cultures impacted consumer behavior in Sharma et al.'s (2010) study, military culture can impact consumer behavior making consumer identities and values different between military and civilian cultures. That is why self-monitoring theory was applied to understand military consumers and how they may differ from civilian consumers. This study allowed self-monitoring to be evaluated in the context of military consumers relative to characteristics of military consumers (e.g., gender, rank, years of service, deployment experience, and combat experience).

Military consumer researchers in the past used *liking* ratings of products to determine if the products would be accepted and used by military consumers. For example, Graaf et al. (2005) wanted to see if differences existed between field and lab evaluation methods. Liking ratings were used. Food products were rated by soldiers in the field, and the same food products were rated by civilians in the lab. For snack food ratings, there was no significant difference between the liking ratings of the two groups. However, significant differences did exist between groups for liking ratings of main

dishes and other meal components. The soldiers in the field rated the main dishes and components higher in liking than did the civilians in the lab. The authors gave possible explanations for these differences. One explanation was that snack foods were more consistently made products with consistent sensory qualities. Also, snack products didn't require preparations such as warming and were often eaten standalone in smaller portions without much preparation and in a variety of conditions and quantities. This made the product consumption conditions more similar between the two groups. Explanations for meal differences included: meals eaten with different preparations (heated versus cold) in conjunction with other items; sample portion sizes eaten (in the field soldiers normally ate the entire meal portion where a main entrée was 150 grams and civilians typically only sample about 15 grams of the entrée); time and location of sampling (soldiers rated the meals at unstructured times and places as circumstances afforded them, whereas civilians were in a more controlled condition where they sampled and rated food at the same time and one item at a time). Other explanations offered by the researchers for the differences included the fact that soldiers in the field were free to choose the order and which foods they liked the best. In the lab, the subjects had no choice and tasted foods they might not have liked in the order as directed. When given a choice in a follow-up choice simulation lab study (Graaf et al., 2005), the average civilian responses were higher than in the nonchoice study implying that as civilian evaluation conditions neared that of the soldier, the results of the evaluations became more similar. The studies confirmed earlier research (Cardello et al., 1996) that civilian and military liking ratings of food eaten by soldiers could be similar or dissimilar to civilians due to food types and

other contextual factor differences between civilians and military consumers consuming the same foods.

Various survey instruments have been used; however, Cardello et al. (2010) pointed out the prevalent usage of the 9-point hedonic scales with military consumers. Scientific methods such as standardized sensory practices and consumer feedback questions have been used and acknowledged as standard practices for consumer and military rations for many years by many researchers (Cardello et al., 2012; Meilgaard et al., 2016; Yantis, 1992). Periodically, the measures may include conditions familiar to the warfighter. For example, Wansink et al. (2012) conducted research to assess liking of rations that were being eaten in the dark. Focus groups and other survey work have also helped identify military consumer issues both in the lab and in the field. Meiselman and Schutz (2003) highlighted the historical perspective of sensory analysis and consumer research with military rations over the last several decades. The military has historically and necessarily pushed for many improvements with food products. Military consumer satisfaction standards have existed and been researched for decades. Requirements for Napoleon's army established standards for shelf-stable, palatable foods for military consumers (Appert, 1812; Mrak, 1970).

Meiselman and Schutz (2003) described the military consumer research path as a long course of historical influences related to food acceptance in the United States Army with most emphasis from the 1940s onward. Consumer research work in the military has evolved from a focus on food stability and liking (Appert, 1812; Meiselman & Schutz, 2003) to include other consumer research programs such as clothing comfort (Cardello et

al., 2003). Scales (2018) emphasized the urgent need to better understand the factors motivating military consumers' liking of personal items such as food, clothing, and equipment because if soldiers did not like those items, they simply were not going to use them. That kind of resource underutilization would be a failure related to unrefined knowledge of what soldiers disliked or liked and would translate into a compromise of their ability to perform their difficult and essential duties. Scales (2016) also described the need for military planners to more aggressively explore the warfighter in terms of the human elements of behavior, cultural influences, and social context. He emphasized the need for military researchers to increase their understanding of what drives warfighter performance and behavior in order to keep the warfighter integral to maintaining the nation's future peace and safety in the face of emerging threats in today's complex world.

Recent changes in the military are impacting social values of warfighters and therefore likely to impact high self-monitoring consumers' behavior. Dunivin (1994) discussed the ongoing and evolving nature of social conflicts within the military that impact social norms. One example was the traditional model of a married man and woman versus the new model of a same-sex couple. As Dunivin (1994) expressed it, the "cult of masculinity" was challenged by a world of outsiders who were considered deviants in a man's world. The family model within the military went through extensive restructuring against a tide of tradition as well as self-concepts. Changed cultural influences have impacted perceptions of military consumer products such as clothing styles (e.g., dress slacks versus skirts and related body image conveyances). Cultural

sensitivity and awareness of changes within the culture allow clothing designers a broader range of acceptable clothing options that will be used by military consumers.

Other changes in the military culture are also noteworthy. The nature of warfare has undergone change that impacts the duration, frequency, and nature of deployments (Hajjar, 2014; Scales, 2018). Warfare has changed in the nature of the size, lethality, and speed of force-on-force combat. Powerful and significant physical changes have occurred in planned, symmetrical large-scale military operations to unplannable, small-scale, asymmetrical warfare that rely on different, complex, and unpredictable fighting environments with dynamic and small-scale resources needed to fight in complex and unknowable situations (Hajjar, 2014; Scales, 2018). These changes impact soldiers' sense of threat management and what is socially appropriate among their peers.

Military consumer researchers have underscored the need to facilitate warfighter performance by presenting products in ways that increase product acceptability. Cardello et al. (1996) conducted research to validate previous consumption-attitude related studies (Cardello, 1994; Cardello et al., 1985; Cardello & Sawyer, 1992; Tuorila et al., 1994). This included an effort to confirm the notion that negative stereotypes of institutionalized foods biased perceptions of products. In a series of studies, Cardello et al. (1996) examined the impact of civilian and military consumer perceptions on rating products from various sources. Using a 9-point hedonic scale, soldiers and civilians rated how much they thought they would like the items before eating them. Consideration was based on foods imagined to be from different sources. For example, the consumers were asked to rate how much they thought they would like the food items when the source was

home, a military dining hall, or a restaurant. The researchers assessed levels of dislike/like for common food items soldiers ate (i.e., scrambled eggs, toast, steak, hamburger, spaghetti and meatballs, French fries, baked beans, dinner rolls, apple pie, gelatin, coffee, and soft drinks). Cardello et al. (1996) found military food acceptability ratings were significantly lower because of a bias against institutionalized military food. They found that soldiers had significantly more negative attitudes about food items (excluding gelatin, coffee, and soda) when the soldiers thought the items would be served in a military setting as opposed to a noninstitutionalized setting such as at home or a restaurant. Nonmilitary personnel had similar responses to the soldiers. Civilians gave significantly poorer ratings of their expectations for food items served in military dining halls. This indicated a common negative bias existed toward items served in military dining facilities compared to home and restaurants. The expectation differences in both military and civilian consumer groups caused them to rate military foods lower than name-brand foods even when the foods were essentially the same. Cardello et al. (1996) also found that this food-source bias continued to influence ratings of the food products after eating.

To compare after eating results, Cardello et al. (1996) conducted another test whereby military and civilian consumer groups were each provided two lists of 30 different yet common foods. The foods on the lists were the same for each group. Consumers were asked to rate the food items on the lists by how much they thought they would like the foods if they were to eat them. For one list, the consumer groups were to assume the items were from home, a restaurant, or purchased at a supermarket. For the

other list, the consumer groups were to assume the food items were in standard meal-ready-to-eat (MRE) field rations. The consumers were instructed to rate what they expected the foods to be like if served under normal conditions (i.e., at home/restaurant or in the field). The ratings for military foods were significantly lower than the home/restaurant/supermarket foods for both civilian and military consumer groups. Then Cardello et al. (1996) provided soldiers a list of foods to rate how much they would normally like/dislike those foods when served at home, a restaurant, or when they were from a supermarket. Those ratings acted as a baseline for a second part of the study. The 30 foods were served to them later in the week to be eaten in the field as a part of their MREs. After receiving and eating the foods, the soldiers rated the foods. The researchers compared the two different sets of ratings and found the ratings for the foods actually eaten were significantly higher than the baseline ratings soldiers gave earlier. They determined that this confirmed the negative bias against military foods.

Cardello et al. (1996) also sought to manipulate expectations for food (by labeling it as commercial or MRE) and compared those results against a baseline measure of the same food to look for a label effect. The consumers tasted the leading commercial brand of corn. The corn was not labeled nor was there any other identifying information provided to consumers as to its source. After tasting, consumers rated the corn on a 9-point hedonic liking/disliking scale. This established a baseline score for the corn independent of labeling. Days later in two separate tests, the same corn was presented to civilian consumers to evaluate under two different contexts. In context one, the corn was labeled and identified as if it were the leading commercial brand of corn. In context two,

the corn was labeled and identified as if it were MRE corn. In each context, before tasting, the consumers were asked to rate how much they thought they would dislike/like the labeled corn. Then the consumers tasted the corn and rated again how much they disliked/liked the corn after tasting. Results showed corn labeled as the leading commercial brand (context one) was rated significantly higher than MRE labeled corn (context two) in both conditions (i.e., before and after tasting). This study demonstrated a pre-existing bias against military labeled/packaged food that influenced the liking of the food. Consumers consistently rated the MRE labeled corn significantly lower than the leading commercial brand. The study also showed a positive bias for other label expectations. When the leading commercial label was used, there was an unjustified boost pushing the score above the baseline rating. The results showed that the two identical corn products were rated significantly differently from each other based solely on the commercial label and MRE label used to identify them. These results demonstrated an anticipation or expectation bias associated with labeling.

MRE and commercial label brands biased the ratings in the two evaluations to reflect significant differences between the two. The branding effect was positive for the commercial label and negative for the MRE label. The authors (Cardello et al. 1996) indicated that these series of studies demonstrated a negative bias conveyed from institutional foods like the military's MRE. They further concluded that even if actual improvements were made to the ration's quality, this would be a slower and less desirable approach of improving acceptability of military rations because the reason for being unacceptable was due to brand-image-perceptual notions rather than due to actual quality

attributes of the foods. They recommended efforts be focused on developing better consumer marketing strategies based on the origins of the negative biased consumer attitudes and expectations. It was reasoned that addressing the origins would lead to better advertising and labeling approaches that could convey a positive image to reduce negative stereotypes, biases, and misconceptions. Use of self-monitoring constructs may help confirm origins of perceptual notions or create improved perceptual notions. Biasing effects can be seen as a sort of self-fulfilling prophecy whereby a person's thoughts and behavior are biased by the preconceived expectations of others. These expectations are sometimes related to social values or personal identity values.

The existence of bias against military institutionalized food is important to recognize because it impacts military nutritional health programs such as "THOR3" (Tactical Human Optimization, Rapid Rehabilitation and Reconditioning). The THOR3 program uses a holistic approach to improve diet, physical performance, and mental performance under the United States Special Operations Command (Fisch, 2015). Such programs rely on marketing and presenting information about food to break down stereotypes and to provide nutrition training based on science and evidence derived from research that exposes faulty ideas and brings facts to light. Effective marketing translates to improved product utilization and consequently a more effective warfighter.

Kramer (1995) described the overall feeding situation soldiers find themselves in. He emphasized an economic viewpoint of the eating situation. Such a viewpoint, he suggested, is one where soldiers make eating decisions with a view to minimize use of limited resources. These decisions are based on a complex environment where an

acceptable balance must be achieved that considers the soldier's mission, physical and nutritional needs, and desires. Kramer emphasized that the economy of eating in the field often leads to under consumption. Social eating (in the company of other soldiers) generally produced higher consumption rates of food (de Castro, 1995). This is a desirable state because soldiers often lose weight when in the field; soldiers entering a field condition may under consume and lose weight too quickly, leading to a loss of lean muscle mass and diminished performance (Friedl, 1995). Diet is not the only factor associated with reduced performance, yet it was important enough that scientists on the Committee on Military Nutrition Research recommended a general effort to increase eating of foods by soldiers in the field as a hedge to stave off diminished performance (Nesheim et al., 1995). Social considerations should be used to help identify opportunities for increasing consumption in the field (de Castro, 1995; Nesheim et al., 1995; Mays, 1995). Self-monitoring represents a tool to help increase consumption through better understanding of the drivers of liking and consumption among military consumers.

Decision making in complex environments such as those experienced by warfighters, can cause cognitive overload (Chérif et al., 2018). Complexity and cognitive decision constraints are part of the culture and environment military consumers live and work in, especially when on the battlefield. Consequently, environmental variables may cause consumer taste and flavor attributes to influence their acceptability less than basic functional attributes such as bulk and weight. Dewitte et al. (2005) found cognitive loads on consumers to have a significant effect on consumer decision-making abilities with respect to product evaluations, brand choices, and food quantities consumed. Neuro-

physiological constraints also limit human sensory perceptual abilities. As mentioned earlier, the average adult human is only able to perceive about four things in mind at a given time (Buschman et al., 2011, Miller, 2020, Rigotti et al., 2013). Constraints on warfighters such as limited decision-making time, limited experience, limited retention of information, limited ability to perceive situational cues, limited cognitive abilities, physical fatigue, and higher order cognition needs might all be considered to be part of the consumer's economic viewpoint for consumption behavior referred to by Kramer (1995). These constraint factors in the military environment demonstrate conditions that impact cultural norms which may be discovered in the way low and high self-monitoring consumers respond differently to the scenarios analyzed in this study. Consumer cognitive overloads inhibit a contemplative approach to consumer choices and expedite or force choices when the environment is dynamic and complex (Chérif et al. 2018). Constructive decision-making strategies are based on thought patterns, experience, and accessible information within an environment where there has been time to process and formulate product valuations (Bettman et al., 1998).

Another aspect of the warfighter that self-monitoring impacts is the notion of personal property and the attachment a soldier may make with it. Many of the items a soldier possesses or uses are not "personal property." The government issues food, clothing, and equipment to soldiers to use or consume. Therefore, these may not hold the same personal identity relationship to the soldier as they might to civilians who purchased similar items. Identity theory tells us that self-definition emerges from the iterative process of appraisal regarding possessions and performance (Laverie et al.

2002). Thus, a soldier's notions of self or self-identity as they relate to products may be different from civilians. What appeals to a low-self monitoring civilian consumer may not appeal to a low-self monitoring military consumer.

Definitions of self are driving factors of behavior for low self-monitoring consumers. Changes to self-identity impact both low and high self-monitoring military consumers. Some identity influences are imposed upon the soldier by nature of the military culture and are not necessarily of their own choosing. If self-monitoring trends in civilian consumer data are reflected in the military, whatever is salient and meaningful to the soldier may become the decision criteria used to evaluate products. Hence, to increase product liking (and utilization), the military may need to consider notions of self that relate to military consumer decisions and attitudes. That means product branding should be clear and unmistakable. It means the message conveyed in the branding should be very well aligned with the attitudes warfighters have and sensitive to the type of decisions warfighters make and the context in which they are made

Another difference with military consumers has to do with freedom to choose their goals and manage their time. Self-monitoring is influenced by a consumer's goals, roles, time constraints, and motivations (e.g., consider the subtle luxury branding for the wealthy elite and bold luxury branding for those aspiring to wealth) (Kauppinen-Räsänen et al., 2018). The options to exercise these types of freedoms are controlled by military leaders (e.g., leadership roles, mission objectives, commendation practices, etc.) and often imposed on soldiers. Soldiers give up a number of freedoms to commanders and are subject to punishment if not compliant with all lawful orders. This is because the

military culture also includes a different legal system and punishments than the typical civilian judicial system. The military utilizes a legal system called the Uniform Code of Military Justice (UCMJ).

Under the UCMJ, the soldier can be forced to do things (such as wear a particular item of clothing) or be punished for disobeying orders that civilians are not accustomed to (Dunivin, 1994). For example, as “government property” soldiers could be punished for not putting on sunscreen when told to do so if they get a sunburn. There is a clear command hierarchy, persistently reminding a soldier that not all decisions get to be based on what they personally want but are based more on a collective need. Military consumers are taught and compelled to consider the needs of the group and essentially trained in the interdependent self-construal way of thinking. Military society deliberately teaches values such as loyalty, duty, respect, selfless service, honor, integrity, and personal courage. These cultural values may provide enhanced identity for the soldier, and clearer structure for important social appeals in a well-defined command structure. Consequently, these values that may influence social identity and social enhancement can be very different from those in the civilian world. These factors directly impact the value constructs and attention of the high self-monitoring military consumer. They also impact the low self-monitor who seeks congruency between self-identity and products that reinforce that identity.

The military culture may impact social identity and as such may be a source for Pygmalion effects (i.e., when a person’s positive expectations of another target person led to a positive influence on the target). Several meta-analyses suggested differences

between military organizations and civilian organizations, indicating that military groups experienced a stronger Pygmalion effect (Kierein & Gold, 2000). Fleenor et al. (2010) reported Pygmalion effects seem more sizeable in the military than they do in business settings. Business and military personnel seem to share a core element of the Pygmalion effect, both having strong hierarchal relationships between leaders and subordinates. McNatt (2000) predicted that military culture would lend itself to better Pygmalion effects due to the natural setting where soldiers adhere to commands and would, therefore, be more open to sources that were credible. Hence, a stronger Pygmalion effect should be seen in the military as opposed to a civilian setting. However, McNatt's (2000) meta-analysis did not confirm the prediction. McNatt (2000) did note some differences between military and civilian studies that could explain this result. For example, the sample size of civilian comparisons was small (6 studies). In addition, the researchers who conducted military studies used stronger Pygmalion interventions than those conducting the civilian studies.

Kierein and Gold (2000) also conducted a meta-analysis of Pygmalion effects with similar results to McNatt's (2000). They considered the organization as a moderator because the Pygmalion phenomenon in different organizations might operate differently. Pygmalion effects in military settings were significantly stronger than in business settings. Kierein and Gold (2000) suggested five explanations for the result differences: (a) military leaders had more overt control, (b) military personnel were more closely monitored, (c) military personnel were more likely to adopt a leader's perspective because they are not in a position to question leaders who play a more salient role, (d)

subordinates were typically younger in the military than subordinates in business settings, and (e) methodological nuances and differences among researchers. Regardless, if the suppositions are correct, differences between the military and business cultures could be seen; the military was more positively impacted by positive expectations. Whether or not those differences are due to external standards related to culture and social norms within the military, or due to internal personal standards related to individuals in that segment of the military, remains unclear. Self-monitoring can reveal those differences between low and high self-monitoring groups.

According to Hajjar (2014), military consumers have complex and fragmentary elements to deal with such as battlefields, nontraditional missions, emergence of “peace missions” with complexity and the general chaotic nature of warfare. These cultural elements are changing dramatically. The military culture includes harmony, tradition, symbolism, and other multiple-overlapping cultural influences such as leadership, followership, multirole versatility, tools, and orientations. Recently, two influential orientations were identified that currently co-exist within the military culture (Hajjar, 2014). These orientations are oppositional and conflicting. One is the warrior orientation, and the other is the peacekeeper-diplomat orientation. Their presence in the culture likely puts soldiers in a position of reflection regarding their internally held standards and society’s standards. This thought chain appraisal process influences self-monitoring, product valuation, and brand choices (Laverie et al., 2002).

From 1900 to 1990, the military consisted of a dominating orientation. This era included the warrior identity, a command orientation to actively direct, impose, order,

tell, demand, and take charge. It also included a traditional combat orientation to destroy, kill, capture, dominate and dehumanize. Rigid rule enforcement and a United States-centric orientation were hallmarks of this era (Hajjar, 2014). This culture was generally more stable, and the self-identity of the soldier was clearer and more predictable. The more stable self-identity of the soldier could allow for less diverse and more predictable self-monitoring cues to be presented to the soldier to influence their consumer behavior and attitudes.

From 1990 to the present, the soldier's self-identity is influenced by a peacekeeper-diplomat orientation now associated with the warrior identity, multicultural worldview, humanization and sensitivity, and similar leadership efforts to listen and learn from people who are diverse and empower them, engage in unconventional tasks, and stretch rules (Hajjar, 2014). Present challenges in the military include complex views and span a large domain of multidimensional considerations. Though soldiers from both orientations are present in today's military, these significant and impactful orientations are expected to merge, and cultural adaptation will arise to constitute what will be an emergent postmodern United States military culture (Hajjar, 2014). This military cultural turbulence influences military consumerism because they influence notions of self. Changing self-notions can be expected because of the appraisal process and malleable self-concept (Aaker, 1999; Laverie et al., 2002). Saliency of a military consumer's strategies to achieve self-worth through consumer behavior that is congruent to self-concepts can diminish when there are cultural changes and uncertainties that influence self-identity. The result to providers of military consumer goods is reduced certainty in

how to predict and provide products the military consumer will like. However, results from the study may assist military leaders and producers of military consumer goods to develop products that convey salient images that are congruent with healthy self-notions being fostered by military leaders.

Hajjar (2014) discussed other cultural complexities such as the military's handling of social issues related to sexuality. The inception and then abolition of the "don't ask, don't tell" policy (1993 and 2011, respectively) created cultural missteps in different directions that would push soldiers into positions of reflection and the appraisal process wherein questions of their self-identity could emerge with altered strategies to achieve self-worth through consumer behavior. Actual organizational and cultural practices changed in order to accommodate social expectations related to these policy changes. Hajjar (2014) reported complexity in the United States' military strategy in Afghanistan. The complex relations of many coalitions required strong skills within the peacekeeper-diplomat orientation. These issues pertain to the culture of the military consumer's life and help form a warfighter's cultural identity and aspects of self-identity.

Self-Monitoring as it May Relate to Military Consumer Decisions and Behavior

The study used self-monitoring constructs as independent variables with military consumers through analysis of archival data. Self-monitoring and self-monitoring subdomain styles are included in this study. Acquisitive and Protective scales similar to Acting, Extraversion, and Other-Directedness scales were not evaluated (Wilmot, 2015). Military demographics were included as additional independent variables. The relative strength of the independent variables to predict the dependent variable of liking.

Demographic information and liking scores based upon a nine-point hedonic scale have been used in the past to improve military consumer products for decades (Meiselman & Schutz, 2003). The same factors were used in conjunction with self-monitoring constructs for comparison. The results provide direction in future use of self-monitoring constructs to improve military products in the future.

Military cultural values form the basis of military indoctrination and help forge the soldier's value system. Seven values are taught during initial training and emphasized throughout a soldier's military career, including loyalty, duty, respect, selfless-service, honor, integrity, and personal courage (TRADOC, 2019). Clothing, ribbons, ceremonies, and other military traditions impact military consumers' thinking. One would expect motivation, emotions, and cognitive processes to be affected. Consider the soldier's creed taught repeatedly in the U.S. Army and, like the values, the creed is included in the soldier's guide for initial entry training (TRADOC, 2019). The soldier's creed (soldiers are encouraged to memorize and live their lives by the creed), summarizes the American Soldier's role, duties, and attitudes and is meant to inspire and sustain them when in harm's way.

The values and creed are only two of many institutionalized efforts meant to teach and exemplify military culture. They underscore group membership with an interdependent element of self. Loyalty to the group and subjugation of individual self-ambitions are typical of collective cultures that emphasize the impact of an individual's behavior on the group. These factors influence self-definitions and group expectations.

They influence one's social identity. They are integral to self-monitoring theory's usefulness in understanding military consumer behavior.

The military culture has been shown to differ from civilian culture (Dunivin, 1994; Hajjar, 2014). Another obvious difference is the clothing and emblems worn. Tradition and uniformity are important and what one wears is dictated to personnel within the military culture as opposed to civilians who have more freedom to wear clothing of their own choosing. Culture is an influencing factor for military consumers who have their own unique and complex cultural conditions. The military culture includes both collectivist and individualist traits. The United States, Australia, and other Westernized countries such as those in Western Europe exemplify regions where individualistic cultures dominate. These cultures explain social thinking and behavior through individual attributions of self-reliance, independence, and personal uniqueness (Moosavi, 2018). The military culture values other traits such as loyalty, duty, respect, selfless service, honor, integrity, personal courage, and tradition that could impact military consumer behavior as well. One would expect these cultural factors to impact a person's motivation, emotions, cognitive processes and, consequently, self-monitoring theory's usefulness in understanding military consumer behavior (Christopher & Bickhard, 2007; Markus & Kitayama, 1991).

This study was conducted because military consumers should be viewed separately from civilian consumers. Gudykunst et al. (1989) examined five cultures and found weaknesses in how self-monitoring fit cross culturally. Snyder (1979) concluded that high self-monitors would imagine a *prototypic* person's behavior for a given

situation and then seek to emulate that. In contrast, low self-monitors would refer to an enduring self-conception of how they imagined they would act in a given situation.

Gudykunst et al. (1989) argued that Snyder's scale focused on aspects that predominate in individualistic cultures and do not predominate in collectivistic cultures. The military possesses some collectivistic tendencies and should be examined separately.

Gudykunst et al. (1989) argued that collectivist cultures include active self-monitors who are not captured in Snyder's (1974, 1979) conceptualization of self-monitoring. The cultures utilized in-groups where the "we" mattered in maintaining social harmony more than the "I" perceptions central to individualistic cultures (Liu & McClure, 2001). The original self-monitoring framework accounted for aspects of self that dominated individualistic cultures. Aspects of collectivistic cultures included a self-identity that was fundamentally tied to an individual's relatedness to each other.

Americans for instance do not assume nor value an over connectedness but instead seek to attend to their uniqueness. Consequently, self-identity, self-esteem, and self-worth are viewed and pursued differently with respect to high self-monitors (Markus & Kitayama, 1991). Since most researchers in the last four decades were focused on a unidimensional view that used aggregated data; subtle nuances which might otherwise have been revealed using more narrowed and multidimensional framing (i.e., acquisitive vs. protective self-monitoring) were sometimes hidden in the aggregate. A culturally sensitive approach is needed by researchers to ensure self-monitoring-theory-based research considers salient consumer goals and salient, congruent consumer products images.

Blind spots to cultural mediations can come in the form of traditions and expectations that the researcher is unaware of. Take for example the case of public humiliation. In collectivist cultures, the humiliation of one person is a humiliation of the self-identity of others as well because the identities are interrelated. In Spanish cultures there is a term for this called “pena ajena” (the embarrassment felt when watching the humiliation of another person). Contrast that with another culturally derived word “shadenfreude” (the pleasure one feels from someone else’s humiliation or misfortune) a German word from Western cultures and one’s self-esteem attempts to protect oneself (Hoffman, 2020). These words are derived from cultures where those sentiments are more common and suggestive of the differences between collectivistic and individualistic cultures. Motivations in self-monitoring are tied to words a culture uses to influence a person’s perception of self. Commonly understood motivations related to the interdependent nature of collectivistic societies were overlooked when self-monitoring constructs were first formed. This study helps redress that gap.

The complexity and multidimensionality of military culture makes it ideal for examining the suitability of self-monitoring to evaluate influences on consumer behavior (Dunivin, 1994; Hajjar, 2014). Military culture offers dimensional aspects associated with self-monitoring theory that can be reviewed and refined. These dimensions include group expectations and individual values. It includes various product types (utilitarian and social identity) and audiences (public or private) that the products are designed for. Civilian-oriented products transferred for use in the military may be underutilized because they have less appeal to military consumers. Product developers should keep this

in mind. Product optimization occurs in part through military consumer feedback and complaints (Cardello et al., 2012; Headquarters, 1990; Meiselman & Schutz, 2003; Scales, 2018). Understanding what motivates military consumers to provide or withhold complaints may help foster a more effective complaint process and product improvement system. Self-monitoring theory has been useful in explaining complaint processes in some civilian situations (Baker et al., 2013; Gudykunst et al., 1989; Hu & Parsa, 2011; Liu & McClure 2001; Sharma et al., 2010; Wan, 2013). The current study examined the role of self-monitoring relative to consumer complaint behavior in the military culture.

There are several factors involved in understanding consumer complaint behavior. Use of self-monitoring theory has shown its utility in identifying motivations for civilian consumers. It was reasonable to assume that the construct may be used to clarify some of the consumer complaint behavior challenges seen in the military. Not all challenges in the military are dissimilar to challenges in the civilian sector. For example, according to the Institute of Medicine (2003), obesity is a problem for the U.S. Military as well as for the civilian population (Almond et al., 2008). It is a complex issue to maintain proper body weight and health. Even though there are problems with soldiers not eating enough under some circumstances (Baker-Fulco, 1995), there are other circumstances wherein they share the civilian plight of obesity. Shared elements of culture between civilian and military consumers suggest self-monitoring theory might have answers or at least merit its use in consumer research. That is why self-monitoring theory was used here. The caveat here is that researchers who are also individualistic (as opposed to interdependent in their self-construals) tend to expect consumer behavior to be motivated also by

individualistic tendencies. In reality, those motivations are complex and need vetting. The core issue is to identify the consumer's individual consumer goals, which are often determined by the salient version of self-occupying the consumer's mind at the time of making a consumer decision. Then, assure saliency of the product's conveyances are congruent with the consumer goals. Self-monitoring theory can confirm these relationships.

Scales (2018) discussed how effective military consumer research provides knowledge that leads to increased military consumer satisfaction and effectiveness within the military. This, in turn, results in more successful military campaigns and greater protection for the nation. Giving civilian consumer products to the soldier that mismatch expectations or goals can lead to disgruntled or discouraged soldiers. Some aspects of the military culture are unique and need further characterization to understand. Just as Liu and McClure (2001) pointed out, the culture itself may be defining who the "in-group" is and consequently how a high self-monitor might want to adapt their behavior to in order to appeal to that cultural ideal. Knowledge is critical to understanding how high self-monitoring warfighters would target his or her behavior to acquire a social benefit. Military culture may uniquely define who is in the social class of influence and importance. The military's dynamic changing culture (Dunivin, 1994; Hajjar, 2014; John, 2021; Kieran, 2020), may have social sub-classes that value products differently (e.g., combat arms versus logistical support). For example, the flavor of a breakfast entrée may be of low value to elite members of an infantry platoon on a mission but to those working

in a tedious office out of harm's way, it matters more. Culture, context, self-identity, all matter and can be couched within the self-monitoring theory.

A continuum of environmental stressors associated with life and death decisions in the military culture may nudge otherwise carefully considered consumer goals outside the domain of the military consumer's chronically normal decision-making processes. At that point, the context, exigency, and reliance on habits and trained actions may prevail (Lin et al., 2016). Consumer behavior decisions are often constructed in ways that consider the importance of different identities and salient product attributes that appeal to one's perception of who they are (Kleine et al., 1993). These notions of self are developed and influenced by culture and other environmental conditions and experiences. Cultural influences in the military are unique and complex because they deal with different laws of accountability imposed by the commander in chief and other leaders where behavior is compulsory, and choices are limited. There can be extreme consequences for those who join the military (deployments, separation from family, difficult training, killing, formidable opposition, witnessing death, austere living conditions). Uncertainty for combat soldiers with an oppositional foe, who must be sought out in environments where the soldiers have little background or familiarity, can be stressful. In short, research is needed to expand information and mediate negative influences in the lives of military consumers to give them products that provide the best chance possible to survive and thrive in military environments. Self-monitoring provides another tool to help characterize what is meaningful to soldiers and help provide products that meet their individual and collective needs.

Summary and Conclusions

Self-monitoring refers to individual differences in tendencies defined in terms of low and high self-monitors. Low self-monitors focus more on maintaining congruency with salient notions of self. High self-monitors use social norms and cues to focus on acting in ways that enhance social identity. Self-monitoring tendencies have been used in civilian consumer research to understand and predict consumer behavior and attitudes. Military practices influence self-identity and social enhancing values. Self-monitoring may be used to better characterize military consumers to help them better accept and use military products. This research offered a chance to establish self-monitoring as a research tool to evaluate military consumer attitudes and behavior. In Chapter 3, I discuss the research design and rationale, the methodology, the instrumentation and operationalization of constructs, the data analysis plan, threats to validity, and ethical considerations.

Chapter 3: Research Method

I used a quantitative, nonexperimental, correlational design to determine the extent to which self-monitoring constructs (Self-Monitoring, Acting, Extraversion, and Other-Directedness) and specific demographic variables (gender, leadership, time in service, deployment experience, and combat experience) predicted military soldiers' ratings (liking/disliking) of military products. This chapter includes sections that describe the research design and rationale, methodology (population, sampling and sampling procedures, and procedures for recruitment, participation, and data collection), instrumentation and operationalization of constructs, data analysis plan and research questions, description of archival data, threats to validity, and ethical procedures.

Research Design and Rationale

This research study used a quantitative, nonexperimental, correlational design using archival survey data. The data were collected from surveys administered to military personnel in 2013. The surveys included product scenarios, military consumer evaluation ratings, a soldier demographic form, and a self-monitoring personality instrument. Product scenarios were read by soldiers. The scenarios described the use of each product type (i.e., food, clothing, equipment) in typical military situations. Soldiers provided consumer liking/disliking ratings based on the product scenarios. The product ratings of liking/disliking served as the criterion variable. The criterion variable utilized a 9-point liking/disliking (hedonic) scale.

The demographic information provided five military consumer attribute measures that were used as predictor variables. Those attributes included gender, leadership (based

on grade), years of service, deployment experience (i.e., being moved into position for military action), and combat experience. Within the U.S. Army, pay-grade levels are generally commensurate with leadership roles. There are three basic groups: Enlisted (E-grades 1-9), Officer (O-grades 1-9), and Warrant Officers (W-grades 1-5). E-grades 5-9, all O-grades, and all W-grades are generally considered leadership grades. In some cases, an E4 can be leadership also. But for the purposes of this study, E5-E9 and all O and W grades were considered leaders. Grades E1, E2, E3, and E4 were counted as nonleaders. Deployment was either “no” (for zero deployments) or “yes” for any number of deployments. Combat experience was counted similarly to deployments: “no” for zero number of times that combat has been experienced and “yes” for any number of times that combat has been experienced.

The self-monitoring instrument measured four additional predictor variables, namely the overall self-monitoring score and three self-monitoring subscale scores (Acting, Extraversion, and Other-Directedness). The variables are shown in Table 1.

Table 1

Independent and Dependent Variables

Variable category	Variable type	Variable	Scale of measurement	Instrument	Score type
Criterion	Dependent	Liking/disliking	Interval	Hedonics	1-9
Demographic	Independent	Gender	Dichotomous	Survey	0, 1
Demographic	Independent	Leadership	Dichotomous	Survey	0, 1
Demographic	Independent	Years of service	Dichotomous	Survey	≤5, >5
Demographic	Independent	Deployment exp.	Ratio	Survey	0-6+
Demographic	Independent	Combat exp.	Dichotomous	Survey	0, 1
Self-Monitoring	Independent	Self-Monitoring	Interval	SMS-R	0-18
Self-Monitoring	Independent	Acting	Interval	SMS-R	0-3
Self-Monitoring	Independent	Extraversion	Interval	SMS-R	0-3
Self-Monitoring	Independent	Other-Directedness	Interval	SMS-R	0-5

The design was intended to identify relationships between the predictor variables and the criterion variable (liking/disliking). Six standard multiple regression analyses were performed, one for each of six different product-scenarios. The same criterion variable of military consumer liking/disliking was used for each product type.

The nonexperimental correlational design of this study determined relationships between the dependent (criterion) and independent (predictor) variables. Although the relationships between independent and dependent variables do not establish cause and effect, the strength of the relationship may provide insights into how self-monitoring constructs are related to military consumer behavior. Insights discovered through this study could lead to future experimental studies that identify causal effects of the self-monitoring personality trait on military consumer behavior.

Methodology

Population

The target population was U.S. Military members stationed at or in training at Fort Riley, Kansas, in September of 2013. During the time of the sampling, Fort Riley had approximately 18,600 active-duty service personnel at the post. This number does not include the approximately 20,000+/year National Guard, Reserve, and ROTC who trained there during the year and who also might have been available to participate in the survey. At the time of the survey, the post was a division-level training installation for the First Infantry Division and included a mix of five brigades that included armor, infantry, aviation, and combat support elements. The population was not screened to exclude people of different races, religions, genders, ranks/grades, or military experience.

Sampling and Sampling Procedures

The sampling plan relied on surveys being administered through a convenience sampling. Access to soldiers was limited due to a command structure culture where training and mission factors impact soldier's freedom, time, and ability to participate in surveys. Research that involves military consumers is often done with a convenience sample due to these inherent access limitations in the military. Researchers often consider these data sets to be normally distributed because efforts are typically made to be representative of a targeted population. The targeted sampling goal was 200+ participants. A total of 220 responded and completed the surveys. The sampling was considered to be representative of the combat arms population at Fort Riley, KS at that time.

The Operational Forces Interface Group (OFIG) was responsible for acquiring access to soldiers for survey work. The CRT was responsible for survey design and coordinating the sampling parameters with the OFIG. The CRT and OFIG worked together to identify and stipulate criteria for administration of the surveys. In the sampling effort, the researchers sought as much as possible a representative sampling of combat arms soldiers who were stationed at Fort Riley. The OFIG sampling procedures included gaining background knowledge of various operational forces' activities and training schedules, establishing rapport with unit commanders, establishing contact permission and troop availability. A pre-evaluation commitment from commanders made it so that soldiers were given the time to participate if they chose to. Soldiers received briefings regarding participation and were told that their participation was voluntary. The

CRT made the request for a sample size greater than 200 during an evaluation scheduled to occur in September 2013. The OFIG contacted the necessary military leadership. The chain of command reviewed training schedules and identified soldiers that met the criteria and then coordinated with those soldiers' immediate unit leaders to check their availability. Once confirmed available, the OFIG coordinated briefing times with soldiers and their leaders. The OFIG representative received the surveys from CRT members and presented briefings to different groups of soldiers and their leaders. After the briefing, those present who volunteered took the survey or agreed to complete it at a later time. Leaders assisted by briefing soldiers and coordinating their participation in assuring that surveys were distributed and recovered from soldiers that chose to participate. The OFIG oversaw survey distribution in conjunction with the coordinated efforts of the chain of command and was responsible for ensuring that leaders briefed the respondents without bias on how to complete the surveys. The OFIG and military leaders were responsible for the surveys until they were returned to the CRT. The OFIG representative and chain of command used discretion to determine the timing of distribution and collection of surveys to maintain flow of military training and operations. After the paper and pencil surveys were completed (time to complete surveys was about 20 minutes) and collected by the OFIG representative, the surveys were returned to a member of the CRT for securing and sorting.

I performed a power analysis using G*Power to determine the sample size needed for linear multiple regression (Faul et al., 2007). The parameters entered into G*Power included: (a) an anticipated effect size of .15 (Gangestad & Snyder, 1985), (b) statistical

power level of .95, (c) nine predictor variables, (d) and an alpha of .01. An alpha level of .05 is often used (Zint, 2015), but I used the more conservative level of .01 for this study because I am conducting several multiple regression analyses and want to reduce the chance of Type 1 error (Tabachnick & Fidell, 2013). Based on these parameters, the recommended sample size was determined to be 214.

Procedures for Recruitment, Participation, and Data Collection

Data were collected in September 2013 as per OFIG and CRT standard survey administration practices described earlier. The practices and procedures for recruiting, as stipulated in the sampling section, involved planning through military channels by the OFIG with target demographics set by the CRT. As a member of the CRT, I had access to the data and received permission (see Appendix F) from the CRT team leader to use the data for the purposes of this dissertation project.

The target demographics were for active-duty soldiers in primarily infantry and cavalry combat units. The CRT has primary responsibility for that data and its usage. The data have no personally identifiable information associated with them. Those who collected the data never analyzed them. Informed consent for the participants was established verbally. After hearing a briefing which included a short overview of the survey, the volunteers were allowed to participate if they chose to. Military leaders were tasked with briefing volunteers who missed the initial briefing but who later chose to participate in the survey. Military leaders distributed and gathered completed surveys from volunteers who participated when OFIG was not present. The OFIG representative gathered the completed surveys either directly from the soldiers or their respective

leaders. After the surveys were collected, no further follow-up or debriefing occurred with participating soldiers. Participant anonymity was maintained. The OFIG representative debriefed the leaders only to the point of confirming that the sampling target number had been reached.

In some cases, surveys were completed with the OFIG representative present. Other times, the OFIG representative returned the next day or several days later to pick up the surveys either from the soldier or from the leader of a group of soldiers. Such administrative freedom is a common survey practice with soldiers who are in the field. Frequently, military leaders determined when soldiers could have time to complete the surveys. After OFIG received the completed surveys, the surveys were returned back to the CRT. There were 220 survey packets returned. Data collection occurred over approximately a 2-week period.

Instrumentation and Operationalization of Constructs

Product Scenarios

No actual products were used by soldiers. Instead, soldiers provided evaluations of military products after reading written product scenarios. There were three product categories: food, clothing, and equipment. Within each category, there were two products or conditions—one with an appeal to low self-monitors and the other with an appeal to high self-monitors. Thus, within the three categories, there were the following: (a) food, two types of MRE snacks; (b) clothing, two types of socks; and (c) equipment, two types of complaint conditions with a faulty, rifle-ammunition magazine. One half of the product category scenarios (MRE/sock/magazine) were written to appeal to low self-

monitoring personality traits. The other half of the product scenarios were written to appeal to high self-monitoring personality traits (i.e., the low self-monitor's appeal was based on functional quality traits and the high self-monitor's appeal was based on social influence traits).

The military consumer product scenarios were evaluated by the soldiers using the liking/disliking rating. For example, in one food-category scenario there was an appeal to functional quality with a description of an unpopular but nutritional MRE snack. Soldiers were given the scenario and asked to rate how much they would dislike or like that type of snack on a scale of 1 to 9 with 9 being the highest degree of liking. The other food-category scenario provided a social appeal by describing a popular but less nutritional MRE snack. This pattern was repeated in all the scenarios. In the clothing-category scenarios, one scenario required the soldier to rate socks that were described as functionally above average but ugly. The other clothing-category scenario described socks that were "great looking" but were functionally below average.

In the third military-consumer-product category of equipment, the scenarios asked participants to use the liking/disliking rating for two different complaint conditions associated with a rifle ammunition magazine failure. One complaint condition involved a scenario appealing to high-self monitors with positive social benefits even though the complaint was ineffective in resolving the equipment failure. In the second complaint condition, the scenario appealed to the low self-monitor with a functionally effective complaint result to the magazine failure despite negative social influences. Soldiers rated each complaint condition for liking/disliking.

For each of the three product categories (food, clothing, and equipment), a written narrative was provided to give soldiers a context for each product's use (see Appendix B, C, and D, respectively). In the food scenario, one snack was described as socially unpopular but of great nutritional value and the other food scenario described the snack as very socially popular but of low nutritional value. In the clothing scenarios, the narrative described a situation of being in the field, wearing one of two types of socks all week in a hot, muggy, swamp-laden environment with periods of rest where soldiers removed boots in each other's presence to let socks and feet air out. One sock type was ugly and invited ridicule from fellow soldiers, but it performed and functioned well. The other sock type was stylish and invited praise from other soldiers, but it did not function well. In the rifle ammunition magazine failure, two complaint conditions existed. In one scenario, complaining caused others to praise and think well of the person complaining but yielded poor results in resolving the magazine failure. In the other scenario, complaining caused others to resent the person who did the complaining but yielded positive results in resolving the magazine failure.

The theory of self-monitoring suggests that high self-monitors will respond more favorably to products and services that have positive social influences associated with them, whereas low self-monitors will tend to respond more favorably to products and services which have functional benefits associated with them or which resonate with the consumer's self-identity definitions. Furthermore, in some cases for both low and high self-monitors, appeal of products appeared mediated by how and where the product was typically used (DeBono, 2006).

The product scenarios with low self-monitor appeal emphasized improved functionality. The product scenarios with high self-monitor appeal emphasized positive social influence. The intention of giving product scenario differences was to appeal to low or high self-monitoring attributes to see if there would be differences in the way low and high self-monitors responded using consumer liking/disliking ratings. High self-monitors tend to prefer socially enhancing products and low self-monitors tend to prefer functional and value-expressive products. Because influences can vary between product categories (DeBono, 2006), three common military consumer categories of food, clothing, and equipment were included in the study.

Surveys provided to the OFIG for distribution and administration contained five pages. The top page (demographic survey) and bottom page (18-item SMS-R instrument) were always in the first and last page positions, respectively. The middle three pages were the product scenarios and were presented in randomized order to eliminate order effects and to allow each participant access to all six product scenarios.

SMS-R

The SMS-R (see Appendix E) provides a general factor measure of the self-monitoring personality trait and includes 18 true/false items (Snyder & Gangestad, 1986). The SMS-R is a revised version of the original 25-item Self-Monitoring Scale developed by Snyder (1974). Seven of the original questions were dropped to increase the reliability while maintaining comparable intrinsic validity to the original instrument. The SMS-R provides a more factorially pure general self-monitoring factor. Furthermore, the SMS-R measures three subscales that are all positively correlated with the first un-rotated

variable. The three subscale factors have been discussed using different names at different times by different researchers. There are some minor differences in their views but are considered equivalent for the purposes of this research and the following factor labels are used interchangeably: (a) expressive self-control or Acting, (b) social stage presence or Extraversion, and (c) other-directed self-presentation or Other-Directedness (Briggs et al., 1980; Gangestad & Snyder 1985; Snyder & Gangestad, 1986).

The Acting (or expressive self-control) subscale measures the person's active ability to control expressive behavior. For example, acting could mean deliberate lying about the way one feels to win favor with someone. There are five items that comprise the Acting subscale (items 4, 6, 12, 13, and 17).

The Other-Directed self-presentation subscale measures whether the person presents themselves in a way that is according to the expectations others have under a set of social circumstances (Snyder & Gangestad, 1986). An example item is: "In different situations and with different people, I often act like very different persons." A "true" response would be in the category of Other-Directed self-presentation. Four items comprise this subscale (items 5, 8, 10, and 18).

The Extraversion (or social stage presence) subscale measures the ability to act in ways to draw the attention of others to oneself. There are four items that pertain to this subscale (items 7, 9, 15, and 16). An example is: "In a group of people I am rarely the center of attention." A "false" response to this question would indicate extraversion.

The SMS-R has good overall internal consistency with a Cronbach's alpha of .70 which is slightly higher than the original SMS, 25-item scale (Cronbach's alpha = .66).

The SMS-R's acting/expressive self-control factor accounts for a higher percentage of common variance (62%) compared to the same factor in the original scale which accounted for 51% of the variance (Gangestad & Snyder 1985). The SMS-R accounts for more variance and has fewer subscales that more directly align with self-monitoring theory's theoretical basis (Snyder, 1974; Snyder & Gangestad, 1986). The subscales each had respectable internal consistency as well with Cronbach's alphas of .45, .58, and .43 for high self-monitors in the three respective factors of Acting/expressive self-control, Extraversion/social stage presence, and Other-Directed self-presentation. Cronbach's alphas for the same sub factors for low self-monitors were .35, .64, and .51 respectively (Gangestad & Snyder 1985).

Snyder and Cantor (1980) used the original scale to determine construct validity in low and high self-monitors and then provided converging and criterion-related evidence of self-monitoring theory with relationships between social knowledge and self-knowledge reflected in self-monitoring. They reported that low self-monitors were significantly more adept ($p < .001$) than high self-monitors at identifying traits within themselves. This result was congruent with the concept that low-self monitors seek to validate self-perceptions and pay more attention to self-relevant traits. They also reported that high self-monitors were significantly better ($p < .025$) at identifying personality trait dimensions in others. This result was congruent with the concept that high-self monitors were more adept at identifying external/social cues observed in others. Snyder and Cantor (1980) reported that high self-monitors were significantly better than low self-monitors at providing more information ($p = .004$) about prototype trait relevant situations and

provided more vivid descriptions ($p = .33$) of other trait-related behaviors (Snyder & Cantor, 1980).

Snyder and Gangestad (1982) provided construct validity when they demonstrated that high self-monitors' possessed more ability to adapt their behavior to various social situations and that this ability was used to choose group-discussion social situations more frequently than low self-monitors. In other words, the attributes of low self-monitors and high self-monitors were seen to be congruent with the predictions of the investigators based on self-monitoring theory wherein low self-monitor's personal dispositions reflected social interaction movement towards congruency of their individual tendencies and high self-monitors personal dispositions reflected more willingness to enter into varied social tendencies including behaviors of extraversion. These differences between low and high self-monitors were significant (p ranging from $< .02$ to $< .001$).

Data from SMS-R is analyzed as continuous (i.e., the number of responses given that are high-self-monitoring-category responses). Scores on the SMS-R range from zero (low self-monitoring) to eighteen (high self-monitoring). The subscales are scored in the same manner. According to Wilmot (2015), the Acting and Extraversion subscales should be excellent indicators of self-monitoring. He is less confident of the Other-Directedness subscale as an indicator of self-monitoring. Nevertheless, the three subscales have not been compared with military consumers and further evaluations can only help to clarify the subscale's value to this population.

There is no known usage of the SMS-R with military consumers. Researchers have reported various levels of success in its application to civilian consumers

(Gangestad & Snyder 2000). The SMS-R is one of the most often used self-monitoring scales. Although some controversy is associated with it, other measures of self-monitoring also retain some uncertainty that can only be resolved by further investigation (Briggs & Cheek, 1988; DeBono, 2006; Gangestad & Snyder, 2000; Lennox & Wolfe, 1984; Leone, 2006; Wilmot, 2015).

Another consideration for using the SMS-R is that other researchers have claimed that the self-monitoring subscales should be able to stand as independent predictor variables for further understanding of self-monitoring theory (Wilmot, 2015). The SMS-R provides clear subscale separation compared to the original scale and the construct's founders claim the SMS-R is more in alignment with the construct's theoretical foundations (Gangestad & Snyder, 1986). For this reason, the operationalization of the construct using the SMS-R was chosen for use in this study. The SMS-R allows for the latent general variable as well as the related individual subscales of self-monitoring to be discerned. The SMS-R should serve to help determine the discrimination ability of self-monitoring theory and its theoretical underpinnings as they may relate to the military consumer.

Data Analysis Plan

Nine research questions and hypotheses were tested using standard (enter method) multiple regression analyses. The data were analyzed by IBM SPSS Statistics (version 28.0.1) to calculate descriptive statistics, evaluate statistical assumptions, and perform multiple linear regression analyses. The following assumptions for multiple regression analysis include: (a) the dependent variable is an interval or ratio scale, (b) there are two

or more predictor variables that are interval, ratio, or categorical, (c) there is independence of observations, (d) bivariate relationships of dependent and independent variables as pairs and as a whole group are linear relationships, (e) homoscedasticity (best fit of variance along the line) of the data, (f) nonexistence of multicollinearity between predictor variables, (g) influential outliers do not exist or are accounted for, and (h) normality of the distribution of the errors (residuals; Tabachnick & Fidell, 2013).

As seen in Table 1, multiple interval scale variables satisfy the requirement for the dependent and predictor variables mentioned in the preceding paragraph. Independence of observations will be checked using the Durbin-Watson statistic. Bivariate relationship and linear relationship pairs and groups will be checked by examining scatterplots and partial regression plots. Homoscedasticity will be checked by plotting the standardized residuals against the unstandardized predicted values and SPSS statistics. The absence of multi-collinearity between predictor variables will be checked with SPSS statistics where correlation coefficients and Tolerance/VIF values are inspected to determine if data violates this assumption. To ensure influential outliers are detected, case-wise diagnostics and studentized deleted residuals were used. And to ensure normality of the residuals, they were checked by a histogram with a superimposed normal curve or Normal Q-Q Plot. A comparison scores on the dependent variable was done to ensure these had homogeneity of variance and were sampled independently from each of the other values. For missing data, the average of the column was used or the case was dismissed if multiple values were missing.

The research questions and the hypotheses for this study included the following:

Research Question 1: To what extent does gender relate to military consumer liking/disliking ratings (as measured by a 9-point Hedonic scale)?

H₀₁: Gender is not a significant predictor of liking/disliking ratings by military consumers.

H₁₁: Gender is a significant predictor of liking/disliking ratings by military consumers.

Research Question 2: To what extent does the military consumer profile attribute of rank/grade (labelled as leader vs. nonleader) relate to military consumer liking/disliking ratings?

H₀₂: Leadership role is not a significant predictor of liking/disliking ratings by the military consumer.

H₁₂: Leadership role is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 3: To what extent does the military consumer profile attribute of years of service relate to military consumer liking/disliking?

H₀₃: Years of service is not a significant predictor of liking/disliking ratings by the military consumer.

H₁₃: Years of service is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 4: To what extent does the military consumer profile attribute of deployment experience relate to military consumer liking/disliking ratings?

*H*₀₄: Previous deployment is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₄: Previous deployment is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 5: To what extent does the military consumer profile attribute of combat experience relate to military consumer liking/disliking ratings?

*H*₀₅: Prior combat experience is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₅: Prior combat experience is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 6: To what extent does self-monitoring (total score) as measured by the SMS-R, relate to military consumer liking/disliking ratings?

*H*₀₆: Self-Monitoring is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₆: Self-monitoring is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 7: To what extent does the Acting subscale of the SMS-R relate to military consumer liking/disliking ratings?

*H*₀₇: The Acting subscale is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₇: The Acting subscale is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 8: To what extent does the Extraversion subscale of the SMS-R relate to military consumer liking/disliking ratings?

*H*₀₈: The Extraversion subscale is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₈: The Extraversion subscale is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 9: To what extent does the Other-Directedness subscale of the SMS-R relate to military consumer liking/disliking ratings?

*H*₀₉: The Other-Directedness subscale is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₉: The Other-Directedness subscale is a significant predictor of liking/disliking ratings by the military consumer.

Threats to Validity

Convenience sampling may pose an external threat to validity if the sampling was not representative of the desired population. Sampling was done with the intention of being representative in terms of gender, age, and experience of the military combat arms population at Fort Riley. However, the data is archival, and this claim cannot be verified. With a larger sample ($n > 200$), it is hoped that the threat of sampling error is reduced (Tabachnick & Fidell, 2013). The OFIG personnel administering the surveys were directed by CRT personnel to make the sampling representative of the Fort Riley combat

arms unit's population. Making broader generalizations outside of combat arms units could be a validity threat if there are unaccounted for influences associated with other types of units. Furthermore, as noted in prior research (Moore, 2006), the military population does have a certain homogeneity to it that may nullify certain aspects of self-monitoring. Another external threat to validity is the intermediary personnel who administered the survey. They may have biased respondents in some way that was not accounted for. I was not present for the briefings and cannot verify the claims of administering in an unbiased manner. Yet, neither do I have reason to disbelieve their claims and therefore assume this threat to validity is minimal.

Internal threats to the validity exist as well. The scenarios and product descriptions were developed by the CRT with the understanding that functionality of a product was an attribute that appealed to low self-monitors. Social influence of a product was an attribute that appealed to high self-monitors. The scenario and product conditions were selected to appeal to self-monitoring attribute differences. However, the scenarios were not validated with known high and low self-monitors because they are common situations and products experienced by soldiers and such scenarios represent the conditions that are desired to be assessed by self-monitoring theory within a normal military consumer population. Nevertheless, nonvalidated scenarios may prove to be a threat to validity or sensitivity of the construct. Personality differences may clearly exist as definable by the construct but lack effective predictive ability of the criterion variable within the context seen by military consumers.

Ethical Considerations

As this archival data that has no personally identifiable information associated with it, there is less concern for identification of a test participant being identified. Data must be handled thoughtfully and reviewed to ensure there is no personally identifiable information included on data sheets or records. Since the data was under the responsibility of the CRT, permission for its use was secured from the CRT team leader. A copy of the permission letter is in Appendix F. The data set was also later released to the public with no personally identifiable information associated with the data set.

Participation was voluntary and participants could quit at any time. Participants were briefed prior to participation in the study. Military chain-of-command leadership was contacted through the OFIG liaison to ensure the appropriate support was in place. The questions were reviewed for content appropriateness, deception, or otherwise offensive or misleading information to protect participant's rights. Verbal instructions were given prior to the administration of the survey to military participants to let them know that participation was voluntary, that they could quit at any time, and that the data would be anonymous. Survey participation was voluntary and no personally identifiable information was collected. Under federal regulations, data collection exemptions to human use restriction policies are allowed for research efforts involving the use of survey procedures that are not injurious and in which human subjects cannot be identified and the subject's responses do not place them at unreasonable risk of civil/criminal liability or cause harm to their reputation, financial standing, or employability. Furthermore, exemption is allowed when the data in the study is acquired by the investigator in a

manner where identification of the participant is not possible directly or indirectly. These exemption criteria existed in the case of this study's data.

All data were maintained on a secured laptop. No personally identifiable information existed in the data set before sharing the data or before analysis could occur. Data files will be kept for a minimum of five years and deleted after no more than seven year's maintenance on a secure system.

Summary

Chapter 3 included the research design and methodology sections. A quantitative approach was used utilizing a nonexperimental design and archival data. Multiple regression was used to determine whether a relationship exists between nine predictor variables and the dependent variable of military consumers' liking/disliking ratings for three product categories (food, clothing, equipment). The predictor variables consisted of five military demographic variables and four self-monitor variables. Chapter 4 reports the results obtained from the analysis of the archive data set.

Chapter 4: Results

The purpose of this study was to determine the extent to which self-monitoring constructs (Self-Monitoring, Acting, Extraversion, and Other-Directedness) and specific demographic variables (gender, leadership, length of service, deployments, and combat experience) predicted liking ratings of military product scenarios by active-duty soldiers. The research questions and the hypotheses for this study included the following:

Research Question 1: To what extent does gender relate to military consumer liking/disliking ratings (as measured by a 9-point Hedonic scale)?

H₀1: Gender is not a significant predictor of liking/disliking ratings by military consumers.

H₁1: Gender is a significant predictor of liking/disliking ratings by military consumers.

Research Question 2: To what extent does the military consumer profile attribute of rank/grade (labelled as leader vs. nonleader) relate to military consumer liking/disliking ratings?

H₀2: Leadership role is not a significant predictor of liking/disliking ratings by the military consumer.

H₁2: Leadership role is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 3: To what extent does the military consumer profile attribute of years of service relate to military consumer liking/disliking?

*H*₀₃: Years of service is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₃: Years of service is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 4: To what extent does the military consumer profile attribute of deployment experience relate to military consumer liking/disliking ratings?

*H*₀₄: Previous deployment is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₄: Previous deployment is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 5: To what extent does the military consumer profile attribute of combat experience relate to military consumer liking/disliking ratings?

*H*₀₅: Prior combat experience is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₅: Prior combat experience is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 6: To what extent does self-monitoring (total score) as measured by the SMS-R, relate to military consumer liking/disliking ratings?

*H*₀₆: Self-monitoring is not a significant predictor of liking/disliking ratings by the military consumer.

*H*₁₆: Self-monitoring is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 7: To what extent does the Acting subscale of the SMS-R relate to military consumer liking/disliking ratings?

H₀7: The Acting subscale is not a significant predictor of liking/disliking ratings by the military consumer.

H₁7: The Acting subscale is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 8: To what extent does the Extraversion subscale of the SMS-R relate to military consumer liking/disliking ratings?

H₀8: The Extraversion subscale is not a significant predictor of liking/disliking ratings by the military consumer.

H₁8: The Extraversion subscale is a significant predictor of liking/disliking ratings by the military consumer.

Research Question 9: To what extent does the Other-Directedness subscale of the SMS-R relate to military consumer liking/disliking ratings?

H₀9: The Other-Directedness subscale is not a significant predictor of liking/disliking ratings by the military consumer.

H₁9: The Other-Directedness subscale is a significant predictor of liking/disliking ratings by the military consumer

In this chapter, I review how the archival data were collected. I also provide a discussion of the sample demographics. This is followed by a presentation of the descriptive statistics, results of the statistical assumptions for multiple regression, and the results from each multiple regression analysis.

Data Collection

The archival data I used in this study were collected at Fort Riley Kansas in 2013 over a 2-week period of time in September. Recruitment involved planning through military channels by the OFIG with target demographics set by the consumer research team. As a member of the CRT, I had access to the data and received permission from the CRT leader to use the data for the purposes of this dissertation project. The archival data from this project was released by the CRT and the Natick Soldier Center for public distribution in 2022. Soldiers who participated did so voluntarily and were recruited through official military channels. No rewards or punishments were associated with participation. No response rates for participation were ever recorded.

The sample included soldiers from cavalry, combat arms and direct support units. Twelve of the 220 cases were excluded because of missing data. The demographic categories are not proportional to all aspects of combat and related units of the U.S. military. Women were overrepresented in the sample compared to the population. At the time of the data collection females constituted about 14% of the Army. They served in roles supporting combat units but still experienced combat. Of those surveyed, 25% were female. A surprising percentage of the females sampled reported experiencing combat (75%). Women were not officially allowed in direct combat units until 2015 (Moore, 2020). The proportion of males with combat experience was also high and reported to be 56%. The number of soldiers with combat experience was expected to be higher than normal as this was the target population. Typically, about 10% in the military experience combat while the rest are in support roles. Leaders (those in grades above E4) in the

sample comprised 52%. In current Army demographics leaders throughout the U.S. Army comprise 59% of the population (Army, 2022). (<https://api.army.mil/e2/c/downloads/2022/08/05/90d128cb/active-component-demographic-report-june-2022.pdf>). The Army does not provide data on the average ages of enlistments, but at the time of the data gathering (2013), 52% of the all active-duty enlisted personnel and 42% of all active duty were 25 years of age and younger (Office, 2013). The personnel sampled who served 0 to 5 years (55.5%) would logically be a similar group to the < 25-year group. Thus, the sampling of 0–5 years of service appears to be similar but a slightly larger percentage than existed throughout the Army at that time. The percent who had been deployed before in the sampling was 64.4%. According to 2011 data (Baiocchi, 2013), 73% of active duty had been deployed to Afghanistan or Iraq. The current sample had 65% of soldiers with previous deployment experience. In terms of gender, 82% of females had been deployed, whereas only 60% of the males had been previously deployed. Male soldiers had fewer deployments and less time in service (< 5 years of service). Females had more years of service (59% with > 5 years of service) compared to males (41% with > 5 years of service). There was also a higher percentage of female leaders in the sample (63%) compared to male leaders (48%). Combat experience was reported by 60.6% of the soldiers in the sample, which is higher than the average of 10% seen generally and historically across the military (Bartell, 2022). Table 2 shows the demographic characteristics of the soldiers sampled.

Table 2*General Demographic Characteristics of Soldier Sample*

Variable	Categories/values	<i>n</i>	%
Gender	Male	157	75.5%
	Female	51	24.5%
Leadership	Leader	108	51.9%
	Nonleader	100	48.1%
Years in military	0–5 years	113	54.3%
	> 5 years	95	45.7%
Number of deployments	0	72	34.6%
	1	44	21.2%
	2	20	9.6%
	3	24	11.5%
	4	30	14.4%
	5	9	4.3%
	6+	9	4.3%
	Combat experience	Combat experience	126
No combat experience		82	39.4%

Note: Missing data points and rounding may cause *n* to not equal 208 and/or percentages to not equal 100%.

Results

This section includes descriptive statistics and tests for assumptions used with regression analysis. It is followed by regression analysis results of each product scenario.

Descriptive Statistics

Table 3 provides descriptive statistics of the self-monitoring-scale related predictor variables. Included is the SMS-R scale (self-monitoring) and three subscales derived from the SMS-R (Acting, Extraversion, and Other-Directedness subscales).

Table 3*Descriptive Statistics*

IV#/label	<i>M</i>	<i>Mdn</i>	<i>SD</i>	<i>n</i>	Min	Max	95% <i>LB</i>	95% <i>UB</i>
Self-Monitoring	8.08	8	2.694	208	0	15	7.71	8.45
Acting	1.92	2	1.199	208	0	5	1.75	2.08
Extraversion	2.42	2	1.096	208	0	4	2.27	2.57
Other-Directedness	1.31	1	1.009	208	0	4	1.17	1.45

Descriptive statistics for the six dependent variables included 208 cases. Twelve of the original 220 cases were removed due to missing data. The most common response across all scenarios was 5 (*Neither like nor dislike*). These results are shown in Table 4.

Table 4*Descriptive Statistics for Liking Ratings of Six Scenarios*

Scenario	<i>M</i>	<i>Mdn</i>	<i>SD</i>	<i>n</i>	Min	Max	95% <i>LB</i>	95% <i>UB</i>
1 (Ugly high function sock)	5.87	5	1.876	208	1	9	5.61	6.12
2 (Great looking, low function sock)	4.65	5	1.920	208	1	9	4.39	4.92
3 (High nutrition snack)	5.79	5	1.819	208	1	9	5.54	6.04
4 (Low nutrition snack)	5.28	5	1.639	208	1	9	5.05	5.50
5 (Weak resolution of defective ammo magazine)	5.67	5	1.410	208	1	9	5.48	5.87
6 (Strong resolution of defective ammo magazine)	5.75	5	1.375	208	2	9	5.56	5.93

The distribution shapes demonstrated some degree of skewness and kurtosis. A skewness value of > 1.0 indicates a distribution skewed to the right. A skewness value of < -1.0 describes distribution skewed to the left. Kurtosis > 1.0 is leptokurtic (peaked). Kurtosis values < -1.0 are platykurtic (broad). The results for the liking ratings in each

scenario showed that values were within the guidelines of skewness and kurtosis;

therefore, normality was found (see Table 5).

Table 5

Normality Testing for Dependent (Liking Ratings of Products) and Independent Variables (Self-Monitoring Scores)

Variable	Statistic	df	p	Skewness	Kurtosis
Scenario 1 (Ugly high function sock)	.928	208	< .001	-.122	-.031
Scenario 2 (Great looking, low function sock)	.930	208	< .001	-.238	-.247
Scenario 3 (High nutrition snack)	.933	208	< .001	-.076	-.028
Scenario 4 (Low nutrition snack)	.924	208	< .001	.196	.544
Scenario 5 (Weak resolution of defective ammo magazine)	.894	208	< .001	.023	.913
Scenario 6 (Strong resolution of defective ammo magazine)	.889	208	< .001	.457	-.263
Self-monitoring (total) score	.981	208	.006	.043	-.204
Acting subscale score	.921	208	< .001	.311	-.563
Extraversion subscale score	.905	208	< .001	-.324	-.509
Other-directedness subscale score	.886	208	< .001	.338	-.602

Skewness and kurtosis were used to determine whether each dependent variable conformed to ± 2 for skewness and ± 3 for kurtosis (Westfall & Henning, 2013) wherein the symmetry about the mean is not markedly different to produce outliers. The distribution was also evaluated for normality using Kolmogorov-Smirnov and Shapiro-Wilk tests. Those results and other assumptive statistics are discussed below.

Evaluations of Statistical Assumptions

The first assumption is that the dependent variable is an interval or ratio scale (Tabachnick & Fidell, 2013). This hedonic scale was presented on the survey with 1 through 9 integer anchors that are clearly interval. It should be noted that scale

descriptors were also included that can bias the rater and cause the scale to produce less-uniform distances between points and cause some respondents to hover near the neutral middle scale value (Cardello & Jaeger, 2010).

The next assumption is that there are two or more predictor variables that are interval, ratio, or categorical (Tabachnick & Fidell, 2013). The nine independent variables consist of four interval, one ratio, and four categorical measures. Years of service was recoded to categorical (ordinal) and the deployment experience coded and analyzed as ratio (scale). The assumption is satisfied.

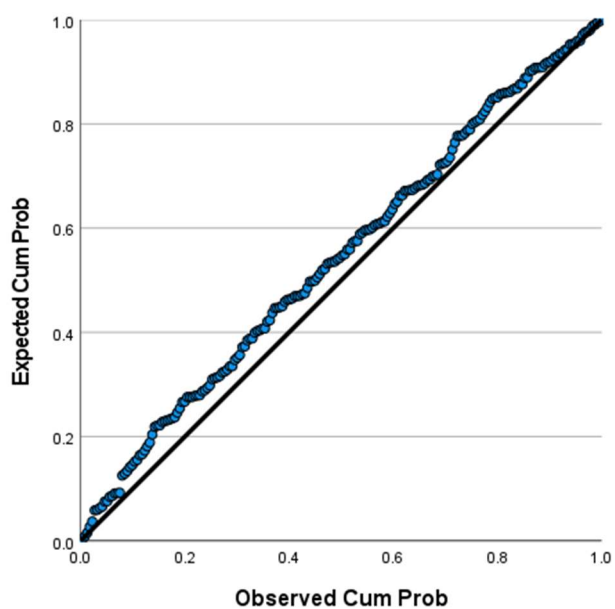
The next assumption is that there is independence of observations. The Durbin-Watson statistic was used to test this assumption (Tabachnick & Fidell, 2013). In Durbin-Watson, the test results were all close to 2, meeting the assumption that the residuals were independent. Values can range from 0 to 4 and a value of 2 means independence. For liking ratings in each of the six scenarios, the respective values were 2.137, 1.824, 2.035, 2.020, 1.957, and 2.000.

The next assumption is that bivariate relationships of dependent and independent variables as pairs and as a whole group are linear relationships (Tabachnick & Fidell, 2013). This assumption was evaluated through examining scatterplots and partial regression plots. When the relationship is linear, the scatter plots will have a random appearance (e.g., not funnel or curvilinear shaped) and the regression plots will generally follow a diagonal line. In all cases of the scatterplots, the dispersion of plots appeared random and did not demonstrate a patterned relationship. The P-P plots of dependent variable and independent variables plots for all six scenarios demonstrated that the plots

generally fall along the straight diagonal line suggesting linear relationships between the independent and dependent variables (see Figures 1 through 6).

Figure 1

Dependent Variable: Liking of Scenario 1 (Ugly High Function Sock)

**Figure 2**

Dependent Variable: Liking of Scenario 2 (Great Looking, Low Function Sock)

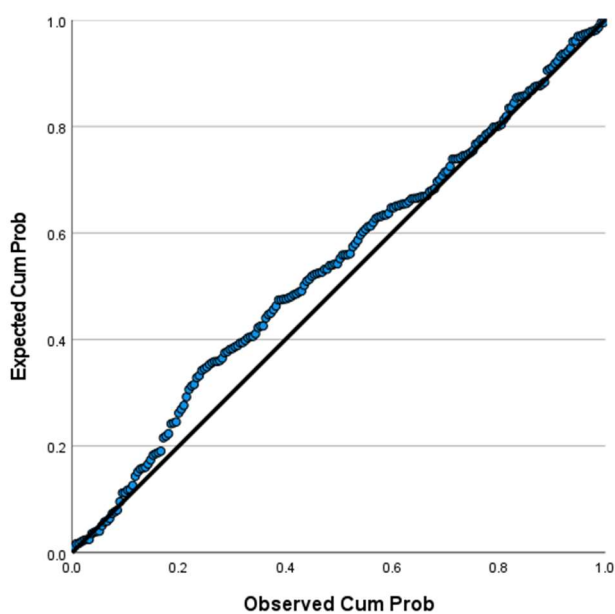
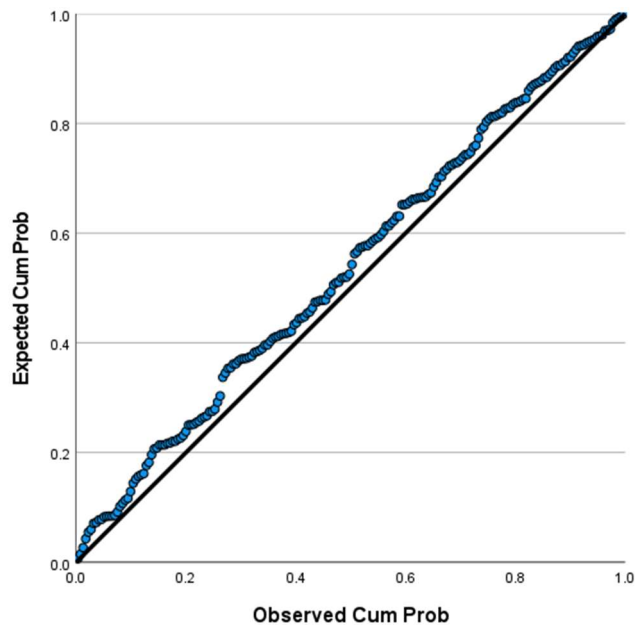


Figure 3

Dependent Variable: Liking of Scenario 3 (High Nutrition Snack)

**Figure 4**

Dependent Variable: Liking of Scenario 4 (Low Nutrition Snack)

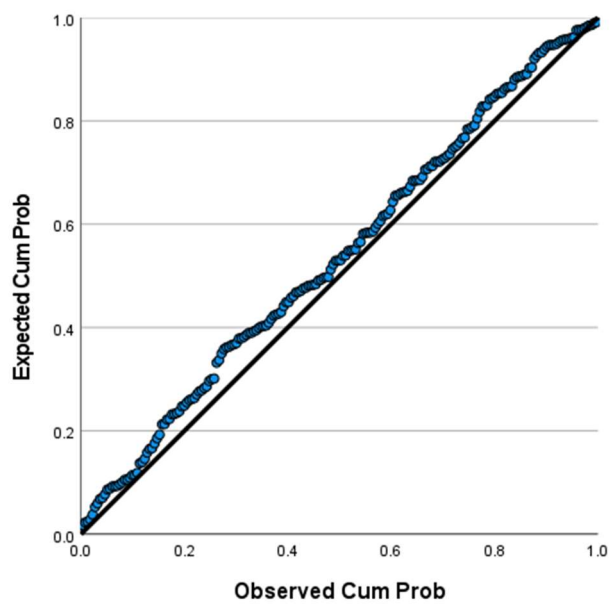
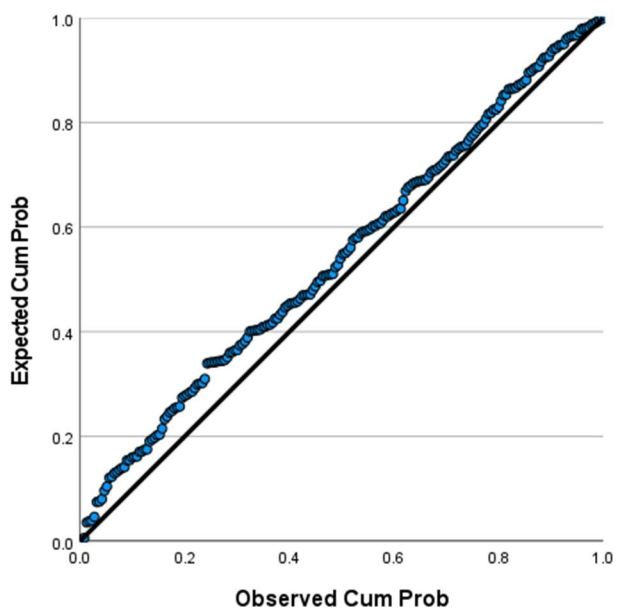
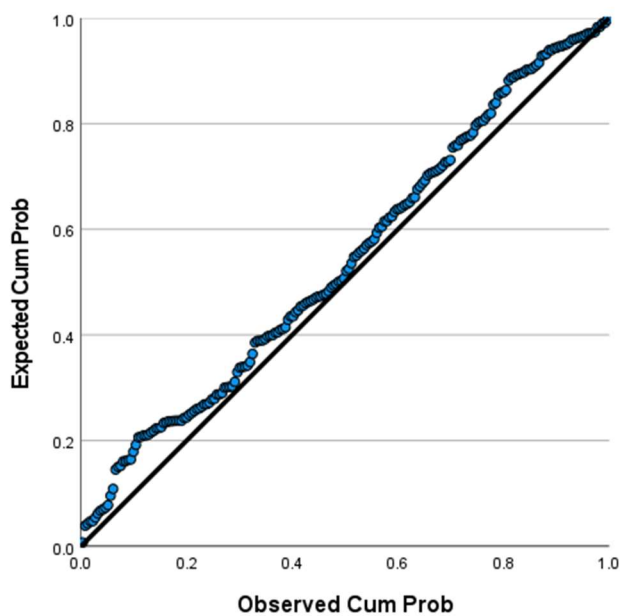


Figure 5

Dependent Variable: Liking of Scenario 5 (Weak Resolution of Defective Ammo Mag.)

**Figure 6**

Dependent Variable: Liking of Scenario 5 (Strong Resolution of Defective Ammo Mag.)



The next assumption is that there is homoscedasticity of the data (the residuals have constant variance at every point in the linear model) (Tabachnick & Fidell, 2013). This was evaluated using a plot of standardized residuals versus standardized values predicted and looking for patterns. Examination of the residuals' scatterplots suggested there were no violations and thus the assumption for homoscedasticity was met (see Appendix G).

The next assumption is that multicollinearity between predictor variables does not exist (Tabachnick & Fidell, 2013). Additional evaluation for multicollinearity was done using VIF statistic for the predictor variables. There is no upper limit to VIF statistics, but generally, values greater than five indicate potential multicollinearity. In these models, most values were above five except for the independent variable of gender (3.221). Experienced combat (5.200) was marginal. The other independent variables ranged from 5.576 (Other-Directedness) to 50.726 (Self-Monitoring, total); see Table 6.

Table 6

Collinearity for Model

Predictor variables	Tolerances	VIF
Gender	.310	3.221
Leadership	.140	7.143
Years of Service	.154	6.497
Deployments	.161	6.226
Combat Experience	.192	5.200
Self-monitoring (total)	.020	50.726
Acting subscale	.113	8.848
Extraversion subscale	.065	15.274
Other-directedness subscale	.179	5.576

Another assumption is that influential outliers do not exist or are accounted for (Tabachnick & Fidell, 2013). These were checked by examination of the Cook's D values. Values less than one are considered acceptable. The values were all considerably below one (range was .051–.074) with a small standard deviation range (range was .007–.009). Thus, no multivariate outliers were identified.

Shapiro-Wilk (typically used on sample sizes < 50) was applied, but Kilmogorov-Smirnov is considered a more reliable number for sample sizes > 50 (Tabachnick & Fidell, 2013). The significance level did not differ between the two methods, but the statistic was much lower for Kilmogorov-Smirnov than the statistic for the Shapiro-Wilk. These results suggested a nonnormal distribution (see Table 7). However, multiple regression can be used when some variables are not normal if there is evidence of normally distributed errors. An examination for normality of the distribution of the errors (residuals) was checked with a Q-Q plot which suggested that the data were acceptable (see Appendix G). This suggested that the normality assumption was met.

Table 7

Tests for Normality of Standardized Residuals

Scenario	Kilmogorov-Smirnov			Shapiro-Wilk		
	Statistic	<i>df</i>	<i>p</i>	Statistic	<i>df</i>	<i>p</i>
1-Ugly high function sock	.187	208	< .001	.928	208	< .001
2-Great looking, low function sock	.225	208	< .001	.930	208	< .001
3-High nutrition snack	.197	208	< .001	.933	208	< .001
4-Low nutrition snack	.231	208	< .001	.924	208	< .001
5-Weak resolution of defective ammo magazine	.260	208	< .001	.894	208	< .001
6-Strong resolution of defective ammo magazine	.288	208	< .001	.889	208	< .001

I also assessed reliability of the scores on the SMS-R. Cronbach's alpha is an indicator of internal consistency of the items on a scale. According to Ursachi et al. (2003), alpha values of .60 to .70 are acceptable, with values over .80 demonstrating very good internal consistency. In this study, the internal consistency was lower for the instrument than expected. Based off standardized items, the Cronbach's alphas for the SMS-R total Self-Monitoring scale, Acting subscale, Extraversion subscale, and Other-Directedness subscale were all $< .500$ (see Table 8).

Table 8

Internal Consistency for Scale Reliability with Cronbach's Alpha

Scale	Cronbach's Alpha	Cronbach's Alpha based on standardized items	Number of items
SMS-R General SM scale	.463	.458	18
Acting subscale	.261	.265	5
Extraversion subscale	.327	.316	4
Other-Directedness subscale	.199	.207	4

Multiple Regression Analyses

I conducted six separate multiple regression analyses. Each analysis determined the extent to which self-monitoring scores (Self-Monitoring, Acting, Extraversion, and Other-Directedness), gender, leadership, length of service, deployments, and combat experience predicted liking ratings of six different military products. Standard (enter method) multiple regression was used to allow simultaneous entry of the independent (predictor) variables into the regression model (Tabachnick & Fidell, 2013). The same nine independent variables were used as predictor variables for the same dependent variable of liking as measured by the 9-point liking/hedonic scale. The dependent

variable of liking was used for six different product scenarios. The six scenarios were: a) ugly high-function sock, b) great looking, low-function sock, c) unpopular high-nutrient snack, d) popular low-nutrient snack, e) weak resolution of defective ammo magazine, and f) strong resolution of defective ammo magazine. In each analysis, an alpha level of .01 was used to reduce Type 1 error.

Multiple Regression for Product Scenario 1 Liking Ratings: Ugly High Function Sock

I conducted a standard multiple linear regression analysis to determine the relative strength of the independent variables in predicting liking ratings in the scenario that described socks that were highly functional but ugly. The result of the multiple regression analysis was significant, $F(9, 199) = 133.206, p < .001, R^2 = 0.858$. These findings indicated the overall model was statistically significant. The model explained 86% of the variation in the liking ratings of ugly functional socks.

The results showed that gender was a significant predictor of liking ratings, $B = 2.260, p < .001$. This result showed that males had significantly higher liking ratings for the ugly but functional socks compared to females. On average, there was a 2.26 unit increase in the liking rating when the participant was male. Table 9 shows the regression results for the independent (predictor) variables for scenario 1.

Table 9

Results of Multiple Linear Regression of Independent Variables Predicting Dependent Variable (Liking) of Scenario 1 (Ugly, Functional Sock)

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Gender	2.260	.340	.319	6.643	<.001
Leadership	.761	.611	.089	1.247	.214
Years in service	1.139	.621	.125	1.833	.068
Number of deployments	-.130	.160	-.054	-.814	.417
Combat Experienced	.305	.482	.039	.633	.528
Self-monitoring total score	.146	.138	.201	1.057	.292
Acting subscale score	.157	.217	.058	.725	.469
Extraversion subscale score	.554	.242	.239	2.289	.023
Other-Directedness subscale score	.090	.235	.024	.383	.702

Note: $F(9, 199) = 133.206, p < .001, R^2 = 0.858$

Multiple Regression for Product Scenario 2 Liking Ratings: Great Looking, Low Function Sock

I conducted a standard multiple linear regression analysis to determine the relative strength of the independent variables in predicting liking ratings in the scenario that described socks that were great looking but low functionality. The result of the multiple regression analysis was significant, $F(9, 199) = 107.565, p < .001, R^2 = 0.829$. These findings indicated the overall model was statistically significant. The model explained 83% of the variation in the liking ratings of ugly functional socks.

The results showed that leadership was a significant predictor of liking ratings, $B = -1.688, p = .002$. These results showed that those with leadership experience had significantly lower liking ratings for the great looking but less functional socks than nonleaders. On average, there was a 1.69 unit decrease in the liking rating when the participant was a leader.

Years in service was also a significant predictor of liking ratings, $B = 1.540$, $p = .006$. The results showed that those with more years in service had significantly higher liking ratings for the great looking but less functional socks than those with less years in service. On average, there was a 1.54 unit increase in liking rating when the participant had more time in service (>5 years).

Finally, combat experience was a significant predictor of liking ratings, $B = 1.553$, $p = .001$. The results also showed that soldiers with combat experienced had significantly higher liking ratings for the great looking but less functional socks than those without combat experience. On average, there was a 1.55 unit increase in liking rating when the soldier had combat experience. Table 10 shows the regression results for the independent (predictor) variables for scenario 2.

Table 10

Results of Multiple Linear Regression of Independent Variables Predicting Dependent Variable (Liking) of Scenario 2 (Great Looking, Less Functional Sock)

Variable	B	SE	β	t	p
Gender	.776	.304	.134	2.551	.011
Leadership	-1.688	.546	-.242	-3.089	.002
Years in service	1.540	.556	.207	2.772	.006
Number of deployments	-.082	.143	-.042	-.571	.569
Combat Experienced	1.553	.432	.240	3.597	<.001
Self-monitoring total score	.257	.123	.435	2.084	.038
Acting subscale score	-.059	.194	-.027	-.307	.760
Extraversion subscale score	.441	.217	.233	2.035	.043
Other-Directedness subscale score	.141	.210	.046	.668	.505

Note. $F(9, 199) = 107.565$, $p < .001$, $R^2 = 0.829$

Multiple Regression for Product Scenario 3 Liking Ratings: Unpopular High

Nutrition Snack

I conducted a standard multiple linear regression analysis to determine the relative strength of the independent variables in predicting liking ratings in the scenario that described a nutritional snack that was healthy but unpopular. The result of the multiple regression analysis was significant, $F(9, 199) = 145.427, p < .001, R^2 = 0.868$. These findings indicated the overall model was statistically significant. The model explained 87% of the variation in the liking ratings of the unpopular but highly nutritious snack.

The results showed that gender was a significant predictor of liking ratings, $B = 1.919, p < .001$. This result showed that males had significantly higher liking ratings for the unpopular high nutrition snack than females. On average, there was a 1.92 unit increase in the liking rating when the participant was male. Table 11 shows the regression results for the independent (predictor) variables for scenario 3.

Table 11

Results of Multiple Linear Regression of Independent Variables Predicting Dependent Variable (Liking) of Scenario 3 (Unpopular High Nutrition Snack)

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Gender	1.919	.323	.275	5.947	<.001
Leadership	.286	.579	.034	.494	.622
Years in service	.665	.589	.074	1.129	.260
Number of deployments	.036	.152	.015	.235	.815
Combat Experienced	.462	.458	.059	1.009	.314
Self-monitoring total score	.216	.131	.303	1.651	.100
Acting subscale score	.199	.206	.074	.968	.334
Extraversion subscale score	.558	.230	.245	2.431	.016
Other-Directedness subscale score	-.193	.223	-.053	-.865	.388

Note. $F(9, 199) = 145.427, p < .001, R^2 = 0.868$

Multiple Regression for Product Scenario 4 Liking Ratings: Popular Low Nutrition

Snack

I conducted a standard multiple linear regression analysis to determine the relative strength of the independent variables in predicting liking ratings in the scenario that described a low nutrition snack that was less healthy but popular. The result of the multiple regression analysis was significant, $F(9, 199) = 144.218, p < .001, R^2 = 0.867$. These findings indicated the overall model was statistically significant. The model explained 87% of the variation in the liking ratings of the popular low nutrition snack.

The results showed that gender was a significant predictor of liking ratings, $B = 1.672, p < .001$. This result showed that males had significantly higher liking ratings for the popular low nutrition snack than females. On average, there was a 1.67 unit increase in the liking rating when the participant was male. The results also showed that combat experience was a significant predictor of liking ratings, $B = 1.318, p = .002$. This result showed that those with combat experience had significantly higher liking ratings for the popular low nutrition snack than those without combat experience. On average, there was a 1.32 unit increase in the liking rating when the participant had combat experience.

Table 12 shows the regression results for the independent (predictor) variables for scenario 4.

Table 12

Results of Multiple Linear Regression of Independent Variables Predicting Dependent Variable (Liking) of Scenario 4 (Popular Low Nutrition Snack)

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Gender	1.672	.295	.263	5.666	<.001
Leadership	-.262	.530	-.034	-.494	.622
Years in service	.759	.539	.093	1.409	.160
Number of deployments	-.147	.139	-.068	-1.056	.292
Combat Experienced	1.318	.418	.186	3.150	.002
Self-monitoring total score	.247	.120	.380	2.066	.040
Acting subscale score	-.153	.188	-.063	-.815	.416
Extraversion subscale score	.412	.210	.198	1.962	.051
Other-Directedness subscale score	.215	.204	.064	1.055	.293

Note: $F(9, 199) = 144.218, p < .001, R^2 = 0.867$

Multiple Regression for Product Scenario 5 Liking Ratings: Weak Resolution of Defective Ammo Magazine

I conducted a standard multiple linear regression analysis to determine the relative strength of the independent variables in predicting liking ratings in the scenario that described a popular but ineffective complaint process to resolve a defective ammo magazine. The result of the multiple regression analysis was significant, $F(9, 199) = 182.574, p < .001, R^2 = 0.892$. These findings indicated the overall model was statistically significant. The model explained 89% of the variation in the liking ratings of the popular but low-resolution complaint process for defective ammo magazines.

The results showed that gender was a significant predictor of liking ratings, $B = 1.877, p < .001$. This result showed that males had significantly higher liking ratings for the popular but weak complaint process to resolve the defective ammo magazine. On average, there was a 1.88 unit increase in the liking rating when the participant was male. The results also showed that combat experience was a significant predictor of liking

ratings, $B = 1.153$, $p = .004$. This result showed that those with combat experience had significantly higher liking ratings for the popular but weak resolution process of a defective ammo magazine than those without combat experience. On average, there was a 1.15 unit increase in the liking rating when the participant had combat experience. Finally, the results showed that those that scored higher on the Extraversion subscale had significantly higher liking ratings for the popular but weak resolution process of a defective ammo magazine than those who scored lower on Extraversion. On average, there was a .640 unit increase in the liking rating for each unit increase in Extraversion scores. Table 13 shows the regression results for the independent (predictor) variables for scenario 5.

Table 13

Results of Multiple Linear Regression of Independent Variables Predicting Dependent Variable (Liking) of Scenario 5 (Popular but Weak Complaint Process to Resolve Defective Ammo Magazine)

Variable	B	SE	β	t	p
Gender	1.877	.281	.279	6.671	<.001
Leadership	.552	.505	.068	1.093	.276
Years in service	.031	.514	.004	.060	.953
Number of deployments	-.046	.132	-.020	-.346	.729
Combat Experienced	1.153	.399	.154	2.890	.004
Self-monitoring total score	.170	.114	.247	1.490	.138
Acting subscale score	-.160	.179	-.062	-.895	.372
Extraversion subscale score	.640	.200	.291	3.199	.002
Other-Directedness subscale score	.297	.194	.084	1.527	.128

Note: $F(9, 199) = 182.574$, $p < .001$, $R^2 = 0.892$

Multiple Regression for Product Scenario 6 Liking Ratings: Strong Resolution of Defective Ammo Magazine

I conducted a standard multiple linear regression analysis to determine the relative strength of the independent variables in predicting liking ratings in the scenario that described an unpopular but effective complaint process to resolve a defective ammo magazine. The result of the multiple regression analysis was significant, $F(9, 199) = 182.551, p < .001, R^2 = 0.892$. These findings indicated the overall model was statistically significant. The model explained 89% of the variation in the liking ratings of the unpopular but high-resolution complaint process for defective ammo magazines.

The results showed that gender was a significant predictor of liking ratings, $B = 1.767, p < .001$. This result showed that males had significantly higher liking ratings for the unpopular but strong complaint process to resolve the defective ammo magazine. On average, there was a 1.77 unit increase in the liking rating when the participant was male. The results also showed that those that scored higher on the Extraversion subscale had significantly higher liking ratings for the unpopular but strong resolution process of a defective ammo magazine than those who scored lower on the Extraversion subscale. On average, there was a .640 unit increase in the liking rating for each unit increase in Extraversion. Table 14 shows the regression results for the independent (predictor) variables for scenario 6.

Table 14

Results of Multiple Linear Regression of Independent Variables Predicting Dependent Variable (Liking) of Scenario 6 (Unpopular but Strong Complaint Process to Resolve Defective Ammo Magazine)

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Gender	1.767	.284	.260	6.216	<.001
Leadership	.338	.510	.041	.661	.509
Years in service	.928	.519	.106	1.788	.075
Number of deployments	-.173	.134	-.075	-1.290	.198
Combat Experienced	.756	.403	.100	1.875	.062
Self-monitoring total score	.191	.115	.276	1.660	.098
Acting subscale score	-.006	.181	-.002	-.035	.972
Extraversion subscale score	.657	.202	.296	3.248	.001
Other-Directedness subscale score	.154	.196	.043	.785	.433

Note: $F(9, 199) = 182.551, p < .001, R^2 = 0.892$

Summary

I investigated the predictive relationship of nine independent variables on the affective liking scores (dependent variables) of six scenario-based product evaluations. In five out of six scenarios, gender was a significant predictor of liking ratings. Males generally had higher liking ratings across all products. Combat experience also was a significant predictor in three out of six product scenarios (one from each product category). Those with combat experience rated three of the six products higher. Extraversion subscale score was a significant predictor relative to the defective ammo magazine. Those scoring higher on Extraversion generally gave higher liking ratings for the defective ammo magazine scenarios. Leadership and years' experience were significant predictors in scenario 2 (great looking, less functional sock). Leaders generally gave lower liking scores than nonleaders for the great looking but less functional socks. Those with more years' experience (>5), gave higher liking scores than

those with less time in service (0–5 years) for the great looking but less functional socks.

In Chapter 5, I will interpret the findings, describe the limitations of the study, make recommendations, discuss the implications, and provide a conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this nonexperimental quantitative study was to determine the extent to which gender, leadership, years of service, number of deployments, combat experience, and self-monitoring variables (Self-Monitoring total score, Acting subscale, Extraversion subscale, and Other-Directedness subscale) are related to soldiers' degree of liking/disliking ratings of military products after reading product scenarios from three categories (clothing, food, and equipment). Multiple linear regression analyses were used to examine the relative strength of gender, leadership, years of service, number of deployments, combat experience, and self-monitoring variables (Self-Monitor total score, Acting subscale score, Extraversion subscale score, Other-Directedness subscale score) in predicting military consumers' liking/disliking ratings of military products. A military archival database of military consumer attitudes was used for the study.

Gender was a significant predictor with males giving significantly higher liking ratings than females for all the products, except for the product in Scenario 2 (popular/great looking, low functioning sock). Leadership was a significant predictor with leaders giving significantly lower liking ratings than nonleaders in Scenario 2 (popular/great looking, low functioning sock). Years of military service was a significant predictor with participants having more years of service giving significantly higher liking ratings than those with less military service in Scenario 2 (popular/great looking, low functioning sock). Number of deployments was not a significant predictor of liking ratings in any of the scenarios. Combat experience was a significant predictor with participants having combat experience giving significantly higher liking ratings than

those not having combat experience in Scenarios 2, 4, and 5 (popular, low functioning scenarios). The Self-Monitoring total score, Acting subscale score, and Other-Directedness subscale score were not significant predictors of liking/disliking ratings. More specifically, self-monitoring scores did not significantly predict participants' liking ratings in hypothetical product scenarios that were designed to appeal to low or high self-monitors. Extraversion was the only self-monitoring subscale score that significantly predicted liking ratings. Higher levels of Extraversion in Scenarios 5 and 6 (complaint processes to resolve defective ammunition magazines) were associated with higher liking ratings in both scenarios. Interpretation of the findings will be discussed in the following sections in terms of previous literature discussed in Chapter 2 and in the context of self-monitoring theory.

Interpretation of Findings

As noted in Chapter 2, civilian consumer research has shown that high self-monitoring consumers possess attitudes and behaviors different from their low self-monitoring counterparts (e.g., DeBono, 2006; Hye-Jin et al., 2008). High self-monitoring consumers tend to make consumer decisions that help them gain social favor. Low self-monitoring consumers adjust their consumer behavior to be congruent with the attitudes and behaviors of the persona of who they think they are. Typically, product utility is an important aspect for low self-monitoring consumers and a product's conveyed social identity is important for high self-monitors. Previous research has not examined self-monitoring theory in military consumers. Thus, the purpose of this study was to evaluate the extent to which self-monitoring constructs (Self-Monitoring, Acting, Extraversion,

Other-Directedness) and demographic variables (gender, leadership, deployments, combat experience) predict liking ratings of military product scenarios among active-duty soldiers. In the following sections, I analyze and interpret each of the hypotheses/predictor variables in the context of literature described in Chapter 2 and in the context of self-monitoring theory.

Hypothesis 1: Gender

In Hypothesis 1, I predicted a significant relationship between gender and liking/disliking ratings by military consumers. The results showed that gender was a significant predictor of liking ratings in 5 out of 6 product scenarios. Except for Scenario 2 (popular/great looking, low functioning sock), female soldiers gave significantly lower liking ratings compared to male soldiers.

More negative perceptions of female soldiers appear to coincide with other negative, gender-related experiences female veterans have experienced. For example, female soldiers have reported that their service in Afghanistan and Iraq was tainted by sexist stereotypes, hypermasculinity, and various forms of sexual harassment (Minsberg, 2015). In 1995 government reports evaluated by Antecol and Dobb-Clark (2006), 70.9% of active-duty females in the military reported they had experienced some form of sexually harassing behavior over a 12-month period. Antecol and Dobb-Clark compared the military female data to civilian female data from the same time period (Laband & Lentz, 1998; Schneider et al., 1997) and found that female employees in the civilian sector had lower rates of sexual harassment over a longer, 24-month period (68% in the private sector, 63% at a Midwestern university. Antecol and Cobb-Clark did a deeper

analysis of military female attitudes about sexual harassment that revealed military women considered sexually harassing behavior a negative influence when it was elevated (e.g., sexual coercion). Data revealed that when sexually harassing behavior was elevated, it resulted in significantly lower job satisfaction and lower intentions to stay in the military. Crude or offensive behavior was the most frequently reported form of sexually harassing behavior with 69.2% of female soldiers experiencing such behavior. That form of sexual harassment did not make a difference in job satisfaction or work-employment longevity. Sexual coercion (reported by 12.3% of the women) was associated with significantly lower job satisfaction and intentions to stay in the military when compared to males (Antecol & Cobb-Clark, 2006). The U.S. Government Accountability Office (2020) reported that females were 28% more likely than men to leave the military. Primary reasons listed were family planning, lack of dependent care, sexism, and sexual assault (see also Werner, 2020).

In some reports, females described being vulnerable and trying to protect themselves from enemies outside the wire as well as from their fellow soldiers inside the wire (Minsberg, 2015). Female soldiers also reported feeling compelled to prove themselves in a hypermasculine world that does not value their warfighting contributions and brands them with demeaning stereotypes (Minsberg, 2015; Trobaugh, 2018). These are some of the factors that might lead female soldiers to have lower general negative perceptions of military experience. This general negative perception is consistent with the findings from the current study regarding the evaluation of military products. Female

soldiers gave significantly lower liking ratings of military products across different product scenarios.

Richard and Molloy (2020) examined military male attitudes about themselves and attitudes toward female soldiers. They determined that scripts used by male soldiers revealed that they expected males to be providers, protectors, hardworking, family oriented, and physically fit. Male soldiers also viewed ideal military personnel as being male and adhering to the male script. Male soldiers viewed female soldiers as having more extensive and varied scripts. These scripts centered around expectations that females were weak, caring, and kind. For women in the military, the male soldiers defined them as token/masculine women, sexualized, weak, or wifey. Such sexist stereotypes undoubtedly can be frustrating for female soldiers to deal with on a recurring basis. In fact, some observers say the military is a self-perpetuating and reinforcing culture with practices that support what has otherwise been called a hypermasculine hegemony (Richard & Molloy, 2020; Steidl & Brookshire, 2018). Being hegemonic makes it self-sustaining and rewarding to the existing power structure of men (McVittie & Goodall, 2017). As such, this condition appears to be a point of discontent and possibly generalized dissatisfaction for females that manifested itself in this research in the form of consistent, lower liking ratings of military products. This research emphasizes the importance of addressing gender issues not only for job satisfaction and continued military service, but also potentially to enhance product satisfaction as well.

Hypothesis 2: Leadership

In Hypothesis 2, I predicted a significant relationship between leadership (leaders vs. nonleaders) and liking/disliking ratings by military consumers. Leadership was a significant predictor of liking ratings in product Scenario 2 (popular/great looking, low functioning sock). In Scenario 2, soldiers in leadership positions gave significantly lower liking ratings than soldiers who were nonleaders.

Lower functioning socks pose a foot-care problem to Army leaders who are tasked with helping soldiers prevent injuries through common-sense practices (Department of the Army, ATP 6-22.5, 2016; Lacdan, 2020). Leaders are charged to promote footcare among soldiers, particularly when they are in the field. Leaders are responsible for training and troop safety. Leaders teach soldiers to take care of their feet and to use proper foot gear. Combat military leaders are trained to be cognizant of health risks and must be vigilant in communicating daily with medical personnel regarding any health circumstances that could negatively impact the ability of soldiers to operate in the field (Molloy, 2020). Low-function socks (despite looking good) would logically be less liked from a safety-conscious leader's perspective. Product Scenario 2 was described as taking place in the field, where soldier safety concerns are elevated and more important than appearance concerns. In the field, a leader would have a duty to oversee and encourage use of a more functional sock over a less functional sock that looked nice. Significantly lower liking ratings by leaders for low-functioning socks scenario is understandable given their leadership role and responsibilities.

Hypothesis 3: Years of Service

Hypothesis 3 predicted a significant relationship between years of military service and liking/disliking ratings of product scenarios by military consumers. Years of service was a significant predictor of liking ratings in product Scenario 2 (popular/great looking, low functioning sock). In Scenario 2, soldiers with more years of military experience gave significantly higher liking ratings than soldiers with fewer years of military experience. This may be due to increased valuation of social ties created from longer time in service. Socialization is strongly applied in military organizations to lower heterogeneity among soldiers and direct them toward unified strategic goals and behavior (Manekin, 2017). Initially, most soldiers know little about the area of their first unit or the people they will be forming strong social bonds with. They often start out with unrealistic expectations of their military occupational skill and what Army life will be like (Helmus, et al., 2018). Over time, and usually not until they reach their first duty station after basic and advanced individual training, soldiers begin to develop close social relationships with peers and leaders (Helmus et al., 2018). The Army is successful in leading people and developing relationships (Arkin & Dobrofsky, 1978).

Over time, relationships are developed, and strong camaraderie is experienced by most soldiers (Helmus et al., 2018). Socialization of soldiers often involves a period of uncertainty and tension between the former culture of the civilian world and the new culture of the military world being entered into (Ahlfs, 2018). This tension is followed by directives, instruction, and activities that unify new recruits into a structured, social network that provides valuable camaraderie, mutual support, growth opportunities, and

friendship that sustains many soldiers while serving in the military (Lundquist, 2008). Military socialization impact is often so effective that it leads new recruits to want to stay in the military (Helmus, et al., 2018). Social connectedness for soldiers increases with time and results in higher retention for soldiers. It has also been associated with motivations of behavior, improved physical and mental health, and lower incidence of posttraumatic stress disorder (PTSD; Helmus et al., 2018; Kintzle, 2018; Nevarez et al., 2017; UCLA, 2010).

Camaraderie and social connectedness are more difficult for some soldiers transitioning to civilian life, especially if they have been exposed to combat (Ahlf, 2018; Arkin & Dobrofsky, 1978). Having social connectedness increases soldier health and helps soldiers adapt to the lack of structure in civilian life. More recently, fostering connectedness has become recognized as a desirable and important goal to pursue by those helping soldiers transition to civilian life (Kintzle et al., 2018). Despite socialization efforts, those efforts have limits and regular soldier preferences may differ from leader directives enough so that leaders must concede to the power of the group (Manekin, 2017). For example, such differences led to oppositional attitudes and rebellion that became major obstacles to Israeli Defense Force campaign efforts. During the Second Intifada, reservists who had served for a significant time resisted orders of their leaders to serve in occupied territories. Resolution was eventually achieved after IDF leadership made significant concessions (Manekin, 2017).

Similar differences may exist in this research between military leaders (who rated Scenario 2 lower) and those with greater time in service (who rated Scenario 2 higher).

Less experienced soldiers tend to be younger and more recently at basic and advanced individual training environments where they are taught by leaders to obey orders without question (Arkin & Dobrofsky, 1978; Levy & Sasson-Levy, 2008; Zurbreggin, 2010). It may be that less experienced soldiers are more influenced by leaders than are experienced soldiers such that the less experienced soldiers are more likely to follow leaders and rate product Scenario 2 in a similar manner as a leader would. This may help explain the liking rating differences between experienced and less experienced soldiers. Experienced soldiers have had more time to develop independent thinking compared to younger recruits. They may recognize and value social connectedness more, which can be achieved when wearing popular socks that provide peer attention and praise. Either case would follow a value-constructed path reasoned to by the soldier. Value-constructed consumer thinking was discussed earlier in Chapter 2 (Lee & Shavit, 2006). Logically, one might expect more experienced soldiers to understand the value of social connectedness over unquestioning obedience. The current research supports this hypothesis. More experienced soldiers gave significantly higher liking ratings in product Scenario 2 (popular/great looking, low functioning sock), which underscores social relationships.

Hypothesis 4: Deployment Experience

Hypothesis 4 predicted a significant relationship between deployment experience and liking/disliking ratings by military consumers. Deployment experience was not a significant predictor of liking ratings in any product scenario. Deployment experiences can be diverse in terms of location, duration, difficulty, enjoyment, etc. Congressional

Research Services (2022) provided the U.S. Congress a report of the instances of the United States government's use of armed forces abroad. The United States military has been used extensively for a variety of instances throughout the world. Some deployments are small. For example, on February 23, 2004, the President sent a 55-person, armed security force to Port-au-Prince, Haiti to augment the U.S. embassy security forces to protect American citizens and property due to instability caused by an armed rebellion in Haiti. Other deployments are large, such as the deployment in May, 2005 where the President sent a consolidated list of deployments to congress in support of the global war on terrorism with 139,000 U.S. military persons deployed to Iraq and other areas (Congressional Research Services, 2022).

Diversity in terms of type and length of deployment is considerable. The dataset used in the current study only recorded the number of deployments and did not include deployment factors that may influence military consumer attitudes. Parker et al. (2019) determined that soldiers had mixed views on whether their deployments were positive or negative. Parker et al.'s work suggests a variety of deployment experiences (e.g., duration, how austere, degree of battle engagement, time between deployments, etc.) can influence attitudes and behaviors of soldiers. The current research did not include distinguishing information about the deployment experiences. Deployment was measured solely by the number of deployments the soldier experienced and this variable was not a significant predictor of liking/disliking ratings in any product scenario. This data limitation regarding possible variation in positive and negative deployment experiences

could not be examined in terms of possible relationships to military consumer attitudes (i.e., liking ratings of military product scenarios).

Hypothesis 5: Combat Experience

Hypothesis 5 predicted a significant relationship between combat experience and liking/disliking ratings by military consumers. Combat experience was a significant predictor of liking ratings in product scenarios 2, 4, and 5 (popular/great looking sock, popular snack, and a peer-praised complaint process). Those scenarios were similar in that all of them were the only product scenarios that described positive social praise from peers. These results demonstrated that soldiers with combat experience gave significantly higher liking ratings in these scenarios than soldiers without combat experience.

The combat-experienced soldiers' higher liking ratings for product scenarios that involved positive social connectedness with their peers is notable. The need to belong is a universal human need (Allen, 2022). The military addresses this need through an exceptionally powerful socializing effort among its members (Ahlf, 2018; Arkin & Dobrofsky, 1978; Levy & Sasson-Levy, 2008). Though military socialization is powerful, it is not absolute (Levy & Sasson-Levy, 2008). Combat exposure strains the social fabric of military members and social connectedness is challenged afterwards. Yet, it is even more essential for combat-exposed soldiers during their service (i.e., to mitigate the risks associated with combat exposure) and after their service as they seek to reintegrate into normal civil society (Kintzle et al., 2018). For example, soldiers with high levels of social connectedness have more effective coping skills and reduced incidence of posttraumatic stress disorder symptoms (Kintzle et al., 2018). Military efforts to build social

connectedness results in unit cohesion and improves soldiers' ability to function as a unit under extreme conditions. In a recent study by Parker et al (2019), 90% of soldiers with combat experience reported that the military prepared them well for military life but only about half said the same thing about preparing them for the transition to civilian life. Soldiers with combat experience believe that combat experience resulted in greater connectedness to those who served alongside them in battle. This research demonstrated that soldiers with combat experience gave significantly higher liking ratings in product scenarios, associated with increased social connectedness, compared to soldiers without combat experience.

Hypothesis 6: Self-monitoring

Hypothesis 6 predicted a significant relationship between self-monitoring total scores and liking ratings by military consumers. High self-monitors express themselves in ways to appeal to the social values of those they are trying to impress (DeBono, 2006, Slama & Singley, 1996). Low self-monitors are motivated to reinforce their own, internal value system (DeBono, 2006; Kauppinen-Räsänen et al., 2018). For civilian consumers, self-monitoring predicted product appeal in low and high self-monitors based on product image, product quality, and product type (DeBono, 2006; Hogg et al., 2000; Kauppinen-Räsänen et al., 2018). However, in the current study the self-monitoring total score was not a significant predictor of liking ratings in any of the product scenarios. In each of the three product categories (clothing, food, equipment), one scenario was written to appeal to social praise and low functionality (high self-monitoring appeals) and a second

scenario was written to appeal to product functionality and low social praise (low self-monitoring appeals).

One possible explanation may be that the product scenarios lacked saliency congruent to the social values high self-monitoring soldiers perceive to exist (Shavitt & Fazio, 1991). The product scenarios used in the present study were developed based on similar consumer research that manipulated a product's appeal to low self-monitoring personality traits. However, the validity of the product scenarios was not tested. Alternatively, self-monitoring may not be a significant factor in soldiers' attitudes and evaluations of military consumer products because a military culture does not provide social status based on those consumer products. Rather, social status may be the result of rank, awards, and achievements related to military performance and not associated with the type of products issued to military personnel. Self-monitoring may simply not be an important personality characteristic with respect to evaluation of consumer products in the military due to limited abilities of the soldiers to distinguish themselves through product selection and use. Soldiers are trained to focus on completion of their mission. Perhaps this focus leads soldiers to look for social rewards elsewhere within the military culture (e.g., badges, feats of accomplishment, the uniform itself, special assignments, etc.).

Hypothesis 7: Acting Subscale

Hypothesis 7 predicted a significant relationship between Acting subscale scores and liking/disliking ratings by military consumers. Acting subscale scores did not significantly predict liking ratings in any of the product scenarios. The Acting subscale

relates to the aspect of one's abilities to willfully and effectively act and present oneself as something other than their native self-dispositions. As in hypothesis 6, the self-monitoring construct may not be a factor in military consumer product evaluations.

Hypothesis 8: Extraversion Subscale

Hypothesis 8 predicted a significant relationship between Extraversion subscale scores and liking/disliking ratings by military consumers. Extraversion was a significant predictor of liking ratings in the scenarios involving a product complaint (scenario 5 and 6). That is, participants with higher levels of Extraversion gave significantly higher liking ratings in both complaint scenarios (i.e., low praise but effective resolution of the complaint, and high praise but ineffective result of complaint). Both scenarios described a detachable ammunition magazine that randomly falls out of the weapon which can lead to life-or-death circumstances and a soldier's ability to fight. It seems those high in Extraversion are motivated to action regardless of the differing types of complaint process results. Extraversion subscale relates to a person's proactive tendencies (Briggs et al., 1980). Logically, this can include their willingness to insert themselves into socially challenging situations. In the present case, it appears that both complaint scenarios involved taking an action with various rewards and challenges. Both action paths were liked more by those with higher levels of Extraversion. Extraversion has been linked to a dopaminergic response wherein the neurotransmitter dopamine functions as a motivator (Wilmot et al., 2016). Anticipation alone can be enough to raise dopamine levels (Pietrangelo, 2019). It may be that scenarios 5 and 6 describe events and activities with previous experiences or with enough significance and consequence (weapon firing

functionality and lethality) that reading and thinking about the situation incentivizes or stimulates the brains of higher Extraversion soldiers enough to trigger dopamine release and an increase of motivation that leads to higher liking ratings (Volkow et al., 2011; Wise, 2006).

Both scenarios were associated with an effort to complain up the chain of command to seek a resolution to the problem. One method was effective in resolving the defect. The other method provided social regard among peers. Regardless of the scenario's context and social differences, liking was the same. It seems that those higher in Extraversion chose taking action with a vital military product (weapon operations) in the form of a complaint process with varied rewards.

Military culture socially recognizes being proactive in battle with various awards, such as the Bronze Star Medal with a "V" for valor. It is reasonable to assume that those with higher levels of Extraversion see a benefit being associated with any proactive efforts to resolve the defective magazine through engaging in the complaint process regardless of positive and negative social aspects. To those with higher levels of Extraversion, both scenarios may offer different, yet equally valued forms of social status.

Hypothesis 9: Other-Directedness Subscale

Hypothesis 9 predicted a significant relationship between Other-Directedness subscale scores and liking/disliking ratings by military consumers. Self-monitoring's Other-Directedness subscale scores pertain to behavior where one shrinks and subjugates personal interests to suit the interests of others. This construct is associated with shyness,

low self-esteem, anxiety, and neuroticism (Wilmot, 2015). The Other-Directedness subscale scores did not significantly predict liking ratings in any of the product scenarios. Wilmot (2015) examined Other-Directedness and found it unsuitable as a subscale in self-monitoring because it had lower validity and was orthogonal to the other subscales. Wilmot et al. (2017) proposed a bivariate model founded on the same self-monitoring instrument questions used by Snyder (1974, 1986). Wilmot questioned the original scoring method and created two new subscales termed acquisitive and protective self-monitoring. Although not in the scope of this research, reanalysis of the data using those two sub-domains might be useful. This study's intent was to focus on a military consumer group using traditional self-monitoring subscales. It seems some of the evaluated components of self-monitoring (subscales or total) do not influence military consumer attitudes toward military products.

Limitations of the Study

One important limitation in the current study was that the scenarios were not validated to ensure that they reflected meaningful and salient image conveyances that low and high self-monitoring military consumers valued. There were other limitations related to the measurements. In Chapter 4 I noted that the self-monitoring subscales had low internal consistency values (each subscale $<.50$). This certainly raises questions regarding the validity of the self-monitoring scores for the sample. In addition, the assumption of multicollinearity was not met for some of the predictor variables. This may have reduced the precision of the estimated coefficients, which weakens the statistical power of the regression models (Tabachnick & Fidell, 2013). Finally, there were limitations regarding

the lack of control in using an archival dataset. The fact that the dataset was also relatively old (i.e., collected in 2013) also limits the ability to generalize the results. This study did not find evidence to support self-monitoring as a factor that can be used to predict military consumer attitudes of military products. However, it does suggest that the military culture is different and self-monitoring personality characteristics are not influential in evaluation of military consumer products.

Recommendations

It is recommended that a similar study be conducted with validated scenarios and confirmation that the manipulated military product scenarios convey product images that are aligned with low and high self-monitoring attributes. This would strengthen the conclusion of the current study that self-monitoring personality characteristics are not influential in evaluation of military products. It may also be useful to evaluate the original archival data set using the bivariate self-monitoring scoring procedure proposed by Wilmot et al. (2017). If that model yields similar results, this will provide additional evidence confirming the lack of self-monitoring's utility with military consumer evaluation of military products.

Further research to characterize the relationship of specific military cultural practices (e.g., potential influence of a hegemonic hypermasculinity, gender scripts, social reward systems) and their relationship to product satisfaction could help product developers identifying ways to develop and present products that will be better utilized by the soldier. A grounded theory approach to understanding male and female product utilization factors could help. Relative to this, value is expected to be found in repeating

with female soldiers the same evaluation for perspective of scripts and expectations as was done with male soldiers by Richard and Molloy (2020).

Finally, results from this current work suggests that social connectedness may be a prominent factor that influences soldiers' liking of products. Learning more about the importance of social connectedness may be useful to future research intended to enhance the warfighter's use of products that support health, performance, work environment, job satisfaction, and retention.

Implications

Military consumer product liking impacts how well products are used for their intended purposes at the individual soldier level. Improvement in product liking can lead to benefits in many aspects of a soldier's life. Failure of products to appeal to soldiers may be due to oversights by product developers or may even reflect deeper military cultural factors that need further exploration. This research underscores some significant variables related to product liking that may point to potential military cultural influences in soldiers' experiences that need further research. Some of these variables include gender, time in service, leadership, and combat experience. Discovering the causes of these differences presents an opportunity to gain knowledge that may lead not only to improved individual product liking and product usage but potentially to improved military cultural practices that better support the demographic differences. Those improved practices may also benefit the Army as a whole. That might mean a stronger, more diverse military (i.e., a military with a stronger, more satisfied, and a more balanced male: female ratio). A potential downside is that without improved practices female

representation and general satisfaction with the military will remain low. The current study suggests that gender is an important factor not just to military consumer research but to military culture.

Less waste of products and better prepared soldiers with higher morale are obvious benefits derived from increasing a product's liking level among soldiers. Addressing potential underlying causes of lower product ratings may have even larger implications. With respect to a potential gender-based cultural deficit causing lower female product ratings, if cultural deficit is the cause, and if the culture is not improved, females may continue to be underrepresented in the military. Women serving in the military increased six-fold from 1973 (when the all-volunteer force was established) to 1995, at which time females represented 13% of the total U.S. military force (Antecol & Cobb-Clark, 2006). Today that percentage is closer to 17% (Department of Defense Office for Diversity, Equity, and Inclusion, 2022). A continued female underrepresentation could impact all levels of our society with incalculable losses related to female perspectives and insights that are lost or never discovered. The causes for the gender-related product scenario liking differences need to be understood. The implication is that improved military cultural practices could also be implemented that potentially increase diverse viewpoints added to the richness of the military culture and development of products, practices, and systems that can be used to improve the safety and effectiveness of all military personnel.

Conclusion

This research was conducted with the purpose helping the military and warfighters be more effective and safer through liking and using military consumer products more effectively. This study examined the strength of self-monitoring and demographic variables in predicting military consumer liking ratings of product scenarios. The research showed that self-monitoring was not a significant predictor of liking ratings of military products. Self-monitoring-relevant social rewards may not be relevant in military consumer products. Gender was a significant predictor of liking with males providing consistently higher liking ratings than females regardless of product or scenario types. Gender issues related to liking products may relate to military cultural elements impacting social rewards, retention, and possibly other unknown losses or benefits. Other demographic variables also demonstrated significant differences in liking of military products. Gaining understanding of the causes of these differences may provide opportunities to improve satisfaction of military products, reduce waste, and to make improvements within the military culture.

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Appendix A: Demographics (Page 1 in the Survey)

Consumer Research Study, Natick Soldier Center, U.S. Army

Please respond to all questions on each page by using the scales provided.

Fill in bubbles completely and neatly. Avoid making stray marks on this form. Return to Data Collector when done.

1. What is your gender? Male: M Female: F

2. What is your current rank? (For example: if you are an E-3, fill in the 3 on the "Enlisted" line)

Enlisted: 1 2 3 4 5 6 7 8 9

Warrant Officer: 1 2 3 4 5

Officer: 1 2 3 4 5 6 7 8 9

3. How many years have you served in the military?

Less than 1 year	1-2 years	2-3 years	3-5 years	5-10 years	10-15 years	More than 15 years
<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	<input type="radio"/> G

4. Have you been deployed before?

No	Yes, 1 time	Yes, 2 times	Yes, 3 times	Yes, 4 times	Yes, 5 times	Yes, 6 or more times
<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	<input type="radio"/> G

5. Have you experienced combat before?

No	Yes, on 1 occasion	Yes, on a few occasions	Yes, on several occasions	Yes, on many occasions
<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E

--Do NOT write below this line-- (Administrative use only)

Pg:	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	<input type="radio"/> G
Qstn:	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	<input type="radio"/> G
msc:	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	<input type="radio"/> G

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Appendix B: Clothing Category

Option 1 of 2

Military Socks

Consider yourself in the following situation: You have been wearing the same socks all week in a hot and muggy environment. You have done a lot of walking. Your feet have gotten wet a few times when crossing swampy ground. Also, in the hot weather your feet sweat. Under these conditions, your feet benefit from periodic airing out. When you stop to rest, you remove your boots to allow your feet and socks to dry in the open air. Others around you do likewise. Everyone sees everyone else's socks.

With the preceding conditions in mind, please rate the following two socks:

Sock 183

Note: please take your time to read carefully

Functionally above average but ugly--Rate how much you think you would like/dislike to use this sock.
Wearing these socks often invites ridicule and mocking from your peers because of the sock's ugly appearance. But you know the functional properties are above average for this sock.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

Sock 206

Note: please take your time to read carefully

Great looking but functionally below average--Rate how much you think you would like/dislike to use this sock.
Wearing these socks usually invites praise from your peers because the brand is well-known and stylish. But, you know the functional properties are below average for this sock.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

--Do NOT write below this line-- (Administrative use only)

Pg:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
Qstn:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
msc:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ

Clothing Category (Option 2 of 2)

Military Socks

Consider yourself in the following situation: You have been wearing the same socks all week in a hot and muggy environment. You have done a lot of walking. Your feet have gotten wet a few times when crossing swampy ground. Also, in the hot weather your feet sweat. Under these conditions, your feet benefit from periodic airing out. When you stop to rest, you remove your boots to allow your feet and socks to dry in the open air. Others around you do likewise. Everyone sees everyone else's socks.

With the preceding conditions in mind, please rate the following two socks:

Sock 206

Note: please take your time to read carefully

Great looking but functionally below average--Rate how much you think you would like/dislike to use this sock.

Wearing these socks usually invites praise from your peers because the brand is well-known and stylish. But, you know the functional properties are below average for this sock.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

Sock 183

Note: please take your time to read carefully

Functionally above average but ugly--Rate how much you think you would like/dislike to use this sock.

Wearing these socks often invites ridicule and mocking from your peers because of the sock's ugly appearance. But you know the functional properties are above average for this sock.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

--Do NOT write below this line-- (Administrative use only)

Pg:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
Qstn:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
msc:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ

Appendix C: Food Category

Option 1 of 2

MRE Snacks

Consider the following situation: you have been in the field for an extended period of time and you do not expect things to change any time soon. You are missing home a little. Days are long and sometimes you lose track of what day of the week it is. Sometimes, meals are the bright spot of the day. One of your daily meals is served hot. The other two meals are MREs. The MREs are losing their appeal and you don't always get to choose which MRE you will get.

With the preceding conditions in mind, please rate the following two MRE snacks:

Snack item 398

Note: please take your time to read carefully

You know this snack has much GREATER nutritional value than most MRE snacks. But this snack is UNPOPULAR and CRITICIZED by some people you know. Rate how much you would like/dislike this type of snack item.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

Snack item 412

Note: please take your time to read carefully

You know this snack has much LESS nutritional value than most MRE snacks. But this snack is POPULAR and PRAISED by some people you know. Rate how much you would like/dislike this type of snack item.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

--Do NOT write below this line-- (Administrative use only)

Pg:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
Qstn:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
msc:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ

Food Category (Option 2 of 2)

MRE Snacks

Consider the following situation: you have been in the field for an extended period of time and you do not expect things to change any time soon. You are missing home a little. Days are long and sometimes you lose track of what day of the week it is. Sometimes, meals are the bright spot of the day. One of your daily meals is served hot. The other two meals are MREs. The MREs are losing their appeal and you don't always get to choose which MRE you will get.

With the preceding conditions in mind, please rate the following two MRE snacks:

Snack item 412

Note: please take your time to read carefully

You know this snack has much LESS nutritional value than most MRE snacks. But this snack is POPULAR and PRAISED by some people you know. Rate how much you would like/dislike this type of snack item.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

Snack item 398

Note: please take your time to read carefully

You know this snack has much GREATER nutritional value than most MRE snacks. But this snack is UNPOPULAR and CRITICIZED by some people you know. Rate how much you would like/dislike this type of snack item.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

--Do NOT write below this line-- (Administrative use only)

Pg:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
Qstn:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
msc:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ

Appendix D: Equipment Category

Option 1 of 2

Ammo Magazine

Consider the following situation: you are in the field under difficult conditions. You rely heavily on the personal equipment you carry. You don't want to carry anything that isn't useful or reliable. Ammo is heavy and you usually carry several loaded magazines when outside any safe zone. You have noticed what appears to be a design flaw in the ammo magazines that causes rounds to fall out of the magazine unexpectedly when engaged in certain types of vigorous activity. You are concerned that this flaw may one day have serious negative consequences for you or for someone you know. You have observed and thought about the magazine design flaw long enough to know it is a genuine concern. You need to decide whether to push a formal complaint up the chain of command.

With the preceding conditions in mind, please rate how much you would like/dislike voicing a complaint in each of two complaint conditions described below:

Complaint Condition 518

Note: please take your time to read carefully

Positive peers/leaders, Weak resolution chain--Rate how much you would like/dislike making a formal complaint given that: Your leaders and peers view identification of problems positively. They will think well of you for making a formal complaint that highlights problems. But, you also know the complaint process for the command works poorly whenever a formal complaint is made.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

Complaint Condition 612

Note: please take your time to read carefully

Negative peers/leaders, Strong resolution chain--Rate how much you would like/dislike making a formal complaint given that: Your leaders and peers view identification of problems negatively. They will think poorly of you for highlighting a problem. But, you also know the complaint process for the command works effectively at resolutions whenever a formal complaint is made.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

--Do NOT write below this line-- (Administrative use only)

Pg:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
Qstn:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
msc:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ

Equipment Category (Option 2 of 2)

Ammo Magazine

Consider the following situation: you are in the field under difficult conditions. You rely heavily on the personal equipment you carry. You don't want to carry anything that isn't useful or reliable. Ammo is heavy and you usually carry several loaded magazines when outside any safe zone. You have noticed what appears to be a design flaw in the ammo magazines that causes rounds to fall out of the magazine unexpectedly when engaged in certain types of vigorous activity. You are concerned that this flaw may one day have serious negative consequences for you or for someone you know. You have observed and thought about the magazine design flaw long enough to know it is a genuine concern. You need to decide whether to push a formal complaint up the chain of command.

With the preceding conditions in mind, please rate how much you would like/dislike voicing a complaint in each of two complaint conditions described below:

Complaint Condition 612

Note: please take your time to read carefully

Negative peers/leaders, Strong resolution chain--Rate how much you would like/dislike making a formal complaint given that: Your leaders and peers view identification of problems negatively. They will think poorly of you for highlighting a problem. But, you also know the complaint process for the command works effectively at resolutions whenever a formal complaint is made.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

Complaint Condition 518

Note: please take your time to read carefully

Positive peers/leaders, Weak resolution chain--Rate how much you would like/dislike making a formal complaint given that: Your leaders and peers view identification of problems positively. They will think well of you for making a formal complaint that highlights problems. But, you also know the complaint process for the command works poorly whenever a formal complaint is made.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither Like Nor Dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

--Do NOT write below this line-- (Administrative use only)

Pg:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
Qstn:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
msc:	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ

Appendix E: 18-Item Self-Monitoring Scale (Last/Page 5 in Survey)

Please respond to all of the T/F statements

- | <u>TRUE</u> | <u>FALSE</u> | |
|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------|
| <input type="radio"/> | <input type="radio"/> | I find it hard to imitate the behavior of other people. |
| <input type="radio"/> | <input type="radio"/> | At parties and social gatherings, I do not attempt to do or say things that others will like. |
| <input type="radio"/> | <input type="radio"/> | I can only argue for ideas which I already believe. |
| <input type="radio"/> | <input type="radio"/> | I can make impromptu speeches even on topics about which I have almost no information. |
| <input type="radio"/> | <input type="radio"/> | I guess I put on a show to impress or entertain others. |
| <input type="radio"/> | <input type="radio"/> | I would probably make a good actor. |
| <input type="radio"/> | <input type="radio"/> | In a group of people I am rarely the center of attention. |
| <input type="radio"/> | <input type="radio"/> | In different situations and with different people, I often act like very different persons. |
| <input type="radio"/> | <input type="radio"/> | I am not particularly good at making other people like me. |
| <input type="radio"/> | <input type="radio"/> | I'm not always the person I appear to be. |
| <input type="radio"/> | <input type="radio"/> | I would not change my opinions (or the way I do things) in order to please someone or win their favor. |
| <input type="radio"/> | <input type="radio"/> | I have considered being an entertainer. |
| <input type="radio"/> | <input type="radio"/> | I have never been good at games like charades or improvisational acting. |
| <input type="radio"/> | <input type="radio"/> | I have trouble changing my behavior to suit different people and different situations. |
| <input type="radio"/> | <input type="radio"/> | At a party I let others keep the jokes and stories going. |
| <input type="radio"/> | <input type="radio"/> | I feel a bit awkward in public and do not show up quite as well as I should. |
| <input type="radio"/> | <input type="radio"/> | I can look anyone in the eye and tell a lie with a straight face (if for a right end). |
| <input type="radio"/> | <input type="radio"/> | I may deceive people by being friendly when I really dislike them. |

--Do NOT write below this line-- (Administrative use only)

Pg:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Qstn:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Scale development credit: Snyder. M. (1986) Eighteen-Item Measure of Self-Monitoring

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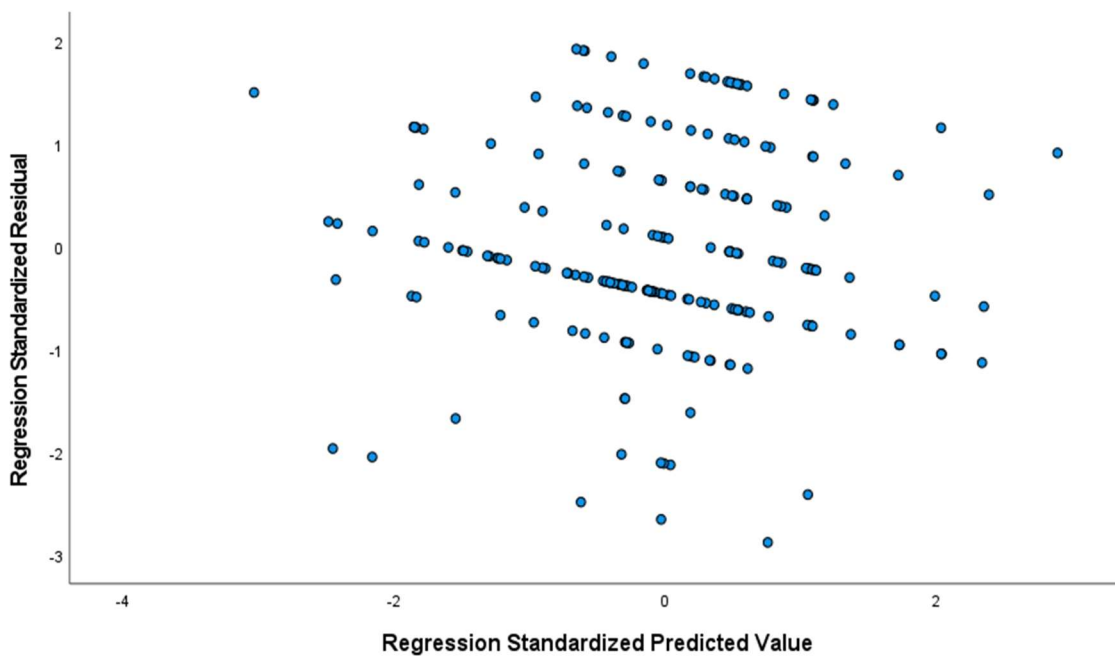
Appendix F: Permission to Use Existing Data

All data used in this study were OPSEC'd and approved for public release under PR2022_68026, verified 18 April 2022, U.S. Army, Combat Capabilities Development Command—Soldier Center. In the interim of receiving public release of the data, owners of the data (Team leaders of the Consumer Research Team at DEVCOM-SC) authorized use of the data for purposes of this research study. Additionally, the survey's used in this study have been OPSEC'd and approved for public release under PR2022_7975.

Appendix G: Test for Normality

Figure G1

Scatter Plot of Dependent Variable (1-9 Hedonic/Liking scale), Scenario 1

**Figure G2**

Normal Q-Q Plot of Liking_s1 (Ugly)

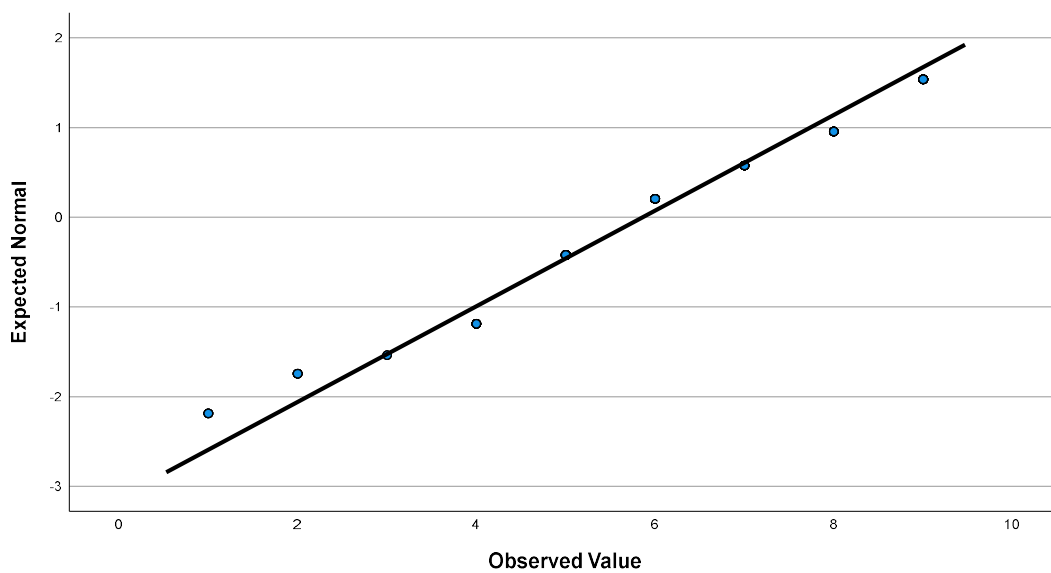


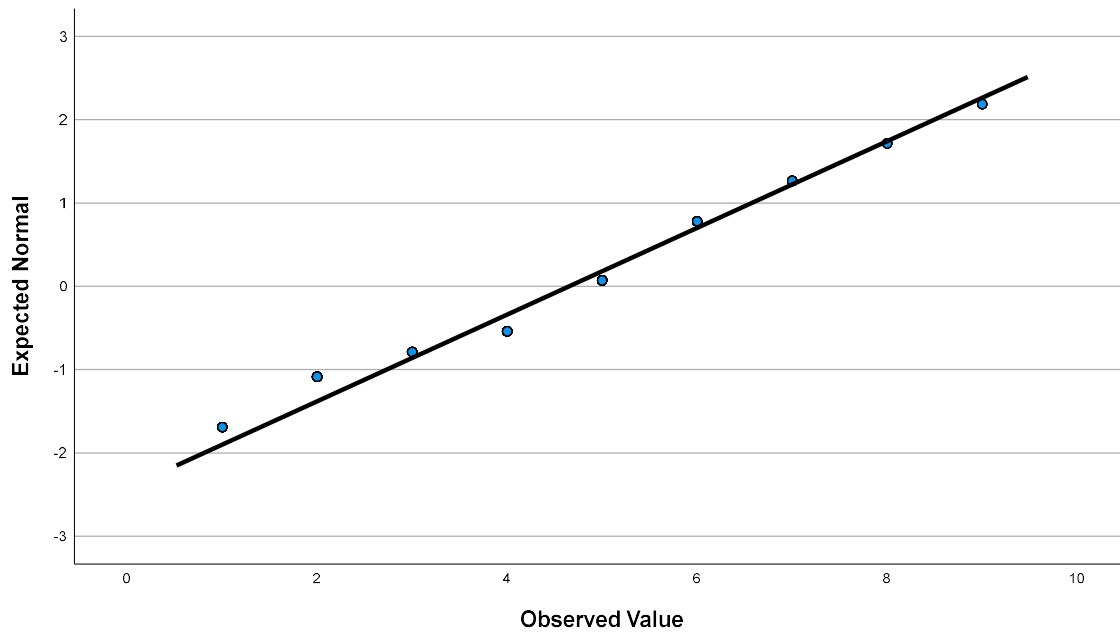
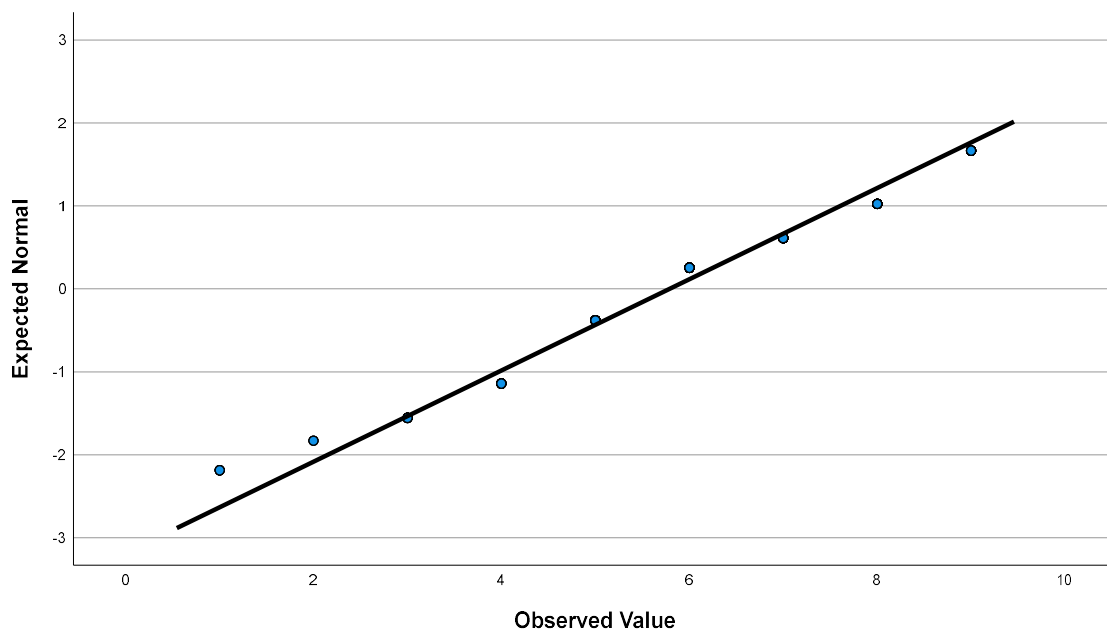
Figure G3*Normal Q-Q Plot of Liking_s2 (Praise)***Figure G4***Normal Q-Q Plot of Liking_s3 (Nutritional)*

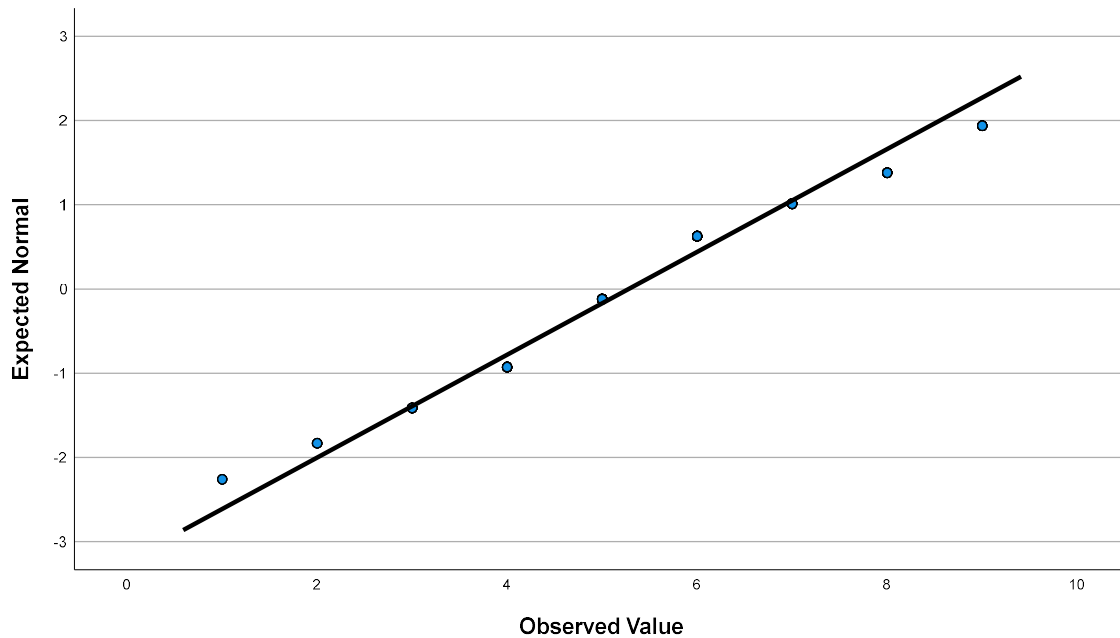
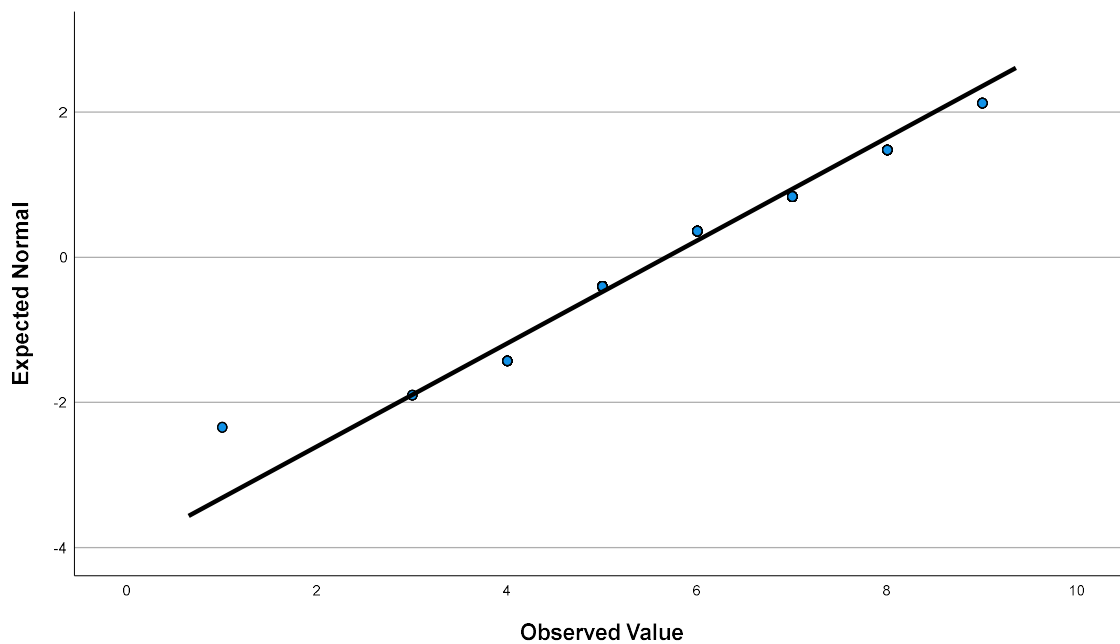
Figure G5*Normal Q-Q Plot of Liking_s4 (Praise)***Figure G6***Normal Q-Q Plot of Liking_s5 (Praise)*

Figure G7

Normal Q-Q Plot of Liking_s6 (Resolution)

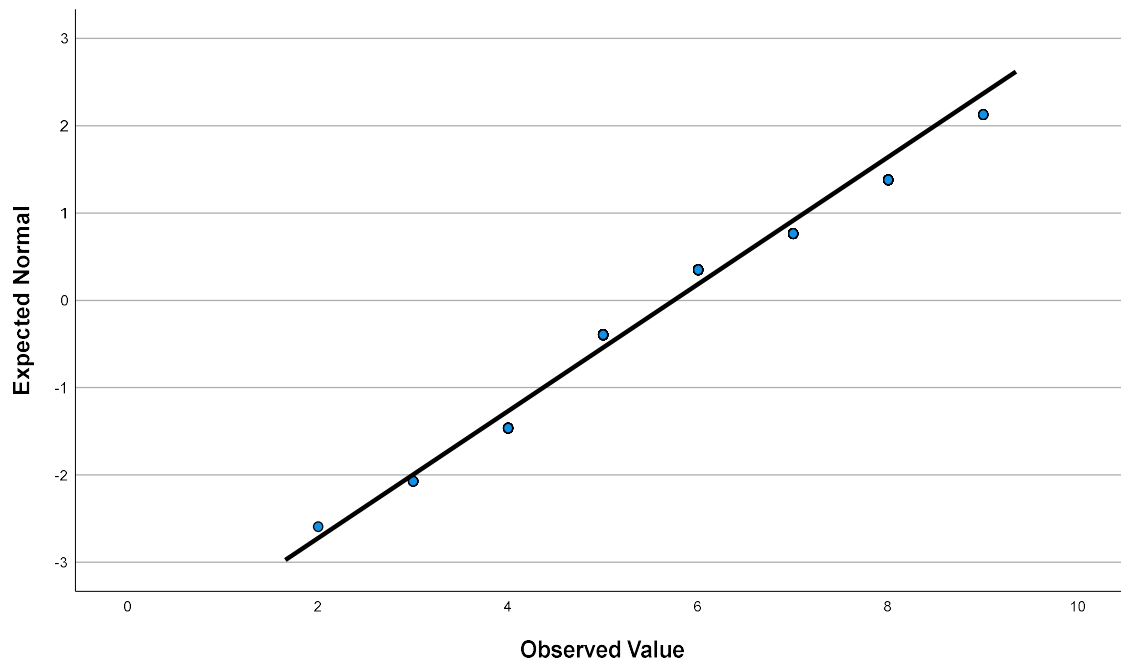
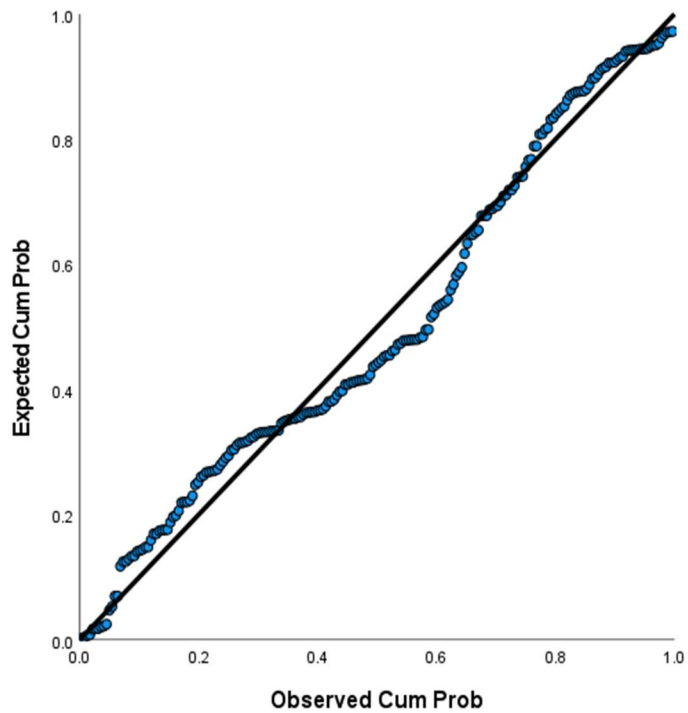


Figure G8*Representative Dependent Variable Plot*

Note. This figure represents one of six Dependent variable plots that were evaluated. All had a similar appearance.