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United States and Canadian Citizens' Perceptions of Border Security: The Influence of Emotional Reactions

James F. (James Freeman) Faucet
Western Washington University

United States and Canadian Citizens' Perceptions of Border Security: The Influence of Emotional Reactions

By

James F. Faucett

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Moheb A. Ghali, Dean of the Graduate School

Advisory Committee

_____

Chair, Dr. George Cvetkovich

_____

Dr. Kristi Lemm

_____

Dr. Jennifer Devenport

Master's Thesis

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A Thesis
Presented to
The Faculty of
Western Washington University

In Partial Fulfillment
Of the Requirements for the Degree
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by
James F. Faucett
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Abstract

Efforts to bolster support of border policy are dependent on an understanding of the psychological mechanisms underlying perception of border management. Hazard-focused emotional reactions of fear and anger and the management-focused emotion of trust have been shown to influence risk perception. To determine the generality of these findings, the current study sampled United States and Canadian citizens living near the Northwest Washington / Southwest British Columbia border. Emotional reactions were shown to effect perception of border management across knowledge levels and country of residence. U.S. citizens reported higher levels of fear, anger, and worry about border security compared to Canadian citizens, and lower levels of confidence and support. Fear-dominant compared to anger dominant emotional reactions resulted in more positive evaluations of border management. Contributions include an improved understanding of the importance of affect to risk evaluations. Suggestions for border managers attempting to garner support of "Secure Borders and Open Doors" are offered.

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Table of Contents

Contents

List of Tables and Figures

Introduction

The terrorist attacks of September 11th, 2001 triggered considerable efforts by the U.S. and Canadian governments to increase protection of their mutual borders (Department of Homeland Security, 2008). But protection has a cost. Despite efforts to maintain a "Secure Borders and Open Doors" policy, implemented measures both increased protection and negatively affected commerce and trade between the countries (Globerman & Storer, 2006). Cross-border commerce and trade, critical for the economies of both countries, has been negatively affected in several important ways (Border Policy Research Institute, 2006; Border Policy Research Institute, 2008). There has been an increase in border crossing wait times and additional costs for companies engaged in cross-border business. Difficulties with entering and leaving the U.S. have been blamed for decreases in the number of international tourists visiting the United States (Ipsos-Reid, 2003; Border Research Policy Institute, 2006; Homeland Security, 2008).

Securing the border by preventing terrorist activity and entry of other contraband is an area of high concern for many citizens (Cvetkovich and Faucett, 2008). The importance of business relations between the two countries is also salient in the minds of many Canadian (63%) and U.S. (46%) citizens who believe that security measures hinder business relations between the two countries (Ipsos-Reid, 2003). Residents of the United States and Canada are dependent on a border that is secure, and one that ensures a convenient crossing process for legitimate business and leisure travel.

Understanding the psychological mechanisms underlying evaluations of border management offers the possible benefit of yielding suggestions on how to garner citizen

cooperation with and support of border practices (Cvetkovich & Winter, 2003; Fischhoff, Gonzales, Lerner, & Small, 2005; Siegrist, Earle, & Gutscher, 2005; Earle, 2009). This study was designed to investigate United States and Canadian citizens' perceptions of border security as influenced by emotion, assessed performance, and level of self-assessed knowledge. The relative influence of four emotional reactions is examined: anger, worry, fear, and trust.

Information Processing and Risk Perception

There are currently two dominant information processing theories used to explain human reasoning. A common theme in both dual processing and experiential processing theories is the importance of emotion and level of familiarity with a topic.

Dual processing theorists infer a complementary relationship between two types of reasoning: deliberative and associative processing (Petty, Kasmer, Haugvedt, & Caccioppo, 1987; Sloman, 1996). Deliberative information processing, sometimes referred to as central processing, is based on rules and logic (Petty et al.,; Sloman; Cvetkovich & Winter, 2007). Assessments of border management based on deliberative reasoning require an extensive logical evaluation of the evidence. Deliberative processing requires both the availability of extensive cognitive resources and the ability to effectively evaluate the available information as described by the Elaboration Likelihood model (Petty et al.).

Associative processing is an intuitive, automatic form of reasoning driven by associations, emotions, and experiences (Cvetkovich & Winter, 2007; Petty et al., 1987; Sloman, 1996). Reyna and Brainerd (1995) have labeled this "gist" processing, inferring that emotion and other heuristic cues lead to intuitive assessments and decisions that are both accurate and efficient. Associative information processing, in contrast to rule based logic, is innate and stems

from experiential reactions (Slovic, Finucane, Peters, & MacGregor, 2004). Associative reasoning about a problem such as securing the border is manifested by positive or negative reactions to aspects of border management particularly salient to the individual citizen.

The proposition that associations generate all reasoning processes is an alternative view to the dual processing model (Reyna and Brainerd, 1995; Finucane, Alhakami, Slovic, & Johnson, 2000). Experiential processing theory attributes differences in reasoning to individual differences in inferential associations or affective reactions rather than the balance of processes (deliberative and associative thought). Cacioppo and Bernston (1999) and Damasio (2001) describe the emotional system as an innate evolutionary tool designed to aid organisms in responding to positive and aversive stimuli in the environment. One benefit of experiential processing is that it is a fast and efficient way of making decisions (Gigerenzer & Goldstein, 1996).

In line with previous risk perception research, the current study intends to assess the relative influence of emotion and logic based reasoning processes used by the public to assess management of the border.

Hazard-focused Emotional Reactions to Border Security: Fear, Anger, and Worry

Fear, anger, and worry have been shown to influence perception of risk likelihood and citizen behavior. Peters, Burraston, & Mertxz (2004) concluded based on path analysis that negative emotions (of fear and anger) strongly predict the perceived risk of radioactive waste, nuclear power, and sun tanning. Perceptions of the probabilities of the risk of a terrorist act following the attacks of September 11, 2001 have been shown to vary depending on whether an individual experiences the emotion of fear or anger (Fischhoff et al., 2005). Participants primed

with a dominant emotional reaction of fear made a high estimate of the risk of future attacks whereas those primed with a dominant reaction of anger estimated a lower risk of future attacks relative to a control condition that did not receive an emotional prime. A questionnaire completed by the same respondents one year later indicated that the emotional primes had a continuing effect. Anger-primed participants recalled fewer risks than did those in the control condition. Fear-primed participants recalled more risks than did those in the control condition. The study by Fischhoff et al. identified differences of as much as 10% in perceptions of terrorism based on the valence of an emotional prime. Lerner, Gonzalez, Small, and Fischhoff (2003) found that level of anger and fear not only influence assessments of risk probability, but that they also alter attitudes towards public policy. Participants primed with anger were more supportive of aggressive policy implementation than those primed with fear, who were more supportive of a conciliatory policy.

An emotional reaction of worry about a risk has been shown to have behavioral implications, for both inexperienced and experienced travelers. Worry about future terrorist attacks was a strong negative predictor of willingness to travel in a student sample surveyed shortly after the 2001 terrorist attacks (Fischhoff, Bruine de Bruine, Perrin, & Downs, 2004). Respondents identified as frequent travelers who reported high levels of worry about terrorism reported being less likely to travel and more likely to cancel travel plans to areas perceived as unsafe following the 2001 terrorist attacks (Bergstrom & McCaul, 2004). Worry about a breach at the border continues to be a prominent reaction for many citizens. In a series of recent polls 64% of American respondents reported that a terrorist attack is something that worries them, and 39% to 45% of respondents reported worrying that a friend or family member may be harmed by

a terror attack (ABC News/Washington Post Poll, September 4th-7th, 2008; Ap-GfK Poll, May 28th-June 1st, 2009).

Management-focused Emotional Reactions to Border Security: Trust and Confidence

Anger, fear, and worry are hazard-focused emotions. As studied by Lerner et al. (2003), Fischhoff et al., (2005), and Bergstrom and McCaul (2004), for example, they are responses to the hazardousness of the targeted risk, terrorist attack. Trust is a management-focused emotion in that it is a response to the authorities or regulators who have the responsibility of protecting the public from the hazard (Cvetkovich & Lofstedt, 1999). Several studies have shown that there is a strong negative correlation between judgments of trust and perceptions of risk (Kunreuther, Easterling, Desvousges, & Slovik, 1990; Frewer, Howard, Hedderley, & Shepherd, 1996; Hine, Summers, Prystupa, & McKenzie-Richer, 1997; Siegrist, & Cvetkovich, 2000; Cvetkovich, & Winter, 2003). Individuals who trust risk managers perceive the risk of the managed hazard as low.

Trust is a social emotion characterized as a feeling that occurs in response to thoughts about the future (Barbalet, 1998). It is frequently defined as a response of making oneself vulnerable to another in exchange for desired benefits based on beliefs about another's values, intentions, benevolence, or other traits (Cvetkovich & Winter, 2007; Earle & Siegrist, 2008). It is a judgment that future benefits from placing one's faith in another will outweigh potential harm. Trust in border managers is dependent on the judgment that efforts made to enhance security and convenience of cross-border travel are consistent with the citizen's priorities (Cvetkovich & Faucett, 2008). This is in accordance with the salient value similarity (SVS) theory of trust (Earle & Cvetkovich, 1995; Cvetkovich, & Winter, 2003; Cvetkovich & Winter, 2007) which states

that social trust results from perceptions that a manager or organization shares similar goals, values, and views to those of the citizen. Studies of the management of a number of risks (endangered species, water quality, electromagnetic fields, genetically modified foods, arctic oil drilling, and traffic project management) have shown that trust evaluations rely on perceived value similarities (Cvetkovich, & Winter, 2003; Siegrist et al., 2003; Earle & Siegrist, 2006; Poortinga & Pidgeon, 2006). An example supporting the SVS theory comes from a study of a controversial proposed ban of motorboats from a municipal water supply lake (Cvetkovich & Nakayachi, 2007). Trust of each of the four groups involved in the controversy was more strongly related to evaluations of SVS than to the group's perceived fairness or technical competence. The importance of perceived value similarity as a primary indicator of trust in place of more concrete, objective criterion such as technical competence is evidence of the associative and inferential nature of trust.

Trust and confidence have commonly been treated as synonymous. Over the past decade several risk researchers have provided evidence that trust and confidence are unique constructs (Siegrist et al., 2003; Siegrist et al., 2005; Earle & Siegrist, 2006; Earle & Siegrist, 2008; Earle, 2009). Confidence is based on a positive evaluation of evidence such as an organization's or manager's perceived record of performance (Earle, 2009). In contrast to the intuitive automated nature of trust evaluations, confidence is based on an objective evaluation of performance more characteristic of deliberative information processing. Confidence is characterized by a feeling that everything is under control and that future events will not bring disappointment (Earle & Siegrist, 2008).

Empirical investigations into the relationship between trust and confidence have taken place in a variety of contexts. Siegrist et al. (2005) concluded on the basis of factor analysis of survey data that the trait of general trust (a belief that others, in general, can be relied on) and the trait of general confidence (a belief that the risks of hazards, in general, are under control) are distinct, though moderately correlated constructs. Other studies have looked more specifically at the relationships between trust and confidence in specific management situations. See Figure 1 for an example of the structural relationships between perceived salient value similarity, trust, assessment of past performance, confidence, and cooperation identified as the Trust, Confidence, and Cooperation (TCC) model (Earle & Siegrist, 2008). Perceived salient value similarity leads to trust of management. Trust predicts perceived past performance of the manager, confidence in management, and support of or willingness to cooperate with the hazard manager in the future. Confidence is predicted by an evaluation of prior performance, trust, and predicts willingness to support or cooperate. These relationships were confirmed using path analysis in the study of hazards including electromagnetic risks, construction in a major city, and Alaska oil drilling (Siegriest et al., 2003; Earle & Siegrist, 2006).

The TCC model has been shown to be context specific in that the factor to factor path weights vary significantly depending on the focus of the investigation (Siegriest et al., 2003; Earle & Siegrist, 2006). When participants were questioned about Alaska oil drilling, trust continued to predict cooperation whereas confidence lost predictive power (Earle & Siegrist). The authors attributed this finding to the lack of knowledge participants had about drilling in Alaska in comparison with the study on local traffic. This contextual aspect to the model has

important implications relevant to risk management communication efforts. Successful efforts to increase cooperation require a familiarity with the values and knowledge level of the audience.

The Border Security Study of Emotions

An investigation preliminary to the present study, the 2007-08 Border Security Study of Emotions (BSSE), examined perceptions of U.S. border security of self-selected convenience samples of young (N=199) and older (N=88) adult Americans (Cvetkovich & Faucett, 2008; Faucett & Cvetkovich, 2008) using mediator-moderator analysis (Baron & Kenny, 1986). Participants who reported being knowledgeable "about what should be done for effective border security?" compared to those reporting low knowledge demonstrated apparent differences in the relative influences of emotions on confidence in the U.S. borders being secure in the future. For individuals reporting a low level of knowledge, high confidence was primarily influenced by the emotional reactions of trust, anger, and fear. In contrast, for individuals reporting a high level of knowledge, high confidence was predicted most directly by perceived performance of border managers, not emotional reactions. The BSSE results, in line with past research findings, suggests that border security managers' efforts to effectively implement "Secure Borders and Open Doors" policies require an awareness of the audience's level of knowledge, familiarity with the management issue, and emotional reactions to the policies.

Emotional Reactions and Knowledge

The BSSE finding that participants high in self-assessed knowledge relied more on a logical evaluation of performance and less on emotional reactions to evaluate border management is supported by previous risk perception research. Savadori, Savio, Nicotra, Rumiati, Finucane, & Slovic (2004) found that lay people consistently rated the risks related to

biotechnologies (i.e., GMO food, medical devices, cloning) as more severe than did experts with advanced degrees in biology. The authors attribute this finding to the negative emotions regularly experienced by lay people when thinking about unfamiliar technologies in contrast to experts, who are able to offset negative affect by objectively evaluating potential benefits. The ability and motivation to engage in rational thought about biotechnology resulted in alternative evaluations of the same risk (Savadori et al., 2004). Siegrist and Earle (2006) attributed contextual differences in their TCC model to participant level of knowledge, hypothesizing that the structural path from confidence to cooperation lost predictive power when the audience was unfamiliar with the assessed hazard.

The present study was designed to further examine the reasoning processes behind border security evaluations. Participants who evaluate themselves as being knowledgeable about border practices will be distinguished from those who evaluate themselves as being less knowledgeable. Path analysis will then be used to test the hypothesis that individuals higher in self-assessed knowledge rely more on logical evaluations of border management (perceived performance during the past five years) compared to those who are lower in self-assessed knowledge who will in turn rely more on emotional reactions of anger, worry, fear, and trust.

Hypotheses

1) Replication of the TCC model: It is hypothesized that structural equation modeling will confirm the relationships identified in the TCC model (Earle & Siegrist, 2008).

2) Hazard focused emotions: Structural equation modeling will incorporate the hazard-focused emotions of anger, fear, and worry into the TCC model. Hazard-focused emotions, in comparison to management focused emotions, will have an indirect influence on confidence and

support evaluations. This prediction is based on previous research and theory implicating the important underlying influence of affect in risk perception (Lerner et al., 2003; Slovic et al., 2004; Fischhoff et al., 2005; Cvetkovich & Faucett, 2008; Faucett & Cvetkovich, 2008).

3) High and low self-assessed knowledge: It is hypothesized that perceived past performance will be strongly associated with confidence and support assessments for individuals who consider themselves to be high in knowledge about border management. Intuition (emotional reactions) will be strongly associated with confidence and support assessments for individuals who consider themselves to be low in self-assessed knowledge about border management. This hypothesis is based on the elaboration likelihood model (Petty et al., 1987), findings from the BSSE, and previous research into knowledge and emotional reactions to risk (Savatori et al. 2004; Earle & Siegrist, 2006).

4) Fear- and anger-dominant emotional reactions: It is hypothesized that participants with anger-dominant emotional reactions will perceive border security managers differently than will those with fear-dominant emotional reactions. Because fear-primed participants perceived risk as more likely to occur, and were more accepting of conciliatory policy (Lerner et al. 2003; Fischhoff et al.2005), fear-dominant citizens are expected to have more positive assessments of border management than will anger-dominant citizens.

5) Nationality Differences: It is hypothesized that U.S. citizens will have significantly higher levels of anger, fear, and worry than will Canadian citizens, and that Canadian citizens will therefore be more trusting of, confident in, and supportive of border security. This hypothesis is based on the fact that the United States has been the victim of a terrorist attack and

the finding by Lerner et al. (2003) that emotional primes maintained a longitudinal influence on perceptions of terrorism.

Method

Procedure

Northwest Washington counties and Southwest British Columbia Regional Districts spanning the U.S./Canadian border along the U.S. Interstate-5 / Canadian Highway 99 corridor were targeted for the study. An equitable geographic distribution along this transportation corridor was sought with the cities of Seattle and Vancouver set as the anchors on the respective side of the border. Participants residing in and between Seattle and Vancouver were selected from the Survey Sampling International (surveysampling.com) online respondent pool. Those selected were sent an invitation to participate in a "Survey Spot" online survey. The Survey Sampling International (SSI) respondent pool is comprised of "proprietary communities developed by SSI, affiliate companies managed by SSI, members of panel communities, web communities, databases, and mailing lists, or other collections who have opted-in to participate in research" (SSI, 2008, p. 3). SSI respondents over the age of 25 are entered into a quarterly drawing for $25,000 for participating in a survey; respondents under the age of 25 receive monetary compensation of $3.00 for completing a survey. SSI received $3,541 for supplying study respondents representative of the designated counties and municipal districts. See Table 1 for a summary of survey invitations sent and survey respondents by geographic areas.

Participants

A total of 733 United States (n = 325) and Canadian (n = 408) citizens completed the online questionnaire and were included in the study. An additional 122 individuals were not

included in the analysis because they failed to complete all of the required questions. Comparisons Canadian participants to the British Columbia population reported in the 1996 census (BC Stats, 2001) are presented in Table 2. Comparisons of U.S. participants to the Washington State population reported in the 2000 census (United States Census Bureau, 2000) are presented in Table 3. Demographic information statistics on the specific Washington counties and Canadian Regional districts selected to participate in the study are not known.

Questionnaire

SurveyMonkey.com was used to host the questionnaire. The Canadian version of the questionnaire, given to Canadian citizens and asking about Canadian border management, is in Appendix A. The United States version of the questionnaire, given to U.S. citizens and asking the same questions about U.S. border management, is in Appendix B. The "Survey Spot" link directed participants to a greeting informing them that they would be participating in an ongoing investigation into citizen perception of management of the border, and that the questionnaire would contain similar questions about three different aspects of border management. Part A covered general opinions about management of the border; Part B covered opinions about border security (preventing crossings by terrorists and illegal immigrants, and preventing entry of contraband including illegal drugs and weapons); and Part C covered opinions about managing the efficiency of border crossings by legitimate border crossers (low costs to tourists, businesses, and other legitimate travelers in time, documentation, and questioning). In each section, question order and scale anchors were held consistent. The final section of the questionnaire, Part D, asked for personal information (e.g., gender, age, and ethnicity) and inquired about participants' knowledge level and border crossing experiences. Each section was introduced with instructions

that directed participants to answer in response to the specific aspect of border security (border management in general, protection, or convenience of crossing). Participants were notified of incomplete responses and were required to complete all questions in a section before being allowed to continue to the next section.

The questionnaire items were designed to measure citizen emotional reactions, perception, and attitudes about border security based on the questionnaire used in the BSSE study (Cvetkovich & Faucett, 2008; Faucett & Cvetkovich, 2008) and other investigations into citizen perception of hazard management (Earle & Siegrist, 2006; Siegrist et al., 2003).

Assessment of the performance of border security during the last 5 years was gauged using an 8-point Likert scale anchored at *(1) Poor*, and *(8) Excellent*. Knowledge about each aspect of border security was anchored at *(1) Not Knowledgeable*, and *(8) Very Knowledgeable*. Scale reliability analysis was then conducted for self-assessed knowledge ratings ($\alpha = .96$) and a single self-assessed knowledge index out of 24 total points was formed. A dummy variable was then created for high ($n = 387$) and low ($n = 356$) self-assessed knowledge participants using 11 as the split. Trust in those responsible for managing the border was assessed using an 8-point scale anchored at *(1) Distrust Completely*, and (8) *Trust Completely* whereas confidence was assessed using an 8-point scale anchored at *(1) Not Confident*, and (8) *Very Confident*. Salient value similarity was assessed by having participants rate the extent to which those responsible for managing the border share their goals, values, and views on an 8-point scale. Scale reliability analysis was conducted for management in general ($\alpha = .92$), those responsible for support ($\alpha = .96$), and those responsible for an efficient and easy crossing for legal crossers ($\alpha = .96$). These items were combined into one index for each aspect of border management during data

analysis. Support of border security over the last 5 years was assessed using an 8-point scale anchored at *(1) Not Supportive*; and (8) *Very Supportive.*

The hazard-focused emotions of fear, worry, and anger were measured in a matrix table anchored at *(1) Don't Feel at All;* and *(8) Feel very strongly*. These measures were based on the study by Peters et al. (2004).

Results

Data Analysis Overview

Confirmatory factor analyses were used to test the hypothesized relationships between hazard and management-focused emotions and between reported emotional reactions and other variables. These analyses included a test of the initial TCC model (Earle & Siegrist, 2006) and of the TCC model with the addition of the hazard-focused emotional reactions. Also included were two tests of model invariance across groups. One of these evaluated the hypothesis that participants high in self-assessed knowledge compared to those low in self-assessed knowledge rely more on evaluations of performance and less on emotional reactions. The other, conducted on the U.S. and Canadian samples separately, evaluated if the same model of hypothesized relationships was equally appropriate for citizens from both countries.

MANOVA were used to examine mean differences between identified groups of participants. These included comparisons of anger-dominant and fear-dominant individuals, and comparisons of Canadian and U.S. citizens.

Confirmatory Factor Analysis

All 733 participants who completed the entire questionnaire were included in the confirmatory factor analysis. Structural equation modeling was conducted using EQS version 6.0.

The Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and chi square (χ^2) were used as goodness of fit measures. There is general agreement that CFI values exceeding .90 indicate a good model fit. RMSEA values less than .05 indicate a close fit, .05 to .08 a mediocre fit, and greater than .1 indicate a poor fit (Cheng, 2001; Smith & McMillan, 2001). The overall model chi square test assesses all possible factor to factor, measurement to factor, and indicator to indicator relationships in the model and is rather difficult to achieve (Cheng, 2001). A reduction in Chi Square values, however, is one indicator of an improved fit as additional restraints are imposed.

Confirmation of the measurement model

Confirmatory factor analysis of the measurement model was conducted following the procedures outlined by Cheng (2001) and Byrne (2006). Preliminary analysis revealed that the data did not meet the assumption of univariate normality. Mardia's coefficient (normalized estimate = 127.97) revealed substantial levels of kurtosis. The mean scaled univariate kurtosis value was - .1531. Robust fit indexes were therefore used for the remainder of the analysis. The differences between the robust and independence model fit values were minimal in most cases.

Cheng (2001) recommends confirming the measurement model by including paths from each latent factor to its respective measured variables while at the same time allowing all of the factors to correlate. Assessment of the measurement model indicated a less than satisfactory fit

(CFI = .835, RMSEA = .117, $\chi^2(224) = 2409.44$). Examination of the standardized residual plot revealed a consistent pattern such that the variables assessing perceptions of those responsible for management of an efficient and easy to cross border for legal crossers had consistently high off-diagonal loading values. The error terms for the variables assessing anger towards, fear, and worry about convenience of crossing were therefore allowed to inter-correlate as were the error terms for the variables measuring perceived salient value similarity, trust, perceived past performance, confidence, and support of those responsible for a conveniently crossed border. The resulting improved fit index values provided evidence that the hypothesized factors were accurately measured (CFI = .933, RMSEA = .077, $\chi^2(210) = 1105.3$). Path coefficients from each latent measured construct to measured variables are reported in Table 4. The factor to factor correlation matrix can be found in Table 5. The error term correlation matrix is in Table 6. Error terms for the hazard focused emotions of fear, anger, and worry as related to a convenient and easy to cross border were correlated during the remainder of the analysis, as were the error terms for perceived salient value similarity, trust, performance assessment during the last five years, confidence, and support of those responsible for convenience of crossing.

Goodness of fit indices confirmed that the hypothesized latent factors were accurately represented by the measured variables. Worth noting is the systematic variation in error terms of variables assessing those responsible for convenience of crossing the border. This indicates that participants answered the questions about convenience of crossing differently than they did questions about management in general and management responsible for security.

Replication of the trust and confidence model of cooperation and addition of hazard-focused emotional reactions

Structural equation modeling allows for the testing (confirmation) of hypothesized relationships between latent factors (Byrne, 2006) by examining covariance structures of measured variables. Satisfactory fit indexes indicate confirmation of the relationships hypothesized in the model. The standardized residual plot and Lagrange Multiplier test can be used to identify problematic relationships among measured variables, error terms, and factors.

Replication of the Siegrist and Earle (2006) Trust, Confidence, and Cooperation model followed confirmation of the measurement model. Fit index values (CFI = .939, RMSEA = .099, $\chi^2(74) = 607.91$) indicated a satisfactory fit. However, examination of the factor-to-factor path weights indicated a problematic relationship between trust and perceived past performance in predicting confidence. The standardized weight from trust to confidence exceeded 1.0, whereas the path weight from performance assessment to confidence indicated that positive performance assessments contributed negatively to confidence evaluations. The theoretical background of the constructs would suggest that perceived past performance should positively predict confidence, although the strength of the relationship is often moderated by trust. A similarly problematic relationship existed between trust and confidence in predicting support.

Review of the Lagrange Multiplier test indicated that adding a path from perceived Salient Value Similarity to Support would improve model fit. Because of the strength of the relationship between trust and SVS, the path from trust to support was removed and replaced with a path from SVS to support. This change resulted in satisfactory fit index values similar to those of the attempt at replication of the Siegrest and Earle (2006) TCC model (CFI = .939,

RMSEA = .099, $\chi^2(74) = 599.40$). However, standardized path weight coefficients between factors appeared to be more consistent with expected values. Figure 2 shows the standardized path coefficients and endogenous variable R^2 values. This model was used as a baseline from which the remainder of the analysis was conducted.

Hazard-focused emotions of fear, anger, and worry were added to the baseline model based on relationships identified in the BSSE study (Cvetkovich & Faucett, 2008). Fit indices indicated that the model provided a good fit to the data (CFI = .930, RMSEA = .076, $\chi^2(224) = 1167.65$). Standardized path coefficients between factors and endogenous variable R^2 values can be seen in Figure 3. This model was then subjected to two tests of invariance across groups.

Cross-Validation of the model across levels of self-assessed knowledge

Cross-validation of the measurement model was conducted following the procedures outlined in Byrne (2006). Model standardized path coefficients and R^2 values for high self-assessed knowledge participants can be seen in Figure 4. These values were constrained and cross validation onto the low self-assessed knowledge sample was attempted. Fit index values indicated a satisfactory fit for the model across both groups (CFI = .920, RMSEA = .073, $\chi^2(489) = 1435.36$). Lagrange Multiplier tests indicated that fit could be improved by releasing five constraints: constraints 3 (variable 5 to factor 2), 11 (variable 17 to factor 6), 13 (variable 20 to factor 7), and 14 (variable 21 to factor 7). The factor loading values of trust to trust of those responsible for securing the border, anger to anger when thinking about a secure border, worry to worry when thinking about a secure border, and worry to worry when thinking about a conveniently crossed border were shown to be non-invariant across high and low self-assessed knowledge groups. In each case listed above, the path loading value was higher for the high self-

assessed knowledge sample. The Lagrange Multiplier test also indicated that releasing constraint 36 (error 9 to error 15), the correlation of the error terms for the variables measuring assessment and support of the management responsible for a convenient crossing process, would result in an improved fit. Standardized path coefficients and R^2 values of low self-assessed knowledge participants can be seen in Figure 5.

These findings indicate that although the magnitudes of some factor to variable paths vary significantly based on differences in self-assessed knowledge, the overall causal structure of the model and factor to factor path weights did not vary based on knowledge level. Contrary to the hypothesis, there were no statistically significant differences in the strength of the paths for reported emotions or judged past performance

Cross validation of the model across U.S. and Canadian samples

Standardized path coefficients and R^2 values for the Canadian sample can be seen in Figure 6. These values were constrained and cross-validation was attempted using the United States sample. Fit index values testing for multi-group invariance indicated that the model was a good fit for both the United States and Canadian samples (CFI = .942, RMSEA = .063, $\chi^2(489) = 1118.20$). The Lagrange Multiplier test indicated that fit could be improved with the removal of only two constraints. The first (Constraint 5: variable 8 to factor 3) indicated that the factor loading value of perceived performance onto assessment of border security was non-invariant across samples. The second (factor 2 to factor 3) indicated that the factor loading of the causal path from trust to perceived past performance was non-invariant across samples. In both cases the loading value was higher for the Canadian sample. Refer to Figure 7 for standardized path coefficients and R^2 values for the United States sample.

Given the amount of constraints placed on the model and the finding that releasing the constraints on only the above two paths would improve model fit, it can be concluded that the model is indeed an adequate fit for the data. It can also be inferred that United States and Canadian citizens used similar psychological processes to assess border security. Goodness of fit index values for each structural equation model test can be seen in Table 7.

Sub-Group Differences

Means and standard deviations of security and convenience of crossing assessments based on participant gender are reported in Table 8. Means and standard deviations of security and convenience of crossing assessments based on age category are reported in Table 9.

Anger and fear

Scores were calculated to yield a categorization of participants equivalent to that used by Lerner et al. (2003). In the present study, cumulative fear index scores were subtracted from cumulative anger index scores for each participant. Those with a score of less than zero (n = 296) were coded "anger dominant". Participants with a score greater than zero (n = 232) were coded as fear dominant. A two group MANOVA found statistically significant differences between participants with fear-dominant reactions and those with anger-dominant reactions (see Table 10). Both for management of security and convenience or travel, fear-dominant participants perceived more similarity in salient values with border managers, were more trusting, assessed performance to be more adequate, were more confident in being protected in the future, and were more supportive of border managers. Means and standard deviations of each of the criterion variables are presented in Table 11. Consistent with the findings by Lerner et al. (2003) and Fishhoff et al. (2005) there were significantly different reactions to border security based on the

anger- of fear-dominant reaction of participants. Those with an anger-dominant reaction had considerably lower evaluations of border management than did those with fear-dominant reactions.

Nationality

A two group MANOVA found statistically significant differences between U.S. and Canadian citizens (see Table 12). U.S. citizens demonstrated significantly higher levels of worry, fear, and anger when thinking about both a secure border, and a conveniently crossed border. Canadian citizens assessed the performance of those responsible for securing the border as more adequate than did United States citizens. Canadian compared to U.S. citizens were also significantly more confident and supportive of those responsible for securing the border. There were no statistically significant nationality differences in perceived salient value similarity or trust judgments. Table 13 presents means and standard deviations by country of residence for all criterion variables.

Discussion

Information Processing and Border Management Perception

The present study provides evidence that both self-reported hazard- and management-focused emotional reactions are related to judgments about the management of the United States / Canadian borders. Theoretical implications include support of associative and experiential processing models of reasoning and decision making, both of which highlight the important role of affect in decision making (Petty et al., 1987; Reyna & Brainerd, 1995; Sloman, 1996; Damasio, 2001; Slovik et al., 2004). The finding that emotions strongly influenced perceptions of border management is evidence that experiential, associative thought process were important

to border management evaluations. Higher levels of the value based management-focused emotion of trust were associated with perceptions of a better performance record of border managers, confidence that the border will be adequately managed in the future, and support of the decisions made by border managers. Negative emotions, or lower levels of trust and the hazard-focused emotion anger were negatively associated with perceptions of border management. Deliberative, or logic based information processing theory (Petty et al., Sloman) was not supported as evidenced by the finding that border management performance assessments were not significantly associated with confidence in the way the borders will be managed in the future, or support of the decisions made by border managers.

Replication of the Trust, Confidence, and Cooperation Model

The hypothesis that the TCC model would be replicated in the context of border management evaluations was supported. The addition of a path from perceived salient value similarity to support of border management in place of the path from trust to support was not a significant alteration from prior versions of the model. Perceived salient value similarity is positively and highly associated with trust. The present replication of the TCC model, in line with the results from prior investigations into cooperative risk management, indicates the importance of perceived similar values and trust to efforts to garner citizen confidence in and support of border management.

Unique to this study is the finding that perceived past performance did not significantly associate with confidence, or indirectly associate with support. Although it is not uncommon for trust to "dominate" confidence evaluations (Siegrist et al., 2003; Earle & Siegrist, 2006), in prior TCC model research evaluations of performance were positively and significantly associated

with confidence. The nature of border management, and border risks, may have contributed to this occurrence. The complicated nature of protecting the borders and at the same time ensuring a convenient crossing process for legal crossers could make an accurate evaluation of performance difficult for even the most knowledgeable of citizens. It is also likely that the emotional nature of border risks (terrorism, illegal immigration) resulted in citizen reliance on perceived value similarity and emotion rather than judgments of past performance during evaluations of future protection.

Hazard-focused Emotions

The hypothesis that hazard-focused emotions would be incorporated into the model was supported. However, whereas worry and particularly fear and anger were significant components of the model, they were of secondary importance to the management-focused emotion of trust. Fear and anger appeared to indirectly influence citizen trust evaluations in that they were differentially associated with perceived salient value similarity. There was no evidence that fear or anger directly influenced confidence and support evaluations.

Future research on the role of hazard-focused emotions and their influence on risk perception would be useful. Confirmation of the valence of paths from fear and anger to perceived SVS in the context of other risks, and replication of the current model are both areas of interest. Affect, positive or negative, is an innate reaction designed to aid an organism confronted with environmental stimuli (Cacioppo & Bernston, 1999; Damasio, 2001; Slovik et al., 2004). Replication of the current study would support the finding that specific types of hazard-focused emotion lead to distinct responses, and that by influencing perceived salient value similarity, hazard-focused emotions influence risk manager evaluations by indirectly associating with trust.

Lerner et al. (2003) and Fischoff et al. (2005) found that fear-dominant and anger-dominant reactions altered perceptions of future risk probabilities, and risks that had recently occurred. The current study extended this line of research by examining the impact of fear-dominant and anger-dominant reactions on perceptions of hazard managers. Fear-dominant reactions in comparison with anger-dominant reactions were associated with higher perceived SVS, trust, perceived performance adequacy, confidence, and support of border management for both convenience of crossing and security. This finding was supported by the negative path weight from anger to SVS and the positive path weight from fear to SVS in the model predicting support of border management. However, trust was a more direct predictor of confidence and support. The question of whether and to what degree trust mitigates the effect of an emotional reaction of fear or anger is an area for future study.

Cross-validation of the Model across Knowledge Level

The hypothesis that emotion would more strongly influence reasoning processes in citizens of low self-assessed knowledge, and that logical processes (assessment of performance during the past 5 years) would more strongly influence reasoning processes of citizens with high self-assessed knowledge was not supported. Affect, rather than the assessments of prior performance, appeared to have an underlying influence in the way management of the border was viewed across knowledge levels.

This finding raises the question of why participants higher in self-assessed knowledge did not rely more on evaluations of performance during their evaluations. As defined by this study, border management is two-dimensional. Evaluations of management performance therefore require knowledge of security and protection issues, and knowledge of the impact security and

protection have had on border wait times, and international commerce. Perhaps this type of information is not accessible to citizens. The negative and sometimes controversial content of media focus surrounding border issues may have also influenced this result. Of interest are the sources of information relied upon by citizens both high and low in self-assessed knowledge which were assessed in this study but not analyzed.

Future research should identify social contexts in which deliberative processes are primarily involved in risk judgments, and those in which emotion are primarily involved in risk judgments. Performance evaluations were significantly associated with confidence in tests of the TCC model when Seattle traffic, Alaska oil drilling, (Earle & Siegrist, 2006) and electromagnetic risks (Siegrist et al., 2003) were evaluated. Perhaps individuals were better able to assess the costs and benefits afforded by these hazards and therefore used deliberative processes to assess the risk managers. One difference between management of the hazards listed above compared to border management is the high level of uncertainty surrounding border practices and harm from potential border breeches. Earle and Siegrist (2008) theorize about the increased importance of trust when uncertainty is high. It is possible that perceived performance did not influence management assessments due to the comparatively unknown impact security measures have had on reducing border risks, and the complicated cost benefit analysis of security measures implemented at the expense of a conveniently crossed border for legal commerce and tourism.

Cross-national Comparisons

The test of invariance across national groups indicated that United States and Canadian participants' judgments functioned in similar ways. The relatively high fit indices from cross national validation provided evidence that the model was an adequate fit for the data, and that the

citizens of both countries relied on trust of border managers as an indicator of past and future performance.

The hypothesis that U.S. citizens would report higher levels of anger, fear, and worry than Canadian citizens was also supported. Canadian citizens had higher confidence and support evaluations, but not higher trust / SVS evaluations. These findings suggest that American confidence has yet to be fully restored, but that the measures implemented since the 9/11 attacks have restored the public's trust in management at the border. Earle (2009) argues that regaining public trust is less difficult than regaining confidence. Inferring that border managers desire to prevent future attacks and security breaches entails less evidence than does convincing the public with technical evidence that the policies and efforts to enhance protection will work.

Limitations

One limitation of the current study is that it employed a "one shot" survey design typical of correlational research. Theoretically based causal relationships cannot be confirmed with this type of design. Future studies should consider the use of a longitudinal design as the public, or a segment of the population, becomes increasingly familiar with a hazard (e.g., nanotechnologies, biotechnologies, global warming) and its management, or experiences an event that causes a change in emotional reactions. Creative use of experimental manipulations (i.e., Lerner et al., 2003) to find out more about the influence of emotions including fear, anger, worry, and trust on attitudes and evaluations of hazards and risk managers would also be useful in that they would support the directional relationships hypothesized in the TCC model. Siegrist, Keller, and Cousin (2006) concluded from their implicit attitude test (IAT) that lay people and experts have similar implicit attitudes towards risks. IAT studies comparing implicit and explicit attitudes towards

border security across knowledge levels could provide insight into the lack of distinction between high and low-knowledge participants in this study. Also of interest is the effect that implicit fear or anger reactions have on explicit thought.

Another limitation is that participants were drawn from an online sample within a specific geographic area. Residents living in British Columbia and Washington that were not in the geographic areas, or were not part of the SSI online sample pool were not represented in the study. However, it is not likely that characteristics of the sample greatly influenced the results. The model used to test perceptions of border management was an attempt at replication of prior studies, and cross-validation of the model in a comparison of participants from the U.S. and Canada indicated that the model was an adequate fit for the data. Studies comparing online sampling to other sampling methodologies (in-person interviewing, mail/phone survey) generally indicate that a mode effect is uncommon in social science research (Denscobe, 2006).

The very nature of border management could have also influenced study results. The current study provides evidence that citizens in Northwest Washington and Southwest British Columbia view management responsibilities of securing the border, and ensuring a convenient crossing process as distinctly different concepts. The finding that responses to the variables measuring convenience of crossing systematically varied from those measuring management in general and management responsible for securing the border may have been slightly problematic. Although the SEM fit indices appeared to be satisfactory, it is not known to what extent the systematic error variation and correlated error terms influenced the model testing results, or the test of invariance across knowledge level. Because citizens seem to assess the two-dimensions of

border management differently, future studies should focus more specifically on one aspect of border management.

Policy Implications

The current study provides evidence that affect has an influence on perception of border risks and the management of the borders. The positive emotion of trust strongly associated with positive assessments of past performance by border managers, confidence in a secure future border, and support of decisions made by management of the border. Anger indirectly influenced trust by negatively associating with perceived salient value similarity. Worry was not strongly associated with perceived salient value similarity in comparison to fear and anger, and worry was not significantly associated with trust. Public opinion polls frequently ask citizens to report level of worry (ABC News/Washington Post Poll, Sept. 5th-7th, 2008; AP-GfK Poll, May 28th-June 1st, 2009). By including assessments of trust, fear, and anger, researchers may be able to more effectively gauge public opinion towards risks and border management.

Convenience of crossing the border and protection have been identified as citizen salient values. Future research should attempt to identify the specific values related to each aspect of border management. The current study did provide evidence that citizens assess management of a conveniently crossed border for commerce and tourism in a different way than they do management of the risks associated with border breaches. Qualitative studies can more specifically determine the reasons that citizens report emotions about each specific aspect of border management.

Recognizing the importance of emotional reactions to citizen perceptions does offer potential benefits for border managers. Trust and confidence lead to cooperative risk

management (Earle & Siegrist, 2008). Emphasizing salient value similarity, and maintaining an awareness of and acting upon citizen salient values is most likely to increase trust and therefore cooperative management of the border. Anger is negatively associated with perceived salient value similarity, and therefore negatively contributes to trust evaluations. Actions that bring about sentiments of anger are likely to deter from efforts to garner citizen confidence in and support of border managers. Qualitative data could lead to a better understanding of what practices or problems most strongly contribute to citizen emotional reactions, both positive and negative. Effective communication efforts to offset negative emotional reactions while emphasizing similar values appear to offer the benefit of citizen support.

The finding that Canadian citizens were more confident than U.S. citizens that they would be protected in the future, and were more supportive of the decisions made by border managers does have some policy implications. Given that perceptions of performance during the past five years were not significantly associated with confidence, U.S. border management may consider ways to more effectively publicize successful performance including the interception of contraband and deterring the threat of terrorism. Providing citizens positive evidence of performance, in addition to enhancing the perception of salient value similarity, are likely to increase trust and confidence in border management

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Appendix A

Canadian Border Management Questionnaire

Dear SSI Online Panel Participant,

We need your help! As a member of the Survey Sampling International online panel you have been randomly selected to participate in a survey that is part of an ongoing investigation of perceptions of management of the Canadian border. Topics covered in this Canadian Border Management Questionnaire include your assessment of the effectiveness of border security, your personal reactions to border security, and your confidence in future border security. The questionnaire, which should take approximately 20 minutes, consists of evaluations using rating scales. A few open-ended questions encouraging you to share more detailed expression of your opinions are also included.

Your participation and opinions about border security are very important to us. The study will result in a better understanding of how people are affected by and evaluate border security. Collected information will be shared with border security officials, participants, and through publications in professional journals.

You must be over the age of 18 to complete this survey. Responses to this questionnaire are confidential, meaning that only group results, not your individual responses will be reported.

Questions and comments can be sent to either:

Jim Faucett, MAT faucetj@cc.wwu.edu
or
George Cvetkovich, PhD cvet@wwu.edu

Department of Psychology
AIC 413
Western Washington University
Bellingham, WA 98225-9172
FAX: (360) 650-7305

Thank you in advance for taking the time to participate in this important study about border security.

Canadian Border Management Questionnaire

This questionnaire consists of the following sections: Part A covers your general opinions about management of the border; Part B covers your opinions about border security (preventing crossings by terrorists and illegal immigrants, and preventing entry of contraband including illegal drugs and weapons); Part C covers your opinions about managing the efficiency of border crossings by legitimate border crossers (low costs to tourists, businesses, and other legitimate travelers in time, documentation, and questioning). You will notice that the same questions are asked in each section. Please keep in mind that the questions in each section are being asked about different aspects of border management: management in general, border security, and maintaining an easy-to-cross border for legal crossings. Finally, Part D asks some questions about you including your knowledge about border management.

Part A: General opinions about Border Security Management and Performance

For each question in this section please click the number that best reflects your opinion of the management of the border for entry **into Canada from the United States.**

A1. How concerned are you about the management of the border?

1	2	3	4	5	6	7	8
Not Concerned							Very Concerned

A2. What is your assessment of the performance of management of the border for the last 5 years?

1	2	3	4	5	6	7	8
Poor							Excellent

A3. Do those responsible for managing the border share your values?

1	2	3	4	5	6	7	8
Not Share							Share

A4. Do those responsible for managing the border support your views?

1	2	3	4	5	6	7	8
Not Support							Support

A5. Do those responsible for managing the border have the same goals as you?

1	2	3	4	5	6	7	8
Dissimilar Goals							Similar Goals

A6. Do you trust those responsible for managing the border?

1	2	3	4	5	6	7	8
Distrust Completely							Trust Completely

A7. Do those responsible for managing the border usually make decisions and take actions consistent with your values, goals, and views?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

A8. Do you think that there are usually justifiable reasons for border management decisions or actions that have been inconsistent with your values?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

A9. How confident are you in the future management of the border?

1	2	3	4	5	6	7	8
Not Confident							Very Confident

A10. To what extent are you supportive of the decisions made by those responsible for managing the border during the past 5 years?

1	2	3	4	5	6	7	8
Not Supportive							Very Supportive

A11. When you think about management of the border, to what extent do you experience each of the following reactions?

1 =”don’t feel at all” and 8 =”feel very strongly”

	strength of feeling							
Anger	1	2	3	4	5	6	7	8
Worry	1	2	3	4	5	6	7	8
Fear	1	2	3	4	5	6	7	8
Trust	1	2	3	4	5	6	7	8

Willingness to Cooperate	1	2	3	4	5	6	7	8

Part B. Management of border security

This section covers your opinions about the management of border security (preventing crossings by terrorists and illegal immigrants, and preventing entry of contraband including illegal drugs and weapons). As before, for each question, please click the number that best reflects your opinion about the border for entry **into Canada from the United States.**

B1. How concerned are you about border security?

1	2	3	4	5	6	7	8
Not Concerned							Very Concerned

B2. What is your assessment of the performance of border security for the last 5 years?

1	2	3	4	5	6	7	8
Poor							Excellent

B3. Do those responsible for border security share your values?

1	2	3	4	5	6	7	8
Not Share							Share

B4. Do those responsible for border security support your views?

1	2	3	4	5	6	7	8
Not Support							Support

B5. Do those responsible for border security have the same goals as you?

1	2	3	4	5	6	7	8
Dissimilar Goals							Similar Goals

B6. Do you trust those responsible for border security?

1	2	3	4	5	6	7	8
Distrust Completely							Trust Completely

B7. Do those responsible for border security usually make decisions and take actions consistent with your values, goals, and views?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

B8. Do you think that there are usually justifiable reasons for border security decisions or actions that have been inconsistent with your values?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

B9. How confident are you in future border security?

1	2	3	4	5	6	7	8

Not Confident							Very Confident

B10. To what extent are you supportive of the decisions made by those responsible for border security during the past 5 years?

1	2	3	4	5	6	7	8
Not Supportive							Very Supportive

B11. When you think about border security, to what extent do you experience each of the following reactions?

1 =”don’t feel at all” and 8 =”feel very strongly”

	strength of feeling							
Anger	1	2	3	4	5	6	7	8
Worry	1	2	3	4	5	6	7	8
Fear	1	2	3	4	5	6	7	8
Trust	1	2	3	4	5	6	7	8
Willingness to cooperate	1	2	3	4	5	6	7	8

Please indicate the reasons for your reaction for <u>each feeling of 4</u> or more

Anger _____

_____

_____

Worry _____

_____

_____

Fear _____

_____

_____

Trust _____

_____

_____

Willingness to Cooperate _____

_____

_____

Part C. Management of an efficient border

This section covers your opinions about managing the efficiency of border crossings by legitimate border crossers (low costs to tourists, businesses and others in time, documentation, and questioning). As before, for each question, please click the number that best reflects your opinion about the border for entry **into Canada from the United States.**

C1. How concerned are you about having an easy-to-cross border for legal crossings?

1	2	3	4	5	6	7	8
Not Concerned							Very Concerned

C2. What is your assessment of the performance of those responsible for having an easy-to-cross border for legal crossings over the last 5 years?

1	2	3	4	5	6	7	8
Poor							Excellent

C3. Do those responsible for having an easy-to-cross border for legal crossings share your values?

1	2	3	4	5	6	7	8
Not Share							Share

C4. Do those responsible for having an easy-to-cross border for legal crossings support your views?

1	2	3	4	5	6	7	8
Do Not Support							Support

C5. Do those responsible for having an easy-to-cross border for legal crossings have the same goals as you?

1	2	3	4	5	6	7	8
Dissimilar Goals							Similar Goals

C6. Do you trust those responsible having an easy-to-cross border for legal crossings?

1	2	3	4	5	6	7	8
Distrust Completely							Trust Completely

C7. Do those responsible for having an easy-to-cross border for legal crossings usually make decisions and take actions consistent with your values, goals, and views?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

C8. Do you think that there are usually justifiable reasons for decisions or actions related to an easy-to-cross border for legal crossings that have been inconsistent with your values?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

C9. How confident are you in having an easy-to-cross border for legal crossings in the future?

1	2	3	4	5	6	7	8
Not Confident							Very Confident

C10. To what extent are you supportive of the decisions in the past 5 years made by those responsible for an easy-to-cross border for legal crossings?

1	2	3	4	5	6	7	8
Not Supportive							Very Supportive

C11. When you think about an easy-to-cross border for legal crossings, to what extent do you experience each of the following reactions?

1 =”don’t feel at all” and 8 =”feel very strongly”

	strength of feeling							
Anger	1	2	3	4	5	6	7	8
Worry	1	2	3	4	5	6	7	8
Fear	1	2	3	4	5	6	7	8
Trust	1	2	3	4	5	6	7	8
Willingness	1	2	3	4	5	6	7	8

to cooperate								

Please indicate the reasons for your reaction for <u>each feeling of 4</u> or more

Anger _____

_____

_____

Worry _____

_____

_____

Fear _____

_____

_____

Trust_____

_____

_____

Willingness to cooperate _____

_____

_____

Part D. Information about You

Please take one last moment to complete the information requested below.

D1. How knowledgeable are you about what should be done to effectively manage the border?

1	2	3	4	5	6	7	8
Not Knowledgeable							Very Knowledgeable

D2. How knowledgeable are you are about what should be done to have a secure border?

1	2	3	4	5	6	7	8

Not Knowledgeable							Very Knowledgeable

D3. How knowledgeable are you are about what should be done to have an easy-to-cross border for legal crossings?

1	2	3	4	5	6	7	8
Not Knowledgeable							Very Knowledgeable

D4. What are your sources of information about management of the border?

_____

_____

_____

D5. What government agencies are responsible for management of the border?

_____

_____

_____

D6. Age: __ YEARS

D7. Gender: __ FEMALE __ MALE

D8. In what city do you reside? _____

D9. What is your nationality?

__ Canadian __ American __Other (Please Specify) _____

D10. Ethnicity/Racial Identity—Check All That Apply

__ Asian

__ Black or African

__ English

__ European
__ First Nation
__ French
__ Hispanic or Latino
__ Metis
__ Middle Eastern
__ South American
__ White
__ Other (Please Specify) _____

D11. Do you have a Nexus Pass? ___ NO ___ YES

D12. Approximately how many times have you visited another county in the last 5 years?
_____

D13. Approximately how often did you cross into the United States and back in the last year?

__ daily or more often

__ once a week or more often, but less than daily

__ once a month or more often, but less than weekly

__ once a year or more often, but less than monthly;

___never

___ If once a year or more often, what was the number of times?

D14. As best you can, please indicate what part (%) of your trips across the US/Canada border is for each of the following reasons? Total should equal 100% if you have crossed before or 0% if you have never crossed.

	%		**%**
Business		homes on both sides of border	
recreation/shopping/ tourism		family / friends	
Total should equal 100%			

D15. Have you completed any other questionnaires about the US/Canadian border in the last two years?

__Yes __No

Thank you very much for taking the time to participate in this study!

Appendix B

United States Border Management Questionnaire

Dear SSI Online Panel Participant,

We need your help! As a member of the Survey Sampling International online panel you have been randomly selected to participate in a survey that is part of an ongoing investigation of perceptions of management of the United States border. Topics covered in this United States Border Management Questionnaire include your assessment of the effectiveness of border security, your personal reactions to border security, and your confidence in future border security. The questionnaire, which should take approximately 20 minutes, consists of evaluations using rating scales. A few open-ended questions encouraging you to share more detailed expression of your opinions are also included.

Your participation and opinions about border security are very important to us. The study will result in a better understanding of how people are affected by and evaluate border security. Collected information will be shared with border security officials, participants, and through publications in professional journals.

You must be over the age of 18 to complete this survey. Responses to this questionnaire are confidential, meaning that only group results, not your individual responses will be reported.

Questions and comments can be sent to either:

Jim Faucett, MAT faucetj@cc.wwu.edu
or
George Cvetkovich, PhD cvet@wwu.edu

Department of Psychology
AIC 413
Western Washington University
Bellingham, WA 98225-9172
FAX: (360) 650-7305

Thank you in advance for taking the time to participate in this important study about border security.

United States Border Management Questionnaire

This questionnaire consists of the following sections: Part A covers your general opinions about management of the border; Part B covers your opinions about border security (preventing crossings by terrorists and illegal immigrants, and preventing entry of contraband including illegal drugs and weapons); Part C covers your opinions about managing the efficiency of border crossings by legitimate border crossers (low costs to tourists, businesses, and other legitimate travelers in time, documentation, and questioning). You will notice that the same questions are asked in each section. Please keep in mind that the questions in each section are being asked about different aspects of border management: management in general, border security, and maintaining an easy-to-cross border for legal crossings. Finally, Part D asks some questions about you including your knowledge about border management.

Part A: General opinions about Border Security Management and Performance

For each question in this section please click the number that best reflects your opinion of the management of the border for entry **into the United States from the Canada.**

A1. How concerned are you about the management of the border?

1	2	3	4	5	6	7	8
Not Concerned							Very Concerned

A2. What is your assessment of the performance of management of the border for the last 5 years?

1	2	3	4	5	6	7	8
Poor							Excellent

A3. Do those responsible for managing the border share your values?

1	2	3	4	5	6	7	8
Not Share							Share

A4. Do those responsible for managing the border support your views?

1	2	3	4	5	6	7	8
Not Support							Support

A5. Do those responsible for managing the border have the same goals as you?

1	2	3	4	5	6	7	8
Dissimilar Goals							Similar Goals

A6. Do you trust those responsible for managing the border?

1	2	3	4	5	6	7	8
Distrust Completely							Trust Completely

A7. Do those responsible for managing the border usually make decisions and take actions consistent with your values, goals, and views?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

A8. Do you think that there are usually justifiable reasons for border management decisions or actions that have been inconsistent with your values?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

A9. How confident are you in the future management of the border?

1	2	3	4	5	6	7	8
Not Confident							Very Confident

A10. To what extent are you supportive of the decisions made by those responsible for managing the border during the past 5 years?

1	2	3	4	5	6	7	8
Not Supportive							Very Supportive

A11. When you think about management of the border, to what extent do you experience each of the following reactions?

1 =”don’t feel at all” and 8 =”feel very strongly”

	strength of feeling							
Anger	1	2	3	4	5	6	7	8
Worry	1	2	3	4	5	6	7	8
Fear	1	2	3	4	5	6	7	8
Trust	1	2	3	4	5	6	7	8

Willingness to Cooperate	1	2	3	4	5	6	7	8

Part B. Management of border security

This section covers your opinions about the management of border security (preventing crossings by terrorists and illegal immigrants, and preventing entry of contraband including illegal drugs and weapons). As before, for each question, please click the number that best reflects your opinion about the border for entry **into the United States from Canada.**

B1. How concerned are you about border security?

1	2	3	4	5	6	7	8
Not Concerned							Very Concerned

B2. What is your assessment of the performance of border security for the last 5 years?

1	2	3	4	5	6	7	8
Poor							Excellent

B3. Do those responsible for border security share your values?

1	2	3	4	5	6	7	8
Not Share							Share

B4. Do those responsible for border security support your views?

1	2	3	4	5	6	7	8
Not Support							Support

B5. Do those responsible for border security have the same goals as you?

1	2	3	4	5	6	7	8
Dissimilar Goals							Similar Goals

B6. Do you trust those responsible for border security?

1	2	3	4	5	6	7	8
Distrust Completely							Trust Completely

B7. Do those responsible for border security usually make decisions and take actions consistent with your values, goals, and views?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

B8. Do you think that there are usually justifiable reasons for border security decisions or actions that have been inconsistent with your values?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

B9. How confident are you in future border security?

1	2	3	4	5	6	7	8

Not Confident							Very Confident

B10. To what extent are you supportive of the decisions made by those responsible for border security during the past 5 years?

1	2	3	4	5	6	7	8
Not Supportive							Very Supportive

B11. When you think about border security, to what extent do you experience each of the following reactions?

1 =”don’t feel at all” and 8 =”feel very strongly”

	strength of feeling							
Anger	1	2	3	4	5	6	7	8
Worry	1	2	3	4	5	6	7	8
Fear	1	2	3	4	5	6	7	8
Trust	1	2	3	4	5	6	7	8
Willingness to cooperate	1	2	3	4	5	6	7	8

Please indicate the reasons for your reaction for <u>each feeling of 4</u> or more

Anger _____

_____

_____

Worry _____

_____

_____

Fear _____

_____

_____

Trust _____

_____

_____

Willingness to Cooperate _____

_____

_____

Part C. Management of an efficient border

This section covers your opinions about managing the efficiency of border crossings by legitimate border crossers (low costs to tourists, businesses and others in time, documentation, and questioning). As before, for each question, please click the number that best reflects your opinion about the border for entry **into the United States from Canada.**

C1. How concerned are you about having an easy-to-cross border for legal crossings?

1	2	3	4	5	6	7	8
Not Concerned							Very Concerned

C2. What is your assessment of the performance of those responsible for having an easy-to-cross border for legal crossings over the last 5 years?

1	2	3	4	5	6	7	8
Poor							Excellent

C3. Do those responsible for having an easy-to-cross border for legal crossings share your values?

1	2	3	4	5	6	7	8
Not Share							Share

C4. Do those responsible for having an easy-to-cross border for legal crossings support your views?

1	2	3	4	5	6	7	8
Do Not Support							Support

C5. Do those responsible for having an easy-to-cross border for legal crossings have the same goals as you?

1	2	3	4	5	6	7	8
Dissimilar Goals							Similar Goals

C6. Do you trust those responsible having an easy-to-cross border for legal crossings?

1	2	3	4	5	6	7	8
Distrust Completely							Trust Completely

C7. Do those responsible for having an easy-to-cross border for legal crossings usually make decisions and take actions consistent with your values, goals, and views?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

C8. Do you think that there are usually justifiable reasons for decisions or actions related to an easy-to-cross border for legal crossings that have been inconsistent with your values?

1	2	3	4	5	6	7	8
Disagree Completely							Agree Completely

C9. How confident are you in having an easy-to-cross border for legal crossings in the future?

1	2	3	4	5	6	7	8
Not Confident							Very Confident

C10. To what extent are you supportive of the decisions in the past 5 years made by those responsible for an easy-to-cross border for legal crossings?

1	2	3	4	5	6	7	8
Not Supportive							Very Supportive

C11. When you think about an easy-to-cross border for legal crossings, to what extent do you experience each of the following reactions?

1 =”don’t feel at all” and 8 =”feel very strongly”

	strength of feeling							
Anger	1	2	3	4	5	6	7	8
Worry	1	2	3	4	5	6	7	8
Fear	1	2	3	4	5	6	7	8
Trust	1	2	3	4	5	6	7	8
Willingness	1	2	3	4	5	6	7	8

to cooperate								

Please indicate the reasons for your reaction for <u>each feeling of 4</u> or more

Anger _____

_____

_____

Worry _____

_____

_____

Fear _____

_____

_____

Trust_____

_____

_____

Willingness to cooperate _____

_____

_____

Part D. Information about You

Please take one last moment to complete the information requested below.

D1. How knowledgeable are you about what should be done to effectively manage the border?

1	2	3	4	5	6	7	8
Not Knowledgeable							Very Knowledgeable

D2. How knowledgeable are you are about what should be done to have a secure border?

1	2	3	4	5	6	7	8

Not Knowledgeable							Very Knowledgeable

D3. How knowledgeable are you are about what should be done to have an easy-to-cross border for legal crossings?

1	2	3	4	5	6	7	8
Not Knowledgeable							Very Knowledgeable

D4. What are your sources of information about management of the border?

_____

_____

_____

D5. What government agencies are responsible for management of the border?

_____

_____

_____

D6. Age: __ YEARS

D7. Gender: __ FEMALE __ MALE

D8. In what city do you reside? _____

D9. What is your nationality?

__ American __ Canadian __Other (Please Specify) _____

D10. Ethnicity/Racial Identity—Check All That Apply

__ Asian

__ Black or African

__ European

__ Hispanic or Latino

__ Middle Eastern

__ Native Hawaiian or other Pacific Islander

__ South American

__ White

__ Other (Please Specify) _____

D11. Do you have a Nexus Pass? ___ NO ___ YES

D12. Approximately how many times have you visited another county in the last 5 years?

_____

D13. Approximately how often did you cross into Canada and back in the last year?

__ daily or more often

__ once a week or more often, but less than daily

__ once a month or more often, but less than weekly

__ once a year or more often, but less than monthly;

___never

___ If once a year or more often, what was the number of times?

D14. As best you can, please indicate what part (%) of your trips across the US/Canada border is for each of the following reasons? Total should equal 100% if you have crossed before or 0% if you have never crossed.

	%		**%**
Business		homes on both sides of border	
recreation/shopping/ tourism		family / friends	
Total should equal 100%			

D15. Have you completed any other questionnaires about the US/Canadian border in the last two years?

__Yes __No

Thank you very much for taking the time to participate in this study!

Table 1

Invitations and Completed Questionnaires by County and Regional District

Washington County	Invited	Completed Questionnaire	Percentage Complete
Whatcom	104	76	73%
Skagit	65	18	28%
Snohomish	194	111	57%
King (Including Seattle)	208	117	56%
San Juan	8	3	38%
Total U.S.	579	325	56%
Canadian Regional District	**Invited**	**Completed Questionnaire**	**Percentage Complete**
Capital Region	150	92	61%
Fraser Valley	155	85	55%
Delta	32	18	56%
Surrey	116	76	66%
White Rock	21	11	52%
Richmond	39	22	56%
Vancouver	168	104	62%
Total Canadian	681	408	60%

Note. Numbers of invitations and completed questionnaires provided by Survey Sampling International.

Table 2

Comparison of Canadian Participant Reported Demographic Information to the British Columbia Population Reported in the 1996 Census

Demographic	Percentage of Completes in the Present Study	Percentages Reported in 1996 British Colombia Census
Females	62%	51%
Males	38%	49%
Asian	7%	14%
Black	1%	4%
English	34%	19%
First Nation or Metis	3.5%	4%
French	4%	2%
Latin American	.4%	3%
Middle Eastern	.2%	.05%
White	56%	58%
20 to 44 Years Old	30%	37%
45 to 64 Years Old	53%	20%
Over 65 Years Old	14%	14%

Note. The Canadian census reports age statistics for the 20 to 40 year old group. The percentage of 18 and 19 year olds is not reported with the census statistics.

Table 3

Comparison of United States Participant Reported Demographic Information to the Washington State Population Reported in the 2000 Census

Demographic	Percentage of Completes in the Present Study	Percentages Reported in 2000 Washington State Census
Females	65%	50%
Males	35%	50%
Asian	3%	6%
Black	.8%	3%
Hispanic	2%	8%
Middle Eastern	.02%	NR
Pacific Islander	.8%	.4%
Native American	2%	3%
South American	0%	NR
White	88%	82%
20 to 44 Years Old	30%	37%
45 to 64 Years Old	53%	23%
Over 65 Years Old	16%	11%

Note. NR = Not reported, 4.5% of respondents reported a race other than those listed.

Table 4

Factor loading estimates for items assessing management in general, management of security, and management of a convenient crossing process.

Item	Factor Loading Estimate
Salient Value Similarity	
Management in General[a]	.858
Management of Security	.946
Management of the Convenience of Crossing	.729
Trust	
Management in General[a]	.857
Management of Security	.925
Management of the Convenience of Crossing	.744
Performance Assessment	
Management in General[a]	.791
Management of Security	.867
Management of the Convenience of Crossing	.581
Confidence	
Management in General[a]	.877
Management of Security	.627
Management of the Convenience of Crossing	.923
Support	
Management in General[a]	.877
Management of Security	.922
Management of the Convenience of Crossing	.658
Anger	
Management in General[a]	.847
Management of Security	.966
Management of the Convenience of Crossing	.631
Worry	
Management in General[a]	.817
Management of Security	.945
Management of the Convenience of Crossing	.672
Fear	
Management in General[a]	.827
Management of Security	.949
Management of the Convenience of Crossing	.691

Note. [a] *denotes parameters fixed for statistical identification. All path loading values were significant, p.* < .05.

Table 5

Correlation Matrix for Factors Included in Measurement Validity Assessment

Factor	Anger	Worry	Fear	SVS	Trust	PA	Confidence	Support
Anger		.763	.758	-.643	-.479	-.449	-.472	-.475
Worry			.947	-.212	-.362	-.389	-.393	-.329
Fear				-.162	-.316	-.320	-.377	-.288
SVS					.929	.872	.872	.921
Trust						.922	.969	.966
PA							.890	.932
Confidence								.947
Support								

Note. PA = Performance Assessment During the Last Five Years, SVS = Perceived Salient Value Similarity. All correlations were significant, p. < .05.

Table 6

Correlations Between Error Terms Assessing Convenience of Crossing the Border

Convenience of Crossing Error Term

	Anger	Worry	Fear	SVS	Trust	PA	Confidence	Support
Anger		**.592**	**.558**					
Worry			**.833**					
Fear								
SVS					**.683**	**.543**	-.016	**.612**
Trust						**.486**	-.066	**.564**
PA							.019	**.545**
Confidence								-.197
Support								

Note. PA = Performance Assessment During the Last Five Years, SVS = Perceived Salient Value Similarity. Bold values indicate statistical significance, p < .

Table 7

Structural Equation Modeling Fit Index Values

	Structural Equation Modeling Fit Index		
	CFI	**RMSEA**	**Chi Square**
Measurement Model Confirmation	.933	.077	1105.3
TCC Model Replication	.939	.099	599.04
Baseline Model	.930	.076	1167.65
Test of Invariance Across Knowledge Level	.920	.073	1435.36
Test of Invariance Across Country of Residence	.942	.063	1118.20

Table 8

Means (and Standard Deviations) of Judgments of Border Security and Convenience of Crossing by Gender of Participant

Criterion Variable	**Gender**	
Security	Male	Female
Anger	3.79 (2.04)	3.37 (2.03)
Worry	4.04 (2.04)	3.98 (2.17)
Fear	3.68 (1.98)	3.55 (2.10)
Salient Value Similarity	4.43 (1.78)	4.54 (1.74)
Trust	4.56 (1.81)	4.58 (1.78)
Performance Assessment	4.43 (1.84)	4.45 (1.73)
Confidence	4.41 (1.91)	4.55 (1.88)
Support	4.46 (1.79)	4.56 (1.80)
Convenience		
Anger	3.15 (1.87)	2.79 (1.79)
Worry	3.17 (1.83)	3.14 (1.88)
Fear	3.02 (1.84)	2.93 (1.88)
Salient Value Similarity	4.45 (1.69)	4.50 (1.57)
Trust	4.58 (1.75)	4.50 (1.71)
Performance Assessment	4.40 (1.75)	4.48 (1.62)
Confidence	4.37 (1.99)	4.28 (1.89)
Support	4.30 (1.75)	4.41 (1.64)

Table 9

Means (and Standard Deviations) of Judgments of Border Security and Convenience of Crossing as a Result of Participant Age

Criterion Variable	Participant Age Group		
Security	18 to 44	45 to 64	65 and Over
Anger	3.42 (2.02)	3.56 (1.91)	3.61 (2.22)
Worry	4.02 (2.13)	4.02 (2.06)	3.99 (2.20)
Fear	3.65 (2.12)	3.63 (1.95)	3.55 (2.11)
Salient Value Similarity	4.42 (1.70)	4.58 (1.75)	4.46 (1.82)
Trust	4.55 (1.69)	4.61 (1.75)	4.51 (1.93)
Performance	4.42 (1.66)	4.50 (1.79)	4.40 (1.87)
Confidence	4.52 (1.82)	4.53 (1.89)	4.41 (1.99)
Support	4.51 (1.74)	4.55 (1.77)	4.47 (1.91)
Convenience			
Anger	2.99 (1.87)	2.94 (1.75)	2.83 (1.87)
Worry	3.26 (1.87)	3.18 (1.83)	2.97 (1.86)
Fear	2.10 (1.91)	2.92 (1.81)	2.84 (1.84)
Salient Value Similarity	4.34 (1.61)	4.58 (1.57)	4.49 (1.68)
Trust	4.44 (1.65)	4.63 (1.48)	4.47 (1.87)
Performance	4.27 (1.62)	4.58 (1.60)	4.46 (1.80)
Confidence	4.22 (1.83)	4.30 (1.91)	4.38 (2.04)
Support	4.26 (1.66)	4.40 (1.64)	4.41 (1.81)

Table 10

Results of the Two-group MANOVA Assessing Differences of Fear-dominant and Anger-Dominant Emotional Reactions in Security and Convenience of Crossing Evaluations

Source and Criterion	***df***	***F***	***p***	η_p^2
Security				
SVS	(1, 513)	36.27	< .001	.066
Trust	(1, 513)	18.57	< .001	.035
Performance	(1, 513)	12.75	< .001	.024
Confidence	(1, 513)	14.93	< .001	.028
Support	(1, 513)	35.14	< .001	.064
Convenience				
SVS	(1, 513)	17.07	< .001	.032
Trust	(1, 513)	15.46	< .001	.029
Performance	(1, 513)	13.66	< .001	.026
Confidence	(1, 513)	4.89	.028	.009
Support	(1, 513)	10.44	.001	.020

Table 11

Means (and Standard Deviations) of Border Security and Convenience of Crossing Judgments of Anger- or Fear-Dominant Participants

Criterion Variable	Anger	Fear
Security		
SVS**	3.97 (1.74)	4.85 (1.57)
Trust**	4.12 (1.76)	4.76 (1.62)
Performance**	4.08 (1.74)	4.61 (1.65)
Confidence**	4.05 (1.84)	4.68 (1.80)
Support**	3.92 (1.69)	4.81 (1.49)
Convenience		
SVS**	4.10 (1.66)	4.66 (1.41)
Trust**	4.13 (1.75)	4.71 (1.56)
Performance**	4.08 (1.62)	4.60 (1.58)
Confidence*	4.02 (1.92)	4.40 (1.90)
Support*	3.99 (1.71)	4.47 (1.61)

Note. SVS = Salient Value Similarity. Statistically significant differences between anger- and fear dominant participants are denoted: ** = $p < .001$, * = $p < .05$

Table 12

Results of the Two-group MANOVA Assessing Differences in U.S. and Canadian Citizen Security and Convenience of Crossing Assessments

Source and Criterion	***df***	***F***	***p***	η_p^2
Security				
Anger	(1, 731)	17.18	< .001	.023
Worry	(1, 731)	26.38	< .001	.035
Fear	(1, 731)	17.07	< .001	.023
Performance Assessment	(1, 731)	7.31	.007	.010
Confidence	(1, 731)	7.17	.008	.010
Support	(1, 731)	6.09	.014	.008
Convenience				
Anger	(1, 731)	6.89	.009	.009
Worry	(1, 731)	11.83	.001	.016
Fear	(1, 731)	14.00	<.001	.019

Table 13

Means (and Standard Deviations) of Judgments of Border Security and Convenience of Crossing by Nationality of Participant

Criterion Variable	Participant Nationality	
Security	United States	Canadian
Anger**	3.88 (2.21)	3.25 (1.87)
Worry**	4.46 (2.26)	3.66 (1.94)
Fear**	3.96 (2.29)	3.33 (1.87)
Salient Value Similarity	4.41 (1.81)	4.55 (1.71)
Trust	4.43 (1.81)	4.66 (1.73)
Performance Assessment*	4.24 (1.89)	4.59 (1.64)
Confidence*	4.28 (2.00)	4.65 (1.79)
Support*	4.32 (1.90)	4.65 (1.70)
Convenience		
Anger*	3.12 (1.96)	2.77 (1.70)
Worry*	3.41 (2.03)	2.94 (1.68)
Fear*	3.25 (2.04)	2.74 (1.68)
Salient Value Similarity	4.44 (1.66)	4.48 (1.57)
Trust	4.46 (1.78)	4.56 (1.68)
Performance Assessment	4.39 (1.72)	4.47 (1.63)
Confidence	4.35 (1.93)	4.27 (1.92)
Support	4.36 (1.75)	4.35 (1.66)

Note. Statistically significant nationality differences are denoted as: ** = $p < .001$, * = $p < .05$

Figure Captions

Figure 1. The Trust, Confidence, and Cooperation Model Presented by Earle and Siegrist (2006)

Figure 2. Baseline Model: Path Weights Represent the Entire Sample.

Figure 3. The Addition of the Emotions of Anger, Worry, and Fear to the Baseline Model.

Figure 4. Path Weights of the High Self-assessed Knowledge Sample.

Figure 5. Path Weights of the Low Self-assessed Knowledge Sample.

Figure 6. Path Weights of the Canadian Sample.

Figure 7. Path Weights of the United States Sample.

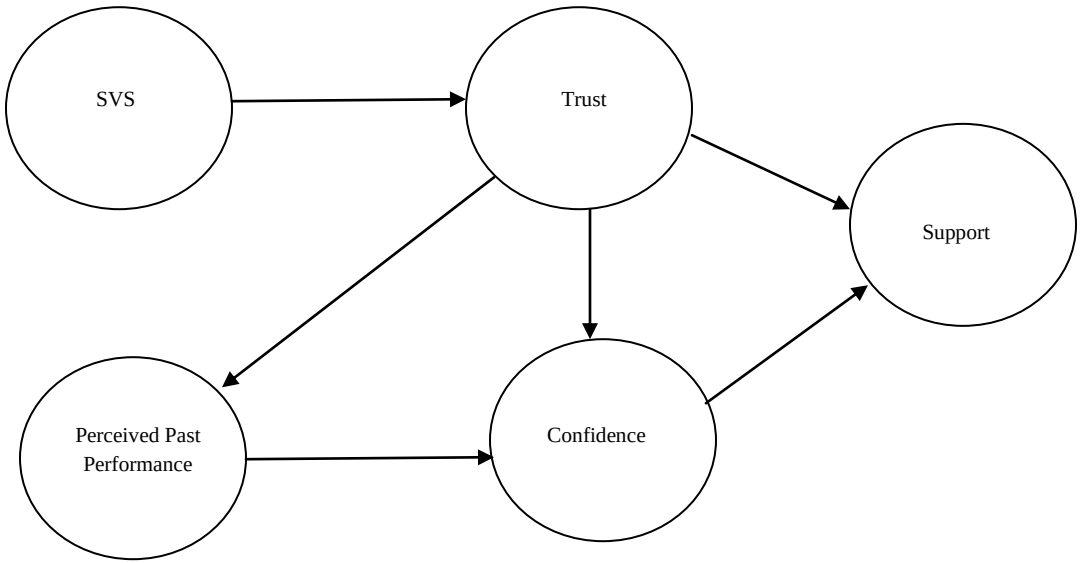

Figure 1.

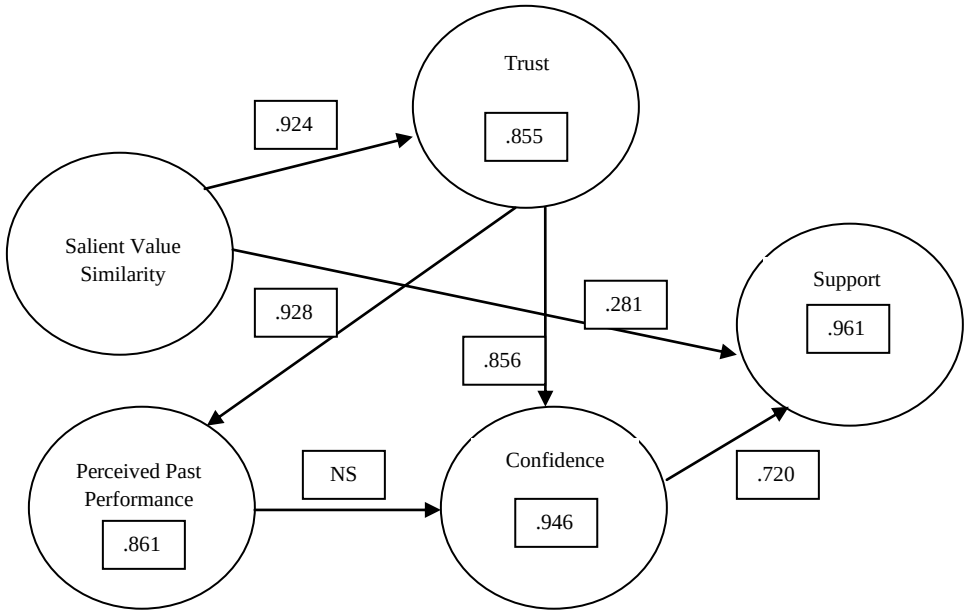
Trust
.855
.924
Salient Value Similarity
.928
.281
Support
.961
.856
Perceived Past Performance
.861
NS
Confidence
.946
.720

Figure 2.

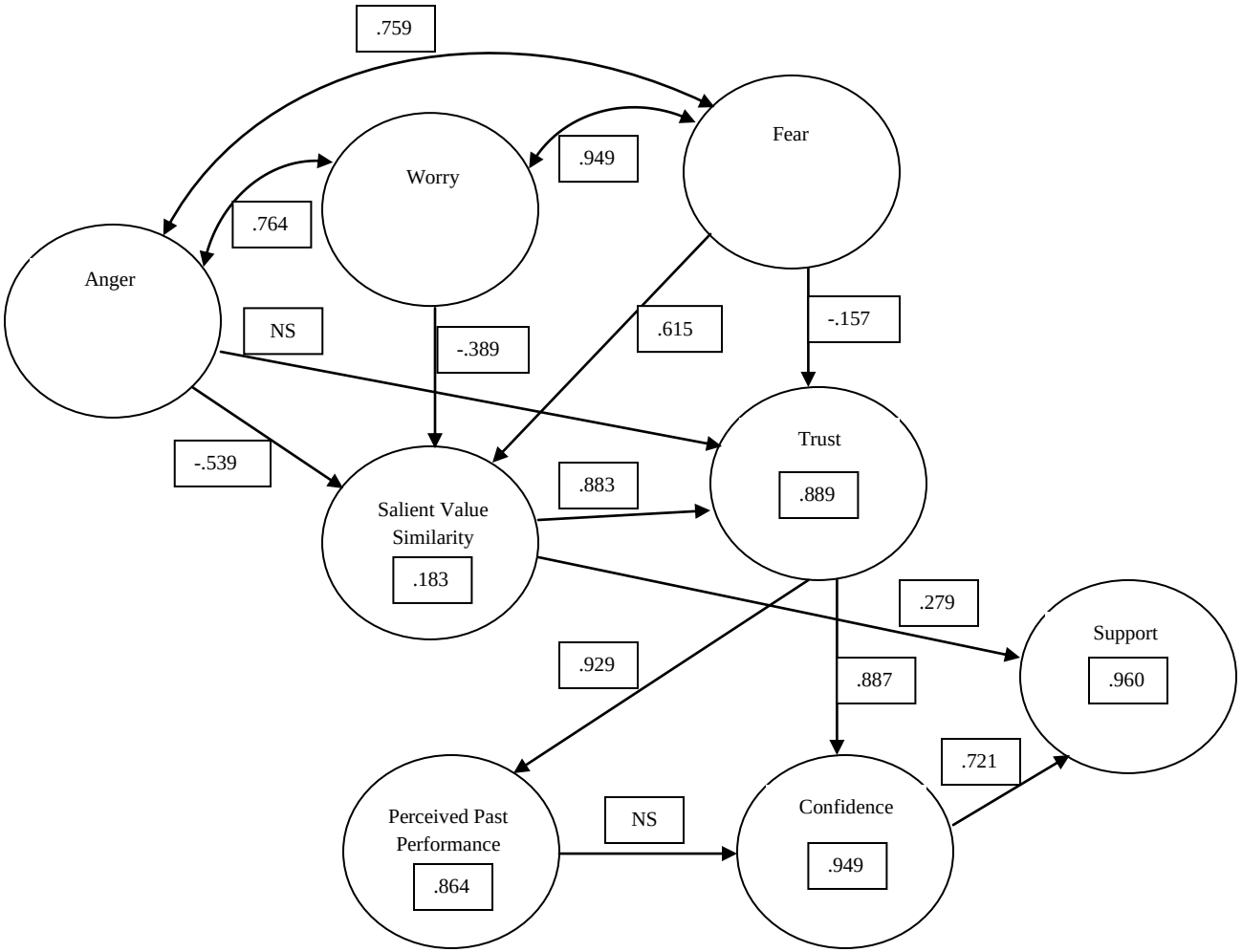
.759
Fear
Worry
.949
.764
Anger
NS
-.389
.615
-.157
Trust
.889
-.539
.883
Salient Value
Similarity
.183
.279
Support
.960
.929
.887
.721
Perceived Past
Performance
.864
NS
Confidence
.949

Figure 3.

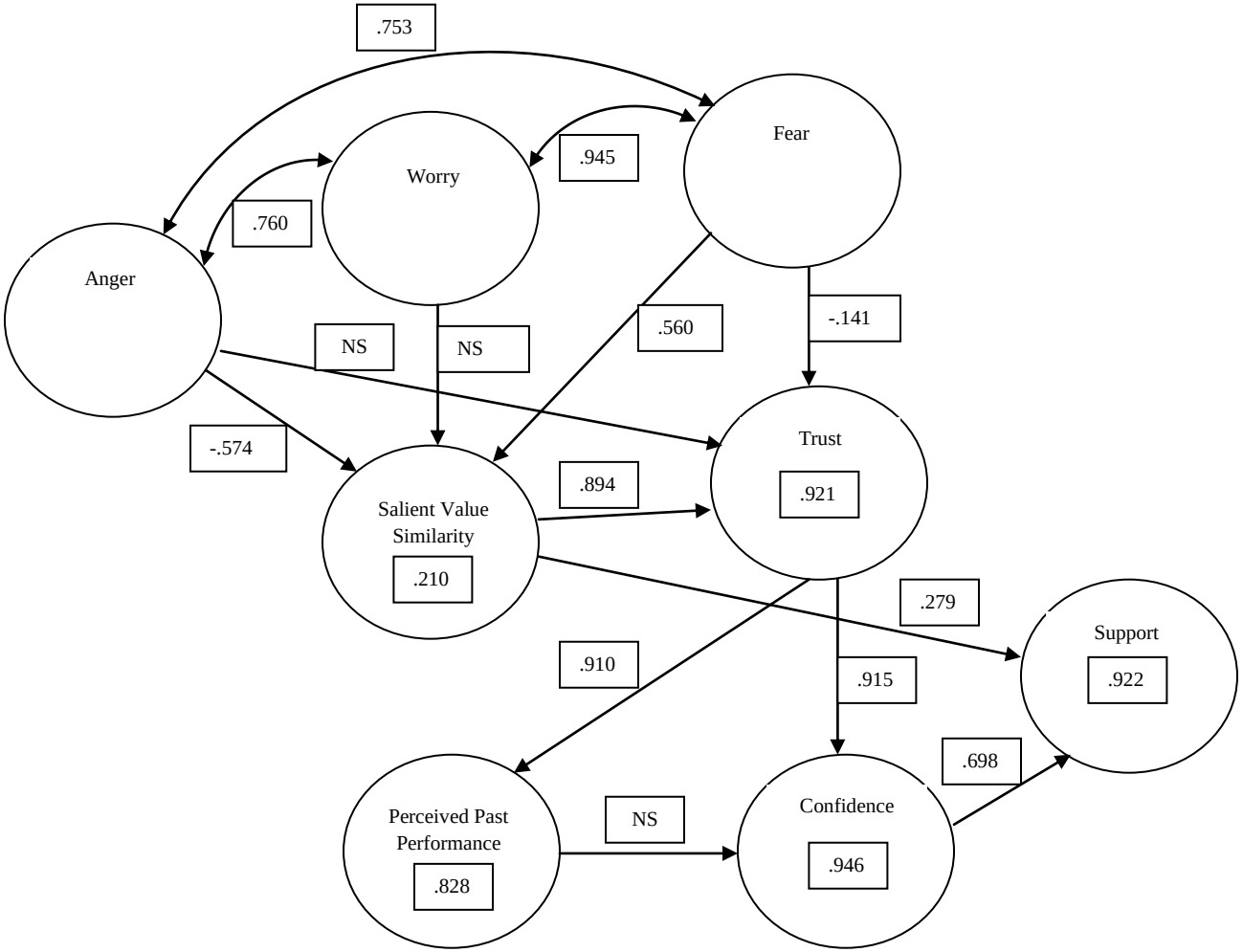
.753
Fear
Worry
.945
.760
Anger
NS
NS
.560
-.141
-.574
Trust
.921
.894
Salient Value
Similarity
.210
.279
Support
.922
.910
.915
.698
Perceived Past
Performance
.828
NS
Confidence
.946

Figure 4.

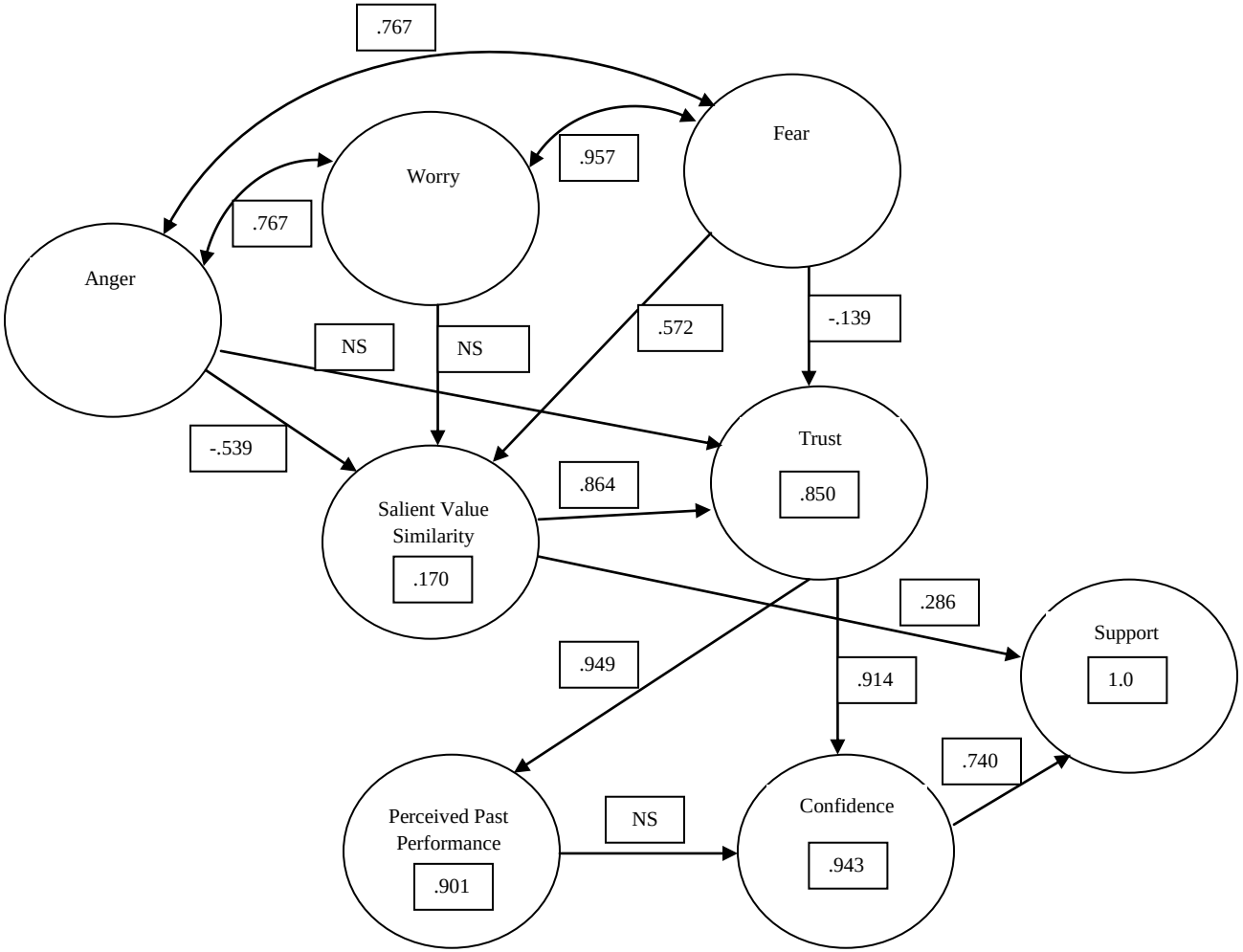
.767
Fear
.957
Worry
.767
Anger
NS
NS
.572
-.139
-.539
Trust
.850
.864
Salient Value
Similarity
.170
.286
Support
1.0
.949
.914
.740
Perceived Past
Performance
.901
NS
Confidence
.943

Figure 5.

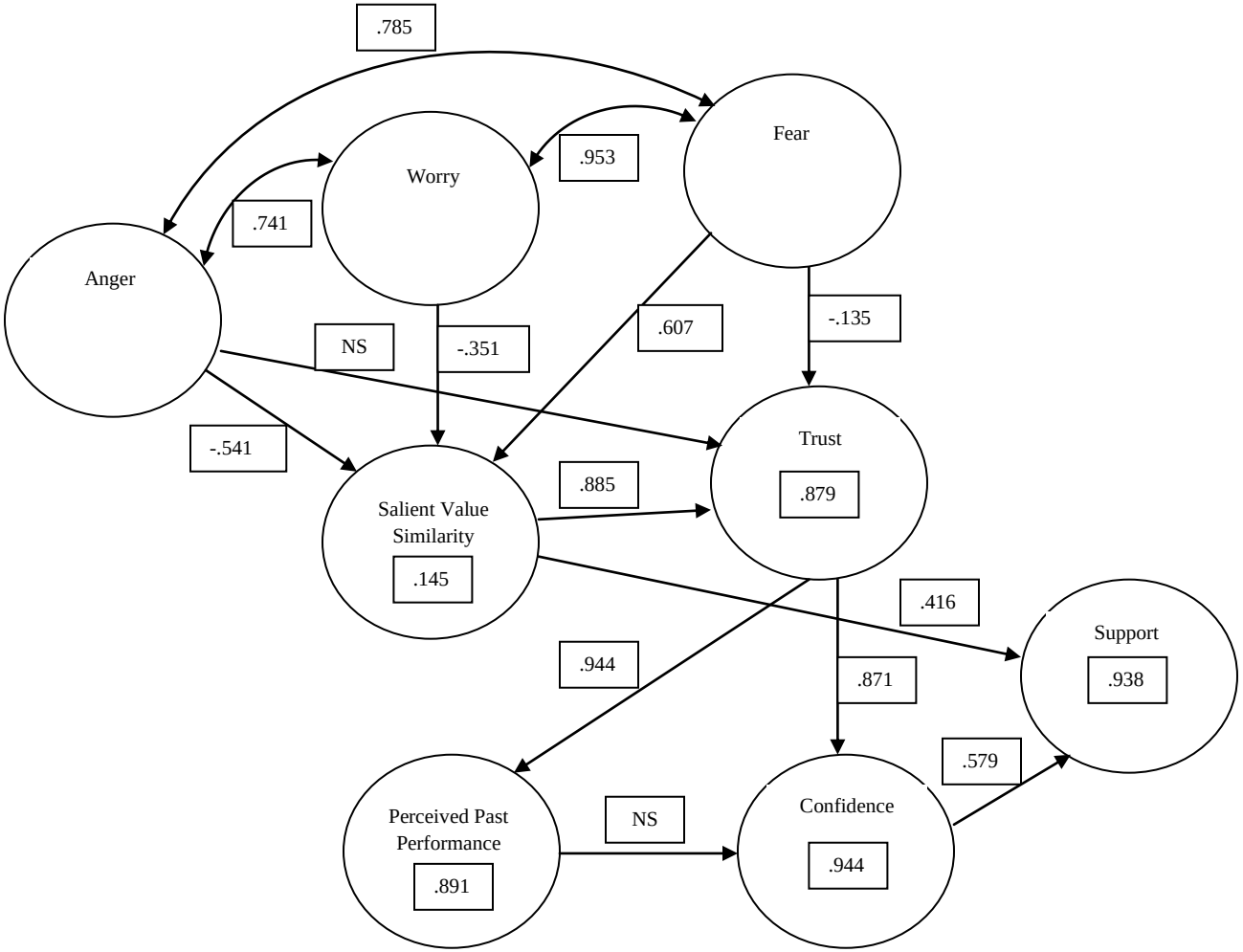
.785
Fear
Worry
.953
.741
Anger
NS
-.351
.607
-.135
-.541
Trust
.879
.885
Salient Value
Similarity
.145
.416
Support
.938
.944
.871
.579
Perceived Past
Performance
.891
NS
Confidence
.944

Figure 6.

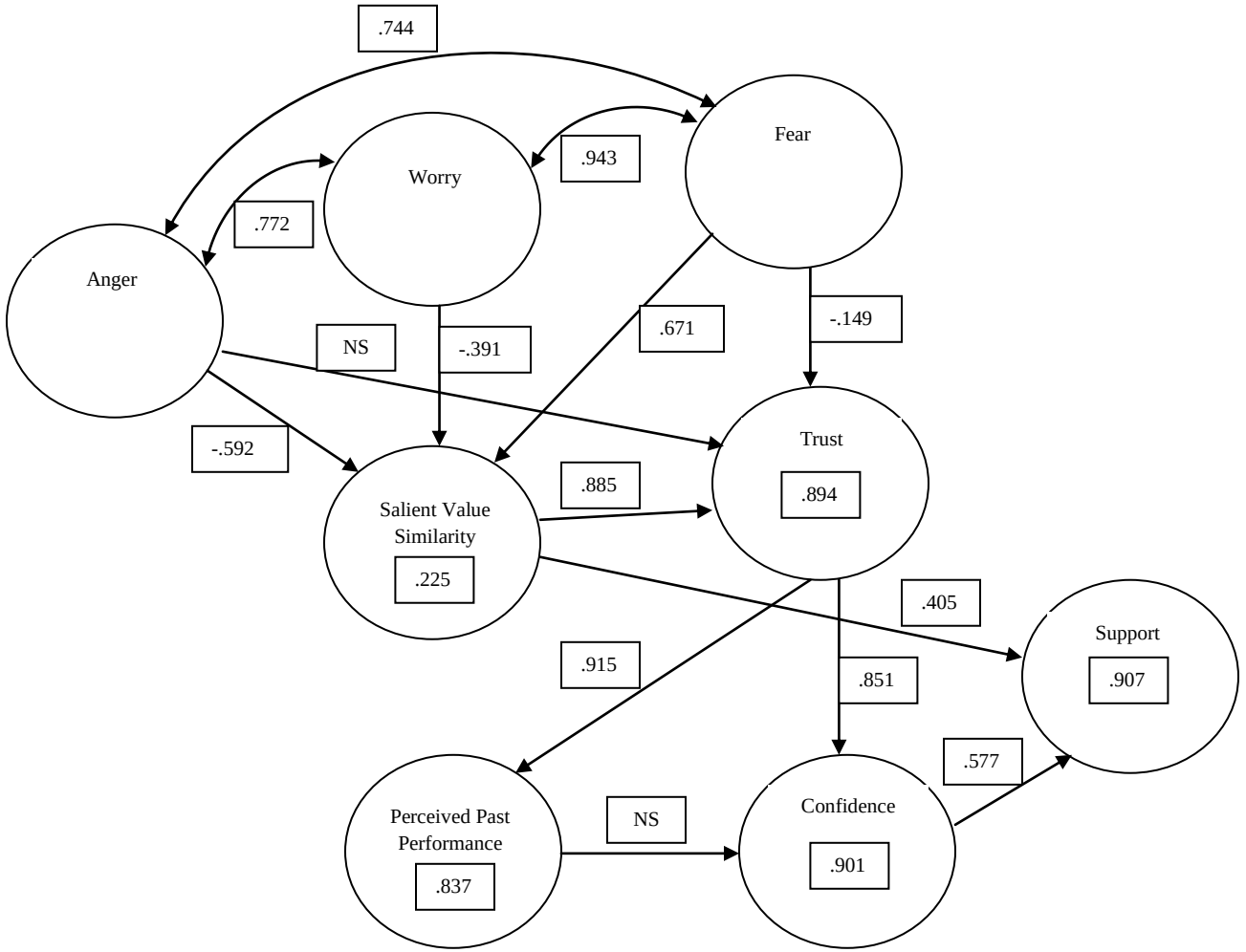
.744
Fear
Worry
.943
.772
Anger
NS
-.391
.671
-.149
Trust
-.592
.894
.885
Salient Value
Similarity
.225
.405
Support
.907
.915
.851
.577
Perceived Past
Performance
.837
NS
Confidence
.901

Figure 7.