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Intuitive Impressions: Comparing Law Enforcement and the General Population's Perception of Stress in Others

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Lukas Klapatch is a graduating senior majoring in Psychology and Criminal Justice. His project was completed in the summer of 2013 under the mentorship of Dr. Elizabeth Spievak (Psychology) and made possible through the funding of an Adrian Tinsley Program summer research grant and the valuable support of Dr. Mitch Librett (Criminal Justice). This project was presented at the 2014 Eastern Psychological Society meeting in Boston, Massachusetts.

Although much research has addressed the physiological and behavioral differences between challenged and threatened stress levels (Blascovich, 2008; Frings, et al., 2012; McEwen, 2000; Vine, et al., 2013), limited attention has been paid to the ability of an observer to read behavioral cues in others and correctly identify the type of stress the target might be feeling. The purpose of the current work was to help address this gap in the literature and to compare the accuracy of participants from two groups, the general population and those with law enforcement training, who classified targets in silent video clips as challenged or threatened. What follows is a review of several areas of research related to stress classification. Research in these areas informed the hypothesis that law enforcement training would lead to improved accuracy of stress classification in comparison to civilians.

Stress Responses

Research on challenged and threatened stress responses is informed by, and closely linked to, research on approach and avoidance motivation. As early as 1889, Richard Dienstbier proposed a theory of physiological toughness to suggest that patterns of cardiovascular responses differ during potentially threating situations. Dienstbier identified two different patterns of reaction to threatening situations, a "functional" cardiovascular response that predicted superior performance, and a "dysfunctional" cardiovascular response that predicted failure to thrive. Tomaka, Blascovich, Kibler and Ernst (1997) found support for Dienstbier's theory in their research on cardiovascular responses during goal-relevant performance. More recently, Blascovich (2008) proposed his more complex biopsychosocial model (BPSM) of challenge and threat, which describes the physiological response, such as cardiovascular reaction, as well as the cognitive response, including appraisals of environmental stimuli in relationship to goal state and perceived competence, that prepare the body and brain for the challenge of goal attainment (approach) or potential threat (avoidance). While the BPSM classifies these states as motivational states along a continuum that can change depending on new information, the physiological difference between these states can be differentiated through the vascular contractions and change in heart rate of the target (Blascovich & Tomaka, 1996; Tomaka & Blascovich, 1994).

According to Lazarus and Folkman (1984), those who believe they have the resources to meet demands exhibit responses indicative of challenge, while those who feel incapable of meeting demands show signs of threat. In a challenged state, people show increased cardiac efficiency and decreased vascular resistance, which facilitates blood flow to muscle and brain. Threat is characterized by less cardiac efficiency and increased vascular resistance, causing less blood to reach the periphery and the brain, which may lead to freezing or preparation for damage or defeat (Mendes, et al., 2007). The changes in the cardiovascular system, the cognitive and affective evaluation processes, as well as the integration of intraindividual, interindividual, and environmental forces help to predict how individuals may behave and cope in response to the variety of ordinary (and extraordinary) opportunities and difficulties that require mental and physical resources (Blascovich, 2008).

According to the BPSM, a challenged state generally leads to better performance in a situation than a threatened state (Mendes, et al., 2007, among others), yet in certain situations, such as vigilance tasks, a threated state has been associated with better performance (Hunter, 2001). Under conditions of extreme duress, the limbic system is capable of overwhelming the cerebral cortex, wherein more reason based interpretations, judgments, and restraint are formulated (LeDoux, 1995). Richard Restak (1995) referred to this as "episodic dyscontrol syndrome," which has been linked to an inability to inhibit automatic or well-learned responses during times of severe stress that is threatening. LeDoux links this type of automatic or instinctive response to appraisals regarding the immediate and concrete risks and rewards associated with survival. A challenged person who feels they have the resources to handle the situation before them may respond more mindfully, in part because long-term goals are still accessible, yet both threat and challenge responses have obvious advantages and disadvantages. The impulsive reactivity associated with threat increases short term survival, but can interfere with the more abstract social and physical goals associated with long term success. The slower and more thoughtful responses to a challenged state may improve social relations and long term goal attainment, but may be costly in the short term.

Stress Response Judgments

Measures of task performance generally indicate that physiological and self-reported stress evaluations are strongly correlated (Tomaka, Blascovich, Kelsey & Leitten, 1993), however, researchers have not yet examined the ability of observers to accurately label another person's stress. The interpretation of other's physiological states by way of external cues is a valuable skill in that intuitive judgments about how another individual may react to a situation could be valuable for optimizing interpersonal interactions. The skill may enable a person to head off a conflict, prevent escalation, or, in the context of challenge and threat, sense whether another individual feels prepared to handle a situation. Darwin (1965) argued that emotional displays have adaptive value because they communicate inner states of mind to observers whose survival is enhanced by learning to discern friend from foe without verbal information. Darwin's claims have been supported by neuropsychological evidence that expressive displays appear to elicit a response in the observer's mirror neurons (Wicker et al. 2003). Such empathic neurological responses may give an "experiential insight" into others' minds (Gallese et al., 2004, p. 401).

"Thin slicing" is a term commonly used to refer to the ability of an observer to infer something about a person' personality, character, or other traits based on only brief exposure to the stimulus. Research suggests that most of us are pretty good at making these quick assessments of people when the automatic, well learned appraisal is a good fit. For example, Ambady and Rosenthal (1993) found that participant evaluations of teachers shown in very short video clips (2, 5, and 10 seconds) were significantly correlated with the evaluations given by students after a full semester with the professor. The authors and others (Allport, 1937; Gottman, 1979) suggest that, in situations we are very familiar with, thin slices of behavior provide a great deal of information and permit reasonably accurate predictions. Although these quick judgments are not always correct, an abundance of evidence indicates that they are important and meaningful judgments that influence everyday behavior and should not be ignored.

Neuropsychological evidence indicates that judgments from thin slicing may rely on a brain network that includes the fusiform gyrus and the amygdala (Ambady, N., & Rosenthal, R., 1993). The fusiform gyrus, implicated in the perception of faces, and the amygdala, central to judgments of stimuli according to their threat or usefulness for survival (Ambady, 2010; LeDoux, 1995), appear to have specialized to give humans an edge in predicting interpersonal outcomes (LeDoux, 1995). Research also suggests that, while this brain network has specialized for automatically detecting other's emotional states, the accuracy of such intuitive judgments may suffer when attention is focused too narrowly on the task or when intuition is disregarded in favor of retrospective explanation (Vallacher & Wegner, 1987). For example, Dunning and Stern (1994) found that eye witness accounts were more accurate when participants indicated that they relied on judgments that came from impressions or automatic process of recognition compared to self-reports of deliberative thought.

Some research indicates that women, who are generally credited with more empathy (Gault & Sabini, 2003), may be better at reading the emotions of others. For one commonly used measure (Reading the Mind in the Eyes (RMET); Cohen, et al., 2001), researchers have consistently found that women tend to perform better at discerning emotion from still pictures of the eye area. Women also tend to perform more accurately when the face is presented quickly (Hall & Matsumoto, 2004), an ability that might also be particularly relevant in reading stress responses from thin slices. Surprisingly, thin slice research has been more ambiguous. Rosenthal, Hall, DiMatteo, Rogers and Archer (1979) found women performed only marginally better in thin slicing face and/or body stimuli. The judgments women made were not statistically significantly better than those made by their male counterparts, and such equivocal findings seem to be consistent across all ages, from childhood to adulthood (Rossip & Hall, 2004).

Suggestions that women may be slightly better at such tasks lends support to Darwin's argument and neuropsychological evidence that the ability to read emotional displays may be a heritable trait, but social learning, training and experience likely enhances the ability. The ability to accurately read others would be especially important for those often faced with decisions regarding potentially dangerous individuals. Those in both challenged and threatened states could be dangerous for a police officer, for example. A challenged person may be better able to strategically use their resources to constructively cope, but might also allow for effective use of resources for attack or escape. A threatened person's sympathetic nervous system may go into overdrive, effectively shutting down higher order cognition. While threat may lead to freezing or compliance (the equivalent of "playing dead"), it could also lead to irrational or unpredictable behaviors (the equivalent of the erratic pattern of flight to evade a predator). Law enforcement officials go through hours of training designed to heighten their perception in situations where they must evaluate individuals quickly. Correll, Judd,Wittenbrink, Sadler and Keesee's (2007) research suggests that police officers do become better at thin slicing when it comes to shoot/don't shoot tasks. The authors compared the shoot/don't shoot responses of police officials to those of civilians for armed and unarmed African American and Caucasian targets. The performance of the officers exceeded that of civilians in both reaction time and in differentiation of armed targets from unarmed targets. Other researchers have found similar results (e.g., MacLeod, 1998; MacLeod & Dundar, 1988; Plant & Peruche, 2005).

The Current Study

The focus of the current study was on the accuracy with which observers could identify challenged or threatened states from thin slices of behavior. Participants viewed videotapes of targets who gave an impromptu speech while heart rate, blood pressure, and galvanic skin response were monitored using Biopac. Targets were categorized as threatened or challenged according to criteria defined by previous research (Blascovich, 2008; Kassam, Koslov, and Mendes, 2009). A law enforcement cadets sample was used for comparison against the general population. Based on previous research it was hypothesized that women and those with law enforcement training would perform the task with more accuracy than the general population.

METHOD

Participants

The general population sample was comprised of 29 male and 68 female introductory psychology students aged 18 to 52 (M = 20.4). The law enforcement sample consisted of 73 male and 4 female cadets from Plymouth Police Academy aged 23 to 47 (M = 27.7). The majority of the cadets (93.7%) had no military or police experience and all were in their tenth week of police training courses. The study was approved by the Bridgewater State University Institutional Review Board.

Target Classification

Targets were participants in a previous experiment who were chosen based on their challenged/threatened physiological responses to an impromptu speech task, a common stress manipulation (Karst & Most, 1973). They were classified as either challenged or threatened based on left ventricular contractility (VC), cardiac output (CO), and total peripheral resistance (TPR). VC was calculated from the pre-ejection (the period before the blood moves out of the left ventricle and around the aorta) by measuring the time between the R and S points of the QRS wave on an ECG. CO was computed by multiplying heart rate by stroke volume. Since we did not have a true measure of stroke volume, we assumed a constant volume based on gender. Thus, for our purposes, heart rate measurement was equal to cardiac output. To measure TPR we divided mean arterial pressure (diastolic blood pressure plus one-third of the difference between the systolic and diastolic pressures), by cardiac output (heart rate). Participants with a VC and CO reactivity greater than zero and TPR reactivity less than zero were categorized as challenged. Participants with a VC greater than zero, CO greater than or below zero, and a TPR reactivity greater than zero were categorized as threatened (M. Akinola, personal communication, November 26, 2011).

Procedure and stimulus materials

General population participants were either seated in separate cubicles in front of a PC, or were in a classroom with a video display. Police cadets were tested in a classroom setting. All participants reviewed consent materials before receiving survey packets and instructions. They viewed eight 20s video clips of 5 threatened and 3 challenged (4 female and 4 male) targets in one of four orders. After each video, participants were asked to evaluate the target on the PANAS X (Watson, D., Clark, L. A., & Tellegen, A., 1988), a list of positive and negative emotions, before classifying the target as challenged or threatened.

RESULTS

Accuracy Results

Gender. There was no overall difference in accuracy by gender ($F(1,170) = 3.03$, $p = .08$), however females were significantly more accurate at classifying challenged individuals ($F(1,170) = 15.05$, $p = .00$). The same did not hold true when classifying threatened individuals ($F(1,170) = .04$, $p = .84$).

Police. Contrary to the hypothesis, police cadets did not perform significantly better than the general population. There was no difference between the groups in accuracy across all targets ($F(1,170) =1.29$, $p = .26$), but the general population was significantly more accurate at classifying challenged individuals ($F(1,170) = 15.05$, $p = .00$). Chi-Square results show that the general population performed significantly better than chance on five of the eight targets while law enforcement performed significantly better on four of the targets. One threatened target was significantly misclassified by both police and general population participants. See Table 1 for detailed accuracy results by group.

Police by Gender. Because there were so few women in the police sample, we excluded females from both groups and repeated the analyses. Male police cadets did not perform significantly better than males from the general population; there was no difference between the groups in overall accuracy, regardless of target stress classification. However, Chi-Square results indicated that male police cadets correctly classified five targets (three challenged and two threatened), while males from the general population correctly classified only two (one challenged and one threatened). See Table 3 for detailed accuracy results by group.

PANAS Results

Overall, participants attributed challenged targets with significantly more positive emotions ($F(2, 171) = 12.57$, $p = .001$), and more negative emotions to threatened targets ($F(2, 170) = 11.01$, $p = .001$).

Positive Emotions. Cadets and general population participants attributed significantly more positive emotions to challenged targets accurately classified compared to those who were incorrectly classified (e.g., challenged targets incorrectly labeled as threatened received lower ratings on positive emotion). Correctly identified threatened targets were attributed significantly less positive emotions than those who were incorrectly classified (all $p < .00$; see Table 2).

Negative Emotions. Participants from both populations attributed targets they accurately identified as challenged with less negative emotion than targets who were incorrectly classified. More negative emotions were attributed to correctly labeled threatened targets than threatened targets who were incorrectly classified as challenged (all $p < .00$; see Table 2).

Discussion

The hypothesis that females would be more accurate than males in classifying targets was partially supported in the results showed significantly higher accuracy in their classification of challenged targets. Past research has shown that women perform better at related tasks, such as the RMET, and classifying emotions in quickly viewed stimuli (Hall & Matsumoto, 2004), but not particularly better at thin slicing when compared to men (Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979). The current results add to the equivocal findings and suggest that a more careful and pointed study of why some stimuli yield gender differences is warranted.

The results failed to support the prediction that police cadets would be more accurate than the general population when classifying challenged/threatened targets. Indeed, the general population accurately classified one challenged target more accurately than cadets. However, the sample of cadets was overwhelmingly male (73 of the 77), and males performed significantly worse in classifying challenged targets, suggesting that the effect may have been driven by gender, not group. In fact, when male cadets were compared to male general population participants, male cadets non-significantly outperformed the general population males, suggesting support for the original hypothesis. Since there were only 29 males in the general population sample the comparison is difficult to interpret. It may be that if gender participation in both samples had been more balanced the effects of police training and gender would have been more clear.

One target, a threatened male, was significantly misclassified by cadets and general population participants. This may be due to the body language or overt characteristics the target expressed. Past research has shown that threatened individuals may generate confident expressions (Ekman & Friesen, 1969) to hide their state. This would make sense as threatened individuals would have the most to gain by showing characteristics of a challenged individual. The misclassified target in this study may have been demonstrating characteristics of an opposite state to fool onlookers.

Accuracy may have also been influenced by study design. A number of studies have demonstrated the counterproductive effects of articulating and deliberating on such judgments when using thin slicing (Melcher & Schooler, 1996; Wilson & Schooler, 1991). Because participants in the current study viewed 20s clips and were given time for reflection, they may not have relied on their intuitive impressions. Deliberation may have hindered participant accuracy. Because officers do become better at thin slicing during shoot/don't shoot tasks (Correll, Judd,Wittenbrink, Sadler & Keesee's, 2007), it may be that a flaw in the current study obstructed all participants' intuitive judgments, thus preventing us from detecting an effect for police training and experience. Judgments during the current thin slicing task permitted more deliberation than is allowed during shoot/don't shoot tasks, perhaps reducing the accuracy of judgments. The results suggest support for Ambady (2010) and others who have found that thin slice judgments may suffer when information is processed more deliberately. Future research should look at the classification accuracy without deliberation.

The general population and cadets consistently judged those to whom they attributed more positive emotions as challenged, and classified those to whom they attributed more negative emotions as threatened, even when their categorization was inaccurate. It appears that both the general population and law enforcement similarly (and correctly) conceptualized challenge as a more positive state and threat as a more negative one. Because we did not ask the target participants to report their emotional state at the time they made their speech, it is unclear whether the emotional attributions were accurate. Target classification was based solely on physiological data collected at the time. However, the results do support prior research that challenged individuals, believing they have the resources to handle the situation, likely display more positive emotions. The opposite would be true for threatened individuals who believe they do not have the resources for the situation (Lazarus & Folkman, 1984). Participants who incorrectly classified a target still revealed their understanding of stress states in that perceived positive emotions were predictive of a label of challenged, and negative emotions with threatened.

Overall further research is warranted on accurate classifications of challenged/threatened individuals, particularly in those whose thin slice judgments have important social consequences. Understanding how onlookers read stress in others could provide information to improve the safety of officers and civilians alike. Because threatened and challenged individuals likely behave differently when confronted by police, accurate classification may prevent excessive use of force. Because our sample containing mostly unexperienced cadets, future research should examine the accuracy of stress classification with experienced officers. Yet, the study has bridged a small gap in the literature on stress classification, and despite certain limitations still remains a unique and innovative first step.

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References

Allport, G.W. (1937). *Personality: A psychological Interpretation*. New York, Henry Holt and Company.

Ambady, N., & Rosenthal, R. (1993). Half a minute: Predicating teacher evaluations from thin slices of nonverbal behavior and physical attractiveness. *Journal of Personality and Social Psychology*, *64*, 431-441.

Ambady, N. (2010). The perils of pondering: Intuition and thin slice judgments. *Psychological Inquiry*, *12*, 271-278.

Baron-Cohen, S. Wheelwright, S., Hill, J., Raste, Y., & Plumb, I. (2001). The "Reading the Mind in the Eyes" test revised version: A study with normal adults, and adults with asperger syndrome or high-functioning autism. *Journal of Child Psychology and Psychiatry, 42*, 241-251.

Blascovich, J., & Tomaka, J. (1994). Effects of justice beliefs on cognitive appraisal of, and subjective, physiological, and behavioral responses to, potential stress. *Journal of Personality and Social Psychology*, *67*, 732-740.

Blascovich, J., & Tomaka, J. (1996). The biopsychossocial model of arousal regulation. *Advances in Experimental Social Psychology*, *28*, 1-51.

Blascovich, J. (2008). Challenge and threat appraisal. In Elliot, E. *Handbook of Approach and Avoidance Motivation* (pg. 431-445) New York, NY: Psychology Press.

Correll, J., Park, B., Judd, M., Wittenbrink, B., Sadler, S., & Keesee, T. (2007). Across the thin blue line: Police officers and racial bias in the decision to shoot. *Journal of Personality and Social Psychology*, *92*, 1006-1023.

Darwin, C. (1965). *Expressions of the Emotions in Man and Animals*. York, Chicago: University of Chicago Press. (Original work published in 1872).

Dienstbier, R. A. (1989). Arousal and physiological toughness: Implications for mental and physical health. *Psychological Review*, *96*, 84-100.

Dunning, D., & Stern, B. (1994). Distinguishing accurate from inaccurate eyewitness identification via inquiries about decision processes. *Journal of Personality and Social Psychology*, *67*, 818-835.

Ekman, P., & Friesen, W.V. (1969). The repertoire or nonverbal behavior: categories, origins, usage, and coding. *Semiotica*, *1*, 49-98.

Frings, D., Hurst, J., Cleveland, C., Blascovich, J., & Abrams, D. (2012). Challenge, threat, and subjective group dynamics: reactions to normative and deviant group members, *Group Dynamics: Theory, Research & Practice, 16,* 105-121.

Gallese, V., Keyser, C., & Rizzolatti, G. (2004). A unifying view of the basis of social cognition. *Trends Cognitive Science*, *8,* 396-403.

Gault, B. A., & Sbini, J. (2000). The roles of empathy, anger, and gender in predicting attitudes toward punitive, reparative and preventative public policies. *Cognitive and Emotion*, *14*, 495-520.

Gottman, E. (1979). *Gender Advertisements.* Cambridge, Ma: Harvard University Press.

Hall, J. A., & Matsumoto, D. (2004). Gender differences in judgments of multiple emotions from facial expressions. *Emotion*, *2*, 201-206.

Hunter, S. B. (2001). *Performance under pressure: The impact of challenge and threat states on information processing*. (Unpublished doctoral dissertation). University of California, Santa Barbara.

Karst, T.O., & Most, R. (1973). A comparison of stress measures in an experimental analogue of public speaking. J*ournal of Consulting and Clinical Psychology*, *41*, 342-348.

Kassam, K. S., Koslov, K., & Mendes, W. B. (2009). Decisions under distress: Stress profiles influence anchoring and adjustments. *Psychological Science*, 20, 1394-1399.

Lazarus, R.S, & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer.

LeDoux, J. (1995). Emotion: Clues from the brain. Center for Neural Science. *Annual Review Psychology*, *46*, 209-235.

MacLeod, C. M. (1998). Training on integrated versus separated Stroop tasks: The progression of interference and facilitation. *Memory & Cognition*, *26*, 201-211.

MacLeod, C. M., & Dunbar, K. (1988). Training and stroop-like interference: Evidence for a continuum and automaticity. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *14*, 126-135.

McEwen, B. S. (2000). *The neurobiology of stress: From serendipity to clinical relevance.* Brain Research Interactive. Rockefeller University.

Melcher, J. M., & Schooler, K. W. (1996). The misremembrance of wines past: Verbal and perceptual expertise differentially meditate verbal overshadowing of taste memory. *The Journal of Memory & Language*, *35*, 231-245.

Mendes, W. B., Blascovich, J., Hunter, S., Lickel, B., & Jost, J. (2007). Threatened by the unexpected: Physiological responses during social interactions with expectancy-violating partners. *Journal of Personality and Social Psychology*, *92*, 698-716.

Plant, E. A., & Peruche, B.M. (2005). Elimination automatic racial bias: Making race on-diagnostic for responses to criminal suspects. *Journal of Experimental Social Psychology*, *16*, 180-183.

Restak, R. M. (1995). *Receptors.* New York: Bantam Books.

Rosenthal, R., Hall, J. A., DiMatteo, M. R., Rogers, P. L., & Archer, D. (1979). *Sensitivity to Nonverbal Communication*. Baltimore, MD: John Hopkins University Press.

Rosip, J. C., & Hall, J. A. (2004). Knowledge of nonverbal cues, gender, and decoding accuracy. *Journal of Nonverbal Behavior*, *28*, 267-289.

Tomaka, J., Blascovich J., Kibler J., & Ernst, J. M. (1997). Cognitive and physiological antecedents of threat and challenge appraisal. J*ournal of Personality and Social Psychology*, *73*, 63-72.

Vallacher, R. R., & wegner, D. M. (1987). What do people think they're doing? Action identification and human behavior. *Psychological Review*, *94*, 3-15.

Vine, J. S., Freeman, P., Moore, J. L., Chandra-Ramanan, R., Wilson, M. (2013). Evaluating stress as a challenge is associated with superior attentional control and motor skill performance: Testing the predictions of the biophysical model of challenge and threat. *Journal of Experimental Psychology*, *19*, 185-194.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063 -1070.

Weishbuch, M., Seery, M., Ambady, N., Blacovish, J. (2009). The face and the voice of threat: The nonverbal communication of visceral states during nonverbal communication. *Journal of Nonverbal Behavior, 33,* 141-148.

Wicker, B., Keysers, C., Plailly, J., Royet, J. P., Gallese, V., Rizzolatti, G. (2003). Both of us are disgusted in my insula: The common neural basis of seeing and feeling disgust. *Neuron, 40,* 655-664.

Table 1. Chi-Square Classification of Targets

	Challenged Classification		Threatened Classification	
Challenged Targets	General Population (Expected = 47)	Law Enforcement (Expected =37)	General Population (Expected = 47)	Law Enforcement (Expected = 37)
A(Male)*	78*	62*	16	12
B(Female)	47	33	47	42
G(Female)*	90*	56*	5	20
Threatened Targets	General Population (Expected = 47)	Law Enforcement (Expected =37)	General Population (Expected = 47)	Law Enforcement (Expected = 37)
C(Female)*	29	23	66*	52*
D(Male)	64*	60*	31	16
E(Male)	33	31	61*	44
F(Male)	42	25	53	50*
H(Female)*	33	28	60*	48*

* Results significantly different from chance, $p < .05$

Table 2. Panas Means

	Accurately Classified		Misclassified	
Challenged Targets	Mean	Standard Deviation	Mean	Standard Deviation
Gen. Pop. Positive	3.39	.70	2.26	.70
Gen. Pop. Negative	2.65	.79	1.55	.51
Law. Enf. Positive	3.29	.56	2.37	.70
Law. Enf. Negative	1.67	.52	3.08	.77
Threatened Targets	Mean	Standard Deviation	Mean	Standard Deviation
Gen. Pop. Positive	1.99	.49	2.54	.70
Gen. Pop. Negative	2.86	.64	1.95	.66
Law. Enf. Positive	2.33	.54	3.02	.70
Law. Enf. Negative	3.24	.55	2.13	.61

Table 3. Chi-Square Classification by Males

	Challenged Classification		Threatened Classification	
Challenged Targets	General Population (Expected = 14.5)	Law Enforcement (Expected = 14.5)	General Population (Expected =34.5)	Law Enforcement (Expected = 34.5)
A(Male)*	19	58*	9	11
B(Female)	13	30	16	40
G(Female)*	25*	51*	3	20
Challenged Targets	General Population (Expected = 14.5)	Law Enforcement (Expected = 14.5)	General Population (Expected =34.5)	Law Enforcement (Expected = 34.5)
C(Female)*	12	22	17	48*
D(Male)	19	56*	10	15
E(Male)	10	28	17	42
F(Male)	11	23	18	47*
H(Female)*	8	27	19*	43*

* Results significantly different from chance, $p<.05$