

May 2023

Individual Differences in Police Officers' Decision Styles in Order Maintenance Policing

Damarrah Elisheba Jameson

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INDIVIDUAL DIFFERENCES IN POLICE OFFICERS' DECISION STYLES IN ORDER MAINTENANCE
POLICING

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May 2023

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Dissertation Approval

The Graduate College
The University of Nevada, Las Vegas

March 22, 2023

This dissertation prepared by

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entitled

Individual Differences in Police Officers' Decision Styles in Order Maintenance Policing

is approved in partial fulfillment of the requirements for the degree of

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Abstract

Day-to-day police work tends to be in order maintenance policing. These encounters necessitate officer discretion in decision responses to manage them. These decision responses reflect an officer's decision style which precedes the encounter and drives subsequent decision making to manage them. However, little is known about officer-level decision style. For example, whether an officer has a rational, intuitive, dependent, avoidant, or spontaneous decision style (Scott & Bruce, 1995). Police training in any format often lacks attention to decision styles. As such, an officer's decision style is most likely associated with demographics (e.g., age, gender) and occupational self-efficacy – a reflection of the officer versus police training he/she may have had.

This research aimed to determine a predominant decision style among current and former police officer respondents, how decision styles relate to occupational self-efficacy and officer-level demographics, and provide implications for police training and practice. Data was collected using the Occupational Self-Efficacy Scale (Short-form), the General Decision-Making Style survey, a Vignette Survey, and Demographic Survey. A quantitative regression analysis design showed that the rational decision style was predominant across respondents. The variable age, race, and type of community served were significant for some decision styles. Occupational self-efficacy captured more of context decision-making and seemed to matter more than demographic variables in context-specific ways for some decision styles. The implication for police training is modified instructional design and content. Implication for practice is police officers with skills and knowledge for a rational decision style in any order maintenance decision situation.

Acknowledgments

I want to acknowledge the Department of Educational Psychology, Leadership, and Higher Education in the College of Education for generously supporting my doctoral pursuit. I also want to acknowledge the Department of Criminal Justice in the Greenspun College of Urban Affairs for their generous contribution to this pathfinding and forward-thinking research. In addition, I want to acknowledge the Grad Rebel Advanced Doctoral Graduate Assistantship Completion Program, also a generous contributor to this research endeavor.

Your support is greatly and will forever be appreciated. Thank you.

–Damarrah.

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Chapter 1: Introduction

Background

Day-to-day police work tends to be in order maintenance policing – the intervention and suppression of behavior that threatens to be offensive, disturb the public peace, or stem from public conflicts among individuals (Kelling & Coles, 1996). These encounters have two dimensions: the complexity of the situations or problems presented and the officer's response to those situations or problems. They also necessitate officer discretion in decision-making to manage them. This decision-making reflects an officer's decision style, a habitual response pattern in decision situations. However, little is known about officer-level decision style in order maintenance encounters. For example, whether an officer has a rational, intuitive, dependent, avoidant, or spontaneous decision style (Scott & Bruce, 1995). Police training in any format often lacks attention to decision styles. As such, an officer's decision style in order maintenance decision situations is most likely tied to demographics (e.g., age, gender) and occupational self-efficacy. As such, the decision style will reflect the officer versus the training he/she may have had. Therefore, officers will not approach order maintenance decision situations similarly.

An officer's decision style is a hidden force in order maintenance decision situations because it precedes the encounter and drives subsequent decision-making to manage it. Its utility lies in telling us something about an officer's likely decision approach in these encounters. For example, an officer with a rational decision style may likely use reasoning in order maintenance decision situations, while an officer with a spontaneous decision style may tend to make decisions quickly because it feels right. When factoring demographics, for example, a dependent decision style may tend to be associated with age, while an avoidant decision style

may be associated with the type of community an officer serves. Occupational self-efficacy, for example, may be associated with years of experience or education. What yields here is a cognitive perspective for understanding the practical side of decision styles in order maintenance encounters.

Statement of the Problem

Decision-making is a broad area of research in educational psychology. It is associated with teaching and learning wherever it takes place. This includes work settings that provide professional training. The problem is the gap in research specific to police officer decision styles in order maintenance decision situations and connecting this research to police training. At stake is officer preparation and readiness for typical daily order maintenance decision situations.

Purpose of Study

This study aimed to: 1) Determine a predominant decision style across current and former police officers in this study, 2) Determine how officers' decision styles might relate to demographics and occupational self-efficacy in the context of order maintenance decision situations, and 3) Provide implications for training and practice. Findings can reveal patterns that tell us what is and is not important in these associations. A deeper understanding of these constructs and associations is beneficial in that it could: 1) Identify training and development needs, 2) Inform ideas for police training, and 3) Inform ideas for a general uniform decision style in order maintenance decision encounters. This study is exploratory and pathing finding and seeks to bridge educational psychology research with police psychology research and police training departments.

Theoretical Framework

The following theoretical and construct threads guided this study: (a) Order Maintenance Policing, (b) Decision Styles, (c) Decision Theory, (d) Self-Efficacy (Occupational), (e) Demographics, (f) Behavioral Learning Theory, and (g) Andragogy Learning Theory.

Order Maintenance Policing

Order maintenance policing is the intervention and suppression of behavior that threatens to be offensive, disturb the public peace, or stem from public conflicts among individuals (Kelling & Coles, 1997). According to Thatcher (2004), order maintenance is the police role in defining and regulating the fair use of public spaces and is a central aspect of policing. These encounters necessitate latitude of discretion in officer responses to manage them. However, like police training, order maintenance guidelines lack attention to decision-making for managing these encounters. Further, research concurs that order maintenance policing is where police officers most often make decisions and experience decisional conflict. According to Kelling (1999), police officers make far more discretionary determinations in individual cases than any other class of police administrators. As such, order maintenance policing provides an appropriate context to understand the interplay of decision styles in typical daily order maintenance decision situations.

Decision Styles

A decision style is one's learned, habitual response patterns to decision situations and is considered situational and not personality-based (Scott & Bruce, 1995). Scott and Bruce (1995) proposed five empirically sound decision styles that are the focus of this study: 1) Rational (careful), 2) Intuitive (reliance on hunches), 3) Dependent (seeking advice), 4) Avoidant

(tendency to delay), and 5) Spontaneous (immediacy). Extant research shows decision styles to be essential to businesses, organizations, and the workplace. They have also been associated with job performance, work behavior, and decision-making competence (Delaney et al., 2015; Hayes & Allinson, 1998; Russ et al., 1996). This points to the practical side of decision styles and their importance in work settings. Hence, it is important to know an officer's decision style to understand how he/she arrives at a decision in order maintenance decision situations. Knowing this can help assess the impact and determine occupationally appropriate decision styles in these encounters.

Decision Theory

Decision theory is a broad interdisciplinary theory that considers different ways to think about decisions and study a person's choices. It concerns how decision-makers make decisions and how optimal decisions can be reached rationally. Descriptive, prescriptive, and normative decision models are the main components of the theory, each broad with diverse branches and respective theorists. Decision theory also highlights the role of decision classes (certainty, uncertainty, and conflict) in considering everyday decision situations. The theory allows for identifying and evaluating solution paths. According to Dillon (1960), decision theory is a helpful reference for improving decision-making aspects. Thus, a valuable tool to inform training and practical instruction attentive to decision styles in order maintenance decision situations.

Occupational Self-Efficacy

Occupational self-efficacy is self-efficacy in the work domain. It refers to one's belief in their ability and competency to fulfill work-related tasks or activities (Felfe & Schyns, 2006; Rigotti et al., 2008). It is not a personality trait or about work capacity; it is situation-based

(Schyns, 2004). Occupational self-efficacy originates in the self-efficacy construct from Albert Bandura's social cognitive theory (SCT). Self-efficacy is domain-specific and reflects our core belief in our ability to complete a particular task (Bandura, 1977; Bandura, 1986). These core beliefs operate through impact on cognitive, motivational, affective, and decisional processes (Wood & Bandura, 1989). As such, occupational self-efficacy should be considered jointly with decision styles in the context of order maintenance decision situations. This is especially necessary considering the lack of attention to decision styles in police training and order maintenance guidelines.

Demographics

Demographics describe the characteristics of research participants and determine the possible relationship with other variables in the dataset. Demographic variables are inherent in each employee and are one of the predictors of employee performance (Hendrawijaya, 2019). Palakurthi and Parks (2000) found that variables such as age, education level, gender, and years of service can influence various work performance aspects. Police research concurs that race, education level, and years of experience are important factors in officer decision-making (Alpert et al., 2004). Related findings have been generally grouped into the following four categories: situational, individual, organizational, and community (Riksheim & Chermak, 1993; Sherman, 1980). The more they know about their target population, the higher the chance that their messaging will resonate with their desired audience. As such, demographics should be considered jointly with decision styles in the context of order maintenance decision encounters.

Behavior Learning Theory

Behavior learning theory is a well-known orientation to learning that posits behaviors

are learned from interactions with the environment and are observable. The theory is a traditional format in police training and education (Birzer et al., 2001). This traditional format is lecture-based and teacher-centered. Related objectives focus on a specific goal and allow behavior modification to achieve a desired outcome. Teaching strategies include drills, guided practice, behavior modeling, simulations, positive reinforcement, and prompting; repetition is key to learning. In the workspace, behavior learning theory often works best for training in specialized professions such as law enforcement practice – reinforcing good behaviors and having learners react in predictable and consistent ways to certain conditions. In this study, behavior learning theory serves as a backdrop for proposed ideas for teaching and learning in police training attentive to decision styles.

Andragogy Learning Theory

Andragogy learning theory is learner-centered and based on a self-directed, hands-on, independent learning method for adults (Birzer et al., 2001; Knowles, 1984). This theory centers on an interactive learning experience and has a growing presence in police training classrooms. It supports cognitive skills development (e.g., decision training) and analytical learning. According to Birzer et al. (2001), andragogy learning is a practical job-based approach that helps learners know what to focus on and why. It allows the teaching process within an organization to be more efficient, with a greater potential for applying new skills and knowledge. In this study, andragogy learning theory serves as a backdrop for proposed ideas for teaching and learning decision styles in police training.

Significance of Study

The significance of this study includes potential guidance to improve police training and

officer-level decision approaches in order maintenance encounters. Intervening at the training level could: 1) Ensure that police officers have the skills and knowledge for an occupationally appropriate decision style in order maintenance decision situation, and 2) Support police training departments in providing related evidence-based training content and learning approaches.

Summary of Methodology

This study employs a quantitative design using multiple regression analysis to uncover associations, meaningful relationships, and connections between variables presented. R code software analyzed data collected from three surveys presented in Chapter 3. This method approach allows for answers to research questions that: 1) Describe the individual differences in officer decision styles; 2) Determine a predominant decision style; 3) Explain how decision styles may relate to officer-level demographics and occupational self-efficacy; and 4) Provide implications for police training and decision practices. The current study situates decision styles in an adult learning environment and a job context of order maintenance decision situations.

The International Association of Chiefs of Police (n.d.) explains:

It is important to rigorously evaluate policing practices to identify effective ones and facilitate the exchange of data and research between the policing community and academia; when analyzed and translated into knowledge and insights, data can drive better, more informed decision-making.

Chapter 1 Conclusion

Chapter 1 has provided the basic nature and grounds of this study with evidence supporting the problem's existence by making connections. The proposed theories and constructs provided context by identifying assumptions that informed this work. From Chapter 1, we can conclude that decision styles are essential and the basis for decision-making

responses in order maintenance decision situations. Thus, a significant impact worth exploring to inform practice and training. Further explanation of proposed theories and constructs follow next in chapter 2. The value of this literature review lies in developing evidence-based explanations, predictions, and connections to existing knowledge.

Chapter 2: Literature Review

In chapter 2, relevant literature was reviewed and contextualized into this study under the following theories and constructs:

1. Order Maintenance Policing
2. Decision Styles
3. Decision Theory
4. Occupational Self-Efficacy
5. Behavior Learning Theory
6. Andragogy Learning Theory

Order Maintenance Policing

The roots of order maintenance policing originate in the Broken Windows Theory, which argues that visible disorder in a community breeds crime (Wilson, 1991; Wilson & Kelling, 1982). Order maintenance is the intervention and suppression of behavior that threatens to be offensive, disturb the public peace, or stem from public conflicts among individuals (Kelling & Coles, 1997). According to Thacher (2004), order maintenance is the police role in defining and regulating the fair use of public spaces and a central aspect of policing. Other names for order maintenance policing include “quality of life” and “disturbance calls.” Examples of offenses include but are not limited to loitering, public intoxication, prostitution, panhandling, noise disturbances, and crowd control. Order maintenance techniques include suggested, requested, negotiated, commanded, or threatened action intended to return a situation to a state of normality and prevent taking citizens into custody (Novak et al., 2002). Enforcement options include citations, warnings, and arrest, often the last resort. Some describe order maintenance

policing as a form of “peacekeeping” and others as “social regulation” (Thacher, 2004).

A benefit of order maintenance policing is community crime control. Specifically, reducing citizens' fear of crime and increasing citizen support for and cooperation with the police. Another advantage is that it can prevent disorderly behaviors from escalating into serious crimes. Order maintenance policing encourages police officers to understand and evaluate problems and then implement tailor-made responses. This, however, reflects public criticism of this policing style. Critics argue concerns for subjectivity in tailor-made or discretionary decision responses. The lack of related training and absence of attention to policy guidelines has fueled decades of criticism and calls for police training attentive to decision-making, specifically, how officers make decisions in these encounters.

In order maintenance decision situations, officers are empowered by their role to impose a solution to a problem, incident, or disturbance if, in their judgment, they deem it necessary. Kelling (1999) described these encounters as ambiguous and called for guidelines that contribute to decision-making. Further, police training in any format often lacks attention to decision making in order maintenance policing. Training content often has a greater focus on physical and technical skills versus cognitive skills. Extant research concurs that order maintenance policing is where officers most often make decisions and experience decisional conflict. In instances where order maintenance encounters result in citizen complaints, the issue is often not the alleged crime but the officer's decision response for managing the encounter. What yields is the need for research to understand aspects of these decision experiences to drive instructional and practical support.

Decision Styles

A decision style is one's learned, habitual response patterns to decision situations that are situational and not personality-based (Scott & Bruce, 1995). Scott and Bruce (1995) proposed five empirically sound decision styles that are the focus of this study: 1) Rational (careful), 2) Intuitive (gut feeling), 3) Dependent (seeking advice), 4) Avoidant (tendency to delay), and 5) Spontaneous (immediacy). Together, they developed the General Decision-Making Style (GDMS) questionnaire that assesses the five decision styles.

Other theorists have defined decision styles similarly and differently from Scott and Bruce (1995). For example, Thunholm (2004) and Hunt et al. (1989) described decision style as closely related to cognitive style, individual thinking practices central to decisional processes. Bavolar and Bacikova-Sleskova (2020) defined decision style as the action or process of making decisions, especially important ones. Raffaldi et al. (2012) explained that decision styles are common to different domains, influence work practice, and determine particular behaviors. Snyder et al. (1991) found decision styles to be essential in the workplace. In addition, Russ et al. (1996) and Delaney et al. (2015) found decision styles to be associated with job performance and decision-making competence.

We can now see the critical role of decision styles in the workplace. Specifically, it drives work performance and organizational outcomes. As such, decision styles have a domino effect. For example, in the context of order maintenance policing, how an officer approaches a decision encounter drives subsequent decision-making to manage it. In turn, this can have an immediate impact – positive or negative – on the citizen(s), the officer, the police department, the community, the relationship between the police department and the community it serves

and how law enforcement is perceived and received overall. Overall, decision styles have far-reaching impact in the workplace. According to Kelling (1999), police officers make far more discretionary determinations in individual cases than any other class of police administrators. As such, intervening at the training level can yield occupationally appropriate decision styles in order maintenance decision situations and support positive experiences and outcomes from a number of contexts.

Decision Theory

Much of police decision-making has been investigated from the lens of decision theory in criminal justice and law enforcement research. Decision theory centers on different ways to theorize about decisions, including studying a person's choices and understanding the logic behind the choices in any setting, including the workplace. The main components of decision theory models are: 1) the descriptive model, what people actually do or have done; 2) the prescriptive model, what people should and can do; and 3) the normative model, what people should do in theory. Decision theory also highlights the role of decision classes (certainty, uncertainty, and conflict), considered everyday decision situations. Decision theory can help determine and understand decision-style alternatives an officer can use and why they may choose them. Ultimately, it can drive ideas for a general uniform model of an occupationally appropriate decision style applicable in any order maintenance decision situation.

Normative Decision Model

The normative model is a psychological model that centers on improving human judgment related to norms. In other words, "the right answer," "the best way," or "ought to" decision-making questions (Bruine de Bruin et al., 2007). The problem focus is all decisions with

the criterion of correctness (Keeney, 1992). The model is evaluated based on theoretical adequacy, the degree to which the models provide acceptable rational choices (Keeney, 1992). This model focuses on how decisions should be made to be rational and seek to improve the rationality of human decision-making (Turpin & Marais, 2004). For example, if one is trying to solve a problem, what is the best way to solve it?

In criminal justice literature, the normative model is often linked to police legitimacy and procedural fairness. Police legitimacy means people have trust and confidence in the police, accept police authority, and believe that officers are fair and make decisions based on facts (Gilbert et al., n.d.). Procedural fairness is considered the primary source of police legitimacy. Procedural justice research suggests that a citizen's view of police legitimacy is associated with his/her perception of fairness in the officer's decision-making. A weakness in the normative model is the idea of rationality in decision-making. In the context of policing, there is a perception that police officers are rational and cognitively aware. However, this is not a reality. The reality is that decision-making varies from officer to officer, as well as individual perceptions of the "right way," the "best way," and "ought to." (Baron, 2012; Dillon, 1960).

Descriptive Model

The descriptive model is a psychological model designed to describe how people actually behave or what they have done (Bruine de Bruin et al., 2007; Dillon, 1960; Ronen & Sorter, 1974) based on descriptive observations. The problem focus is classes of decisions (Keeney, 1992). The model is evaluated by empirical validity and experimental research, that is, the extent to which they correspond to observed choices (Belay & Alemayehu, 2020; Keeney, 1992). Its operational focus is on preventing human errors in decision-making. The model

answers questions such as, “What exactly is the problem?” “How many/how often/where?” and “What happened?” In order maintenance decision situations, the descriptive model can inform understanding of the interactive effects of decision styles and inform adjustments in decision approaches where errors are detected.

A strength of the descriptive model is that it helps identify and compare observable actions to determine errors and what works, etc. Another strength is that it considers outside factors that influence one’s decision-making (Sherer et al., 1982), including individual characteristics such as demographics. Regarding weaknesses of the model, Belay and Alemayehu (2020) pointed to the assumption that the observations a decision maker follows is a consistent rule. Turpin and Marais (2004) pointed to an assumption that people are competent decision-makers. A gap in the literature is the lack of attention to the role of decision styles in relation to the model. The descriptive model tends to be more helpful in deciding what people will do and how they will act, while normative theory focuses on people's optimal or rational behavior but can add to developing a descriptive model (Baron, 2012; Dillon, 1960).

Prescriptive Model

The prescriptive model centers on tailoring the decision-making process to a specific problem, context, and decision-maker (Keeney, 1992) and how to benefit from its application methods in real-world settings (Riabacke, 2012). The problem focus is specific decisions based on a usefulness criterion through applied analysis (Keeney, 1992). The prescriptive model is evaluated based on its practical value and ability to help people make better decisions (Belay and Alemayehu (2020). Seel (1992) explains that the prescriptive model is an interactive

procedure to reveal the decision-making preference. According to Weber and Coskunoglu (1990), the aim is sound decision-making methodologies in organizational environments. Huitt (1992) believed that decisions made from the prescriptive model are more likely effective since individuals can consciously attend to personal strengths and weaknesses. Dillon (1960) suggests that the prescriptive model is based on normative theory in combination with the observations of descriptive theory. According to Bruine de Bruin et al. (2007), this combination helps create effective descriptive models.

Another strength of the prescriptive model is that decision-making can be shaped, changed, and situational to adapt to new insights, circumstances, or changes across order maintenance encounters. An advantage of the model is that it can help individual officers articulate a justifiable rationale for decision-making approaches that can provide the basis for accountability and defend police actions in litigation. A weakness and gap in the prescriptive model are that while it is specific to a decision situation and the needs of the decision maker, ultimately, the person's "right answer" to a decision question is usually reflective of the person. Huitt (1992) suggested that prescriptive intervenors should be especially sensitive to understanding the nuances of decision situations by comparing descriptive and normative behaviors. Huitt raised concerns about the difficulty of knowing what to do about these nuances in prescriptive interventions. A gap in the literature is the absence of attention to the role and impact of decision styles.

Decision Classes

According to Dillon (1960), decision classes reflect everyday decision situations and include a decision under 1) certainty, or an abundance of information for an obvious decision;

2) uncertainty that centers on known and unknown variables; and 3) conflict, involves anticipating potential consequences before making a decision. Each class considers how each decision model operates within each. These decision classes reflect the dynamics and complexities of order maintenance encounters. A strength of decision classes is that it is broad in scope to cover many decision situations. A gap in the literature is the role and impact of decision styles across the classes.

Summary

Decision theory provides a formal structure for decision-making that considers of decision styles and how they operate across a broad range of order maintenance decision classes or situations. A strength of decision theory is that all three decision models can build on one another or be combined. A recurring theme of rationality in decision-making across models might point to a best practice decision style that should be considered. Thus, this theory provides an appropriate-context for understanding officer-level decision styles and improving related decision approaches in order maintenance decision situations.

Occupational Self-Efficacy

Occupational self-efficacy is self-efficacy in the work domain. It refers to one's belief in their ability and competency to fulfill work-related tasks or activities (Felfe & Schyns, 2006; Rigotti et al., 2008). It is not a personality trait or about work capacity; it is situation-based (Schyns, 2004). Occupational self-efficacy originates in the self-efficacy construct from Albert Bandura's social cognitive theory (SCT). According to Bandura (1986, 1977), self-efficacy is domain-specific and reflects our core belief in our ability to complete a particular task. They posited that these core beliefs operate through impact on cognitive, motivational, affective,

and decisional processes. According to the SCT, self-efficacy comes from four sources: 1) Mastery experiences, one's successful completion of a task, which increases his/her belief to accomplish a task; 2) Vicarious experiences, when one sees others succeed and then feels an increased sense of their ability to succeed; 3) Social persuasion, when people are led, through suggestion, into believing that they can cope successfully with specific tasks; and, 4) Physiological and affective states, how one feels at a given moment that may influence his/her sense of self-efficacy. Extant research has shown that self-efficacy is associated with an individual's ability to manage external factors (e.g., order maintenance decision situations).

According to Paunonen and Hong (2010) and Grether et al. (2018), domain-specific self-efficacy can better predict one's cognitive abilities and behaviors in specific domains. Stenmark et al. (2021) determined that self-efficacy influences decision-making. Wood and Bandura (1989) found that self-efficacy was positively associated with decision-making performance. Çetin and Aşkun (2019) and Stajkovic et al. (1998) found self-efficacy to be strongly and positively associated with work-related performance, including decision-making.

Occupational self-efficacy is an essential resource for individuals in organizations (Gist, 1987; Rigotti et al., 2008). Extant research concurs that occupational self-efficacy influences decision-making. A gap in this literature is its association with decision styles in order maintenance policing. Thus, occupational self-efficacy should be jointly considered with decision styles to understand individual differences in police officer decision styles in order maintenance police encounters. This is especially necessary considering the lack of related police training in any format and limited guidelines around decision-making.

Demographics

Demographics describe the characteristics of research participants and determine the possible relationship with other variables in the dataset. It provides context for collected survey data and allows for better data analyses (Dobosh et al., 2017). For example, research concurs that race, education level, and years of experience are important factors in officer decision-making (Alpert et al., 2004), albeit race is more controversial (Weir, 2016). Huitt (1992) believed that understanding individual differences is necessary for understanding one's decision-making. Thus, the more researchers know about their target population, the higher the chances that their messaging will resonate with their desired audience. Demographics for this study include:

Age: Depending one's age, people do not behave in the same way when they make decisions (Sanz de Acedo Lizárraga et al., 2007). Some research disciplines have suggested that age is an important determinant of decision making under uncertainty (Tymula et al., 2013).

Years of police experience: years of experience can potentially go a long way in increasing work performance (Adio, 2010). The knowledge and abilities required for effective job performance are likely to be developed and improved during years of service and trial and error learning (Schmidt et al., 1986).

Gender: Historically, research has shown that gender and age influence decision making; that our decisions are affected by our beliefs about the characteristics that differentiate the sexes (Sanz de Acedo Lizárraga et al., 2007).

Race: A deep dive into its impact on decision styles is outside the scope of this research. However, in a broad sense, we can say that no police department is "bias free" and some police officers will make decisions based on race, including their own.

Community Served: Police officers' decisions are impacted by the neighborhood context, which is important to consider in research to possibly inform training policies and procedures (Krishan et al., 2014).

Police research have been generally grouped into the following four categories described by Sherman (1980) and Riksheim and Chermak (1993)

1. **Situational factors:** characteristics including but not limited to the situation (e.g., location, number of bystanders present, etc.), context-specific.
2. **Individual factors:** officer-level characteristics (e.g., officers' sex, race, age, community served).
3. **Organizational factors:** characteristics of the police organization that might influence officer behavior (e.g., administrators' preferences, formal and informal policies, levels of supervision, etc.).
4. **Community factors:** Including but not limited to: public expectations and preferences, and demographic characteristics.

The four general categories support the basis for considering demographics jointly with decision styles in order maintenance decision encounters. This study's broad categorization of demographics lends to closely mirroring a whole population for a more general picture of trends or insights. Constraints in methodology or variables would render this research inquiry flawed and thus fail to examine the research topic thoroughly.

In the present study, demographic variables reflect predictor variables (IV).

Demographic responses, however, do not intend to suggest causality of the IV on the DV.

Behavior Learning Theory

Behavior learning theory is a well-known orientation to learning that posits behaviors are learned from interactions with the environment and are observable. The theory is a traditional format in police training and education (Birzer, 2003). This traditional format is lecture-based and teacher-centered. Related objectives focus on a specific goal and allow behavior modification to achieve a desired outcome. Teaching strategies include drills, guided practice, behavior modeling, simulations, positive reinforcement, and prompting; repetition is

considered key to learning. In the workspace, behavior learning theory often works best for training in specialized professions such as law enforcement practice – reinforcing good behaviors and having learners react in predictable and consistent ways to certain conditions.

The advantage of behavioral learning theory is that it ensures behavior practice, supports skill development, and assesses visual performance. A disadvantage is that the theory does not address cognitive processes or allow analytical learning. Because it is teacher-centered, it tends to be less conducive to student participation or differences in learning. Ortmeier (1997) argued that a behavioral learning environment in police training effectively teaches technical and procedural skills but does little to promote the learning and development of essential competencies such as decision-making.

The most significant criticism of behavioral learning in police training is that it is pedagogy-based, which focuses on the art and science of teaching children. McCoy and Mark (2006) believed that applying adult learning principles in law enforcement education is more valuable. Ramirez (1996) argued that law enforcement trainers are in the business of teaching skills and concepts to adults, not children, and instruction should be learner-centered, not teacher-centered. For effective learning, McCreedy (1983) suggested that police and trainees should be actively engaged in training for personal and critical expression, dialogue, and feelings exploration. Birzer et al. (2001) believed that learning should be enhanced through self-directed group discussions and active debate, in the same setting, with opportunities for officers to share individual experiences. Despite these differences of opinion about behavior learning theory, there is value in providing officers with related active learning opportunities to observe and modify behaviors reflective of decision styles and reinforce behaviors that

accomplish a desired decision style approach.

Andragogy Learning Theory

The term andragogy was initially coined by German educator Alexander Kapp in 1833, developed into a theory of adult education by Eugen Rosenstock-Huessy, and later became popular in the U.S. by the American educator Malcolm Knowles. Andragogy is the art and science of adult education. It is learner-centered; the instructor is the facilitator or resource rather than a lecturer or grader (Knowles et al., 2005), which is the opposite of behavioral learning theory. Andragogy supports cognitive skills development and analytical learning/teaching strategies such as case studies, role-playing, simulations, group work, conversations, and self-evaluation with opportunities for feedback from peers and instructors.

Andragogy learning theory is based on self-directed, hands-on, independent learning methods for adults (Knowles et al., 2005). This theory centers on an interactive learning experience and has a growing presence in police training classrooms. According to Birzer et al. (2001), andragogy learning emphasizes decision-making skills through a series of job-related cases or problems; establishes a learning approach rather than a teaching approach; and is a practical, job-based approach that keeps learners focused on what they need to focus on and what they should be doing. Vodde (2009) further explains that andragogy instruction provides an engaging, challenging, and collaborative atmosphere for officers to develop a clear understanding and perspective of their role within the greater context of society.

An advantage of this theory is that it supports the development of the learner's critical thinking, judgment, and creativity. Another advantage of andragogy instruction is that it is structured for meaningful learning (Mayer & Wittrock, 1996) that teaches critical cognitive skills

such as evaluation, analysis, remembering, and comparisons (The Difference Between Rote Learning and Meaningful Learning, 2017). It also allows trainees to become more active and involved in learning (Birzer, 2003) to facilitate learning transfer. A disadvantage is an assumption that all adults are self-directed learners, which is not always the case. In reality, many adults need more structure when learning new information.

Chapter 2 Conclusion

What has been provided in Chapter 2 is a theory and construct-driven approach to this research – individual differences in police officer decision styles in order maintenance decision encounters. What yielded is a context for this study by way of connections through existing research that offered an explanation of this study's significance and validity. The key findings from this literature review were: 1) a gap in research; 2) decision styles, demographics, and occupational self-efficacy influence the decisional experience; and, 3) police training in any format, and order maintenance guidelines, lacks attention to decision styles in order maintenance encounters; 4) the nature of order maintenance policing necessitates officer discretion in decision situations. This literature review supported the researcher's aim and set the stage for the methodology to answer research questions that guided this study – discussed in the next section.

Chapter 3: Method

Introduction

Chapter 3 details the method strategy used to integrate the different components of this study coherently and logically to address the research questions effectively; it constitutes the blueprint for the collection, measurement, and analysis of data from this study. The following sections are covered in this chapter: recap of the purpose and research questions, participants, measures, procedures, assumptions check, and descriptive statistics.

Purpose and Research Questions

The purpose of this study is to: 1) determine a predominant decision style among current and former police officers in this study, 2) determine how decision styles relate to demographics and occupational self-efficacy in order maintenance decision situations; and, 3) provide implications for practice and training. A deeper understanding of these constructs and associations is beneficial in that it could: 1) identify training and development needs, 2) inform ideas for police training; and, 3) inform ideas for a general uniform decision style in order maintenance decision encounters. The following research questions guided this study:

1. Is there an association between decision styles and demographic variables in the context of order maintenance encounters?
2. Is there an association between decision styles and occupational self-efficacy in the context of order maintenance encounters?
3. Is the association between occupational self-efficacy and decision styles moderated by demographic variables?
4. How are context-specific decision styles associated with occupational self-efficacy and demographic variables in the context of order maintenance encounters?

Research Design

This quantitative study uses a multiple regression analysis that answers questions. Specifically, the study sought to uncover associations, meaningful relationships, and connections between the variables presented. A quantitative design helps understand relationships between variables (Creswell & Creswell, 2018) and offers statistical and mathematical modeling and description to explain what is and is not important in or influencing a particular population (Alpert et al., 2004). Creswell and Creswell (2018) explained that descriptive statistics organize and describe data characteristics. Data analysis was performed using the R Studio software.

The general methodology was an online survey. This web-based data collection method allows data to be captured immediately and analysis to be performed easily and quickly in a short time frame (Mertler, 2002) and eliminates travel to participate in a study. Further, it lends to the convenience of at-home participation and removes potential cues that might influence how a participant responds. According to Wade (1999), web surveys are preferred by many research participants for their ease, anonymity, and convenience, which lends to greater honesty and authenticity.

Participants

Study participants were recruited through Qualtrics, a commercial survey sampling and administration company. Samples were acquired from existing pools of research panel participants. Participants completed online surveys administered in September 2022 to a national sample of current and former U.S. police officers aged 18 or older. Panelists were invited to participate by activating a survey link directing them to screening questions

(Appendix A), the study consent page (Appendix B), and survey instruments. University of Las Vegas-Nevada's IRB guidelines and policies were met before the study's launch.

The inclusion criteria for this study were current and former police officers 18 years or older. Participants were asked to answer the following two screening questions to determine participation eligibility for this study: 1) I am a: Current Police Officer or Former Police Officer, and 2) What is your age: Under 18, 18-24 years old, 25-34 years old, 35-44 years old, 45-54 years old, 55-64 years, old 65 or older. Ineligible respondents were immediately exited from the survey; quotas were not set for this study. This method yielded a total sample of 100 (N=100) respondents. Of the total sample collected, 64% of respondents are current police officers, and 36% are former police officers. 64% of respondents identified as male, and 36% identified as female. 67% of respondents were White, 22% Black/African American, 5% Asian, 5% American Indian, 2% Hispanic, and 2% identified as other. 40% of the respondent were in the 25-34 age group, 28% in the 35-44 age group, 20% in the 45-54 age group, 9% in the 18-24 age group, 2% in the 55-64 age group, and 1% in the 65 and older age group. 58% of respondents serve(d) in an urban community, 21% in a suburban community, and 21% in a rural community. Table 1 shows descriptive data of participants in the study.

Participants completed this one-time study on a volunteer basis. They completed surveys in the same order: Occupational Self-Efficacy Scale-Short Form (OSS-SF) (Appendix C), the General Decision-Making Scale (GDMS) (Appendix D), Vignette Survey (Appendix E), and Demographic Survey (Appendix F). A forced response option was included in each survey, requiring respondents to provide an answer for each item before being able to move to the next one. To prevent participants from revising previously answered OSS-SF items, the survey

was programmed to run in one direction since it was administered via computer.

Table 1

Participant Demographics

Variables	Mean	SD	Range
Gender			
Female	0.36	0.48	0-1
Officer Status			
Age			
Age1 (18-24)	0.09	0.28	0-1
Age2 (25-34)	0.48	0.49	0-1
Age3 (35-44)	0.28	0.45	0-1
Age4 (45-54)	0.2	0.4	0-1
Age5N (55-65)	0.03	0.17	0-1
Race			
African American	0.19	0.39	0-1
White/Caucasian	0.67	0.47	0-1
Hispanic	0.05	0.21	0-1
Other Race	0.09	0.28	0-1
Community Served			
Rural All	0.21	0.4	0-1
Suburban All	0.21	0.4	0-1
Urban All	0.58	0.49	0-1
Years of Experience	9.13	6.69	0-32

Variables

The predictor variables in this study are age, gender, communities served, years of experience, current officer status (current or former), and occupational self-efficacy to determine a possible association with decision styles. The dependent variables are Scott and Bruce's (1995) general decision styles: rational, intuitive, dependent, avoidant, and spontaneous

decision styles. All the variables in the models have been adequately identified via theory or constructs and deemed empirically sound.

Measures

Instruments used in research should be selected that will provide pertinent data about the topic under investigation and meet the researcher's purpose (Gay et al., 2012, p. 145).

Quantifiable data was collected from three sources: the 25-item General Decision Making Style survey (GDMS), the 6-item Occupational Self-Efficacy Survey-Short Form (OSS-SF), a 3-item researcher-designed vignette survey, and a 4-item researcher-designed demographic survey. Data helped determine a predominant decision style among participants and how decision styles may relate to demographics and occupational self-efficacy.

Occupational Self-Efficacy Scale, Short-Form (OSS-SF)

The Occupational Self-Efficacy Scale-Short Form (OSS-SF) is a 6-item survey asks participants to choose their level of agreement or disagreement with a set of 6 statements. Survey directions were slightly modified to fit the topic of study, decision styles in order maintenance decision situations. The original directions – choose your level of agreement with each statement below – was modified to, choose your level of agreement with each statement below in the context of your job as a police officer. An example statement includes, 'I feel prepared for most of the demands in my job.' The 6-item survey uses a 6-point Likert scale ranging from 1 to 6. Response options are as follows: 1-Strongly Disagree, 2-Disagree, 3-Slightly Disagree, 4-Slightly Agree, 5-Agree, and 6- Strongly Agree. The estimated completion time for this online survey is 1-2 minutes, depending on a respondent's reading level.

The original Occupational Self-Efficacy Scale (OSS), developed by Schyns and von Collani

(2002), consisted of 20 items taken from four different scales: the General Self-Efficacy Scale developed by Sherer et al. (1982), the Generalized Self-Efficacy Scale developed by Schwarzer and Jerusalem (1995), the Hope Scale developed by Snyder et al. (1991), and the Heuristic Competence Scale developed by Stäudel (1988). The scale showed to be good at measuring various characteristics of occupational self-efficacy (Schyns, 2004). Later, items were adapted and reformulated for the work context in a 6-item short (OSS-SF) form developed by Rigotti et al. (2008). Empirical studies yield that the OSS-SF has good reliability and validity compared to the original 20-item version (Rigotti et al., 2008; Schyns, 2004). Rigotti et al. (2008) compared the use of the OSS-SF in five languages in five countries (Germany, Sweden, Belgium, United Kingdom, and Spain) and found high reliability and validity in each, yielding yields cross-cultural consistency.

Peng et al. (2021) reported that OSS-SF suits various working contexts, including organizations. Damásio et al. (2014) reported that an advantage of the OSS-SF is that it is the smallest scale used to evaluate occupational self-efficacy and allows the inclusion of other variables in the same research without overloading study participants. He further added that the OSS-SF can be used for both professional settings and autonomous professionals because of the instrument's characteristics. Another advantage of the OSS-SF is that it compares workers from organizations, professions and/or jobs (Rigotti et al., 2008).

The OSS-SF has been used in numerous and varied research. Szulawski et al. (2021) used the Polish version of the measure in their study on the 'basic psychological needs satisfaction and frustration scale' at work. El Othman et al. (2020) included the OSS-SF in their research on the relationship examined the relationship between work ability, OSE and work engagement

among a middle-aged workforce, and whether there were any differences between age groups and between professionals in different work contexts. Schyns and Sczesny (2010) used the OSS-SF scale to research leadership attributes valence in self-concept and occupational self-efficacy.

Based on findings of 1) cross-cultural consistency, 2) high reliability and validity, 3) allowance of inclusion of other variables in the same research without overloading study participants, and 4) suitability in the professional domain, the OSS-SF is both valid and reliable to assess occupational self-efficacy in the context of this study. In the present study, occupational self-efficacy is the predictor variable (IV). This choice, however, does not intend to suggest causality of the IV on the DV.

General Decision-Making Styles (GDMS)

The GDMS, developed by Scott and Bruce (1995), is a self-report questionnaire designed to assess how individuals approach decision situations. The scale distinguishes five decision styles: rational, intuitive, dependent, avoidant, or spontaneous. The GDMS scale consists of 5 subscales at five items each, 25 statement items overall. Participants were asked to choose their level of agreement or disagreement with each statement based on a 6-point Likert scale ranging from 1 to 6: 1-Strongly Disagree, 2-Disagree, 3-Slightly Disagree, 4-Slightly Agree, 5-Agree, and 6-Strongly Agree. Each subscale represents one of the five decision styles. Example statement: Rational (e.g., I would make this decision in a logical and systematic way), Intuitive (e.g., When making this decision, I would rely on my instincts), Dependent (e.g., I would need the assistance of other people when making this important decision.), Avoidant (e.g., I would avoid making this important decision until the pressure is on), and Spontaneous (e.g., I would make a quick decision). The GDMS is an easily administered survey that can be completed in

approximately 3 to 5 minutes, depending on a respondent's reading level.

Construct definitions for each decision style were developed from prior theory, and items were written to assess rational, avoidant, intuitive, and dependent decision-making styles. Items were worded originally for a study on career transitions. Thirty-seven items were developed and then modified to expand the domain from career decisions to all-important decisions, and the instrument was reduced to 25 items. Validity of GDMS was established through factor analysis, and content validity of GDMS was established through related theoretical and empirical research literature" (Loo, 2000; Scott & Bruce, 1995). The reliability of GDMS was established through an analysis of internal consistency. The decision-making style scales across the four samples consistently had Cronbach's alphas ranging from .68 to .94 (Loo, 2000; Scott & Bruce, 1995) and a stable factor structure. A fifth style, spontaneous, was identified in the scale development process.

The GDMS has been commonly used worldwide since its development in 1995. Its presence has been in diverse research. For example, Othman et al. (2020) incorporated the GDMS in their research on personality traits, emotional intelligence, and decision-making styles in Lebanese universities medical students. Gilbert et al. (n.d.) used the GDMS in their research on relating decision styles to social orientation and time approach. Fischer et al. (2015) used the GDMS to research patient decision-making in provider choice. Palmiero et al. (2020) used the GDMS in their research on the role of decision-making styles in divergent thinking. Based on these findings, the GDMS is an adequate measure to determine study participants' general decision styles in order maintenance decision situations.

In the present study, the GDMS reflects dependent variables (DV). This choice, however,

does not intend to suggest causality of the IV on the DV.

Vignette Survey (V)

The researcher-developed vignette survey is a 3-item (hypothetical scenario texts) measurement designed to assess context-based decision styles (rational, intuitive, dependent, avoidant, and spontaneous) and compare participant responses on the GDMS scale. Participants were asked to read each vignette and choose their level of agreement or disagreement with a set of 5 statements that followed based on a 6-point Likert scale. 6-point Likert scale ranging from 1 to 6: 1-Strongly Disagree, 2-Disagree, 3-Slightly Disagree, 4-Slightly Agree, 5-Agree, and 6-Strongly Agree. The statements following each vignette were adapted from the GDMS (Scott & Bruce, 1995), with one statement from each of the 5 GDMS subscales. Vignette statement examples: Rational (e.g., I would make this decision in a logical and systematic way), Intuitive (e.g., When making this decision, I would rely on my instincts), Dependent (e.g., I would need the assistance of other people when making this important decision.), Avoidant (e.g., I would avoid making this important decision until the pressure is on), and Spontaneous (e.g., I would make a quick decision). The online survey takes approximately 2-3 minutes to complete depending on the participant's reading level.

Each vignette was created in collaboration with a current supervising police officer for an urban police department in the southwest region of the United States. Contextual aspects of vignettes demonstrate some variation across vignettes to provide authenticity and personhood but are not thought to exert a causal influence on the dependent variables (Evans et al., 2015). Selected statements for the vignette survey were based on item loadings of the original GDMS scale and grammar fitting. Statements and order were the same for each vignette and

participant. Participants were required to respond to each vignette via forced response. In this way, a systematic comparison of individual responses to different behaviors could be generated.

Vignettes are typically used for three reasons in social science research: to allow actions in context to be explored, to clarify people's judgments, and to provide a less personal and less threatening way of exploring sensitive topics. According to (Erfanian et al., 2020), vignettes are an effective tool in quantitative research to collect more diverse and thorough data, particularly in cross-cultural research. Vignettes allow investigators to overcome observer effects like social desirability (Hughes & Huby, 2002; MacAuley, 1996; Schoenberger et al., 2010; Wallander, 2009)

Vignettes have become a popular research methodology for social scientists (Weir, 2016) to use when studying issues surrounding compliance, crime, justice, and police-citizen interactions. This methodology has previously been applied to the study of police behavior (Goodman, 1998; Klockars et al., 1997). Aujla (2020) incorporated vignettes in research to investigate police perspectives on honor killings and arranged marriages. Nivette et al. (2022) used vignettes to evaluate factors that influence judgements about police procedural justice and legitimacy. Alexander and Becker (1978) used vignettes to yield results from a study of police and nurse reactions to crime victims. Phillips (2022) included vignettes in an exploratory study measuring public acceptance of police use of deadly force.

This study's vignette survey reflects the dependent variables (DV). Related data, however, does not intend to suggest causality of the IV on the DV.

Demographic Survey

The demographic survey is a 4-item researcher-developed survey to determine the

characteristics of research participants and possible relationship with decision styles in order maintenance decision situations. Select demographic variables for this study include age, race, years of experience, gender, communities served. Participants were asked to choose from a categorical list per variable. For example, for gender, participants were asked to choose from the following categories: male, female, other, or prefer not to say. For race, participants were asked to check all that apply from the following categories: White, Black/African American, Hispanic, Asia, Native Hawaiian or Other Pacific Islander, American Indian/Alaska Native, and Other (data entry box). For age, participants were asked to check one of the following categories: Under 18, 18-24 years old, 25-34 years old, 35-44 years old, 45-54 years old, 55-64 years old, 65 or older. For community services, participants were asked to choose one of the following categories: Urban, Somewhat Urban, Rural, Somewhat Rural, Suburban, and Somewhat Suburban. For job status, participants were asked to choose one of the following categories: Current Police Officer or Former Police Officer.

Table 2*Data Resources*

Research Questions	Data Sources	Data Analysis
Is there an association between decision styles and demographic variables in the context of order maintenance encounters?	<ul style="list-style-type: none"> • General Decision Making Styles Questionnaire • Demographic Survey 	<ul style="list-style-type: none"> • Regression Analysis
Is there an association between decision styles and occupational self-efficacy in the context of order maintenance encounters?	<ul style="list-style-type: none"> • General Decision Making Styles Questionnaire • Occupational Self-Efficacy Scale – Short Form 	<ul style="list-style-type: none"> • Regression Analysis
Is there an association between occupational self-efficacy and decision styles moderated by the demographic variable age in the context of order maintenance encounters?	<ul style="list-style-type: none"> • General Decision Making Styles Questionnaire • Occupational Self-Efficacy Scale – Short Form • Demographic Survey 	<ul style="list-style-type: none"> • Regression Analysis
Are context-specific decision styles associated with occupational self-efficacy and demographic variables in the context of order maintenance encounters?	<ul style="list-style-type: none"> • Vignette Survey • Occupational Self-Efficacy Scale – Short-Form • Demographic Variables 	<ul style="list-style-type: none"> • Regression Analysis

Procedure

Potential study participants from Qualtrics panel services responded to a posted Qualtrics invitation for former and current U.S. police officers to participate in this online study,

a one-time participation. Prior to the launch of this study, a soft launch was conducted with a smaller sample size before releasing it for broader distribution to identify and address challenges that may have appeared and to confirm survey validation. The invitation to participate in this study included a descriptive title and a summary of its focus on assessing individual differences in police officer decision styles in order maintenance policing. Potential study participants within the Qualtrics sampling frame clicked on a link in the invitation where they were taken to the study's introduction page and consent form, followed by two screening questions to determine participation eligibility. The online surveys were designed so screened-out respondents were skipped to the end of the eligibility question block, and eligible participants advanced to survey participation. However, there were no screen-outs.

Survey Completion and Data Quality

To ensure survey completion and data quality, surveys featured: 1) attention checks (i.e., survey items that instructed respondents to provide a specific response); 2) A forced response option requiring participants to answer each question to continue the survey; 3) To prevent participants from revising previously answered items in a survey, surveys were programmed to run in one direction since it was administered via computer; and 4) speed checks to flag respondents who completed the survey too fast or too slow. Qualtrics does not provide information on missing data, participant dropouts, or respondents who fail quality checks. Therefore, the study cannot report this data. As a result, data may not be generalizable. Further, it may introduce bias, albeit the risk of bias is present in almost all parts of quantitative research and find its source in the survey creator and the respondents.

Coding

Several categories in each categorical variable were combined due to very low or no response rate or combined because of similarities. These changes were updated in R code. "Race" combined American Indian/Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander" into an "OtherRace" category due to low or zero respondents. For communities served, 'Suburban' and 'Somewhat Suburban' was combined into one suburban category, 'Rural' and 'Somewhat Rural' were combined into one rural category, and 'Urban' and 'Somewhat Urban' were combined into one urban category to prevent redundancy. The 18 and under age group was deleted since all participants were over age 18. The 55-64 and 65 or older age groups were combined into one category because of the small number of respondents across these groups. All categorical variables were dummy coded. The regression analysis was run with these changes to the categorical variables.

Data Analysis

A preliminary and descriptive analysis was conducted to check for the reliability of measures, examine the distribution of variables, identify associations among variables, and identify outliers to understand better what was happening in the study, summarize the data, and conduct further statistical analysis analyses.

Reference Group

Participant recruitment yielded 100 participants for this study. A run of the data yielded the following reference groups for this study, driven by data based on the largest response groups: Current police officers (64%), Urban Communities (40.63%), Whites (41.79%), Males (64.18%) and the 25-34 age group (77.50%). A reference group is a social group that serves as a

reference point or baseline that individuals or other groups use to compare and make evaluations and decisions. According to Keith (2019), the reference group, often called the control group, is used for comparison where the primary question of interest is whether demographic variables are comparable to one another in some way. People compare their behaviors, attitudes, and beliefs to reference groups. There are no hard rules for selecting reference categories, but selecting those with a large number of observations is better to narrow the confidence interval and minimize the standard error (Belay & Alemayehu, 2020). Reference groups in this study reflect empirically created ones.

Descriptive Statistics

Predominant Decision Style

GDMS. Results from the regression analysis indicated that GDMSRational ($M = 5.12$) had the highest mean score and lowest standard deviation ($SD = 0.58$). This was followed by GDMSIntuitive ($M = 4.55$; $SD = 0.65$), followed by GDMSDependent ($M = 3.98$; $SD = 0.81$), followed GDMSpontaneous ($M = 3.67$; $SD = 0.99$), and finally GDMSAvoidant with the lowest mean score ($M = 2.75$; $SD = 1.31$).

Vignette Survey. The regression analysis indicated that VRational ($M = 5.05$) had the highest mean score and lowest standard deviation ($SD = .78$). This was followed by VIntuitive ($M = 4.50$; $SD = 1.02$), followed by VSpontaneous ($M = 3.99$; $SD = 1.20$), followed by VDependent ($M = 3.16$; $SD = 1.24$), and finally VAvoidant with the lowest mean ($M = 2.71$; $SD = 1.30$).

OSS, GDMS, and Vignette Surveys: Mean, Skewness, Kurtosis

Mean and Standard Deviation. On the GDMS Survey, the GDMSRational ($m = 5.12$, $sd = 0.58$) had the highest mean score. This was followed by the GDMSIntuitive ($m = 4.55$,

sd=0.65), with data points close to the mean for both. On the Vignette Survey, the VRational (m=5.05, sd=0.78) had the highest mean score, with data points closest to the mean. VIntuitive (m=4.50, sd=1.02) had the second-highest mean score, with data points, on average, are spread out above the mean.

Skewness. The regression analysis yielded a negative skewness for occupational self-efficacy OSS (-0.89). The GDMS survey yielded negative skewness was for the GDMSRational (-0.83) and GDMSDependent (-0.10). An analysis of the Vignette Survey yielded a negative skewness for the VRational (-1.45) and VIntuitive (-0.91). Overall, analysis of the data indicate that the data set is not normally distributed and possibly indicative of outliers. However, it should be noted that skewness does not inform on the number of outliers; it only communicates the direction of outliers, in this instance data is skewed to the left.

Kurtosis. The regression analysis yielded a negative kurtosis on the GDMS survey for the GDMSIntuitive (-0.48), GDMSAvoidant (-0.52), and VSpontaneous (-0.90). Data yielded negative kurtosis on the Vignette Survey for the VDependent (-0.32), VAvoidant (-0.51), and VSpontaneous (-0.65). Overall, data distribution is platykurtic, suggesting that most of the data points are present in high proximity with mean and few outliers.

Conclusion. Despite some negative findings for skewness and kurtosis, overall, neither is a severe departure from normality. Kline (2015) specified +/-3 for skewness and 8 for kurtosis as cutoffs for non-severe departure from normality. It should be noted that both skewness and kurtosis is commonly found when analyzing data sets, and simply components of the data set being analyzed. In addition, assumptions are related to normality of the residuals that will be examined w/outliers explored. Table 3 shows a descriptive analysis for OSS, GDMS, VDMS.

Table 3*Descriptive Statistics for the OSS, GDMS, and Vignette Survey*

	Mean	SD	Range	Skewness	Kurtosis
Occupational Self-Efficacy					
OSS (SF)	0.00	0.00	0.00	-0.89	1.68
General Decision-Making Style					
DMS)					
GDMSRational	5.12	0.58	3.2-6.0	-0.83	0.75
GDMSIntuitive	4.55	0.65	3.2-6.0	0.17	-0.48
GDMSDependent	3.98	0.81	1.4-5.8	-0.10	0.13
GDMSAvoidant	2.75	1.31	1.0-5.8	0.83	-0.52
GDMSSpontaneous	3.67	0.99	1.8-5.6	0.19	-0.90
Vignette Survey (V)					
VRational	5.05	0.78	1.6-6.0	-1.45	3.41
VIntuitive	4.50	1.02	1-6	-0.91	1.43
VDependent	3.16	1.24	1-6	0.28	-0.32
VAvoidant	2.71	1.30	1.0-5.6	0.59	-0.51
VSpontaneous	3.99	1.20	1.3-6.0	-0.39	-0.65

Descriptive Statistics for OSS-SF and GDMS

Mean and Standard Deviation. A preliminary descriptive analysis of the OSS survey shows that age and communities served were predominant variables (Age4, $m=0.33$; Age5N, $m=0.27$; Rural, $m=.13$). GDMS revealed that GDMSRational ($m=5.12$, $sd=0.58$) and GDMSIntuitive ($m=4.55$, $sd=0.65$) as the predominant decision styles based on having the highest mean scores. Standard deviation scores for both suggest that individual responses, on average, are close to the mean. Table 4 shows a descriptive analysis of the categorical variables for OSS and GDMS.

Table 4*Descriptive Statistics for OSS-SF and GDMS*

Category	OSS	GDMS Rational	GDMS Intuitive	GDMS Dependent	GDMS Avoidant	GDMS Spontaneous
Gender						
Female	0.00	5.18	4.65	4.02	2.92	3.65
Age						
Age1 (18-24y/o)	-0.22	4.86	4.35	4.22	3.24	4.15
Age2 (25-34y/o)	-0.20	5.03	4.38	3.87	2.70	3.84
Age3 (35-44y/o)	0.10	5.19	4.64	4.08	2.82	3.84
Age4 (45-54y/o)	0.33	5.31	4.89	4.04	2.71	3.85
Age5N (55 & up)	0.27	5.13	4.46	3.53	1.80	2.93
Race						
White/Caucasian	0.02	5.15	4.63	4.15	2.80	3.65
Black/AA	-0.15	5.05	4.37	3.60	2.98	3.72
Hispanic	0.13	4.84	4.16	3.76	2.28	3.88
Other Race	0.08	5.15	4.57	3.71	2.22	3.60
Comm. Serve						
UrbanAll	-0.02	5.18	4.60	4.01	2.86	3.78
SuburbanAll	0.08	5.00	4.43	4.16	2.95	3.57
RuralAll	0.13	5.05	4.55	3.73	2.25	3.46
Job Status						
Former PO	0.10	5.22	4.58	3.86	2.63	3.55

Descriptive Statistics for the Vignette Survey

Mean and Standard Deviation. A preliminary descriptive analysis of the VDMS revealed VRational followed by VIntuitive as predominant decision styles based on having the highest mean scores. VRational ($m=5.05$, $sd=0.78$) had the highest mean score and a standard deviation indicating data points closest to the mean. VIntuitive ($m=4.50$, $sd=1.02$) followed with the second highest score and a standard deviation indicating individual responses, on average, were spread out above the mean. An interesting trend is that participants scored the lowest on

VAvoidant across all demographic predictor variables in this study. Table 5 shows a descriptive analysis of the Vignette Survey across categorical demographic groups.

Table 5.

Descriptive Statistics for Vignette Survey

Category	VS Rational	VS Intuitive	VS Dependent	VS Avoidant	VS Spontaneous
Gender					
Female	5.32	4.64	3.19	2.63	4.33
Age					
Age1	4.85	4.44	3.88	3.29	3.85
Age2	4.98	4.37	3.06	2.69	3.93
Age3	5.08	4.39	3.07	2.33	4.09
Age4	5.30	4.95	3.23	2.88	4.10
Age5	4.55	4.55	2.55	3.55	3.66
Race					
White/Caucasian	5.13	4.69	3.35	2.87	3.95
Black/AA	4.75	4.00	2.84	2.43	4.08
Hispanic	5.06	4.13	2.93	2.40	3.60
Other Race	5.00	4.40	2.51	2.22	4.37
Comm. Serve(d)					
UrbanAll	5.13	4.45	3.36	2.92	4.11
SuburbanAll	4.88	4.47	2.95	2.50	3.84
RuralAll	4.96	4.68	2.80	2.31	4.04
Job Status					
Current PO					
Former PO	5.15	4.44	3.06	2.57	4.13

Assumption Checks

Introduction

Assumptions checks are essential conditions that should be met before a researcher can

draw inferences regarding the model estimates or before we use a model. According to Vongkulluksn (2021), multiple regression assumes that variables in an analysis satisfy the assumption of 1) the absence of significant outliers, 2) linearity of the relationship between each continuous predictor variable and the outcome variable, 3) no substantial multicollinearity among the predictor variables, 4) normality of the residuals, and 5) homoskedasticity of the residuals. These assumptions are vital to assess whether the model is correctly specified.

Assumption of Linearity

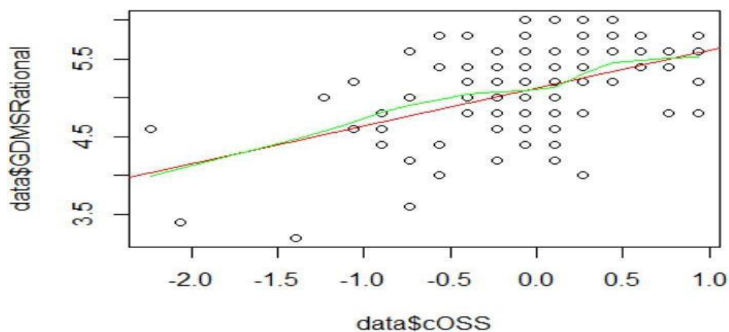
The linearity assumption is that there is a linear relationship between the dependent variable and each of the independent variables. This study examined this assumption using the scatter plots of each predictor variable against the outcome variables. Scatterplots with a linear pattern have points that seem to generally fall along a line, while nonlinear patterns seem to follow along some curve. To consider this assumption valid, the data points in the scatter plots should typically fall along a linear line, indicating that as one variable increases, the other variable either increases or decreases linearly. This assumption was examined by creating the scatter plots of the continuous predictor variables of OSS and years of experience against both the subscales of GDMS and the Vignette Survey (see Figure 1). As can be seen in these plots, no substantial non-linear pattern can be identified in the scatterplots of the predictor variables against the dependent variables. Thus, the linearity assumption of the regression analyses was considered valid.

The graphical data of the GDMSRational model in Figure 1 represents the trend in the graphical data for linearity in this study. The scatterplot analysis represents a green lowess line (Locally Weighted Scatterplot Smoothing), a non-parametric line that represents trends in the

data by breaking up data into small segments, estimating line segments to fit each segment, then “smoothing” a line overall segments (Vongkulluksn, 2021). The red regression line summarizes the relationship in the data, specifically between the dependent and independent variables, and indicates the direction of the relationship (Vongkulluksn, 2021). The graphical data of the GDMSRational model in Figure 1 represents the trend in the graphical data for linearity in this study.

Figure 1

Trend of Graphical Data for Linearity



Assumption of Multicollinearity

The lack of multicollinearity assumption is that the predictor variables are not highly correlated with each other. This assumption was evaluated using variance inflation factor (VIF) values for individual predictor variables included in the regression models. Hair et al. (1995) suggested that multicollinearity is not a substantial issue when all VIF values are less than 10.

The cutoff value of 10 was used in this study to examine for multicollinearity. Table 6 shows the VIF values for each predictor variable. All these values were well below the threshold value of 10, suggesting that the lack of multicollinearity assumption was satisfied.

Table 6

Values for Predictor Variables

Predictor Variable	VIF Value
OSS	1.24
RuralAll	1.27
SuburbanAll	1.19
Former PO	1.21
cYrsExp	1.94
Female	1.16
Age1	1.31
Age3	1.59
Age4	2.27
Age5N	1.47
Black/AA	1.11
Hispanic	1.08
OtherRace	1.21

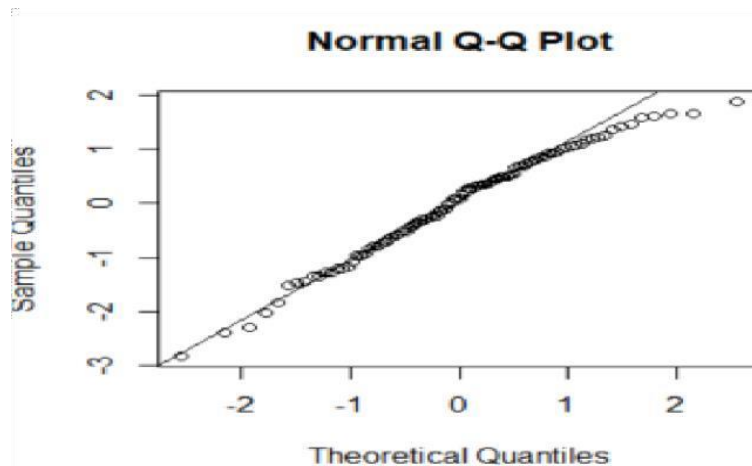
Assumption of Normality

This assumption assumes that the residuals are normally distributed. The researcher evaluated this assumption through visual inspections of the normal Q-Q plots of the residuals from the regression model. These plots were created for the regression models conducted to address each research question separately. A visual inspection of the Q-Q plots for these regression models indicated that there were no substantial departures from normality in any of these models as the residuals seemed to follow the normality line in all normal Q-Q plots.

Graphical data of the GDMRSRational model in Figure 2 represents the trend in graphical data for normality in this study.

Figure 2

Trend of Graphical Data for Normality

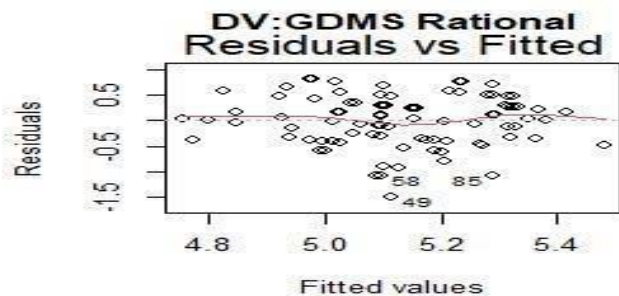


Evaluating the Homoscedasticity of the Residuals' Assumption

The homoscedasticity of the residual assumption is that the variance of the residuals is approximately the same across the predicted values. The scatter plots of residuals versus predicted values were examined to evaluate this assumption. These plots were created for the regression models conducted to address each research question separately. As shown in Figure 3, the residuals for the regression models seem to be approximately evenly dispersed across the fitted values, with no substantial patterns in the observations. Hence, it was assumed that the residuals from these regression models were homoscedastic.

Figure 3

Scatter Plots of the Residuals Versus Fitted Values for the Regression Models



Assumption of Reliability

Cronbach's alpha was used to assess the level of internal consistency of the scales and subscales that were used in this study. Cronbach's alpha is the most common measure of reliability, specifically internal consistency or item interrelatedness of a scale or test items (e.g., Likert questions on a survey/questionnaire). It typically ranges from 0 to 1. Values closer to 1.0 indicate a greater internal consistency of the variables in the scale. In other words, higher Cronbach's alpha values show greater scale reliability. A value of 1.0 indicates that all the variability in test scores is due to true score differences (i.e., reliable variance) with no measurement error. Opposite, a value of 0.0 indicates that no true score (i.e., no reliable variance) is present and only measurement error exists in the items. 0.70 is generally agreed upon as an acceptable value (Cortina, 1993). However, it is not a one-size-fits-all criterion (Cho & Kim, 2015).

Based on Cronbach's alpha values, the OSS indicated an adequate level of internal consistency (6 items; $\alpha = .74$). The GDMS consists of 5 subscales, 25 items overall. The subscales

of rational (5 items, $\alpha = .60$) and intuitive (5 items, $\alpha = .60$) had questionable levels of internal consistency. The subscales of dependent (5 items, $\alpha = .70$), avoidant (5 items, $\alpha = .90$), and spontaneous (5 items, $\alpha = .79$) established good to excellent levels of internal consistency.

The Vignette Survey consisted of five subscales. Each subscale was measured using three items. The subscales of VIntuitive (three items, $\alpha = .70$), VDependent (three items, $\alpha = .79$), VAvoidant (three items, $\alpha = .84$), and VSpontaneous (three items, $\alpha = .80$) established good to excellent levels of internal consistency. However, the level of internal consistency for VRational (three items, $\alpha = .57$) was found to be poor.

Regarding alphas below .70 for GDMSRational ($\alpha = .60$), GDMSIntuitive ($\alpha = .60$), and VRational ($\alpha = .57$), an acceptable cut-off for Cronbach's alpha depends. Rather than a universal standard, the appropriate level of reliability is determined on an individual basis based on the purpose of the research, the importance of the decision involved, and/or the stage of research (i.e., exploratory, basic, or applied). While 0.70 is generally agreed upon as an acceptable value (Cortina, 1993), Lance et al. (2006) found this norm is misleading. Other researchers have provided acceptable lower limits of acceptability for Cronbach's alpha, including Nunnally (1967) who suggested that values as low as 0.50 are appropriate for exploratory research such as this study. Overall, research appears to support the range of Cronbach alpha levels across measurements in this study.

The lower alphas found shown could be due to how participants perceive rational and intuitive in each survey, thus, responding differently, resulting in lower alphas. This could be especially true for the Vignette Survey, where Cronbach's alpha for rational decision style was $\alpha = .57$ (3 items). In future studies, research should look more into how different decision styles

vary over different contexts. Some of our results showed this but it is beyond the scope of this study to provide more detail. In this study, the association between decision styles and associated factors is the focus rather than variations in decision styles across contexts.

Evaluating the Absence of Outliers Assumption

Outliers are data points far from other data points, with unusual values in a dataset. They can be problematic in research because they can cause data analysis tests to either miss significant findings or distort real results, and thus, they should be scrutinized to find out why they are there. It is up to the researcher (or a consensus process) to decide what will be considered unusual data and whether or not to include it in the data. In this study, we calculated standardized scores on continuous variables. We flagged five observations with absolute standardized outcomes greater than ± 3 : the outliers were identified on GDMSRational (z-score = -3.30), GDMSDependent (z-score = -3.16), VIntuitive (z-score = -3.42), OSS (z-score = 3.34), and VRational (z-score = -4.29). Cases containing these outliers were excluded from the analysis. We conducted the regression with and without outliers. Without outliers, additional significant results emerged, signifying that the outliers may have masked relationships. After review of this second run, the researcher opted to remove the outlier data but flagged results when results became statistically significant with outlier removal.

Chapter 3 Conclusion

The research design for this study best shows how it connects to the research question(s) to support the aim of this study. Thus, it is the best way to collect, analyze, and present statistical data to answer questions that explain the association between police officers' decision styles with demographics and occupational self-efficacy. Furthermore, make

potential generalizations about the target population in this study. The methods chosen for this research problem will provide enough information to replicate this study. Results based on this design are explored in Chapter 4.

Chapter 4: Findings

Introduction

This quantitative study uses multiple regression analysis to determine a predominant decision style and how decision styles may differentially relate to officer-level differences like occupational self-efficacy and demographics in order maintenance decision encounters. The following research questions sought to uncover associations, meaningful relationships, and connections between the variables presented in the study:

1. Is there an association between decision styles and demographic variables in the context of order maintenance encounters?
2. Is there an association between decision styles and occupational self-efficacy in the context of order maintenance encounters?
3. Is the association between occupational self-efficacy and decision styles moderated by demographic variables?
4. How are context-specific decision styles associated with occupational self-efficacy and demographic variables in the context of order maintenance encounters?

Participant Reference Group: Recap

Participant recruitment yielded 100 participants for this study. A run of the data yielded the following reference groups for this study, driven by data based on the largest response groups: Current police officers (64%), Urban Communities (40.63%), Whites (41.79%), Males (64.18%) and the 25-34 age group (77.50%). A reference group is a social group that serves as a reference point or baseline that individuals or other groups use to compare and make evaluations and decisions. According to Keith (2019), the reference group, often called the control group, is used for comparison where the primary question of interest is whether demographic variables are comparable to one another in some way. People compare their

behaviors, attitudes, and beliefs to reference groups. There are no hard reference categories, but selecting those with a large number of observations is better to narrow the confidence interval and minimize the standard error (Delaney et al., 2015) as referenced earlier. Reference groups in this study reflect empirically created ones.

Summary of Findings

Descriptive statistics were run on the raw scores of participants on the GDMS to determine the predominant decision styles of current and former police officers in this study. Results determined that the rational decision style was most prominent across participants. Findings also show an association between decision styles with demographics and occupational self-efficacy

Results from the analysis indicated that on the GDMS Questionnaire, the rational decision style had the highest mean ($m=5.12$) and lowest standard deviation ($sd=.58$). This was followed by the intuitive style ($M=4.55$; $SD=0.65$), dependent style ($M=3.98$; $SD=0.81$), spontaneous ($M=3.67$; $SD=0.99$), and finally the lowest mean was avoidant ($m=2.75$; $sd=1.31$). Results from the analysis indicated that on the Vignette Survey, rational had the highest mean ($m=5.05$) and lowest standard deviation ($sd=.78$). This was followed by the intuitive style with ($m=4.50$; $sd=1.02$) Spontaneous ($m=3.99$; $sd=1.20$) dependent ($m=3.16$; $sd=1.24$), and finally the lowest mean was avoidant ($m=2.71$; $sd=1.30$). Participants across all demographics in this study scored the lowest for the avoidant decision style.

Correlation Analysis

A Pearson correlation analysis assessed the relationship between the predictor variables and each outcome variable. The analysis showed that occupational self-efficacy was

significantly positively associated with GDMSRational (careful), GDMSIntuitive (reliance on hunches), VRational (careful), and VIntuitive decision style (reliance on hunches). However, it was significantly negatively associated with VDependent (delay). Serving in rural communities was significantly negatively associated with GDMSDependent, GDMSAvoidant, and VAvoidant decision styles. These positive associations may reflect perceptions or assumptions of police officers. For example, In the U.S. context, police officers are viewed as having to be assertive or more assertive in their decision-making approach and possibly how police officers perceive their role and authority. A dependent decision style is the antithesis of this perception and possibly viewed as counterproductive, and thus, does not align with how police officers are viewed, hence a negative association with occupational self.

Black or African Americans participants were significantly negatively correlated with VRational and VIntuitive decision styles. This correlation may point to issues of race and/or perceptions of rational. For example, in the U.S. context, a rational or intuitive decision style may have to take the form of a dependent decision style for Black or African American officers depending on the context of the order maintenance decision situation (e.g., suburban/rural community and/or non-Black/African American citizens) – to assertively manage an order maintenance decision situation guided by occupational self-efficacy. Female participants were significantly positively associated with VRational. Lastly, participants in the 33-44 age group were significantly negatively associated with VAvoidant decision, and those in the 45-54 age group were significantly positively correlated with GDMSIntuitive and VIntuitive. Where age is concerned, this correlation may speak to years of experience and possibly age-related maturity.

Table 7*Correlations Between Work-Related and Personal-Related Variables and the Outcome Variables.*

	The GDMS Survey					The VDMS Survey				
	Rational	Intuitive	Dependent	Avoidant	Spontaneous	Rational	Intuitive	Dependent	Avoidant	Spontaneous
OSS	.43**	.26*	.05	-.14	.06	.34**	.21*	-.25*	-.08	.14
RuralAll	.00	.01	-.21*	-.244*	-.14	.05	.08	-.20*	-.20*	-.09
SuburbanAll	-.13	-.10	.08	.06	-.09	-.14	-.06	-.12	-.10	-.06
YrsExp	.09	.17	-.09	-.10	-.01	-.01	.13	-.07	-.05	.08
Former PO	.08	-.01	-.16	-.06	-.09	.04	.06	-.02	-.05	.10
BlackAA	-.05	-.13	-.18	.16	.14	-.26*	-.26**	-.05	-.05	.01
Hispanic	-.14	-.15	-.09	-.10	.04	.00	-.12	-.06	-.07	-.07
Other Race	.08	.03	-.05	-.13	-.02	.11	.12	-.16	-.12	.12
Female	.02	.08	.04	.12	.01	.23*	.13	.06	-.01	.18
Age1 (18-24)	-.05	-.09	.10	.09	.16	.08	-.02	.16	.12	-.07
Age3 (35-44)	.07	.08	.03	.01	.08	.01	-.13	-.08	-.21*	.06
Age4 (45-54)	.13	.26**	.05	.00	.08	.14	.32**	.05	.09	.07
Age (55&Up)	.00	-.03	-.12	-.14	-.15	-.14	.00	-.10	.11	-.05

* and ** indicate significant correlations at .05 and .01, respectively.

Evaluating the Research Questions

A series of 2-step multiple regression analyses were performed to address each research question. Step 1 of these analyses included only work-related variables to examine their contribution without considering the effects of the personal-related variables since the focus of this study is work-related. Step 2 added personal-related variables to the variable mix. Hence, ten linear regression analyses were conducted to address each question: five models in step 1

and another five models in step 2. The dependent variables that were entered in the regression analyses to address Questions 1 through 3 were the average mean scores on each of the subscales of GDMS. These subscales were rational, intuitive, dependent, avoidant, and spontaneous. To address the third question, we tested the interaction with the following demographic variables: communities served, age, and OSS. To address the fourth research question, the following five Vignettes specific decision styles were included as the dependent variables: rational, intuitive, dependent, avoidant, and spontaneous. The tables at the end of each reach question reflect significant and non-significant findings.

RQ1: Is there an association between decision styles and demographic variables in the context of order maintenance encounters?

Step 1. Work-Related Variable

Based on the models evaluated in step 1, it was found that serving in a rural community was a significant predictor of GDMSAvoidant. It can be concluded from these results that the participants who serve(d) rural communities had a statistically significant negative association with an avoidant decision style and are expected to score 0.75 points less for an avoidant decision style in comparison to participants who serve(d) urban communities. The model Fstatistic is 1.58, not significant at the .05 level. The overall model did not reliably predict the outcome. Other work-related variables did not significantly predict any other general decision styles.

Table 8

Parameter Estimates for the Regression of the GDMS Subscales on the Work-Related Predictor (Step 1)

Predictor Variable	GDMS Rational	GDMS Intuitive	GDMS Dependent	GDMS Avoidant	GDMS Spontaneous
Communities Served					
Rural	-0.06 (0.14)	-0.08 (0.17)	-0.35 (0.20)	-0.76* (0.34)	-0.42 (0.26)
Suburban	-0.17 (0.13)	-0.17 (0.17)	0.03 (0.20)	-0.04 (0.33)	-0.33 (0.25)
Officer Status					
Former PO	.07 (0.11)	-0.01 (0.14)	-0.23 (0.16)	-0.13 (0.28)	-0.19 (0.21)
Years of Exp.	.01 (0.01)	0.02 (0.01)	-0.01 (0.01)	-0.01 (0.02)	.00 (0.01)
R ²	0.03	0.04	0.07	0.07	0.05
Adjusted R ²	-0.01	-0.00	0.03	0.02	0.00
F-Statistic (<i>df</i>)	.72 (4, 90)	0.96 (4, 90)	1.70 (4, 90)	1.58 (4, 90)	0.9 (4, 90)
<i>p</i> -Value	0.58	0.43	0.16	0.19	0.37

* Indicates significant at the .05 level.

Step 2. Work and Personal-Related Variables

GDMSIntuitive. Participants in the Age3 (35-44) and Age4 (45-54) group had a statistically significant positive association with an intuitive decision style. Participants in the Age3 (35-44) group are expected to score 0.37 points higher for an intuitive decision style in comparison to participants in the Age2 (25-34) group, while participants in the Age4 (45-54) group are expected to score 0.64 points higher in comparison to participants in the same Age2 (25-34) group. The model F-statistic is 1.49, not significant at the .05 level. The overall model did not reliably predict the outcome.

GDMSDependent. Participants in the Age1 (18-24) group had a statistically significant positive association with the dependent decision style, while participants who serve(d) in rural

communities and African American participants had a statistically significant negative association. Participants in the Age1 (18-24) group are expected to score 0.62 points higher for the dependent decision style in comparison to participants in the Age2 (25-34) group. Participants who serve(d) rural communities are expected to score 0.46 points less for the dependent style in comparison to participants who serve(d) urban communities, and African American participants are expected to score -0.46 points less for the dependent decision style in comparison to White participants. The model F-statistic is 1.69, not significant at the .05 level; the overall model did not reliably predict the outcome.

GDMSSpontaneous. Participants who serve(d) rural communities had a statistically significant negative association with the spontaneous decision style, while the Age1 (18-24) group had a statistically significant positive association. Participants who serve(d) rural communities are expected to score 0.57 less for a spontaneous decision style in comparison to participants who serve(d) urban communities. Participants in the Age1 (18-24) group are expected to score 0.95 higher for the spontaneous decision style in comparison to participants in the Age 2 (25-34) group. The model F-statistic is 1.25, not significant at the .05 level. The model did not reliably predict the outcome.

Table 9

Parameter Estimates for the Regression of the GDMS Subscales on the Work-Related and Personal-Related Predictor Variables (Step 2)

Predictor Variable	GDMS Rational	GDMS Intuitive	GDMS Dependent	GDMS Avoidant	GDMS Spontaneous
Communities Served					
Rural	-0.08 (0.15)	-0.11 (0.18)	-0.46* (0.21)	-0.79* (0.37)	-0.57* (0.27)
Suburban	-0.17 (0.14)	-0.12 (0.17)	0.05 (0.19)	0.11 (0.35)	-0.35 (0.26)
Officer Status					
Former PO	0.04 (0.12)	-0.08 (0.15)	-0.30 (0.17)	-0.20 (0.31)	-0.29 (0.22)
Experience					
Years of Exp.	-0.00 (0.01)	-0.00 (0.01)	-0.02 (0.01)	-0.01 (0.03)	0.00 (0.02)
Gender					
Female	0.01 (0.12)	0.15 (0.14)	0.09 (0.17)	0.36 (0.30)	0.02 (0.22)
Age					
Age1 (18-24)	-0.04 (0.22)	-0.00 (0.27)	0.62* (0.31)	0.74 (0.55)	0.95* (0.41)
Age3 (35-44)	0.19 (0.15)	0.37* (0.17)	0.33 (0.20)	0.12 (0.36)	0.37 (0.27)
Age4 (45-54)	0.26 (0.20)	0.64** (0.23)	0.49 (0.27)	0.43 (0.48)	0.48 (0.36)
Age5N (55&Up)	0.06 (0.37)	0.22 (0.44)	0.08 (0.51)	-0.39 (0.92)	-0.26 (0.68)
Race					
Black/AA	-0.09 (0.15)	-0.23 (0.18)	-0.46* (0.21)	0.40 (0.37)	0.29 (0.28)
Hispanic	-0.35 (0.25)	-0.56 (0.30)	-0.49 (0.35)	-0.49 (0.62)	0.17 (0.46)
Other Race	0.18 (0.22)	0.07 (0.27)	-0.16 (0.31)	-0.51 (0.55)	0.11 (0.41)
R ²	0.09	0.18	0.20	0.15	0.15
Adjusted R ²	-0.04	0.06	0.08	0.02	0.03
F-Statistic (df1, df2)	0.67 (12, 82)	1.50 (12, 82)	1.69 (12, 82)	1.17 (12, 82)	1.25 (12, 82)
P-Value	0.77	0.14	0.08	0.31	0.26

* and ** indicate significant at the .05 and .01 levels, respectively.

Summary

In summary, Research Question 1 shows a statistically significant association between decision styles and demographic variables in order maintenance decision situations. Age and participants who serve(d) rural communities uniquely contributed to this association for some

decision styles. Statistical significance for rural community became consistently significant when personal-related variables were added to the model. However, the models for this association did not yield statistical significance. This suggests that an officer's decision style cannot be stereotyped by individual differences, albeit these differences are essential predictors of decision styles.

RQ2: Is there an association between decision styles and occupational self-efficacy in the context of order maintenance policing for participating police officers?

Step 1. Work-Related Variables

GDMSRational. Occupational self-efficacy had a statistically positive association the rational decision style. A one unit increase in occupational self-efficacy was associated with a 0.41 increase for the rational decision style, controlling for other co-variables. No other demographic variables yielded significance in this model. The model F-statistic is 4.97, significant at the .05 level. The overall model reliably predicts the outcome.

GDMSIntuitive. Occupational self-efficacy had a statistically significant positive association with the intuitive decision style. A one unit increase in occupational self-efficacy was associated with a 0.28 increase in the intuitive decision style, controlling for other co-variables. No other demographic variables yielded significance in this model. The model F-statistic is 4.97, significant at the .05 level. The model F-statistic is 1.82, not significant at the .05 level. The overall model did not reliably predict the model.

Table 10*Parameter Estimates for the Regression of the GDMS Subscales on OSS and the Work-Related Predictor Variables (Step 1)*

Predictor Variables	GDMS Rational	GDMS Intuitive	GDMS Dependent	GDMS Avoidant	GDMS Spontaneous
OSS	0.41*** (0.09)	0.28* (0.12)	0.14 (0.14)	-0.25 (0.25)	0.17 (0.18)
Communities Served					
Rural	-0.11 (0.12)	-0.11 (0.17)	-0.37 (0.20)	-0.73* (0.34)	-0.44 (0.26)
Suburban	-0.22 (0.12)	-0.21 (0.16)	0.01 (0.19)	-0.01 (0.34)	-0.35 (0.25)
Officer Status					
Former PO	0.02 (0.10)	-0.05 (0.14)	-0.25 (0.16)	-0.10 (0.28)	-0.21 (0.21)
Experience					
Years of Exp.	-0.00 (0.01)	0.01 (0.01)	-0.01 (0.01)	-0.01 (0.02)	-0.00 (0.01)
R^2	0.22	0.10	0.08	0.08	0.05
Adjusted R^2	0.17	0.04	0.03	0.02	0.00
F-Statistic ($df1, df2$)	4.98 (5, 89)	1.89 (5, 89)	1.54 (5, 89)	1.47 (5, 89)	1.04 (5, 89)
P-Value	< .01	0.10	0.18	0.21	0.40

* and *** indicate significant at the .05 and .001 levels, respectively.

Step 2. Work and Personal-Related Variables

GDMSRational. Occupational self-efficacy has a statistical significance positive association with the rational decision style. A one unit increase in occupational self-efficacy was associated with a 0.40 increase in the rational style, controlling for other co-variables. No other demographic variables yielded significance in this model. The model F-statistic is 4.97, significant at the .05 level. The model F-statistic is 2.05, significant at the 0.5 level. This model reliably predicted the outcome. Other work and personal-related variables did not significantly predict any other general decision styles.

Table 11

Parameter Estimates for the Regression of the GDMS Subscales on OSS, the Work-related, and Personal-Related Predictor Variables (Step 2)

Predictor Variables	GDMS Rational	GDMS Intuitive	GDMS Dependent	GDMS Avoidant	GDMS Spontaneous
OSS	0.40*** (0.10)	0.19 (0.13)	0.05 (0.15)	-0.27 (0.26)	.10 (0.953e-01)
Communities Served					
Rural	-0.09 (0.14)	-0.11 (0.18)	-0.46* (0.21)	-0.79* (0.37)	-.56* (2.739e-01)
Suburban	-0.21 (0.13)	-0.15 (0.17)	0.05 (0.20)	0.14 (0.35)	-.35(2.598e-01)
Officer Status					
Former PO	0.03 (0.11)	-0.08 (0.15)	-0.31 (0.17)	-0.19 (0.31)	-.29(2.66e-01)
Experience					
Years of Exp.	-0.00 (0.01)	-0.00 (0.01)	-0.02 (0.02)	-0.01 (0.03)	.29(2.059e-02)
Gender					
Female	0.00 (0.11)	0.15 (0.14)	0.09 (0.17)	0.37 (0.30)	.18(2.221e-01)
Age					
Age1 (18-24)	-0.10 (0.20)	-0.03 (0.26)	0.61 (0.31)	0.78 (0.55)	.93* (4.084e-01)
Age3 (35-44)	0.08 (0.14)	0.32 (0.18)	0.32 (0.21)	0.20 (0.37)	.34 (2.734e-01)
Age4 (45-54)	0.05 (0.19)	0.54* (0.24)	0.47 (0.28)	0.57 (0.50)	.43 (3.728e-01)
Age5N (55&Up)	-0.12 (0.34)	0.13 (0.44)	0.06 (0.52)	-0.27 (0.93)	-.30 (6.859e-01)
Race					
Black/AA	-0.05 (0.14)	-0.21 (0.18)	-0.45* (0.21)	0.38 (0.38)	.30 (02.784e-01)
Hispanic	-0.35 (0.23)	-0.56 (0.30)	-0.49 (0.35)	-0.49 (0.62)	.17 (4.611e-01)
Other Race	0.02 (0.21)	-0.00 (0.27)	-0.18 (0.32)	-0.40 (0.56)	.73 (4.165e-01)
R ²	0.25	0.20	0.20	0.16	0.16
Adjusted R ²	0.13	0.07	0.07	0.02	0.02
F-Statistic (df1, df2)	2.05 (13, 81)	1.59 (13, 81)	1.55 (13, 81)	1.17 (13, 81)	.11 (13, 81)
P-Value	0.03	0.11	0.12	0.32	0.32

* Indicate significant at the .05 level.

Summary

In summary, Research Question 2, tells us that there is an association between decision styles and occupational self-efficacy in order maintenance decision. Only rational and intuitive

decision styles yielded significance in this association, suggesting that occupational self-efficacy matters most for certain decision styles. Statistical significance for occupational self-efficacy became less consistent when personal-related variables were added to model. Age, race, and the rural community variable uniquely contributed to the association for some decision styles. Statistical significance for the rural community variable increased when personal-related variables were added to the model. Overall, the models did not consistently yield statistical significance. This suggests that occupational self-efficacy cannot reliably predict all decision styles, but some.

RQ3: Is the association between decision styles and occupational self-efficacy moderated by demographic variables?

In accordance with research question 3, age did not moderate, or change, the relationship between decision styles and occupational self-efficacy. Thus, the relationship remained the same for all of the age groups. While the models yielded other statistically significant independent variables, the main effects were applicable to all demographic groups in the model in comparison to interaction outcomes where the effects of a particular independent variable differed for different demographic groups. The main significant effects were therefore age and the rural community variable, consistent with the previous research questions.

Based on the outcome of research question 3, the research decided to run two additional regression models were examined. The first regression analysis examined moderating effects of race in the association between occupational self-efficacy and demographic variables. The selection of race for the interaction was influenced by extensive concern on the lack of guidelines for order maintenance policing, which was a concern due to potential racial discrimination, biases, abuse, and inequities. In addition, the age variable was a significant

main effect variable, consistent with the previous research question. An analysis of the interaction showed that race did not moderate or modify the relationship between decision styles and occupational self-efficacy thus making it remain unchanged/same for all racial groups in this study.

The second regression examined moderating effects of communities served in association between occupational self-efficacy and demographic variables. The selection of communities served for the interaction was influenced by emerging trends of statistically significant associations for rural communities in research questions 1 and 2. Of the three predictor variables for communities served in step 1, an analysis of the interaction showed that rural community moderates or modifies the relationship between dependent decision styles and occupational self-efficacy. Overall, rural participants scored -0.85 less for self-efficacy and dependent decision style. More self-efficacy is associated with less dependent decision style versus urban participants. Urban participants scored 0.27 higher for self-efficacy and dependent decision style. Higher self-efficacy is associated with a higher dependent decision style. An analysis of the interaction for step 2, work plus personal-related variables, showed that community served did not moderate or modify the relationship between decision styles and occupational self-efficacy, thus it remains unchanged/same for the community served variable.

Table 12

Moderating Effect of the predictor variable communities served (Step 1).

Predictor Variables	GDMS	GDMS	GDMS	GDMS	GDMS
	Rational	Intuitive	Dependent	Avoidant	Spontaneous
RuralAll	-0.09 (0.44)	-0.08 (0.59)	-0.25 (0.18)	-0.67 (0.05)	-0.41 (0.12)
cOSS	0.47 (5.41e-05) ***	0.42 (0.00)	0.27 (0.11)	-0.10	0.17 (0.44)

				(0.73)	
SuburbanAll	-0.21 (0.08)	-0.18 (0.25) **	-0.01 (0.94)	-0.00 (0.98)	-0.36 (0.15)
cYrsExp	-0.00 (0.92)	0.01 (0.25)	-0.00 (0.60)	-0.00 (0.84)	-0.00 (0.92)
Former PO	0.02 (0.83)	-0.05 (0.68)	-0.17 (0.25)	-0.07 (0.78)	-0.18 (0.40)
RuralAll:cOSS	-0.18 (0.44)	-0.34 (0.27)	-1.05 (0.00)	-0.61 (0.35)	-0.27 (0.58)
cOss:SubrbanAll	-0.16 (0.45)	-0.39 (0.17)	0.15 (0.63)	-0.20 (0.73)	0.17 (0.70)
Intercept	5.19 (<2e-16)***	4.52 (< 2e-16) ***	4.24 (< 2e-16) ***	3.04 (< 2e-16) ***	-3.97 (< 2e-16) ***
Multiple R ²	0.22	0.12	0.17	0.08	0.06
Adjusted R	0.16	0.05	0.11	0.01	-0.01
F-Statistic/df	3.64 (7, 87)	1.71 (7, 87)	2.67 (7, 87)	1.16 (7, 87)	0.81 (7, 87)
P-Value	0	0.11	0.01	0.33	0.57

*, **, and *** indicate significance at the .05 level, respectively

RQ4: Are context (Vignettes) specific decision styles associated with occupational self-efficacy and demographic variables in the context of order maintenance encounters?

Step 1. Work-Related Variables

Based on the results of step 1 of the regression analyses, occupational self-efficacy was a significant predictor of VRational and VDependent. In addition, rural community was a significant predictor of VDependent and VAvoidant. It can be concluded from these results that occupational self-efficacy had a statistically significant positive association with a rational decision style. A one unit increase in occupational self-efficacy was associated with a 0.46 increase for the rational decision style, controlling for other co-variates. The model F-statistic is 3.18, significant is at the .05 level. The overall model statistically significantly predicted the outcome variable of VRational. Occupational self-efficacy and participants who serve(d) rural communities had a statistically significant negative association with a dependent decision style. A one-unit increase in occupational self-efficacy is associated with a 0.46 decrease for the dependent decision style, controlling for other co-variates. Participants who serve(d) rural communities are expected to

score 0.68 points less for the dependent decision style than participants who serve(d) urban communities. The model F-statistic is 2.46, significant at the .05 level. The overall model statistically significantly predicted the outcome variable of VDependent.

Table 13

Parameter Estimates for the Regression of the Vignette Survey Subscales on OSS and the Work-Related Predictor Variables (Step 1)

Predictor Variables	VRational	VIntuitive	VDependent	VAvoidant	VSpontaneous
OSS	0.46*** (0.12)	0.29 (0.17)	-0.46* (0.22)	-0.08 (0.24)	0.29 (0.23)
Communities Served					
Rural	-0.03 (0.17)	0.09 (0.24)	-0.68* (0.31)	-0.76* (0.34)	-0.42 (0.32)
Suburban	-0.28 (0.17)	-0.10 (0.23)	-0.50 (0.30)	-0.53 (0.33)	-0.28 (0.31)
Officer Status					
Former PO	-0.01 (0.14)	0.08 (0.19)	-0.02 (0.25)	-0.14 (0.28)	0.23 (0.26)
Experience Years of Exp.	-0.01 (0.01)	0.01 (0.01)	0.00 (0.02)	-0.00 (0.02)	0.01 (0.02)
R ²	0.15	0.06	0.12	0.07	0.05
Adjusted R ²	0.10	0.00	0.07	0.02	0.00
F-Statistic (df1, df2)	3.18 (5, 89)	1.08 (5, 89)	2.46 (5, 89)	1.38 (5, 89)	1.01 (6, 69)
P-Value	0.01	0.37	0.04	0.24	0.42

* and ** indicate significant at the .05 and .01 levels, respectively.

Step 2. Work and Personal-Related Variables

Based on the results obtained from step 2 of the regression analyses, OSS was a significant predictor of VRational and VDependent, rural community was a significant predictor of VDependent and VAvoidant, the female gender group was a significant predictor of VRational, the 18-24 age group was significant predictor of Vdependent, the 45-54 age group was a significant predictor of VIntuitive, and the Black/African Americans race group was a

significant predictor of VRational and VIntuitive. It can be concluded from these results that occupational self-efficacy and identification as female have a statistically significant positive association with a rational decision style, while identification as Black/African American participants have a statistically negative association. A one-unit increase in occupational self-efficacy is associated with a 0.40 increase in the rational decision style, controlling for other covariates. Female participants are expected to score 0.30 points higher for the rational decision style than male participants. Black/African American participants are expected to score 0.48 points less for a rational in comparison to White participants. The model F-statistic is 2.50, not significant at the .05 level. The overall model did not statistically significantly predict the outcome variable of VRational.

Occupational self-efficacy and participants who serve(d) rural communities have a statistically significant negative association with a dependent decision style, while participants in the 18-24 age group have a statistically significant positive association. A one-unit increase in occupational self-efficacy is associated with a 0.54 decrease in the dependent decision styles, controlling for other co-variates. Participants who serve(d) in rural communities are expected to score 0.84 points lower for the dependent decision style than participants who serve(d) in urban communities. Participants in 18-24 age group are expected to score 1.19 points higher than participants in the 25-34 age group. The model F-statistic is 1.80, not significant at .05. The overall model did not statistically significantly predict the outcome variable VDependent.

Table 14

Parameter Estimates for the Regression of the Vignette Survey Subscales on OSS, the Work-Related and Personal-Related Predictor Variables (Step 2)

Predictor Variable	VRational	VIntuitive	VDependent	VAvoidant	VSpontaneous
OSS	0.40** (0.13)	0.15 (0.17)	-0.54* (0.23)	-0.15 (0.26)	0.24 (0.25)
Communities Served					
Rural	-0.12 (0.18)	-0.01 (0.24)	-0.84* (0.33)	-0.91* (0.36)	-0.51 (0.35)
Suburban	-0.28 (0.17)	0.02 (0.23)	-0.42 (0.31)	-0.35 (0.34)	-0.26 (0.33)
Officer Status					
Former PO	0.02 (0.15)	0.05 (0.20)	-0.05 (0.27)	-0.29 (0.30)	0.21 (0.29)
Experience					
Years of Exp.	0.01 (0.01)	-0.01 (0.02)	0.00 (0.02)	-0.00 (0.03)	0.01 (0.03)
Gender					
Female	0.30* (0.14)	0.28 (0.20)	0.11 (0.26)	0.02 (0.29)	0.49 (0.28)
Age					
Age1 (18-24)	0.17 (0.27)	-0.06 (0.36)	1.19* (0.49)	0.93 (0.54)	-0.32 (0.52)
Age3 (35-44)	0.13 (0.18)	0.06 (0.24)	0.15 (0.32)	-0.21 (0.36)	0.11 (0.35)
Age4 (45-54)	0.16 (0.24)	0.80* (0.33)	0.52 (0.44)	0.59 (0.49)	0.14 (0.47)
Age5N (55&Up)	-0.50 (0.45)	0.17 (0.61)	-0.38 (0.82)	1.27 (0.90)	-0.39 (0.87)
Race					
Black/AA	-0.48* (0.18)	-0.53* (0.25)	-0.44 (0.33)	-0.23 (0.37)	0.05 (0.35)
Hispanic	-0.01 (0.30)	-0.61 (0.41)	-0.30 (0.55)	-0.37 (0.61)	-0.21 (0.58)
Other Race	-0.04 (0.27)	0.20 (0.37)	-0.53 (0.50)	-0.32 (0.55)	0.59 (0.53)
White					
R^2	0.29	0.22	0.22	0.17	0.12
Adjusted R^2	0.17	0.10	0.10	0.04	-0.02
F-Statistic ($df1$, $df2$)	2.50 (13, 81)	1.80 (13, 81)	1.80 (13, 81)	1.31 (13, 81)	0.85 (13, 81)
P-Value	0.01	0.06	0.06	0.22	0.60

* and ** indicate significant at the .05 and .01 levels, respectively.

Summary

In summary, Research question 4 determined that context (Vignettes) specific decision styles are associated with occupational self-efficacy and demographic variables in order maintenance decision situations. Occupational self-efficacy predicted some decision styles,

specifically rational and dependent in this association. Race (Black and Other Race), gender (female), age, and communities serve(d) (rural) uniquely contributed to this association for some decision styles. Overall, the significance of the models was not consistent, but predictors were significant and thus important in understanding some decision styles.

GDMS. An analysis determined an association between decision styles with demographic variables and occupational self-efficacy. However, the models presented were not consistently significant. This suggests that demographics and occupational self-efficacy cannot stereotype officers' decision styles. Age, communities served, and race yielded consistent significance and unique contributions to these associations. This suggests that these variables are most important in these associations for some decision styles but should be considered for all decision styles.

Vignette Survey. Predictor variables accounted for more variance in context-specific situations based on the higher R^2 of the vignette. The significance of models was most consistent in the vignette results. When added to the model, occupational self-efficacy yielded statistical significance more consistently for vignettes results than with the GDMS. What this shows is, one, occupational self-efficacy was able to capture more of that context decision-making. Two, occupational self-efficacy seems to matter more than demographic variables in context-specific ways for some decision styles. Overall, using vignettes presents a more valid way to assess decision-making based on the higher R^2 in our models.

GDMS and Vignette Comparison. The R^2 for the vignettes was slightly higher than for the GDMS in some models. To compare, the R^2 for the vignettes ranged from 0.12 to 0.29. For the predominant rational and intuitive decision styles in this study, the R^2 for were 0.29 and

0.22, respectively. The R^2 for the GDMS ranged from 0.16 to 0.25. For the predominant rational and intuitive decision styles in this study, the R^2 for GDMSRational 0.25 and 0.20 for GDMSIntuitive. This is significant because it suggests that using vignettes presents a more valid way to access decision-making based on the higher R^2 in our models. Two, vignettes may be more realistic and stronger in terms of findings. While the GDMS yielded a smaller R^2 , it does not necessarily mean that the model was bad. A model with a small R^2 can have a unique contribution depending on the field of research. Because this study is exploratory and path-finding, the small R^2 of the GDMS can inform ideas and contribute to explanations.

Chapter 4 Conclusion

When the multiple regression analysis was run, the results were quite encouraging. Output data showed that some predictor variables (demographics and occupational self-efficacy) significantly affected the outcome variable (decision styles), and there was no multicollinearity. Unfortunately, the F-test for the models was not significant at the .05 significance level. However, there can be legitimate significant coefficients within a model even if the omnibus test is not significant. This fact does not affect the conclusions drawn from the significant coefficient (s). The non-significant models in the analysis mean that the explained variance in the set of predictor variables presented in each model is not significantly greater than the unexplained variance.

Overall, the F-test, or omnibus test, determined that the models in this study are not a good fit to predict the outcome variables significantly. Including non-significant covariates may influence some models' overall lack of reliable prediction. The easiest way, but not necessarily the best, to address non-significant models is to remove the most insignificant predictor

variables one at a time until all remaining variables are significant. Because the theory and constructs guiding this study indicate that the models' predictor variables are essential, retaining them is necessary. Removing these variables would result in losing important information, a detriment to this exploratory and pathfinding research that yields an explanation. Chapter 5 speaks to the meaning of these significant predictor variables in detail.

Chapter 5: Discussion

Introduction

This study determined a predominant decision style across current and former police officers and how decision styles relate to demographics and occupational self-efficacy in the context of order maintenance decision encounters. The literature review guided the development of this study's four research questions leading to these findings. A quantitative design using regression analysis was employed to yield descriptive statistics to describe the characteristics of the data presented. Overall, this study showed a predominantly rational decision style (careful) across study participants, aligning with extant research as a decision style congruent with the nature of policing. This study also determined that decision styles were also associated with demographics and occupational self-efficacy for some decision styles. Chapter 5 will expand on Chapter 4 via the following sections: 1) interpretation of the findings, 2) discussion, 3) implications and recommendations, 4) limitations, and finally, 5) future research.

Research Questions

The following research questions guided this study:

1. Is there an association between decision styles and demographic variables in the context of order maintenance encounters?
2. Is there an association between decision styles and occupational self-efficacy in the context of order maintenance encounters?
3. Is the association between occupational self-efficacy and decision styles moderated by demographic variables?
4. How are context-specific decision styles associated with occupational self-efficacy and demographic variables in the context of order maintenance encounters?

Interpretation of Findings

RQ1. Is there an association between decision styles and demographic variables in the context of order maintenance encounters?

Results for research question 1 tell us that there is a statistically significant association between decision styles and officer-level demographics in the context of order maintenance decision encounters. The analysis shows that age and participants who serve(d) rural communities uniquely contributed to this association for some decision styles. This suggests that certain individual differences will have a reliable effect on predicting decision styles and influence officers to approach decision-making differently (Appelt et al., 2011). Hence, decision-making styles vary across officers in order maintenance decision encounters and officer-level decision experiences.

Regarding the unique contribution of age in the association between decision styles and demographic variables, the age association makes sense because we gain life experiences and knowledge that guide our decision-making. Research concurs that age influences decision-making Bruine de Bruin et al. (2007) and Finucane et al. (2005). In this study, however, we are looking at associations with decision styles rather than variations in decision styles across contexts. Future studies would ask different questions. Thus, another way to think about the age association in a practical sense is how decision styles present in the order maintenance context. For example, for officers with a rational decision style (careful, methodical), the portrayal of rational may differ across age groups (18-24, 35-44, and 45-54) or differ across communities where social controls may differ in urban or suburban settings. Social control refers to the power of the institutions, organizations, and laws of society to influence or regulate the behavior of individuals and groups (American Psychological Association, 2023).

Regarding the unique contribution of the rural community variable in the association between decision styles and demographics, this variable became more consistently significant when personal-related variables were added to the model. However, the models for this association did not yield statistical significance. This also suggests that individual differences cannot stereotype an officer's decision style, albeit these differences are important predictors for some decision styles. The effect also appears to be contextual-based or a person-by-decision situation. For example, in the U.S. context of policing, characteristics of the rural culture include informal social control among citizens.

According to Weisheit et al. (1994) and Wilson (1991), rural areas are more governed by informal social control than urban areas. Informal social control reflects the ability of local neighborhoods to supervise the behavior of their residents and the capacity of neighborhoods to socialize their residents conventionally (Bursik Jr & Grasmick, 1999; Bursik RJ Jr, 1988; Sampson & Groves, 1989), usually not based on law. Weisheit et al. (1994) and Wilson (1991) concur that this informal control is facilitated by the fact that many residents of rural communities, including the local police, know each other socially. Thus, rural-based police officers will likely know offenders and their families, just as the community will know the officer and his family – driving how he/she approaches these decision encounters.

RQ2. Is there an association between decision styles and occupational self-efficacy in the context of order maintenance encounters?

Results for research question 2 show an association between decision styles and occupational self-efficacy in order maintenance decision encounters. In order maintenance policing, where encounters are complex and varied, the decision style sets the stage for a spectrum of decision approaches ranging from quick to lengthy decision-making considerations.

Officers must be able to reason, weigh the consequences, and consider alternatives in these decision encounters. Thus, occupational self-efficacy is critical to enabling these often autonomous and demanding work environments (Hackman & Oldham, 1980).

An analysis of the data shows that occupational self-efficacy significantly predicted rational decision style, followed by intuitive decision style. This suggests that occupational self-efficacy matters most for certain decision styles. Also, age, race, and the rural community variable uniquely contributed to the association of some decision styles. The rural community variable became consistently statistically significant when personal-related variables were added to the model. The association between occupational self-efficacy and the predominant rational decision style suggests an occupationally appropriate approach to order maintenance decision encounters.

RQ3. Is the association between occupational self-efficacy and decision styles moderated by demographic variables?

Research findings show that neither age nor race moderated or changed the relationship between decision styles and occupational self-efficacy in order maintenance decision situations. However, rural community was found to change or moderate this relationship. The statistical significance of the rural community variable may be attributed to the community's unique characteristics (e.g., informal social controls) previously mentioned. As such, it is likely to affect how officers approach in order maintenance decision encounters. Like research question two, this finding also speaks to context-specific effects.

Considering the social ties that may exist between rural-based police officers and their community, it is likely that these officers will adjust their decision approaches. This suggests less officer discretion in order maintenance decision situations. This focus on informal social

controls should not be confused with a tolerance of crime in rural areas. Wood and Bandura's (1989) social cognitive theory posits that personal and environmental factors influence individuals' behaviors. More research is needed to understand the interactive impact of police officer decision styles in rural communities; this explanation of this section is purely speculative and general.

RQ4. How are context-specific decision styles associated with occupational self-efficacy and demographic variables in the context of order maintenance encounters?

The significance of models was most consistent in the vignette results. When added to the variable mix, occupational self-efficacy yielded statistical significance for vignette results; significance yielded more consistently than with the GDMS. This suggests that occupational self-efficacy matters more than demographic variables in context-specific ways for some decision styles. Given the ever-changing nature of these encounters, a rational decision style and occupational self-efficacy are necessary for officers to adapt to new insights, circumstances, or changes. Rational decision style in this context is recommended as occupationally appropriate for managing order maintenance decision encounters and, thus, drives ideas for training police training content and design. From this standpoint, we can see why occupational self-efficacy matters more than demographic variables in these context-specific ways for some decision styles, but more specifically for the rational decision style.

What we know about occupational self-efficacy is that it is an important resource for individuals in organizations (Rigotti et al., 2008) such as law enforcement. It interacts with self-esteem, job satisfaction, and job performance (Shelton, 1990), including decision-making. Rigotti et al. (2008) found evidence for the relatedness of occupational self-efficacy and perceived work performance. Rigotti et al. (2008) explained that occupational self-efficacy helps

employees cope with challenges and demands of work, reflective of context-based order maintenance decision situations. Albeit occupational self-efficacy appears to matter in context-specific ways for some decision styles, this does not negate the importance of demographic differences found to be significant for some decision styles, particularly rational decision styles.

Discussion

Decision Styles

As previously stated, findings point to a predominantly rational decision style across survey participants, aligning with extant police research as a preferred disposition trait in officers. A rational decision style is a logical, evaluative, and careful decision-making approach (Scott & Bruce, 1995), a more structured or reasonable thought process for decision-making. Because this decision style is based on careful thought and logic, it eliminates intuition and subjectivity. These decision-makers tend to have a high tolerance for ambiguity (Birt, 2023) and are perceived to have a sense of personal responsibility and control. What yields here is the importance of decision styles in order maintenance decision encounters, specifically the rational decision style. This suggests that the rational decision style is occupationally appropriate for order maintenance decision encounters. This finding can drive related training design and content to support officer knowledge and skill. Doing so would help officers identify their decision style and make necessary adjustments in decision approaches where problems are determined.

Occupational Self-Efficacy

Order maintenance policing gives police officers latitude of discretion in decision-making for managing these encounters but lacks related training. There are often no "right" decisions

where such a lack exists. An abundance of options surrounds officers. As such, each officer will respond differently based on work experiences that drive occupational self-efficacy, shaping his/her decision style. The danger of this gap in police training is the potential for subjective decision-making in the work domain. Thus, there is a constant potential for decision missteps as a decision will usually be specific to a situation, even though it will be linked to other decisions in other situations.

Occupational self-efficacy is necessary to manage multifaced, ambiguous, and subtle problems in order maintenance decision situations. As such, police officers need to have an understanding and a healthy belief in their decision style to make related decisions. This is especially true where there is a lack in related police training. This position is supported by the statistically significant association between occupational self-efficacy and decision styles in this study. The benefit for officers is the personal resource necessary for occupationally appropriate decision styles that help maintain community order and bring the behavior of individuals and groups into compliance with the law and directives of the police officers.

Instructional Design and Content

History of Training Design. In recent years, there has been a widespread call for police training attentive to decision-making. However, the common objective of police training has mostly stayed the same over time (Koedijk et al., 2019; Ness, 1991) to address this call. For example, Blumberg et al. (2019) explained that police academy training has two general aspects: 1) the academic component that takes place in classroom settings and requires recruits to learn the basics of the law, procedures, radio codes, penal codes; and 2) hands-on training and includes rehearsal, scenario-based, and performance appraisals in areas, which include

arrest and control, defensive tactics, use of weapons, and driving. What yields here are training content with a greater focus on physical and technical skills. Adjustments in training, attentive to a rational decision style, could bring a general uniform decision style to order maintenance decision encounters.

Instructional Design. A gap in police training is an instructional design attentive to decision styles. Closing this gap could help officers identify their decision styles and make necessary adjustments in their decision approaches where errors are detected. However, more than a single instructional approach will be required. The adult learning-centered andragogy approach could support knowledge through collaborative and interactive learning strategies, while police training's traditional lectured-based behavioral learning strategies could support related skills practice. Blumberg et al. (2019) posited that combining classroom learning and transference into simulated training is imperative in police training. Thus, a hybrid instructional approach could be beneficial to check-point or validate learning and help learners understand the impact of their decision style. The potential is discipline and consistency in how officers approach order maintenance decision situations.

Training Content. Decision theory could inform training content around a rational decision style in order maintenance decision situations. The value of this approach lies in the theory's models for how decisions should be made, how they are actually made, and how they can be made. The advantage is that the models can be interconnected and contextualized with consideration to significant demographic variables noted in this study, with occupational self-efficacy embedded in the learning. What yields here are creative and endless opportunities to frame instructional design (e.g., andragogy teaching strategies) around training content training

(e.g., rational decision styles across the scope of decision classes within the theory). This approach to learning could help officers know how and why to apply a rational decision approach in any order maintenance encounter. Knowledge sharing specific to an occupation positively affects employees' occupational self-efficacy (Reddan & Gregory, 2015). In turn, changes in occupational self-efficacy are related to newly acquired knowledge and skills (Van Hootegem et al., 2021).

Summary

Training is critical to the development and continued development of the police officer. In addition to positively impacting occupational self-efficacy, training drives cognitive readiness for order maintenance decision situations. Cognitive 'readiness' denotes preparation to perform a job effectively (O'Neil et al., 2014) and is linked to performance and performance outcomes. It also drives an officer in his/her decision-making and the likelihood that an officer, or recruit, will apply newly learned skills and knowledge.

Implications and Recommendations

The findings in this study have provided a new lens for understanding and explaining individual differences in police officer decision styles and how they relate to individual demographics and occupational self-efficacy in the context of order maintenance decision encounters. Findings relate to limited previous research by corroborating findings and highlighting new information. As such, implications and recommendations are provided.

Training and Practice

This study showed an association between decision styles, demographics, and occupational self-efficacy in context-based order maintenance decision situations, with rational

being the predominant decision style across study participants. The implication for police training is modified design and content. As such, a suggestion is an implementable, replicable, transferable, and adaptable training design that emphasizes a rational decision style for immediate application in order maintenance decision situations. A recommendation is a hybrid instructional approach to police curriculum, attentive to decision styles in order maintenance decision situations with an emphasis on the rational decision styles. This hybrid approach reflects andrological and behavioral learning principles. The implication for police departments is providing training content that ensures officers have the knowledge and skill to resolve order maintenance decision situations based on an occupationally appropriate rational decision style. In terms of practice, the implication is police officers have the knowledge and skill to resolve any order maintenance decision situation based on a rational decision style. The benefit is improved decision-making practices for maintaining community order and public safety.

Methods

Vignette Survey. This study found that the vignette surveys captured more context-specific decision-making than the General Decision-Making Style questionnaire self-report. Based on this study, vignettes present as more realistic and robust. An implication is that vignettes are a valuable complementary approach in quantitative research on decision styles in order maintenance decision situations. A suggestion is the continued use of vignettes in research on police officer decision styles in order maintenance decision-making. A recommendation in replicating this study is creating vignettes with and without descriptive information (demographics), and randomly assigned to participants to each. This ensures that any differences that are observed between the vignette styles can be confidently attributed to

the survey rather than to other factors. The expectation is greater illumination of significant data and insight around decision styles in order maintenance decision situations and how they relate to demographics and occupational self-efficacy.

Limitations

Research Design. The study limitations include a limited sample of current and former police officers and predominantly male research participants. Future studies examining larger and more targeted samples are needed to corroborate or refute the data presented here. The strictly quantitative approach could be expanded to a mixed methods approach in future research, including observation of officers. For future studies, variables such as education level and military experience should be considered, as both variables are standard in police research on officer behaviors.

Research Methods. Another limitation of this study is the self-report approach which points to the potential for reporting bias. Also, this study is cross-sectional, which means: 1) cohort differences; 2) reporting bias; 3) Lack of causal inference; 4) not all groups captured; and 5) not suitable to study over some time. A possible limitation is too many variables in the models, which can mask the influence of a particular variable when looking at the effect of overall variables (Vongkulluksn, 2021). For some demographic variables, the effects were too small to be detected by the sample in this study.

Recruitment. The Qualtrics online invitation to participate in this study called for current and former U.S. police officers recruited from existing pools of research panel participants. The title “police officer” reflects many different types of police officers. The different types include but are not limited to, uniformed patrol officers, police detectives, state and highway patrol

officers, transit and railroad police officers, and fish and game wardens. As such, this study cautions against generalizability to the intended target group, uniformed patrol police officers for city police departments.

Future Research

A replicated study should ensure adequate safeguards against lack of clarity in recruitment to support generalizability to focus population, uniformed patrol officers for city police departments. Also, a mixed methods approach should be implemented to include post-survey interviews. Interviews can begin to give insight into the characteristic behaviors that may be associated with Scott and Bruce's (1995), which is absent from their definition of each decision style. Further, vignette surveys should reflect scenarios with and without demographic data to determine and compare decision style outcomes in a replicated study. Further, a replicated study should include a larger sample size. Last, a replicated study should consider the number and type of predictor variables as the effect size of demographic variables was potentially too small to detect due to the small sample size in this study.

Study Conclusion

Overall, police decision making is a global concern (Brown & Daus, 2015). In order maintenance policing, officers have the enormous responsibility and obligation of making decisions that safeguard the community they serve. These decisions responses are based in their decision style. As such, police officers need to understand and have a healthy belief in their decision style to make related decisions. This demands police training attentive to decision styles, emphasizing a rational decision style, with occupational self-efficacy embedded in the learning, attentive to any order maintenance decision situation. The quantitative method used

in this study can be applied to any police department that seeks to improve officer-level decision-making experiences through training based on decision styles. The benefit is improved decision-making practices for maintaining community order and public safety.

Practically, this study has added value, awareness, and understanding of decision styles and how they differentially relate to occupational self-efficacy and officer demographics. This holds true for police departments, specifically, new ideas for current and future training. The results of this research have further opened the door to a line of inquiry that allows for a better understanding of how police officers approach these decision situations. Police training can help police officers identify themselves with Scott and Bruce's (1995) decision styles and make necessary adjustments in their decision style to reflect a rational decision style, based on training versus subjective order maintenance decision experiences.

Appendix A

Participation Consent Form



Title of Study: Individual Differences in Police Officers' Decision Styles in Order Maintenance Policing

Investigators: Dr. Lisa Bendixen, Principal Investigator and Damarrah Jameson, Doctoral Candidate

Contact Phone Number:

Dr. Lisa Bendixen (702) 895-4632

Damarrah Jameson (313) 320-6854

You have been invited to participate in a study conducted by researchers in the Department of Educational Psychology, Leadership, and Higher Education at the University of Nevada, Las Vegas (UNLV). The purpose of this study is to assess individual differences in police officers' decision styles in order maintenance encounters. Surveys will ask about your level of agreement regarding decision statements in the context of order maintenance encounters and your ability to manage them. You are being asked to participate in this study because you are a police officer in the United States.

If you agree to participate in this study, you will complete a survey about decision styles and decision-making ability. The surveys, in total, take about 18-20 minutes to complete. You **will not** be compensated for your participation. All your responses will be kept completely anonymous. Your participation in this survey is voluntary. You may stop taking the survey at any time.

While participation in this study may not provide any direct benefit to you, it may help us better understand police officers' decision-making experiences in the context of order maintenance encounters. We recognize that sharing your level of agreement about questions and scenarios presented may produce some level of discomfort. However, if you feel any serious discomfort with any particular question, please skip this question.

If you have questions or concerns about the study, you may contact **Dr. Lisa Bendixen at 702-895-4632**. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted, you may contact the UNLV Office of Research Integrity - Human Subjects at 702-895-0020 or via email at IRB@unlv.edu.


By clicking 'Next' below, you agree that you have read the above information, agree to participate in this study, and that you are at least 18 years of age.

[NEXT](#)

(Will be a live link when study is launched in Qualtrics)

Appendix B

Qualtrics Survey Software



Screening Question

I am an

- ☐ Current Police Officer
- ☐ Former Police Officer
- ☐ Other

What is your age?

- ☐ Under 18
- ☐ 18-24 years old
- ☐ 25-34 years old
- ☐ 35-44 years old
- ☐ 45-54 years old
- ☐ 55-64 years old
- ☐ 65 or older

Appendix C

Occupational Self-Efficacy Scale—Short Form (OSS-SF)

Directions: In the context of your job as a police officer, choose your level of agreement with each statement below. There are no right or wrong answers, this is your perspective.

		1	2	3	4	5	6
		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1.	I can remain calm when facing difficulties in my job as a police officer because I can rely on my abilities.						
2.	When I am confronted with a problem in my job as a police officer, I can usually find several solutions.						
3.	Whatever comes my way in my job as a police officer, I can usually handle it.						
4.	My past experiences in my job as a police officer have prepared me well for my occupational future.						
5.	I meet the goals that I set for myself in my job as a police officer.						
6.	I feel prepared for most of the demands in my job as a police officer.						

Appendix D

The General Decision-Making Style Questionnaire (GDMS)

Directions: As a police officer in the context of managing order maintenance encounters (e.g., loitering, public intoxication, aggressive panhandling, noise complaints, etc.), choose your level of agreement with each decision statement below. There are no right or wrong answers, this is your perspective.

		1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Slightly Agree	5 Agree	6 Strongly Disagree
1.	I double-check my information sources to be sure I have the right facts before making decisions.						
2.	When making decisions, I rely upon my instincts.						
3.	I often need the assistance of other people when making important decisions.						
4.	I avoid making important decisions until the pressure is on.						
5.	I generally make snap decisions.						
6.	I make decisions in a logical and systematic way.						
7.	When I make decisions, I tend to rely on my intuition.						
8.	I rarely make important decisions without consulting other people.						
9.	I postpone decision making whenever possible.						
10.	I often make decisions on the spur of the moment.						
11.	My decision making requires careful thought.						
12.	When I make a decision, it is more important for me to feel the decision is right than to have a rational reason for it.						
13.	If I have the support of others, it is easier for me to make important decisions.						
14.	I often procrastinate when it comes to making important decisions.						
15.	I make quick decisions.						
16.	When making a decision, I consider various options in terms of a specific goal.						
17.	I generally make decisions that feel right to me.						
18.	I use the advice of other people in making my important decisions.						
19.	I generally make important decisions at the last minute.						
20.	I often make impulsive decisions.						
21.	I usually have a rational basis for making a decision.						
22.	When I make a decision, I trust my inner feelings and reactions.						
23.	I like to have someone to steer me in the right direction when I am faced with important decisions.						
24.	I put off making many decisions because thinking about them makes me uneasy.						
25.	When making decisions, I do what seems natural at the moment.						

Appendix E

Order Maintenance Vignettes

Directions: As a police officer in the following order maintenance encounters (e.g., loitering, public intoxication, aggressive panhandling, noise complaints, etc.), choose your level of agreement with each decision statement that follows. There are no right or wrong answers, this is your perspective.

Vignette 1: The person in front of you is accused of walking into the grocery store, placing their belongings in a shopping cart, and then taking the cart off store property. The store manager tells you the person refused to return the cart when asked and angrily shouted that the cart is needed and the store would not miss one.

	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Slightly Agree	5 Agree	6 Strongly Disagree
I would make this decision in a logical and systematic way.						
When making this decision, I would rely on my instincts.						
I would need the assistance of other people when making this important decision.						
I would avoid making this important decision until the pressure is on.						
I would make a quick decision.						

Vignette 2: Standing before you is a group of neighborhood residents who tell you that a neighbor has been playing loud music from a car in the driveway of a home all day and night. They report the smell of marijuana and loud talking coming from the car, and liquor bottles strwn across the lawn. Occupants of the care are being verbally aggressive to neighbors in response to their complaints to you.

	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Slightly Agree	5 Agree	6 Strongly Disagree
I would make this decision in a logical and systematic way.						
When making this decision, I would rely on my instincts.						
I would need the assistance of other people when making this important decision.						
I would avoid making this important decision until the pressure is on.						
I would make a quick decision.						

Vignette 3: You observe a person looking into vehicles and pulling on car door handles in a parking structure, accompanied by another person you observe standing in front of each vehicle, look around the area as they move from car to car together.

	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Slightly Agree	5 Agree	6 Strongly Disagree
I would make this decision in a logical and systematic way.						
When making this decision, I would rely on my instincts.						
I would need the assistance of other people when making this important decision.						
I would avoid making this important decision until the pressure is on.						
I would make a quick decision.						

Appendix F

Demographic Survey

Gender

- ☐ 1. Male
- ☐ 2. Female
- ☐ 3. Other _____
- ☐ 4. Prefer not to say

Race (Check all that apply)

- ☐ American Indian/Alaska Native
- ☐ Asian
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ Black/African American
- ☐ Hispanic
- ☐ 6. White
- ☐ 7. Other

Years of Police Experience

Describe the community you serve(d) as a police officer

- ☐ Urban
- ☐ Somewhat Urban
- ☐ Rural
- ☐ Somewhat Rural
- ☐ Suburban
- ☐ Somewhat Suburban

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