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# Changes in Big Five Personality Characteristics During Law Enforcement Academy Training

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**CHANGES IN BIG 5 PERSONALITY CHARACTERISTICS DURING LAW**

**ENFORCEMENT ACADEMY TRAINING**

A Master's Thesis

Presented to

The Graduate College of

Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Clinical Psychology

By

Randi Alise Mitchell

May 2021

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**ABSTRACT**

Personality is considered a relatively stable construct. However, research indicates personality is more malleable when facing adverse life events and as an individual ages across the lifespan. Some research suggests personality could be used to predict performance. The current study seeks to examine changes in personality characteristics following law enforcement academy completion. Given the demands of a job in law enforcement, one would expect certain changes to occur. The law enforcement academy curriculum includes topics such as, justification-use-of-force, confessions, and arrests, in the first week alone. The curriculum reflects the reality law enforcement professionals will face. It is a dangerous and stressful job. Participants include cadets from a University based law enforcement academy located in a mid-sized midwestern town. As part of a larger study examining the relationship between law enforcement graduates/probationary officers and field training officers, cadets in the law enforcement academy were administered several instruments at the start of their training and immediately prior to graduation.  These included a demographic survey (gender, age, ethnicity, and education), the Shipley Institute of Living Scale-2, and the NEO Personality Inventory-3. We hypothesized there will be changes in personality traits and facets associated with academy training, particularly in the areas of agreeableness and extraversion.

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Approved:

Paul Deal, Ph.D., Thesis Committee Chair

Steven Capps, Ph.D., Committee Member

Michael Suttmoeller, Ph.D., Committee Member

In the interest of academic freedom and the principle of free speech, approval of this thesis indicates the format is acceptable and meets the academic criteria for the discipline as determined by the faculty that constitute the thesis committee. The content and views expressed in this thesis are those of the student-scholar and are not endorsed by Missouri State University, its Graduate College, or its employees.

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# INTRODUCTION

Personality is the combination of an individuals' characteristics, the way an individual thinks, and the behaviors of the individual. The Big Five categorizes personality as consisting of five major dimensions: neuroticism, extraversion, openness, agreeableness, and conscientiousness. Additionally, the NEO PI-3 breaks down the Big Five into distinct facet scores within each domain. Neuroticism includes the facets of anxiety, angry hostility, depression, self-consciousness, impulsiveness, and vulnerability. Extraversion's facets include warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotion. Openness includes facets fantasy, aesthetics, feelings, actions, ideas, and values. Agreeableness includes the facets trust, straightforwardness, altruism, compliance, modesty, and tinder-mindedness. Conscientiousness includes the facets competence, order, dutifulness, achievement striving, self-discipline, and deliberation (Russin et al., 2017).

# LITERATURE REVIEW

## Personality Stability

Personality generally is considered to be relatively stable over an individual's lifespan. Disagreement exists, however, over the extent and context of such stability (Lewis, 2001; McCrae et al., 2000). Several researchers have conducted longitudinal studies examining the stability of the "Big Five" personality characteristics over varying periods of time (Hampson & Goldberg, 2006; Borghuis et al., 2017; Wortman et al., 2012), ranging from 4 to 50 years. Results from these studies have demonstrated inconsistent findings, suggesting both stability and malleability. Wortman and colleagues (2012) stated, "these findings help to underscore the point that personality traits are never set in stone…" (p. 872).

Additionally, research indicates personality changes are more common later in an individual's life. These changes include declines in neuroticism across the lifespan, declines in openness are more prominent after age 50, and increases in conscientiousness and agreeableness as an individual ages (Wortman et al., 2012). Interestingly, Hampson and Goldberg found personality stability over 40 years was the highest for the extraversion domain, followed by conscientiousness, openness, agreeableness, and neuroticism, suggesting that neuroticism was the least stable personality factor (2006). People adapt and grow over time, leading to increases in conscientiousness, and decreases in neuroticism. As an individual ages, they have a tendency to become more agreeable, responsible, and emotionally stable (Hampson & Goldberg, 2006).

Research also suggests personality changes may appear in association with specific intervening events. A study conducted by Lockenhoff and colleagues (2009) examined the impact of "adverse life events" on Big Five personality characteristics. Results from this study

suggest individuals reporting a major life situation perceived as "horrifying or frightening" demonstrated changes in neuroticism, openness and agreeableness. The adverse life events discussed in the study involved loss of a job, separation, divorce, and loss of a family member. Furthermore, individuals who reported experiencing an adverse life event showed an increase in their tendency to experience negative affect (with emphasis on anger and hostility) and were less likely to cooperate and de-escalate in interpersonal conflict situations (Lockenhoff et al., 2009). Extraversion and conscientiousness appeared to assist the participants in coping with the events. For example, those who scored high in these two domains had more favorable trajectories after the self-reported event.

Another study found changes in the personality trait of Openness was associated with cognitive training for older adults (Jackson et al., 2012). In the study, participants completed a 16-week program designed to improve inductive reasoning and associated health benefits. This was a home-based intervention involving two components, a training program and puzzles that focus on inductive reasoning. Jackson et al. (2012) noted "…the cognitive intervention had an effect above and beyond increasing inductive reasoning, suggesting that the intervention affects levels of openness, not that openness changes as a result of changes in inductive reasoning" (p. 290). Furthermore, increased levels of openness contributed to sustained enjoyment in intellectually stimulating mental activities, better health, and decreased risk of mortality (Jackson et al., 2012). The intervention in this study was designed to enhance specific cognitive skills in the participants and associated gains in openness.

**Socialization in Law Enforcement**

Borghius and colleagues suggested co-development, or the tendency for groups to show interrelated development on a trait in adolescence, has the ability to change one's personality significantly because of social connectedness. However, findings indicate personality changes were due to maturation and cohort effects did not influence these changes significantly (Borghuis, et al., 2017).

Likewise, Codevelopment Theory suggests those who are in close social relationships tend to mimic one another in personality characteristics. Dyad or group members tend to become more similar over time, due to their connectedness. As individuals within dyads or groups change so does the dynamics of the group and the personality of other members. Personality trait changes likely occur in response to social learning processes, where individuals watch and imitate one another's personality expressions. The individuals within these groups are reinforced by one another. The more time individuals spend together, the more they are likely to develop similar personality characteristics (Borghuis, et al., 2017).

Cadets undergo a process of socialization while attending the police academy. As a consequence of this socialization, cadet performance may be influenced more by the culture of the law enforcement rather than an individual's personality traits. This highlights the importance of the socialization process for the individual officer as well as the department (Hensen et al., 2010). The police academy attempts to alter cadet attitudes, by creating a unified belief system for, and in, law enforcement (Westley, 1970). Additionally, law enforcement officers consider themselves a part of a "brotherhood" of policemen, believing they should not speak to anyone else about police matters. They are concerned with the danger of the job and the need for cooperation if they are to survive (Westley, 1970). The academy is the first contact a cadet has

with the police force regarding their development of their perspectives on police work (Westley, 1970).

Additionally, police departments in North America utilize a paramilitary style that is bureaucratic in nature. The paramilitary style fosters a mentality that places law enforcement in opposition to citizens (us verse them). In addition, cadets are subjected to a socialization process that seeks to prepare them for the realities of their profession (Chappell & Lanza- Kaduce, 2010). Cadets go through trainings jointly as a cohort incorporating areas of physical performance, performance under stress, defensive tactics, weapons, and use of force. Chappell and Lanza-Kaduce (2010) state, "because new police recruits tend to be young and impressionable, the academy is able to mold them to accept the organizational culture" (p. 189). Although there remain significant personal differences, individuals implement the unified views and characterizations of the department (Chappell et al., 2005).

In addition to the use of a paramilitary style, the academy teaches cadets the culture of those in law enforcement. The police subculture is introduced to new recruits during the initial stage at the police academy. The police academy teaches police subculture through the use of "war stories" given by class instructors (Chappell et al., 2005). Due to classes being taught by other law enforcement officers, this subculture is further ingrained in the new cadet. Furthermore, the 'police personality is taught to new recruits and is characterized by secrecy, isolation, and cynicism (Chappell et al., 2005, p. 76). "Trainees learn the importance of group cohesion and solidarity; they are punished and rewarded as a group" (Chappell et al., 2005, p. 83). Given the reality that police academy training has not changed substantially since 1986, socialization into the police subculture remains an important aspect of the hidden curriculum (Haarr, 2001).

The socialization of law enforcement personnel alters the attitudes of individual cadets. Haarr found that police recruits' attitudes differed significantly prior to the academy from the attitudes of personnel exiting the academy (2001). Additionally, Haarr found that attitudes continued to change after the academy and upon completing field training (2001). The unofficial culture of law enforcement may be as influential in shaping individual attitudes and skills as the individual characteristics of the police cadet/officer (Haarr, 2001).

**Personality as a Predictor**

In a study examining ways to predict superior performance of officers, White (2008) found in his research officers who are well prepared for street duty are more likely to take initiative and engage in positive behavior. Cadets who had higher scores on values from the openness domain, and lower excitement-seeking scores from the extraversion domain, had better academic performance (Detrick et al., 2004). Additionally, White (2008) found lower scores on anxiety from the neuroticism domain was a significant predictor of increased firearm performance. Individuals who scored lower on deliberation from the conscientiousness domain, lower scores on fantasy from the openness domain, and higher scores on activity from the extraversion domain displayed better physical performance. Absenteeism was predicted by lower scores on self-consciousness from the neuroticism domain. Finally, individuals who were either removed or dropped out of the academy reported significantly higher scores on depression, impulsiveness, and vulnerability from the neuroticism domain and lower scores on competence from the conscientiousness domain, than individuals who successfully completed the training. These results suggest different facets and factors of the "Big 5" personality may be related to different aspect of law enforcement performance (White, 2008).

**Current Study**

The time frame for this study lasted between four and six months. It involved a very specific sample of law enforcement academy (LEA) cadets.  As part of a larger, prospective study examining LEA graduates and field training officers, this study examines if academy training is associated with changes in personality domains or facets. The objectives are very different for cadets training for a career in law enforcement than other fields. For example, the curriculum for an LEA includes topics such as "Use of Force," "Restraining Offenses," and "Dealing with Aggressive Behavior."  We hypothesize there will be changes in personality domains and facets associated with academy training, particularly in the areas of agreeableness and extraversion.  The LEA curriculum includes in the first week alone topics such as "confessions," "arrest," and "justification-use of force."  There are classes on "post-traumatic stress" and "career survival," but those are in the minority.  The LEA curriculum reflects the reality of law enforcement in today's society, a dangerous and stressful job.

**Hypotheses**

On the basis of previous research regarding stability of personality characteristics and the potential for change as a result of intervening events, we propose that (1) individuals' score from the Agreeableness domain will change from time one to time two, (2) individuals' score from the Extraversion domain will change from time one to time two, and (3) individuals' score from the Openness domain will change from time one to time two, or at the end of academy training relative to the beginning. We hypothesized there will be changes in personality traits and facets associated with academy training, particularly in the areas of Openness, Agreeableness and Extraversion.

Personality trait changes are more common later in an individual's life. However, adverse life events can alter areas in Neuroticism, Openness, and Agreeableness. Although cadets might not experience adverse life events, the curriculum aspects of a career in law enforcement not typically found in other vocations, includes topics such as justification-use of force. This class alone could impact an individual's tendency to experience negative affect, leading to a lessened ability to cooperate and deescalate interpersonal conflict situations (Lockenhoff et al., 2009). Additionally, academy training utilizes a cohort model where the cadets attend to equivocal curriculum. Co-development suggests individuals within groups imitate one another's personality. Members are likely to become similar in personality characteristics the longer they are around each other. Data are equivocal, however as some results indicate co-development, or cohort effects did not significantly impact personality (Borghuis, et al., 2017). Finally, cadets are consistently exposed to cognitively stimulating situations and material. Cognitive training has been associated with an increase in the domain score of Openness in at least one study (Jackson et al., 2012).

**METHODS**

**Participants**

Participants included cadets from the Drury Law Enforcement Academy (LEA), approximately 50 full-time students per year. For this study there were 427 cadets (351 males, 66 females, and ten unspecified) in training at a local law enforcement academy ranging in age from 20 to 55 (M = 26.4, SD = 7).  The majority of participants were white 89.9% (n = 384), with the remaining 2.1% Hispanic (n = 9), 1.2% African American (n = 6), .7% Asian American (n = 3), 1.2% Native American (n = 5), and 1.6% two or more ethnic groups (n = 7).  The majority (69.6%, n = 297) reported some college including Associates, Bachelor's and Master's degrees.

**Procedures**

In stage one, newly admitted cadets were administered the study evaluation packet within three to four weeks of starting the academy. The proposal to the Missouri State University Human Participants Institutional Review Board was approved (Appendix A). Students completed the instruments in a conference room with approximately two to three cadets per table. The cadets were given a large manila folder with an ID number on the front. The manila folder consisted of pencils, an informed consent (Appendix B), a demographic survey sheet (Appendix C), the NEO Personality Inventory-3 (Appendix D), and the Shipley Institute of Living Scale-2 (Appendix E). All forms had the ID number written on the top right corner. The cadets were asked to review the informed consent form and had their questions answered.

For this study, IDs were randomly assigned to each of the cadets. A roster of the cadets' names and their ID numbers are be kept separately from study data in a locked file cabinet in the office of the Primary Investigator.

In stage two, cadets were re-administered the NEO PI-3. Results from the pre- and post-testing were compared to assess any changes in specific facets or factors of personality associated with academy completion.

## Measurements and Setting

As part of a larger study examining the "fit" or "match" between law enforcement graduates / probationary officers and field training officers, cadets in the law enforcement academy were administered several instruments at the start of their training and immediately prior to graduation.  These included a demographic survey (gender, age, ethnicity, and education), the NEO Personality Inventory-3, and the Shipley Institute of Living Scale-2.

The NEO Personality Inventory-3 (NEO PI 3) is a 240-item instrument based on the Five-Factor Model of personality, Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. Additionally, the measure assesses six facets within each domain and provides a systematic assessment of emotional, interpersonal, experiential, attitudinal, and motivational styles within the broad domains and narrow facet scores (Appendix D). Norms are available for males and females aged 12 to 99.  Responses are endorsed on a five-point scale and range from "strongly agree" to "strongly disagree."  Raw scores are converted to t scores (mean = 50, standard deviation =10).

The Shipley Institute of Living Scale-2 (SILS-2) is a brief measure of both crystallized and fluid cognitive ability, producing an approximation of overall cognitive functioning and

impairment. Norms are available for males and females aged 7 to 89. The SILS-2 consists of a multiple-choice vocabulary section and an abstract reasoning section (Appendix E). The vocabulary section consists of 40 multiple-choice items requiring participants to select the one word out of four choices that is closest in meaning to a target word. The abstract reasoning section consists of 25 items requiring participants to determine solutions for abstract verbal and arithmetic problem.

**RESULTS**

Of the 427 original participants 3.5% (n = 15) were removed due to missing data from time one, 9.6% (n= 41) were removed due to missing data from time two, 0.5% (n = 2) dropped before time two, and 0.2% (n = 1) were absent during time two, leaving 86% (n = 368) of participants who participated in both testing times. Of the 368 participants, 71.7% (n = 306) were male, 13.3% (n = 57) were female, and 1.2% (n = 5) did not identify their gender. Additionally, the majority (18.2%, n = 334) identified as white, 1.4% (n = 6) as African American/Black, 1.9% (n = 8) as Hispanics/Latino(a), 0.7% (n = 3) as Asian American, 1.2% (n = 5) as Native American, 1.4% (n = 6) as two or more ethnicities, and 1.4% (n = 6) did not provide an answer (Table 1). The statistical program Jamovi was used for all analyses in this study.

Table 1. Ethnicity of LEA Cadets

| Ethnicity | Identification |
| --- | --- |
| White | 334 |
| African American/Black | 6 |
| Hispanic/Latino(a) | 8 |
| Asian American | 3 |
| Native American | 5 |
| Two or more | 6 |

A Reliability Analysis was used to assess whether the latent variables consistently measure the construct they are supposed to measure. A Reliability Analysis checks how well the items load on to each personality factor. Internal reliability of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness was investigated using Cronbach's alpha.

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Results revealed that the alpha for each factor were as follows, the Neuroticism scale was equal to .863, the Extraversion scale was .615 after the removal of E4, the Openness scale was equal to .692, the Agreeableness scale was equal to .676, and the Conscientiousness scale was equal .83. An alpha of .6 to .7 is considered acceptable internal consistency and an alpha of .8 to .9 is considered good internal consistency. E4 (energy level and pace of life) was removed from the analysis due to the negative correlation with the Extraversion domain, causing a lack of internal consistency.

To test the hypothesis, we conducted an ANOVA to compare personality domains at time one (start of the academy) and time two (immediately prior completion of the academy) (Table 2). An ANOVA indicated a significant difference in Openness ($F(1,733.7) = 6.541$, $p = .0107$) and Agreeableness ($F(1,731.2) = 4.601$, $p = .0323$) from time one to time 2 assessment (Table 3). Specifically, the O2 aesthetics ($F(1,733.8) = 6.518$, $p = .0109$) and O4 actions ($F(1,733.7) = 10.636$, $p = .0012$) facet scores from the Openness domain decreased significantly upon completion of the academy from scores entering the academy. Although Extraversion did not yield significant results, the facet scores E1 warmth ($F(1,731.9) = 4.582$, $p = .0326$), E6 positive emotions ($F(1,734.0) = 4.294$, $p = .0386$), and E2 gregariousness ($F(1,730.7) = 5.445$, $p = .0199$) differed significantly between time one and time two (Table 4).

Table 2. Descriptive Statistics for Factor Scores

|  | Time | N | Mean | SD | SE |
|---|---|---|---|---|---|
| Neuroticism | Entering Academy | 368 | 46.101 | 11.773 | 0.614 |
|  | Completion of Academy | 368 | 46.087 | 10.664 | 0.556 |
| Extraversion | Entering Academy | 368 | 55.117 | 10.239 | 0.534 |
|  | Completion of Academy | 368 | 53.707 | 11.177 | 0.583 |
| Openness* | Entering Academy | 368 | 52.891 | 10.396 | 0.542 |
|  | Completion of Academy | 368 | 50.910 | 10.615 | 0.553 |
| Agreeableness* | Entering Academy | 368 | 47.674 | 9.071 | 0.473 |
|  | Completion of Academy | 368 | 46.193 | 9.651 | 0.503 |
| Contentiousness | Entering Academy | 368 | 55.959 | 10.322 | 0.538 |
|  | Completion of Academy | 368 | 54.976 | 10.616 | 0.553 |

*Note.* * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3. ANOVA Changes in Domain Factor Scores

|  | F | df1 | df2 | p |
|---|---|---|---|---|
| Neuroticism | 2.692e-4 | 1 | 726.932 | 0.9869 |
| Extraversion | 3.186 | 1 | 728.435 | 0.0747 |
| Openness | 6.541 | 1 | 733.682 | 0.0107 |
| Agreeableness | 4.601 | 1 | 731.202 | 0.0323 |
| Contentiousness | 1.624 | 1 | 733.423 | 0.2029 |

Table 4. Descriptive Statistics for Facet Scores

| Facet | Time | N | Mean | SD | SE |
|---|---|---|---|---|---|
| N1 | Entering Academy | 368 | 48.723 | 10.532 | 0.549 |
| | Completion of Academy | 368 | 48.948 | 9.884 | 0.515 |
| N2 | Entering Academy | 368 | 46.617 | 10.651 | 0.555 |
| | Completion of Academy | 368 | 46.432 | 10.187 | 0.531 |
| N3 | Entering Academy | 368 | 48.106 | 10.931 | 0.57 |
| | Completion of Academy | 368 | 47.617 | 10.571 | 0.551 |
| N4 | Entering Academy | 368 | 48.788 | 11.342 | 0.591 |
| | Completion of Academy | 368 | 48.207 | 11.323 | 0.59 |
| N5 | Entering Academy | 368 | 45.984 | 11.264 | 0.587 |
| | Completion of Academy | 368 | 45.462 | 10.663 | 0.556 |
| N6 | Entering Academy | 368 | 43.693 | 9.447 | 0.492 |
| | Completion of Academy | 368 | 44.535 | 9.873 | 0.515 |
| E1 | Entering Academy | 368 | 52.209 | 10.655 | 0.555 |
| | Completion of Academy | 368 | 50.571 | 10.104 | 0.527 |
| E2 | Entering Academy | 368 | 50.337 | 11.733 | 0.612 |
| | Completion of Academy | 368 | 48.383 | 10.97 | 0.572 |
| E3 | Entering Academy | 368 | 56.53 | 9.714 | 0.506 |
| | Completion of Academy | 368 | 55.467 | 9.768 | 0.509 |
| E5 | Entering Academy | 368 | 58 | 8.1 | 0.422 |
| | Completion of Academy | 368 | 57.478 | 8.089 | 0.422 |
| E6 | Entering Academy | 368 | 52.516 | 11.701 | 0.61 |
| | Completion of Academy | 368 | 50.731 | 11.674 | 0.609 |
| O1 | Entering Academy | 368 | 51.288 | 11.33 | 0.591 |
| | Completion of Academy | 368 | 50.905 | 12.242 | 0.638 |
| O2 | Entering Academy | 368 | 49.432 | 11.045 | 0.576 |
| | Completion of Academy | 368 | 47.337 | 11.217 | 0.585 |
| O3 | Entering Academy | 368 | 49.905 | 11.863 | 0.618 |
| | Completion of Academy | 368 | 48.899 | 12.276 | 0.64 |
| O4 | Entering Academy | 368 | 53.497 | 10.641 | 0.555 |
| | Completion of Academy | 368 | 50.965 | 10.426 | 0.543 |
| O5 | Entering Academy | 368 | 55.823 | 10.136 | 0.528 |
| | Completion of Academy | 368 | 54.554 | 10.231 | 0.533 |
| O6 | Entering Academy | 368 | 52.258 | 9.834 | 0.513 |
| | Completion of Academy | 368 | 51.082 | 9.811 | 0.511 |

| Facet | Time | N | Mean | SD | SE |
|-------|------|---|------|-----|-----|
| A1 | Entering Academy | 368 | 43.011 | 10.922 | 0.569 |
|    | Completion of Academy | 368 | 41.614 | 11.614 | 0.605 |
| A2 | Entering Academy | 368 | 47.755 | 9.14 | 0.476 |
|    | Completion of Academy | 368 | 47.141 | 9.005 | 0.469 |
| A3 | Entering Academy | 368 | 53.09 | 9.756 | 0.509 |
|    | Completion of Academy | 368 | 51.696 | 10.067 | 0.525 |
| A4 | Entering Academy | 368 | 46.503 | 9.241 | 0.482 |
|    | Completion of Academy | 368 | 45.685 | 8.736 | 0.455 |
| A5 | Entering Academy | 368 | 50.603 | 10.643 | 0.555 |
|    | Completion of Academy | 368 | 50.033 | 10.792 | 0.563 |
| A6 | Entering Academy | 368 | 49.19 | 10.711 | 0.558 |
|    | Completion of Academy | 368 | 47.861 | 10.83 | 0.565 |
| C1 | Entering Academy | 368 | 54.652 | 9.807 | 0.511 |
|    | Completion of Academy | 368 | 54.079 | 9.582 | 0.499 |
| C2 | Entering Academy | 368 | 52.28 | 10.922 | 0.569 |
|    | Completion of Academy | 368 | 51.625 | 10.334 | 0.539 |
| C3 | Entering Academy | 368 | 55.245 | 9.669 | 0.504 |
|    | Completion of Academy | 368 | 54.766 | 9.236 | 0.481 |
| C4 | Entering Academy | 368 | 58.837 | 9.593 | 0.5 |
|    | Completion of Academy | 368 | 58.155 | 9.427 | 0.491 |
| C5 | Entering Academy | 368 | 55.008 | 9.509 | 0.496 |
|    | Completion of Academy | 368 | 54.625 | 9.976 | 0.52 |
| C6 | Entering Academy | 368 | 50.209 | 10.283 | 0.536 |
|    | Completion of Academy | 368 | 49.595 | 10.033 | 0.523 |

*Note.* * p < .05, ** p < .01, *** p < .001

**DISCUSSION**

Personality is considered a relatively stable construct. At the same time there is evidence to suggest some malleability. Previous research suggests personality changes are more common later in an individual's life, with decreases in neuroticism and openness and increases in conscientiousness and agreeableness (Wortman et al., 2012). Additionally, research suggests experiencing adverse life events lead to changes in neuroticism, openness and agreeableness. Specifically, these events were shown to increase a tendency to experience negative affect (with emphasis on anger and hostility) and be less likely to cooperate and de-escalate in interpersonal conflict situations (Lockenhoff et al., 2009). Furthermore, research revealed changes in the personality trait of Openness is associated with cognitive training for older adults (Jackson et al., 2012).

There were statistically significant differences in the scores of Openness and Agreeableness. Neuroticism and Conscientiousness did not differ significantly upon completion of the academy from scores entering the academy. Extraversion did not decrease significantly upon completion of the academy relative to the score when entering. However, the areas of gregariousness (preference for the company of others), warmth, and positive emotions from the Extraversion domain decreased significantly. Decreases in the facet scores from the Extraversion domain indicate the cadets become less interested with other people and more focused on oneself, becoming more reserved. Results suggest cadets tend to become more reserved and selective with their interpersonal relationships. This finding is consistent with previous research highlighting the socialization process of law enforcement. The academy attempts to alter the personality of its cadets in order to create a unified belief system (Westley, 1970). One would

expect law enforcement to become less interested in those outside their ingroup and more unified with those in law enforcement. Additionally, the belief that one should not discuss matters with those not belonging to law enforcement contributes to this decrease in Extraversion.

Additionally, Openness decreased significantly upon completion of the academy relative to the score when entering, specifically in the areas of aesthetics and actions. Decreases in Openness are associated with more factual thinking, less emotional expressions, and less interests in the appreciation for art and beauty. Results suggest individuals become less willing to try different activities, consider new ideas less, and become less open-minded. Adverse life events have been found to negatively impact personality, specifically in the Openness domain (Lockenhoff et al., 2009). As cadets learn about the demands of the job by the use of "war stories", they are likely to become more isolated and less openminded (Chappell et al., 2005). They will likely be skeptical when experiencing new situations and are taught to be alert at all times. Psychologically taxing situations evoke a trauma response, which carries long term personality changes.

Finally, Agreeableness decreased significantly when individuals completed the academy in relation to their scores entering the academy. Decreases in Agreeableness indicates the individual becomes less empathetic and puts their needs ahead of others. Their tendency towards selflessness, interpersonal motivation, and concern for others decreases. Results suggests they are less trusting of others and their outlook on others becomes more critical. As cadets learn about the realities of a job in law enforcement, they become more cynical of others outside the precinct. They are likely to view them as untrustworthy and as a possible threat (Westley, 1970; Chappell & Lanza-Kaduce, 2010). Instructors educate cadets based upon combined experience and may highlight particularly threatening situations. Due to the life-threatening nature of a

career in law enforcement, one would expect an officer to place their needs ahead of others. Law enforcement personnel are exposed to situation that could be fatal, especially if they are not aware of their surroundings.

**Implications**

Altering one's personality may be beneficial for those in law enforcement careers. Creating a unified belief system that fosters an attitude of police brotherhood requires individuals to abandoned once held beliefs (Westley, 1970). The movement to defund the police and increased violence on law enforcement creates a more hostile work environment for those in this career field. An officer will need to trust and rely on other law enforcement in order to carry out the necessary duties as secure and safe as possible. When an officer enters the community in uniform it is difficult to predict whether their life is in danger. A decrease in trust is an understandable consequence to the lack of predictability and uncertainty one faces in this profession. Law enforcement become less trusting and more reserved as a way to protect themselves and their coworkers.

Unfortunately, this altered personality may further drive a wedge between law enforcement and the community, creating a more dangerous atmosphere. The mentality that places citizens and law enforcement against one another, divides our communities, cities, and our nation. The stress and dangers surrounding a career in law enforcement creates a cycle of less trust and more disunification. The Community Oriented Policing Services (COPS) model may prove more beneficial for law enforcement and the community. COPS seeks to educate the community while establishing a relationship between it and law enforcement. The community thus becomes allies instead of antagonists to law enforcement personnel (Diehr & McDaniel,

2018). While there are reasons for creating a wedge between law enforcement and citizens, there are equal reasons for unifying them. For the protection of citizens and law enforcement, it is essential to increase communication and coherence.

**Limitations**

Unfortunately, our sample consisted of LEA cadets from one academy in central Missouri causing our study to lack generalizability. For future research, it would be beneficial to implement this study at other Law Enforcement Academies across the United States. Due to the lack of research on this topic, there is little relevant information to assist in laying out the foundation for understanding the proposed hypothesis.

<div align="center">**REFERENCES**</div>

Borghuis, J., Denissen, J. J. A., Sijtsma, K., Branje, S., Oberski, D., Meeus, W. H. J., Koot, H. M., & Bleidorn, W. (2017). Big Five personality stability, change, and codevelopment across adolescence and early adulthood. *Journal of Personality and Social Psychology*, 113, 641-657. https://www.researchgate.net/publication/314198306_Big_Five_Personality_Stability_Change_and_Codevelopment_Across_Adolescence_and_Early_Adulthood/link/58db4a3a45 851578dfee7273/download

Chappell, A. T., & Lanza-Kaduce, L. (2010). Police academy socialization: Understanding the lessons learned in a paramilitary-bureaucratic organization. *Journal of Contemporary Ethnography, 39*(2). 187-214. doi: 10.1177/0891241609342230

Chappell, A. T., Lanza-Kaduce, L., & Johnston, D. H. (2005). Law enforcement training changes and challenges. In Dunham, R. G., & Alpert, G. P. *Critical issues in policing: Contemporary reading* (5th ed.). Waveland Press, Inc.

Detrick, P., Chibnall, J. T., & Luebbert, M. C. (2004). The revised NEO personality inventory as predictor of police academy performance. *Criminal Justice and Behavior, 31*(6), 676–694. doi: 10.1177/0093854804268751

Diehr, A. J., & McDaniel, J. T. (2018). Lack of community-oriented policing practices partially mediates the relationship between racial residential segregation and "black-on-black" homicide rates. Preventive Medicine: An International Journal Devoted to Practice and Theory, 112, 179–184. https://doi.org/10.1016/j.ypmed.2018.04.032

Haarr, R. N. (2001). The making of a community policing officer: The impact of basic training and occupational socialization on police recruits. *Police Quarterly, 4*(4), 402-433. https://doi.org/10.1177%2F109861101129197923

Hampson, S. E., & Goldberg, L. R. (2006). A first large cohort study of personality trait stability over the 40 years between elementary school and midlife. *Journal of Personality and Social Psychology, 91*(4), 763-779. doi: 10.1037/0022-3514.91.4.763

Henson, B., Reyns, B. W., Klahm, C. F., Frank, J. (2010). Do good recruits make good cops? Problems predicting and measuring academy and street-level success. *Police Quarterly, 13*(1), 5-26. https://doi.org/10.1177%2F1098611109357320

Jackson, J. J., Hill, P. L., Payne, B. R., Roberts, B. W., & Stine-Morrow, E. A. L. (2012). Can an old dog learn (and want to experience) new tricks? Cognitive training increases openness to experience in older adults. *Psychology and Aging, 27* (2), 286-292. doi: 10.1037/a0025918

Lewis, M. (2001). Issues in the study of personality development. *Psychological Inquiry, 12*(2), 67–83. https://psycnet.apa.org/doi/10.1207/S15327965PLI1202_02

Löckenhoff, C. E., Terracciano, A., Patriciu, N. S., Eaton, W. W., & Costa, P. T., Jr. (2009). Self-reported extremely adverse life events and longitudinal changes in Five-Factor Model personality traits in an urban sample. *Journal of Traumatic Stress, 22*(1), 53–59. https://doi-org.proxy.missouristate.edu/10.1002/jts.20385

McCrae, R. R., Costa, P. T., Hřebíčkově, M., Ostendorf, F., Angleitner, A., Avia, M. D., Sanz, J., Sánchez-Bernardos, M. L., Kusdil, M. E., Woodfield, R., Saunders, P. R., & Smith, P. B. (2000). Nature over nurture: Temperament, personality, and life span development. *Journal of Personality and Social Psychology*, *78*(1), 173–186. doi.org/10.1037/0022-3514.78.1.173

Russin, S., Elleman L. G., & Condon, D. M. (2017). The NEO personality inventory. *The SAPA Project.* https://www.sapa-project.org/blogs/NEOmodel.html

Westley, W. A. (1970*). Violence and the police: A sociological study of law, custom, and morality* (pp. 154-190). Massachusetts Institute of Technology Press.

White, M. D. (2008). Identifying Good Cops Early. *Police Quarterly, 11*(1), 27–49. doi: 10.1177/1098611107309625

Wortman, J., Lucas, R. E., & Donnellan, M. B. (2012).  Stability and change in the Big Five personality domains: Evidence from a longitudinal study of Australians.  *Psychology and Aging, 27*(4), 867-874.  doi: 10.1037/a0029322

**APPENDICES**

## Appendix A: Human Subjects IRB Exemption

IRB #: IRB-FY2021-60
Title: Changes in Big 5 Personality Characteristics During Law Enforcement Academy Training
Creation Date: 8-9-2020
End Date:
Status: Approved
Principal Investigator: William Deal
Review Board: MSU
Sponsor:

## Study History

| Submission Type | Initial | Review Type | Exempt | Decision | No Human Subjects Research |
|---|---|---|---|---|---|

## Key Study Contacts

| Member | Role | Contact |
|---|---|---|
| Steven Capps | Co-Principal Investigator | stevencapps@missouristate.edu |
| Michael Suttmoeller | Co-Principal Investigator | msuttmoeller@missouristate.edu |
| William Deal | Principal Investigator | pauldeal@missouristate.edu |
| Randi Mitchell | Primary Contact | randi0903@live.missouristate.edu |

# Appendix B: Informed Consent Form



**Missouri State University**
**Informed Consent Form**

**Title:** Drury Law Enforcement Academy: Predictors of Retention and Performance

**Investigators:**
Paul Deal, Ph.D.
Department of Psychology
Missouri State University
Springfield, MO  65897
417.836.4790
pauldeal@missouristate.edu

**Description:**
We will be investigating the relationship between a number of variables and subsequent performance as a law enforcement agent.  You will be asked to provide information about your current employment and your training experiences.  You will be asked to provide information about your training officer and/or supervisor.  You also will be asked to provide some background information.

**Risks and Benefits:**
You will be asked to complete forms that may cause you to become bored or frustrated.  Some of these forms may include questions you think are invasive or intrusive.  We do not think there are any other risks.  Your involvement may help the Drury Law Enforcement Academy to improve the performance of its graduates.

**Cost and Payments:**
It will take you approximately 120 to 150 minutes to complete the instruments.  Other than your time, it does not cost anything to help with this study.  Following each request for participation (occurring twice per year, once in January and once in June), all participants to date in this project will be entered into a drawing for a $25 gift card per class, to be randomly selected.

**Confidentiality:**
The principal investigator and co-workers are the only individuals who will be able to link your name with your information.  This will be necessary to conduct follow-up data collection.  Results from this study will be presented in the aggregate, that is all together, so that it will not be possible to identify individual participants.

**Right to Withdraw:**
As this data collection is considered not mandatory, your cooperation is not required.  Your honest responses to these questions will be helpful to the Drury Law Enforcement Academy.

**IRB Approval:**
The Missouri State University's Institutional Review Board (IRB) has reviewed this study. The IRB thinks this study meets the requirements of federal law and University policies.  If you have any questions or problems about this study, please contact the Department of Psychology IRB representative, Dr. Leslie Echols, at 417.836.4160.

**Protected Health Information:**
Protected health information is any personal health information through which you can be identified.  The data collected in this study includes: academic performance, personality characteristics, and skills, habits and style.  A decision to participate in this research means that you agree to the use of your health information for the study described in this form.  This information will not be released beyond the purposes of conducting this study.  The information collected for this study will be kept until the study is complete.  While this study is ongoing you may not have access to the research information, but you may request it after the research is completed.

**Statement of Consent:**
I have read the above information.  I have been given a copy of this form.  I have had an opportunity to ask questions, and I have received answers.  I consent to participate in the study.


Signature: _____  Date: _____


Signature of Investigator: _____ Date: _____

# Appendix C: Demographics Survey

**NAME**_____

**ID**_____

**Drury Law Enforcement Academy**
**Demographic Questionnaire**

**Please complete this demographic questionnaire**

1. Gender
   _____Male
   _____Female

2. What is your age?_____

3. What is your ethnicity?
   _____Caucasian/White          _____Asian American
   _____African American/Black   _____Native American
   _____Hispanic/Latino(a)       _____Of two or more ethnic groups
   _____Other _____

4. Did you receive:
   _____A high school diploma
   _____A GED

5. What is the highest level of education you have completed?
   _____High School
   _____Some college
   _____Associate's Degree
   _____Bachelor's Degree
   _____Master's Degree or Higher

6. Email address:_____

# Appendix D: NEO Personality Inventory-3 Description

NEO™ Inventories: NEO™ Personality Inventory-3 (NEO™-PI-3)

**Paul T. Costa, Jr., PhD and Robert R. McCrae, PhD**

Product Overview | Related Products | Technical Information

|  |  |
|---|---|
| **Purpose:** | Obtain a detailed assessment of general personality in adolescents and adults |
| **Age Range:** | 12 to 99 years |
| **Admin:** | Individual or group |
| **Admin Time:** | 35-45 minutes |
| **Qualifications:** | S or B |

The standard inventory measure of the Five-Factor Model, the newest version of the NEO is now applicable to those as young as 12 years.

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**Click here** for pricing.

The NEO-PI-3 is a revision of the Revised NEO Personality Inventory (NEO PI-R™), the standard questionnaire of the FFM. It is a concise measure of the five major domains of personality (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness) and the six facets that define each domain. Taken together, the five domain scales and the 30 facet scales facilitate a comprehensive and detailed assessment of general personality. Its age range has been extended downward, making it appropriate for use with adolescents as young as 12 years. The NEO-PI-3 retains the reliability and validity of the NEO PI-R and features new normative data. Thirty-eight items from the NEO PI-R have been revised or edited to lower the reading level and make the instrument more appropriate for younger examinees or adults with lower educational levels.

The two-part carbonless Hand-Scorable Answer Sheet, usable with either Form S (for self-reports) or Form R (for observer reports), eliminates the need for separate scoring keys or templates. The NEO-PI-3 also can be scored and/or administered electronically using the NEO Software System™.

What's New in the NEO Inventories?

- The Professional Manual addresses the NEO-PI-3 and NEO-FFI-3 as well as the NEO PI-R.
- The NEO-PI-3 includes a downward extension to age 12, making it appropriate for use with adolescents.
- Items have been revised or edited to make them easier to read and more appropriate for younger examinees.
- Separate adolescent (12-20 years) and adult (21 years and older) norms are now available.
- Profile Forms have been made larger and more user-friendly. A separate Profile Form for combined-sex norms is now available; previously, this was available only in the NEO Software System.
- **New!** The NEO Problems in Living Checklist offers additional information about NEO Inventories results and aids clinicians in planning treatment and assessing progress. Spotlighting particular problems individuals may be facing depending on their test outcomes, it is excellent for providing information about client problems, setting goals, and planning interventions.
- **New!** The NEO Style Graph Booklet provides an innovative way to provide feedback to respondents based on their NEO profiles. Each graph shows clients how their particular FFM domain results interact with each other and form different areas of their personality. It is helpful in occupational and clinical settings.
- The Your NEO Summary feedback sheet enables you to give clients a summary of their NEO performance.
- **New!** The NEO Job Profiler helps make hiring decisions by weighing candidate's traits against the qualities needed for success in a given position.

**Appendix E: Shipley Institute of Living Scale-2 Description**
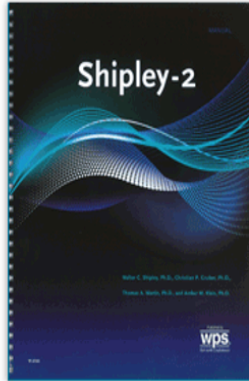
**Shipley-2**
Walter C. Shipley, PhD, Christian P. Gruber, PhD, Thomas A. Martin, PhD, and Amber M. Klein, PhD.

| | |
|---|---|
| **Purpose:** | Quickly measure intellectual functioning and cognitive impairment |
| **Age range:** | 7 to 89 years |
| **Admin:** | Individual or group administration |
| **Admin time:** | 20-25 minutes to administer, 5 minutes to score |
| **Scoring time:** | 5 minutes |
| **Qualification level:** | B |

Scale scores and a Composite score indicate overall cognitive ability.

Revised and restandardized, this enduring test offers a brief yet robust measure of intelligence and includes updated norms, an expanded age range, and a nonverbal Block Patterns scale.

## Get a straightforward and brief measure of intellect

- Like the original, the Shipley-2 measures two aspects of cognition: crystallized knowledge, which is gained through education and experience, and fluid reasoning, the capacity to use logic to learn and acquire new information or solve problems.
- Ideal when you need to obtain quick ability estimates, screen for cognitive dysfunction, or qualify participants for research studies. It also functions well as a component of more complex assessments in neuropsychological, clinical, and forensic settings.
- Use for intake screening, assessing brain injuries, determining eligibility for disability benefits, measuring the effects of toxic exposure, guiding treatment and rehabilitation, informing educational or job placement decisions, identifying cognitive problems, and monitoring cognitive decline.

## Retains simplicity but expands utility

- The new Block Patterns scale, which assesses fluid ability, is composed of 12 multiple-choice items based on the Kohs cube designs and offers a good alternative to the Abstraction scale.
- Norms are stratified by age for children (ages 7-19 years) and adults (ages 17-89 years) and based on a sample of 2,826 individuals representative of the U.S. population in terms of ethnicity, gender, and educational level.
- Optional unlimited-use computer software enables you to administer the Shipley-2 on-screen and rapidly score responses from paper-and-pencil and/ or on-screen administrations.
- Provides standard scores, percentiles, age equivalents, and confidence intervals as well as a Composite score, which is reflective of overall cognitive ability, and the Impairment Index, which represents the discrepancy between vocabulary and abstract thinking and is calculated only for adults.