
The theoretical and methodological problems in the usage of police personality measurement to predict job performance

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The recruitment and assignment procedure of police officers involve the measurement of personality through designated inventories. Despite more than a century of experience and developments, the research and practice on police personality measurement still suffer from three major problems – lack of sound theoretical framework, lack of congruency between the definition of personality traits and police tasks, and poor measurement tools. In this paper, based on the historical development of police personality measurement practices, these three problems and possible solutions are discussed through classical and modern theories in personality psychology. Policy recommendations and directions for future research are presented to remedy these problems.

Keywords: congruency, job analysis, job performance, police personality, specific aptitudes

BACKGROUND

Police officers have a wide range of duties such as collecting evidence, interviewing suspects, victims, and witnesses, preparing investigation reports, and accomplishing other judicial and administrative tasks. In addition, they have to deal with various types of crimes including property crimes, violent crimes, organised crimes, terror crimes, financial crimes, etc. (Ono, Sachau, Deal, Englert, & Taylor, 2011). Each of these tasks might necessitate specific skills, and assigning the suitable officer in each task has a vital role in the success of a police department. If the police organisations can appropriately identify the staff who will be employed in specific tasks, the labour costs and administrative problems can be reduced, and the number of promotable workers and the quality of the service can be increased (Tomini, 1997).

Police personality assessment has been used to examine the relationship between the individual differences among police officers and their job performance in different formats such as performing evaluations in the recruitment process, 'fitness-for-duty' evaluations, and for the mental support to the officers who have psychological troubles (Weiss & Inwald, 2010, p. 5). Research has shown that personality traits and job performance of police officers are significantly related with each other and the job performance of police officers is influenced by their personal dispositions (e.g., Forero, Gallardo-Pujol, Maydeu-Olivares, & Andrés-Pueyo, 2009; Goldberg, 1993; Tomini 1997). Despite this relationship, the measurement tools that were created to predict the job performance of police officers have not provided satisfactory results (Aamodt, 2010; Murphy & Dzieweczynski, 2005).

In this paper, the shortcomings of the current usage of police personality assessment tests in the prediction of police performance will be discussed. Furthermore, the possible ways of developing more useful tools and personality measurements in this particular area will be argued in the light of classical and contemporary theories in personality psychology. In the first section, the use of police personality assessment in police departments will be presented from a historical perspective. In the subsequent three sections, three major problems in the current applications of police personality measurement – the lack of a sound theoretical framework, the need for matching personality characteristics to certain tasks, and the need for effective measures – will be discussed from a policing perspective. Finally, the findings that will be derived from these theoretical and methodological discussions, possible policy implications, and directions for future research will be demonstrated.

Police personality and performance: From a historical perspective

The use of assessment tests in the prediction of police performance dates back to the early 20th century. Assessment tests used in the early 20th century to predict police personality aimed primarily to evaluate either the intelligence level or the mental health of the officers before recruiting them in the police departments (Weiss & Inwald, 2010). For instance, Terman (1917) used the Stanford-Binet scale, which is one of the earliest intelligence scales, to predict the future performance of police officers. In the later decades, two types of inventories have been used in testing police personality: psychopathology tests (e.g., Minnesota Multiphasic Personality Inventory [MMPI]) and normal personality tests (e.g., Five Factor Model [FFM]) (Aamodt, 2010). Built on these two types of tests, specified inventories for police officers were created in late 20th century. The first personality inventory that was specifically designed to be employed for the selection of public safety officers was created by Robin Inwald in 1979 (Inwald Personality Inventory-IPI) and it involves 25 personality scales (Weiss & Inwald, 2010). Most of the scales of the IPI are related to socially deviant attitudes such as alcohol abuse and family conflicts, and in that sense, the inventory aims primarily to eliminate unsuitable candidates rather than selecting those who are more likely to excel in policing (Sanders, 2008). In fact, the studies that examine the predictive validity of IPI found that the inventory is successful in predicting negative or problematic behaviours such as incidences of absence and disciplinary issues among public safety officers (Sanders, 2008; Shusman, Inwald, & Landa, 1984).

Despite the worldwide use of these methods, each of them has some shortcomings in their applicability to the assessment of police personality and its impact on job performance. First of all, psychopathology tests such as MMPI were not originally designed to select applicants for specific jobs, but to examine if the applicants have some psychological problems that might lead to poor performance or discipline-related issues (Sanders, 2008). Psychologists criticised the use of psychopathology tests as a police personality assessment tool as it was originally developed to diagnose psychopathy, and no evidence has been found to consider the MMPI as a valid predictor of police performance (Mills & Stratton, 1982). Meta-analyses of previous studies indeed showed that tests of psychopathology are not very helpful at predicting job performance of police officers (Aamodt, 2010; Murphy & Dziewieczynski, 2005).

In the 1980s, police personality assessment inventories started to focus more on the personality factors than on psychopathology (Weiss & Inwald, 2010). Following the trend in most of other professions, normal personality tests, which are used to measure the personality traits of ordinary people in daily life, started to be used more often in police personality assessment in the last few decades (Aamodt, 2010). Five Factor Model, which was created by McCrae and John (1992), is one of the most prominent personality tests and classifies personality traits into five major groups as: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. Based on the model, several observations and studies across the world have been conducted, and these studies have indicated that the model is comprehensive and applicable (McCrae & John, 1992). The model provides a common framework for researchers to study and summarise the personal characteristics of people in the five basic dimensions which are mentioned above. Nevertheless, the overall success of the normal personality tests in predicting job performance is not so different from that of psychopathology tests (Murphy & Dziewieczynski, 2005), although certain scales of the former were found to be significantly correlated with the success in certain tasks or skills (Aamodt, 2010). For instance, openness to experience predicts academic performance, measures of emotional stability predict disciplinary problems, and measures of conscientiousness predict supervisory ratings of performance. Despite these local findings, the validity and utility of current personality measures are still being questioned (Murphy & Dziewieczynski, 2005). After reviewing the studies between 1952 and 1963 that examined the relationship between personality and job performance, Guion and Gottier (1965) suggested that 'it is difficult...to advocate, with a clear conscience, the use of personality measures in most situations as a basis for making employment decisions about people' (p. 160). Their major concerns were the shortcomings of the personality theories specifically in the measurement of traits and the lack of consistency and strength of the studies that examine the relations between personality characteristics and the behaviours at work. This conclusion discouraged the personality psychologists who are interested in job performance until the 1990s when more research started to show the relevance between the two concepts (Murphy & Dziewieczynski, 2005). This trend affected also the studies on police personality assessment.

Murphy and Dziewieczynski (2005) identified three problems regarding the current usage of personality inventories in personnel selection. First, they echo Guion and Gottier's (1965) criticism of personality theories in terms of being vague and unconvincing in predicting job performance. Second, they argued that the current practices fall short in matching personality constructs and certain jobs. That is to say, the specific relationship between certain characteristics and the performance in the job being studied has not been explained clearly. Third, they suggested that the measures of personality that are related to the jobs being analysed are poorly defined. The personality measures that have been dominantly used in workplaces such as the Minnesota Multiphasic Personality Inventory (MMPI), the Myers-Briggs Type Inventory (MBTI), the California Personality Inventory (CPI), the Guilford-Zimmerman Temperament Survey (GZTS) and the Sixteen Personality Factor Questionnaire (16PF) are not proven to be related to the organisational criteria related to the jobs being studied (Murphy & Dziewieczynski, 2005).

The critique of Murphy and Dziewieczynski (2005) is not specifically related to a certain type of job but draws the general problem of the application of personality psychology in the prediction of job

performance. Considering the historical development reviewed in this section, the situation in the police organisations and the research on police personality-performance relationship is not an exception. In the consequent sections, the three problems raised by Murphy and Dzieweczynski (2005) regarding the shortcomings of current efforts to relate personality with work performance will be addressed from a specific perspective that connects the literature on police personality and its impact on policing performance.

Theoretical gap

The relationship between personality characteristics and job performance needs to be explained in a way that can help us to identify the right law enforcement officers for suitable positions. Research on personality-performance relations has provided the empirical evidence which shows a link between them. However, theoretical frameworks about this link have not brought clear explanations about which personality dimensions predict performance in what kind of jobs or specific tasks in a job (Hogan & Holland, 2003; Murphy & Dzieweczynski, 2005). Personality-performance relations are complex and vary across different jobs, cultures, settings, and organisations, thus, theoretical explanations on these links should consider the variety and the contextual differences in workplaces and jobs. The efforts to create a theoretical framework should be focused on the relationship between the success of professionals and the related aptitudes to excel in specific tasks of their jobs. Differential aptitude theory suggests that the success in a certain job and the capacity to acquire the training related to that job can be predicted by incorporating measures of several specific aptitudes (Schmidt & Hunter, 2004). Based on this theory, aptitude inventories measuring quantitative, verbal, or spatial skills can be designed to understand the necessary abilities to accomplish the tasks in the job being studied, and these tests can be used to predict the success in that job (Brown, Le, & Schmidt, 2006).

The idea of measuring personality is based on the uniqueness of human characteristics which can be observed both in the progress and the product of individuation – the process of becoming an individual (Allport, 1955). A successful observation of human behaviour through valid measurements can help us to identify the unique characteristics of individuals and discover the differences among them. Allport (1927) considers personality, which he describes as the totality of mental life and behaviour, as ‘the most unique thing about the human organism’ (p. 6). In parallel with Allport’s depiction, Alfred Adler’s concept of ‘individuality’ also expresses the uniqueness and indivisibility of the human being, and according to Adler, this unity can be seen in every expression of personality such as thinking, feeling, and acting (Ansbacher, 1971). One of the axioms of Adler’s individual psychology is the principle of unity which assumes that ‘a human being is one and indivisible both in regard to the mind-body relationship and to the various activities and functions of the mind’ (Ellenberger, 1981, p. 609).

To explain the uniqueness of human personality, Allport (1955) draws an analogy by suggesting that each person is an idiom which develops in its own context and this context should be understood in order to apprehend the nature of the person through a comparison with the other people. To accomplish the valid comparison among individuals and identify the right person for a job, the aptitudes related to the job being analysed and particular tasks of that job should be determined by examining the context of the job and the workplace. Graham (1998) gives some examples of aptitudes related to certain jobs such as higher numeric ability for engineers, higher clerical ability for secretaries, and higher manual dexterity for tire inspectors. Furthermore, Graham (1998) examines the relationship between specific aptitudes and job performance through the term ‘congruence’ which was defined by Gati (1989) as ‘the size of the gap between the profile of an individual’s characteristics and that of his/her occupation or job’ (p. 182). The narrower the gap, the more congruent a person for a job or specific task in a job, because each professional occupation necessitates specialised ability patterns.

According to Gottfredson’s (1986) Occupational Aptitude Patterns (OAP) theory, aptitudes form patterns, and these patterns are related to the requirements of specific jobs. She reached this result by

categorising 460 jobs into 13 job clusters and applying the General Aptitude Test Battery (GATB) scale, which is one of the most popular tools used to identify specific aptitudes that are required to select the appropriate personnel out of the job market in the United States (US Department of Labor, 1970), for each cluster. As a result, Gottfredson (1986) found that the aptitudes that predict success in specific jobs cluster and create patterns that differentiate some jobs from others. Gottfredson (1986) suggested that when the general cognitive ability is held constant, job performance can be better predicted through the possession of particular aptitudes, and measuring these aptitudes might help to distinguish the people who have required abilities for a job.

By using Gottfredson's (1986) OAP theory, Graham (1998) identified aptitude scores for the highest job performance for each cluster of jobs and used these scores to predict job performance in comparison to general mental ability – the measurement that shows the level of an individual to understand instructions, solve problems, and learn (Schmidt & Hunter, 2004). As a result, she found that specific aptitude information does not add a substantial amount of predictive validity when it was taken into account with general mental ability. Instead, the latter was found to be the main predictor of success in different clusters of jobs. This finding might be a result of a limitation of the study which is the usage of job groups as a whole to analyse the relationship between the aptitude scores and job performance. The problem here might be that Graham (1998) used Gottfredson's (1986) Occupational Aptitude Patterns map as a guide for grouping various jobs into clusters and analysed the impact of aptitudes on the clusters as a whole.

The professional tasks today are increasingly specialised and even the subfields in a profession necessitate distinct personality traits and skills to accomplish the work. Therefore, Graham's (1998) findings about the limited impact of aptitudes on performance might be challenged if specified aptitude measures can be created and applied for each job or task separately instead of considering the job clusters as unique. In fact, Hogan (2005) states that personality traits and cognitive ability have almost the same power in predicting job performance. Moreover, Goldberg (1993) suggests, even 'intellectually able individuals falter on the job when their personality traits are not congruent with task requirements' (p. 32). Therefore, the theoretical framework that will help us to better understand the police personality-performance relationship should emphasise the job-personality congruence and enable the researchers to identify specific aptitudes for each job. The latter can be accomplished through a detailed job analysis, which will be discussed in the following section.

Matching characteristics to policing through job analyses

Determining the attributes, knowledge, and experience that is necessary for excelling in a job is a key aspect for identifying the related personality characteristics. Most of the methods that have been developed by personality psychologists who used standardised descriptions of work (Murphy & Dzieweczynski, 2005). However, the ever-specialising characteristics of the professions in modern ages necessitate the development of structured inventories based on the analysis of jobs being studied. These analyses should shed light on the necessary abilities and skills to excel in particular jobs (Murphy & Dzieweczynski, 2005). Touzé (2005) suggests that experts in a certain profession can analyse the necessities of the job and identify relevant behaviour and dimensions of personality that are needed to perform better. Thus, a systematic analysis of a job by its own experts can identify 'potentially necessary personality dimensions' (Touzé, 2005, p. 49), and the validity of the inventory created by the experts can be examined through longitudinal studies (Hogan & Holland, 2008).

Based on their meta-analysis of 494 studies which examine the impact of FFM personality factors on job performance, Tett, Jackson, and Rothstein (1991) supported the usage of personality traits as a measure of job performance. However, they concluded that in order to realise the full potential of personality measures in the selection of demanded personnel, 'personality-oriented job analysis' should become the

standard practice to identify the traits which enable predicting performance on the job being studied, and 'psychometrically sound and construct valid personality measures' should be created through scientific research (p. 732). Tett et al. (1991) analysed 86 studies that examine correlations between the Big Five Factors and job performance and found that the studies that use job analyses resulted in much better correlation than those which did not use job analyses.

In order to grasp the effects of a personality trait on job performance, the situational demands of the job should be taken into consideration when analysing the job (Barrick & Mount, 2005). Touzé's (2005) review of the previous research on personality-performance relationship indicated that personality measures 'have better predictive validities when they are elaborated in a specific personality framework and then take into account a specific work situation' (p. 39). When the situation at work is relevant to the trait's expression and it is 'weak enough' to enable the individual to behave independently, the impact of personality trait becomes more visible (Barrick & Mount, 2005). In that sense, there are some strong situations in work life that oblige people to behave in certain ways, which makes the individual differences less visible in the work place.

In parallel with Allport's (1955) analogy of idiom, Murphy and Dzieweczynski (2005) suggest that to determine the predictive power of personality in job performance we might need to analyse the context in which the job is done in addition to the analysis of a job itself. Touzé (2005) makes a distinction between task performance and contextual performance in terms of the personality-performance relationship. Task performance is related to the technical and central aspects of a job, whereas contextual performance refers more to the peripheral activities that maintain the social and psychological environment in an organisation (i.e., enthusiasm and extra effort, volunteering, helping and cooperating with others) (Touzé, 2005). Touzé (2005) reviewed several meta-analyses and concluded that personality measures can better predict contextual performance than task performance. In that sense, job analyses should consider the situational demands of the job and include the criteria for not only task performance but also contextual performance.

After the identification of the situational demands of a job and the criteria for both task and contextual performance, related personality traits can be determined by observing the daily social interactions in the workplace. Allport (1927) suggests that personality measurement can be accomplished through describing the behaviours of people in daily social interactions that are related to the trait in question. In fact, he defines personality as 'the adjustment tendencies of the individual to his social environment' (Allport, 1927, p. 36). In that sense, they conclude, the purpose of measuring personality is 'the establishing of adjustments between an individual and his fellows' (p. 36). In a self-rated personality test, the purpose is asking questions about what the subject actually does in his daily life, thus letting the subject judge himself through his habitual behaviour (Allport, 1927). Whether it is a self-assessment or a third-person assessment, valid measures should be developed to match the personality characteristics to certain jobs by allowing the raters to assess personality characteristics through an observation of daily life activities. The problems of current personality measures being used in predicting police performance will be discussed in the next section.

The need for better personality measures

Scientific research uses basic units for measuring certain phenomena and testing the theories in related disciplines. In personality psychology, the basic unit of analysis is 'trait' which is considered both as the reason for regular and consistent types of behaviour and as the concept that is used to define those behaviours (Dumont, 2010). According to Allport and Odbert (1936), to qualify a behaviour as a trait, it should occur repeatedly in generally similar situations. Allport (1927) defined trait as 'a general and habitual mode of adjustment which exerts a directive effect upon the specific response.' (p. 4). He suggests that a trait can be known through its results or fruits, not by its causes or roots. To measure

these results or fruits and categorise people based on their personality dimensions; inventories, questionnaires, and tests have been developed by psychologists through sophisticated statistical methods such as factor analysis (Dumont, 2010).

The personality measurement tools that are being used currently by police departments for personnel selection purposes are problematic. First of all, inventories such as MBTI, MMPI, 16PF, and the CPI are not designed to measure job-related characteristics, and there is almost no evidence that shows their relevance to organisational criteria (Murphy & Dzieweczynski, 2005). Based on the insufficiency of psychopathology and normal personality tests in predicting the job performance in law enforcement services, Aamodt (2010) concluded that the most valid personality tests are those that include the scales built on the results of job analysis, and future research should focus on creating personality inventories for police officers based on the personality traits that will be identified through job analyses. Such an analysis was conducted by DeFruyt et al. (2006) to create an inventory of interviewing competencies of police officers and examine the underlying structure of these competencies. The list of 66 competencies which are likely to be related to interviewing success (e.g., being communicative, empathic, persuasive) were created by the authors through literature review and by consulting with the experienced police interviewers. The predictive validity of the final product, which is called Police Interview Competency Inventory (PICI), demonstrated by both the researchers and Smets (2009) in a later study through experimental research on police cadets. Similar inventories can be developed for each job category, and even for certain tasks under these categories.

Second, the current personality tests being used consist of broad personality measures such as conscientiousness and agreeableness, and these measures may not be sufficient to predict 'the functional relations' between personality and performance as they can disregard the situational factors that affect the performance (Murphy & Dzieweczynski, 2005, p. 346). The personality measurement tools that include narrow traits, rather than the broad ones, might be more successful in predicting specific sets of behaviours, because such traits rely on explicit description of personality that considers various factors such as the time, place, and the role of the individual in a society or group (Barrick & Mount, 2005). Barrick and Mount (2005) suggested that global personality traits like the FFM factors are useful in theoretical explanations; however narrower trait constructs are needed to predict specific behaviours at work. In that sense, police personality measurement tools should be developed based on job-related criteria which can be identified through examining the job description and analysing the necessary tasks for the job by accompanying police officers on different shifts. By observing the police tasks on the spot, police psychologists can better understand 'how certain personality characteristics can either help or hinder a police officer to fulfil the essential job functions' (Serafino, 2010, p. 45).

DISCUSSION AND CONCLUSION

The historical development of police personality measurement efforts that aim to predict job performance showed that police personnel selection process is not free from the problems that Murphy and Dzieweczynski (2005) brought forward in general terms. The two major types of tests used in police departments – psychopathology tests (e.g., MMPI) and normal personality tests (e.g., Five Factor Model) – suffer from the lack of specificity that is necessary to match certain personality characteristics to job-related criteria. Even the inventories such as IPI that were designed for police selection purposes do not address this problem because they primarily aim to eliminate unsuitable candidates based on the criteria which are not directly related to policing such as alcohol abuse and family conflicts. Therefore, the three concerns that Murphy and Dzieweczynski (2005) discussed on the personality-performance relationship are also valid for the current applications in police personality assessment.

The remedies that were discussed above to address the three problems – developing a sound theoretical framework, paying attention to match certain personality traits to job-related criteria, and creating more valid personality measures – can also be applied to the policing field. First of all, a theoretical

framework that will enable researchers and practitioners to explain how certain personality traits are congruent with the duties and tasks of police officers should be developed. Second, to understand this congruency, the personality-oriented analysis of police work should be the standard practice. Through the analysis of specific tasks of police officers by the experts, the situational demands of policing, the job-related criteria, and thus, the personality traits that are necessary to accomplish those tasks can be identified. To increase the predictive power of the personality measurement, the necessary criteria for both task performance and contextual performance should be examined in the analysis of the tasks of police officers. This can be accomplished through on-the-spot observations of police workplace and behaviours by the experts of each specific area in policing such as counter-terrorism units, patrol police, riot police, etc. As a result of these observations and analyses, designated measurement tools can be developed specifically for police departments instead of the questionnaires currently used which consist of broadly defined personality traits and psychopathology measures. Moreover, inventories might be created for specific tasks in police departments as the PICI tool that was created by DeFruyt et al. (2006) to assess interviewing-related competencies of police officers.

Personality psychology has developed significantly since the early 20th century. The creation of Five Factor Model by McCrae and John (1992) increased the attention paid by psychologists and practitioners on the assessment of personality after three decades of arguments about whether personality matters in workplace success. Police departments and the research on police psychology have been affected by these developments in personality psychology. Future research on police personality assessment should focus on the possible solutions to the three problems that are addressed in this paper. Research that will be supported with sound theories and valid measurement tools will help police departments to identify the right personnel for each position in the force, which will increase the efficiency while decreasing the costs of wrong decisions in personnel selection. This can be achieved by a closer cooperation between police departments and personality psychologists. Psychologists can be employed in police departments for these purposes. The observations of these scientists about the workplace behaviours of police officers from within the force might not only enhance the capacity of the department to make valid decisions on personnel selection but also enable these researchers to conduct externally valid research studies on-the-spot.

Ethical statement

The author states that: (i) This study has not been funded by any organisation; (ii) There is no conflict of interest in this study; (iii) There are no human or animal participants in this study, therefore ethical approval and informed consent has not been included; and (iv) This material has not been published in whole or in part elsewhere.

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