

Conditions of Confinement, Personality Traits, and
Inmate Perceptions of Procedural Justice

by

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ABSTRACT

Procedural justice serves a critical role in the interactions between criminal justice system actors and their clientele. Much of the literature in this area focuses on policing, and we know comparatively less about how procedural justice operates in corrections. Much like policing, it is likely that perceptions of correctional procedural justice vary within larger contexts. Using structured interviews with inmates (N=248) in Arizona at max, close, and medium custody, this study examines the association between conditions of confinement and perceptions of procedural justice, with a focus on how personality characteristics may modify this relationship. Results indicate that custody level does impact inmate perceptions of correctional officer procedural justice and that certain personality traits serve as protective or aggravating factors within the relationship between custody level and procedural justice. Policy implications and future research are discussed.

DEDICATION

For my grandmother, Lisa “Omie” Reinhart. Thank you for encouraging me to follow this path and guiding me through the journey. I love and miss you every day.

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INTRODUCTION

Procedural justice has become increasingly popular in social science research and is an important component of the interactions between criminal justice actors and the populations they serve. The procedural justice literature posits that when people come into contact with law enforcement actors they are more likely to comply when they perceive their treatment as fair or procedurally just (Jackson, Bradford, Hough, Myhill, Quinton, and Tyler, 2012; Sunshine and Tyler, 2003; Tyler, 2006). The research supports the notion that if individuals perceive criminal justice actors to be acting in a fair and equal manner, applying the rules accurately, and maintaining a neutral and consistent approach, then they are willing to accept decisions and follow orders (Jackson et al., 2012; Nagin and Telep, 2017). Much of the literature in this area focuses on policing, however, and we know comparatively less about how procedural justice operates in corrections (Tyler, 2010). This is important, as correctional facilities—especially prisons—create a context that may prove especially challenging for procedural justice in practice. The research on procedural justice in the correctional context is growing, and yet it has only broadly looked at perceptions of procedural justice, focusing instead more heavily on *outcomes* and less on predictors and modifiers of these perceptions.

A few studies have been conducted in prison settings examining the impact of procedural justice on inmate behavior and compliance (Beijersbergen, Dirkzwager, Eichelsheim, Van Der Laan, and Nieuwbeerta, 2015), violence (Bierie, 2013), and post-release outcomes (Beijersbergen, Dirkzwager, and Nieuwbeerta, 2016). This foundational research is critical as it demonstrates the impact procedural justice can have on both the

prison environment and life after prison. Additionally, a few studies have found support for influencing factors that develop inmate perceptions of procedural justice of prison staff. These factors include staff and inmate relationships, services provided to inmates, time in cell and cell conditions (Brunton-Smith and McCarthy, 2016), officer diversity and quantity, and officer attitudes (Beijersbergen, Dirkzwager, Molleman, Van Der Laan, Nieuwbeerta, 2015). With broad understandings established, it is now necessary to examine the more nuanced perceptions of procedural justice to determine if there are factors, aside from correctional officer actions, that may influence these perceptions. In particular, the conditions of confinement experienced by inmates are likely to impact their adaptive behavior with others (Sykes, 1958). Further, based on the importation literature, the specific personality characteristics that inmates bring with them to prison are likely to affect these relations (Irwin and Cressey, 1962). Finally, much of the research that has been conducted occurs internationally (Beijersbergen, Dirkzwager, Eichelsheim, et al., 2015; Beijersbergen, Dirkzwager, Molleman, et al., 2015; Beijersbergen et al., 2016; Brunton-Smith and McCarthy, 2016; McCarthy and Brunton-Smith, 2017; Reisig and Mesko, 2009), and the correctional population of the U.S. may provide a unique context in which procedural justice operates differently. Taken altogether, what is needed is a more nuanced understanding of the complexities of procedural justice in an American correctional context.

In order to analyze these concepts, this research utilizes the importation and deprivation frameworks to interpret the relationships between conditions of confinement (deprivation) and personality traits (importation) on inmate perceptions of procedural

justice. The current study examines data from a sample of male inmates in the Arizona Department of Corrections (ADC) to understand how perceptions of procedural justice are formed in the prison setting. The data are derived from semi-structured interviews conducted with 248 male inmates across three custody levels (medium, close, maximum) at three separate facilities. The conditions of confinement across these custody levels vary significantly—from housing style to recreation time. Importantly, inmates were asked questions about their personality characteristics and perceptions of procedural justice. The present study answers two research questions: 1) Do conditions of confinement impact inmate perceptions of staff procedural justice and, 2) Do personality traits serve as a modifying factor in the relationship between conditions of confinement and perceptions of procedural justice? The broader purpose of this study is to understand the role procedural justice plays in criminal justice, specifically in the corrections context, and the variety of factors that can affect inmate perceptions of correctional officer procedural justice.

LITERATURE REVIEW

Procedural Justice

Procedural justice has continued to garner attention since it first emerged in the 1970s and 1980s. The work of Tom Tyler (1990) and colleagues has taken major strides to push this framework forward and build upon the foundation presented by Thibaut and Walker (1975) and Leventhal (1980) (Nagin and Telep, 2017). The procedural justice perspective posits that individuals are more likely to comply with authorities' rules and be satisfied with decisions when they feel they were treated in a procedurally just

manner throughout the process (Leventhal, 1980; Lind and Tyler, 1988; Thibaut and Walker, 1975; Tyler, 1988, 1990). The procedural justice model is multi-dimensional in that individuals value consistency from legal actors, the opportunity to participate in the process, neutrality, transparency, factuality, treatment grounded in respect and dignity, and trust in the legal actors making decisions (Leventhal, 1980; Thibaut and Walker, 1975; Tyler, 2011). One of the most critical components to this theoretical paradigm is the concept that procedural justice is perception-based, meaning the individual interacting with the system perceives their treatment as either procedurally just or unjust (Nagin and Telep, 2017).

The procedural justice concept is directly linked to justice system *legitimacy*. The notion of legitimacy is the common belief that criminal justice system actors, such as the police, judges, and correctional officers, are authorities that are qualified and entitled to make criminal justice system related decisions and are the individuals that should be deferred to for those matters (Tyler, 2006). Legitimacy is the driving force behind the concept of procedural justice. When criminal justice actors make decisions in fair ways they are deemed procedurally just, which ultimately legitimizes their decision making and the individual's belief that they are suitable for the job and should be listened to (Jackson, Tyler, Bradford, Taylor, and Shiner, 2010; Tyler and Huo, 2002). It is important to note that in addition to the lack of research on procedural justice that has been conducted in prisons, a large portion of correctional work in this area has focused more heavily on prison legitimacy rather than procedural justice independently. Researchers have continued to expand upon this concept and have continued to study

procedural justice and legitimacy in the criminal justice system, most notably with citizens in the policing and courts contexts. There is a growing body of literature concentrating on procedural justice in corrections that focuses on both predictors and outcomes of prison inmate behavior.

Procedural Justice in Corrections

Unlike police officers, correctional officers see the same individuals every day, in a congregate environment with other inmates that often fosters negative behaviors and attitudes. Jackson and colleagues (2010, p. 6) define the contact between staff and inmates as “more involved and longer term” when compared to police officers and court actors. This setting provides a very specific and unique context to study procedural justice. With the knowledge base that individuals tend to respond more positively and be more satisfied with a criminal justice interaction when they perceive their treatment as fair, researchers have worked to unpack how prison inmates form their perceptions of staff procedural justice, and how those perceptions subsequently impact the overall environment. Many of the scholars who have studied this context support the notion that procedural justice and legitimacy in prisons promotes achieving and maintaining institutional order (Bottoms, 1999; Jackson et al., 2010; Sparks and Bottoms, 1995). Of this body of literature, it is important to note that most of it was conducted outside of the United States (Beijersbergen et al., 2014; Beijersbergen, Dirkzwager, Eichelsheim, et al., 2015; Beijersbergen, Dirkzwager, Molleman, et al., 2015; Brunton-Smith and McCarthy, 2016; Jackson et al. 2010; Reisig and Mesko, 2009).

Inmate perceptions of correctional officer procedural justice are subject to a large pool of influencing factors that are not usually seen in the policing and procedural justice paradigm. Prior research has supported the hypothesis that a variety of traits, experiences and interactions contribute to the development of an inmate's perception of procedural justice in prison. Factors ranging from physical institutional structure (Brunton-Smith and McCarthy, 2016) to officer-to-inmate ratio (Beijersbergen, Dirkzwager, Eichelsheim, et al., 2015) have been found to influence inmate perceptions of staff procedural justice, fairness, and legitimacy.

The work of Beijersbergen, Dirkzwager, Eichelsheim, and colleagues (2015) in the Netherlands found that prisoners had more positive perceptions of staff procedural justice in units that had more female officers, a higher officer-to-inmate ratio, and the presence of staff that had positive attitudes toward rehabilitation. The combination of supportive staff and female officers, who tend to be more empathetic and patient, fostered an environment of just treatment and positivity (Beijersbergen, Dirkzwager, Eichelsheim, et al., 2015). The presence of support staff was found to be important in a study of federal U.S. prisons that experienced increased violence when there was a decrease in teachers, counselors, and similar positions (Bierie, 2013). Similarly, a sample of inmates in England and Wales reported more positive perceptions of legitimacy and procedural fairness when they were receiving services such as work and education. The same study found support for the effect of initial experiences with staff on perceptions of legitimacy throughout incarceration (Brunton-Smith and McCarthy, 2016). In Ohio and Kentucky, Steiner and Wooldredge (2015) found support for individual characteristics (race and

gang membership), prison experiences (prior sentences, years served, and theft in prison), programming (hours spent in education) and staff relations (previous confrontations regarding rule violations) as influencing factors of legitimacy.

Moreover, prior research has supported the hypothesis that a variety of institutional conditions and experiences shape inmate perceptions of procedural justice. Physical characteristics, institution physical structure, cell conditions, and amount of time spent in the cell have all been linked to perceptions of procedural fairness and legitimacy in prison (Brunton-Smith and McCarthy, 2016; Jackson et al., 2010; Sparks et al., 1996). In a comparison study of legitimacy perceptions between prison and boot camp in the United States, Franke and colleagues (2010) stated that the prison environment was delegitimizing for many reasons including environmental deprivation such as lack of privacy and presence of negative experiences such as fights among inmates. Franke and colleagues (2010) make recommendations, similar to Sparks and Bottoms (1995), that prisons employ legitimacy building approaches to improve the environment and increase inmate perceptions of legitimacy. Their suggestions include addressing staff-related issues and promoting fair treatment, increasing program effectiveness, ensuring inmate safety, limiting environment related stressors, and preventing the introduction of contraband in the institution (Franke, Bierie, and MacKenzie, 2010).

In addition to the factors that shape these perceptions, prior research has found support for a variety of outcomes that result from positive and negative perceptions of correctional officer procedural justice. One of the most significant and common outcomes associated with perceptions of procedural justice is inmate misconduct. Reisig and Mesko

(2009) found that inmates in a Slovene prison who regarded officer authority as procedurally just reported less engagement in misconduct and were charged with violating fewer institutional rules. In a United States federal prison, Bierie (2013) examined the relationship between inmate complaints and procedural justice. The study concluded that inmates who received late responses to complaints or substantive rejections felt that the process was less procedurally just and ultimately the unit experienced increased levels of violence in the current and subsequent month (Bierie, 2013). On the positive end of the spectrum, Beijersbergen and colleagues (2015) concluded that there was a causal relationship between perceptions of procedural justice and compliance behavior, specifically noting that inmates who felt they were treated humanely and fairly were less likely to report engaging in or being cited for misconduct. Additionally, the same study found that emotions served as a mediating factor and that when inmates felt they were treated poorly they were more likely to experience anger and subsequently engage in misconduct (Beijersbergen, Dirkzwager, Eichelsheim, et al., 2015).

Aside from misconduct and negative outcomes, procedural justice practices have been linked to positive results as well. Inmates in the Netherlands who perceived their treatment during incarceration as procedurally just experienced positive post release and mental health outcomes (Beijersbergen et al., 2016; Beijersbergen et al., 2014). Although the effect is small, inmates in a sample of a Netherlands prison who reported positive treatment in prison were less likely to be convicted within 18 months of release (Beijersbergen et al., 2016). Further, individuals in another sample from the Netherlands

who reported higher levels of procedural justice at week three of incarceration experienced fewer mental health issues at the month three marker (Beijersbergen et al., 2014).

Importation and Deprivation Models

The importation and deprivation models have been used in dozens of studies to understand the how and what external factors and institutional characteristics that influence prison inmate behaviors, beliefs, and lifestyles. The two theories have served as both competing models and integrated frameworks. The importation model, originally proposed by Irwin and Cressey (1962), posits that individuals “import” belief systems, experiences, values, and personal and demographic characteristics into prison with them, which will ultimately shape their experience, decision-making, and behavior during incarceration. The idea behind this framework is that individual-level characteristics that predate incarceration will determine how inmates adjust to the environment and their subsequent conduct in the institution. The theory suggests that rather than the “total institution” experience, preexisting beliefs and norms shape inmate subcultures (Irwin and Cressey, 1962).

Many scholars have focused on demographics such as race and ethnicity, age, marital status, education, prior convictions, gang membership, employment, and sex offense convictions as measures of importation (Cao, Zhao, and Van Dine, 1997; Steiner and Wooldredge, 2015; Tewksbury, Connor, and Denny, 2014). Other studies have measured importation as street codes and values (Mears, Stewart, Siennick, and Simons, 2013), coping skills (Power, McElroy, and Swanson, 1997), depression and confusion

(Baskin, Sommers, and Steadman, 1991), antisocial personality style and impulsivity (Wang and Diamond, 1999), and low self-control (DeLisi, Hochstetler, and Murphy, 2003). The literature supports the notion that risk factors and poor social bonds in society will carry over into prison and increase the likelihood of continued rule breaking (Wooldridge, Griffin, and Pratt, 2001). Prior offending, arrest history, and prison misconduct records are among the most important factors in predicting future prison offending (DeLisi, 2003; Steiner and Wooldredge, 2015; Wooldredge et al., 2001).

Contrary to the importation model, the deprivation model focuses on prison level variables and situational factors that may influence the behavior of inmates. The work of Sykes (1958), Sykes and Messinger (1960), and Goffman (1961) have informed this theoretical framework that assumes inmates experience “pains of imprisonment” that lead them to develop a subculture of violence and opposition toward correctional staff. The deprivation model posits that the structure and conditions of prison deprive inmates in ways that are oppressive and stressful, specifically deprivations of security, autonomy, liberty, and goods and services (Sykes, 1958). Furthermore, the theory assumes legal processes and incarceration are depersonalizing, alienating, and stigmatizing, and when those feelings are compounded with the coercive powers exerted by correctional officers, they minimize the importance of other variables (Thomas, 1977). Scholars have found that management styles and administration and staff competency influence inmates (DiIulio, 1987, 1991). In addition to the coercive actions by officers, research has also shown that structural factors impact inmates, such as security-level or the level of “total institution” (Cooley, 1993; Farrington, 1992) and crowding levels (Gaes, 1994).

The deprivation model essentially examines how these various factors of the prison experience lead to individual behaviors as attempts to cope or adjust to the environment (Steiner and Wooldredge, 2008), often through social systems that reduce deprivations (Sykes, 1958) or individual choices that enable need satisfaction (Goodstein and Wright, 1989). Research has found support for the deprivation framework through specific variables that lead to negative outcomes. Dye (2010) found that deprivation factors served as a significant predictor of suicide in prison inmates. Deprivation in the form of previous incarceration functioned as an indicator of disciplinary infractions (Sorensen and Cunningham, 2010). Violence and prison disturbances have also been reported as outcomes of deprivations perceived by inmates (Berg and DeLisi, 2006; Hochstetler and DeLisi, 2005).

Personality Traits and Conditions of Confinement

It is critical to note that both personality styles and conditions of confinement have been measured in the institutional setting and both have impacts on inmate related outcomes. Personality traits can be considered a form of importation as they are personal inmate characteristics that exist prior to the prison sentence. For instance, personality traits have been seen as indicators of mental health issues or substance abuse disorders (Jakobwitz and Egan, 2005; Kotov, Gamez, Schmidt, and Watson, 2010). Further, Listwan and colleagues (2007) suggest that corrections explore personality beyond risk as they found that personality, specifically neuroticism and aggressiveness, are related to recidivism (Listwan, Van Voorhis, and Ritchey, 2007). In a southern U.S. state, Schwartz

and colleagues (2004) found that aggressive, neurotic, histrionic, and dependent personality styles predicted gender role conflicts among men in prison.

Personality traits have been studied in contexts outside of corrections or the criminal justice system and research has shown they serve as a moderator in other settings. For example, in a workplace study, Skarlicki and colleagues (1999) found that negative affectivity and agreeableness of employees served as moderators in the relationship between perceived fairness and retaliation. Similarly, Colbert and colleagues (2004) found that personality traits such as conscientiousness, emotional stability, and agreeableness served as moderators to the relationship between perceptions of the workplace and subsequent workplace deviance. Barlett and Anderson (2012) found a variety of direct and indirect relationships between the Big 5 personality traits and aggression and violence. These findings, although outside of criminology, support the notion that personality traits can impact the relationship between two variables, in this case procedural justice and legitimacy.

Conditions of confinement can be considered a type of deprivation in many ways, specifically, the simple differences across housing and custody level. For example, maximum-custody inmates in New York prisons accounted for more than three-quarters of prison suicides between 1993 and 2001 (Way, Miraglia, Sawyer, Beer, and Eddy, 2005). Additionally, Jiang and Fisher-Giorlando (2002) found that the deprivation model contributed to explaining inmate violence against staff.

While procedural justice has received an increasingly level of attention, there has been less notice paid to procedural justice in the correctional setting, especially regarding

factors influencing inmate perceptions. The literature surrounding procedural justice in prison has demonstrated the impact procedural justice has on inmate behavior and misconduct, violence in prison, and post-release outcomes (Beijersbergen, Dirkzwager, Eichelsheim, et al., 2015; Bieri, 2013; Beijersbergen et al., 2016). Additionally, some of the work has examined the impact of staff actions and prison conditions on perceptions of procedural justice (Brunton-Smith and McCarthy, 2016) as well as how the importation and deprivation models influence prison experiences and these perceptions (DeLisi, Berg, and Hochstetler, 2006; Tasca, Griffin, and Rodriguez, 2010). While researchers have focused on the outcomes of procedural justice in prisons, less is known about how institutional conditions and inmate personalities impact the development of procedural justice perceptions regarding corrections staff. The current body of literature has emphasized the critical role procedural justice plays in prison management, security, and behavior, but it is valuable to evaluate perceptions across conditions of confinement and inmate personalities.

CURRENT FOCUS

The current study seeks to understand the relationship between conditions of confinement, measured by custody level, and inmate perceptions of correctional staff procedural justice. The aim of this research is twofold, to ascertain 1) if conditions of confinement shape inmate perceptions of procedural justice and 2) if inmate personality traits modify the relationship between confinement and perceptions. The study employs structured interviews with 248 incarcerated men across three custody levels to measure the critical variables. The purpose of this study is to measure the relationship between

conditions of confinement and inmate perceptions of correctional officer procedural justice and then determine whether or not personality traits modify this relationship. The current project seeks to expand on the knowledge of procedural justice in the prison context and enlarge the body of literature.

METHODS

Setting and Context

The current study utilizes structured interviews with inmates within the Arizona Department of Corrections (ADC). Arizona provides a unique setting to explore the prison setting and the impacts of procedural justice within institutions. As of 2016, Arizona ranks fourth in the country for incarcerations rate with 585 inmates per 100,000 residents of all ages, falling only behind Louisiana, Oklahoma, and Mississippi (Carson, 2018). As of February 2018, ADC housed 41,681 inmates within institutions, a 4.3 percent increase from February 2013 (Arizona Department of Corrections, 2013; Arizona Department of Corrections, 2018). Of the more than 41,000 inmates, 90.6 percent are male and 9.4 percent are female (Arizona Department of Corrections, 2018). The inmate population within ADC is racially diverse, as of February 2018, 39.2 percent of inmates were Caucasian, 39.1 percent were Hispanic, 14.1 percent were African American, 5.4 percent were Native American, and 2.2 percent were Other (Arizona Department of Corrections, 2018). At this same time point, 50.4 percent of inmates were between 25 and 39 years old and 54 percent were serving their first sentence (Arizona Department of Corrections, 2018).

The population is heterogeneous across age, race, and other variables. However, ADC incarcerates significantly more males than females, therefore this study examines a sample of male inmates. Furthermore, the ADC population varies in custody level, risk, crime type, sentence length, mental health and other needs. This further diversifies the population. In order to include all populations within the sample, the current study utilizes inmates at three custody levels—medium, close, and max, across eight units within three complexes. By including multiple units, we can account for variation across both inmate type and specific unit conditions.

Sampling Strategy

The current study utilizes data from a larger, ongoing study that examines the effects of living and working in max custody, compared to other custody levels. The larger project is a longitudinal study, beginning with inmate interviews at baseline, one to three weeks into their sentence, at their permanent housing location. The inmates are interviewed again at six and twelve months to measure change over time across multiple variables. The baseline interview instrument is a closed ended survey that measured physical and mental health, stress and coping, procedural justice and legitimacy, and personality. For purposes of this study we utilize baseline data and focus on demographics, conditions of confinement, personality, and perceptions of procedural justice.

In order to reach the sample of inmates for this project, researchers received an intake list from three complexes reporting all inmates who arrived at the respective complex for a new sentence (either new or repeat), a parole violation, or a reclassification

to maximum custody. The first requirement for inclusion is the inmate is entering prison from either county jail or the street and are starting a new sentence or finishing one based on a parole violation. Inmates were also included if they were reclassified to maximum custody from a lower custody level. In order to qualify, inmates also must have arrived at their housing location within less than three weeks prior to the interview date to accurately capture baseline measures. They must have a minimum of twelve months left to serve to participate in the entire survey. Finally, they must be in a housing location that matches their custody level classification. In some cases, they are placed in temporary locations for reviews that do not reflect their custody level and were therefore excluded to avoid inconsistencies in placement and conditions of confinement.

Once the screening process was complete, researchers visited each complex on a weekly basis and entered the units with a list of qualifying inmates. ADC staff brought inmates up to the visitation area in their respective units and inmates were approached by an interview team member. In some cases, inmates refused to come to the visitation room and speak with the research team, therefore refusing to ADC staff. Researchers described the interview and the larger project to inmates and allowed the inmate the opportunity to consent or refuse participation. Inmates who consented sat down with the interviewer for thirty to sixty minutes to conduct the survey. Inmates who refused participation were led back to their housing location by ADC staff. Staff had no influence on inmate selection and neither incentivized nor punished participation or refusals.

The current study utilizes a sample of 248 male inmates. The sample breakdown across custody level is 100 at medium custody, 101 and close custody, and 47 at

maximum custody. The original sample contained 250 cases, however two cases were dropped from the study due to missing data in the procedural justice section.

In addition to the 250 surveys completed, 135 respondents were initially qualified to participate in the survey but did not for a variety of reasons. The cooperation rate of the sample is 65 percent, with 250 of 385 eligible respondents completing the survey. The reasons for refusal include: respondent refused to speak to interviewer ($N=70$), respondent spoke was consented by interviewer and refused ($N=20$), respondent could not participate due to unit lockdown ($N=20$), respondent was away at medical, mental health, education, or work ($N=8$), respondent had arrived outside of the maximum time frame therefore expired ($N=6$), respondent was temporarily in detention housing ($N=4$), respondent was a non-English speaker and translators were unavailable ($N=4$), respondent was unable to consent do to Serious Mental Illness (SMI) ($N=2$), or respondent was out to court ($N=1$). Of the 135 respondents who did not participate, 69 were medium custody, 45 were close custody, and 21 were max custody.

Measures

Independent Variables

There are two independent variables that will be used in the present study. To test the first question conditions of confinement are measured. To test the second question personality traits are added as modifiers to the model. Questions and scales can be found in Appendix A.

Conditions of Confinement. Conditions of confinement, for purposes of this study, are measured by custody level. Upon intake to ADC, inmates are classified based on a

variety of factors, including crime type, sentence length, prior commitments, and institutional behavior. This classification ranks an inmate at either minimum (2), medium (3), close (4), and max (5) custody, which determines the unit they will be placed at. Custody levels range in tightness of security, movement restrictions, housing type, programming and education opportunities, recreation, and time out of cell. Medium custody units are considered open yards where inmates are free to go to meals, classes, work, and other activities on their own throughout the day. These yards are most often dormitory-style housing where groups of inmates live together in bunks, share bathrooms and laundry rooms, and common areas. Close custody units utilize a more structured schedule and inmates are required to be in certain places at specific times. There is less freedom to roam the yard throughout the day and housing is typically two-man cells. Maximum custody units employ completely controlled movement and inmates spend the majority of the day in their cell. Out-of-cell time is strictly scheduled for activities such as recreation, mental health treatment, or pre-scheduled non-contact visits. Almost all max custody inmates live in single-man cells and have minimal contact with other inmates. These factors reflect different conditions of confinement by custody level within ADC.

Personality Traits. In order to evaluate the moderating effects of personality on the relationship between conditions of confinement and perceptions of procedural justice, the current study utilized the Ten Item Personality Inventory (TIPI), which was developed as a brief measure of the Big-Five personality domains (Gosling, Rentfrow and Swann, 2003). Respondents are asked a series of ten questions beginning with “*I see myself*

as... ” and given a pair of descriptors. They are asked to indicate how closely those terms describe their personalities on a scale of one to seven. One indicates “disagree strongly” and seven indicates “agree strongly.” The ten-question survey measures *extraversion*, *agreeableness*, *conscientiousness*, *emotional stability*, and *openness to experiences*. Extraversion measures things such as talkativeness, attention-seeking, energy, and sociability. Agreeableness measures things such as cooperativeness and compassion. Conscientiousness measures organization, self-discipline, and dependability. Emotional stability measures calmness, confidence, and optimism. Openness to new experiences measures creativity, curiousness, and perceptiveness. Based on the scale, five pairs of ten traits are scored and coded into the five personality variables. Higher scores indicate that the individual more strongly identifies with the respective trait.

Dependent Variable

Perceptions of Procedural Justice. Inmate perceptions of correctional officer procedural justice are determined based on a 12-question additive scale. The current study utilized questions from Beijersbergen and colleagues (2016) and Reisig and Mesko (2009) to create an instrument that captures inmate perceptions of procedural justice and legitimacy of correctional staff and their attitudes about the environment. The questions were answered using a scale of one to five, with one being “strongly disagree” and five being “strongly agree.” Answers were coded and combined to generate a procedural justice score for each respondent. The final scores were used as procedural justice variable in the models to answer both hypotheses. Higher scores on the scale indicate

more positive perceptions of procedural justice. The scale was determined to be reliable at $\alpha=.92$. Questions and scales can be found in Appendix B.

It is important to note that the original questionnaire included 15 items, three of which targeted legitimacy perceptions. For purposes of this study those three questions were dropped from the scale.

Control Variables

Consistent with prior correctional literature, including the work on procedural justice in prisons, a variety of inmate-level variables are controlled. Inmate *age* was a continuous variable, ranging from 18 to 76 with a mean of about 34 years of age. Inmate *race* was broken up into four dummy variables: White, African American, Hispanic, or Other. American Indian or Native American, Asian, and Native Hawaiian or Pacific Islander were included with the “Other” category for purposes of this analysis. The current sample is reflective of the ADC population breakdown with about 31 percent Caucasian, 38 percent Hispanic, 15 percent African American, and 17 percent Other.

Previous incarceration was originally measured by the number of times the respondent had been to prison as an adult. For purposes of this analysis the variable was changed to whether or not they had been to prison before their current sentence. Previous incarceration was recoded as a dichotomous variable where 0=no and 1=yes. *Mental health* was determined by the question “have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you have a mental illness or emotional problem?” Responses were coded dichotomously, where 0=no and 1=yes. See Table 1 for study descriptives

Table 1. Descriptive Statistics

Variable	Frequency	Percent		
<u>Sample Demographics</u>				
Custody				
Medium	100	40.3		
Close	101	40.7		
Maximum	47	19.0		
Race				
White	76	30.7		
Hispanic	93	37.5		
Black	36	14.5		
Other	43	17.3		
Prior Prison				
Yes	183	73.8		
No	65	26.2		
Prior Mental Health				
Yes	123	49.6		
No	125	50.4		
Variable	Mean	SD	Min	Max
Age	33.6	10.5	18	76
<u>Study Variables</u>				
Procedural Justice	34.5	9.3	12	60
Personality				
Extraversion	4.19	1.39	1	7
Emotional Stability	4.93	1.39	1	7
Agreeableness	5.06	1.32	1	7
Openness to Experiences	5.37	1.29	1	7
Conscientiousness	5.89	1.15	1	7

Note: N=248

Analytical Strategy

The plan of analysis for this study is broken up into two parts: bivariate correlations and Ordinary Least Squares (OLS) regression models. In order to determine the correlations between procedural justice and custody level, procedural justice and personality, and custody level and personality, bivariate correlations tests are conducted. To answer the first research question, a bivariate correlation analyzing procedural justice and custody level is run. An OLS regression is then conducted to measures the differences in perceptions of procedural justice by custody level.

In order to answer the second research question, two bivariate correlations are run between procedural justice and personality and custody level and personality. An OLS regression is then conducted at each individual custody level to measure significant personality traits related to procedural justice at the respective custody level. Finally, to determine possible differences in personality traits across custody levels, the test recommended by Paternoster and colleagues (1998) is conducted to determine the equality of regression coefficients.

RESULTS

Bivariate Correlation Analysis

Table 2 presents the bivariate correlations between procedural justice and the 3 custody levels. Initial analysis of correlations found that medium ($p < 0.01$) and close ($p < 0.05$) custody were significantly positively correlated to procedural justice. Bivariate analysis of correlations between procedural justice and personality, found in Table 3,

concluded that agreeableness ($p<0.001$) and emotional stability ($p<0.01$) were positively correlated with procedural justice. Table 4 presents the results of the bivariate correlation analysis between custody level and personality, which concluded that medium custody was positively correlated with agreeableness ($p<0.1$) and emotional stability ($p<0.05$), close custody was negatively correlated with agreeableness ($p<0.05$), and max ($p<0.05$) was negatively correlated with extraversion ($p<0.05$) and emotional stability ($p<0.05$).

Table 2. Bivariate Correlations between Procedural Justice and Custody Level

	Procedural Justice
Medium	.196**
Close	-.127*
Max	-.085

Notes: $N=224$

† $p<0.1$, * $p<0.05$, ** $p<0.01$

Table 3. Bivariate Correlations between Procedural Justice and Personality

	Procedural Justice
Extraversion	.007
Agreeableness	.261***
Open Experiences	.008
Conscientiousness	-.010
Emotional Stability	.202**

Notes: $N=224$

† $p<0.1$, * $p<0.05$, ** $p<0.01$, *** $p<0.001$

Table 4. Bivariate Correlations between Custody Level and Personality Traits

	Medium	Close	Max
Extraversion	.021	-.104	.104
Agreeableness	.109 [†]	-.140*	.040
Open Experiences	.003	-.013	.013
Conscientiousness	.084	.042	-.158*
Emotional Stability	.171*	-.055	-.145*

Notes: *N*=224

[†]*p*<0.1, **p*<0.05, ***p*<0.01

Research Question 1: Conditions of Confinement and Inmate Perceptions of Procedural Justice

The results for analysis one, examining the impact of conditions of confinement (custody level) on perceptions of procedural justice are listed in Table 5 with unstandardized coefficients. The reference category for this analysis is medium custody (*n*=100) and the reference category for race is White. The model is approaching significance (Prob > F=0.102). The analysis found a significant association between close custody inmates and perceptions of procedural justice. Respondents in the close and max custody groups had negative perceptions of procedural justice (-3.19, *p*<0.05; -3.18, *p*<.1), when compared to their medium custody counterparts.

Table 5. OLS Regression of Perceptions of Procedural Justice on Custody Level

Variable	Coefficient	Standard Error
Custody Level		
Close	-3.19*	1.40
Max	-3.18 [†]	1.76
Age	-.008	.060
Race		
Black	-1.98	1.92
Hispanic	.517	1.59
Other	-1.57	1.91
Priors	-1.12	1.41
Prior Mental Health	1.02	1.23

Notes: $N=248$. Prob > F = .102. $R^2 = .054$. Medium custody is used as reference category. White used a race reference category.

[†] $p < .1$, * $p < 0.05$, ** $p < 0.01$

Research Question 2: Personality Traits as Modifiers to the Relationship Between Conditions of Confinement and Procedural Justice

The truncated results for analysis two, examining personality traits as modifiers to the relationship between conditions of confinement and procedural justice are presented in Table 6 and the full model can be found in Appendix C, both of which report unstandardized coefficients. The reference category for this analysis is medium custody ($n=100$) and the model is significant (Prob > F=0.0003). The race reference category is White.

The second analysis controlled for personality traits in predicting perceptions of procedural justice across custody level groups. The analysis found that the relationship between close custody and procedural justice and max custody and procedural justice

remained significantly negative but slightly less than the first analysis. The close custody group (n=101) had significant negative perceptions of procedural justice (-2.42, $p<0.1$) when compared to their medium custody counterparts. The max custody group (n=47) had significant negative perceptions of procedural justice (-2.77, $p<0.1$) when compared to their medium custody counterparts. The analysis also shows that respondents, across all custody groups, who had more agreeable personalities had significantly better perceptions of staff procedural justice (1.54, $p<0.001$).

Table 6. OLS Regression of Custody level and Personality Traits on Procedural Justice

Variable	Coefficient	Standard Error
Custody Level		
Close	-2.42 [†]	1.29
Max	-2.77 [†]	1.65
Personality		
Extraversion	.075	.403
Agreeableness	1.54***	.449
Open Experiences	-.215	.460
Conscientiousness	-.458	.507
Emotional Stability	1.13**	.455

Notes: $N=248$. Prob > F = 0.003. $R^2 = .1$. Medium custody is used as reference category. White used as race reference category.

[†] $p<0.1$, * $p<0.05$, ** $p<0.01$, *** $p<0.001$

The results from analysis three, examining personality traits and procedural justice across the individual custody levels can be found in Table 7. The analysis was broken down into individual regression models, by custody level, to examine the relationship between procedural justice and personality traits within the three different custody groups.

The individual analyses found that respondents who were more agreeable had better perceptions of procedural justice across medium and close custody groups. Medium custody respondents who experienced a one unit increase in agreeableness had an increase of 2.12 in perceptions of procedural justice ($p < 0.01$) and close custody inmates saw an increase of 1.52 ($p < 0.05$).

Other significant relationships within the models include a positive relationship between medium custody and emotional stability (1.27; $p < 0.1$), a negative relationship between close custody and openness to new experiences (-1.89; $p < 0.05$), and a positive relationship between max custody and emotional stability (2.26; $p < 0.05$). Although none of the personality traits were significant across all three custody levels, agreeableness and emotional stability were significant across two custody levels.

In order to determine if agreeableness (medium and close) and emotional stability (medium and max) had significant differences across the respective custody levels, the statistical test measuring the equality of regression coefficients as suggested by Paternoster and colleagues (1998) was conducted. For agreeableness personality traits, the difference between medium and close custody was not statistically significant. The two groups produced a z-score of .576, which is not significant at the α -level of .05. For

emotional stability, the difference between medium and max custody was not statistically significant. The two groups produced a z-score of -.636, which is not significant at the α -level of .05. This test shows that although agreeableness and emotional stability are significant across different custody levels, they are not modifiers to the relationship between the specific custody group and their respective perceptions of procedural justice. The calculations and scores for this test can be found in Appendix D.

Table 7. OLS Regression of Personality Traits and Procedural Justice Across Custody Levels

Variable	Medium ^a		Close ^b		Max ^c	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Extraversion	-.898	.692	.703	.633	.099	1.05
Agreeableness	2.12**	.772	1.52*	.698	1.46	1.39
Open Experiences	.199	.747	-1.89*	.828	-.240	1.14
Conscientious	-.339	.892	-.661	.940	.064	1.23
Emotional Stability	1.27 [†]	.793	.758	.772	2.26*	1.34

Notes: *N*=248. *n*^a=100. Prob > *F*=.069. *R*²=.08. *n*^b=101. Prob > *F*=.025. *R*²=.21. *n*^c=47. Prob > *F*=.455. *R*²=.241.

[†]*p*<.1, **p*<0.05, ***p*<0.01, ****p*<0.001

DISCUSSION

The procedural justice framework has continued to attract attention from criminal justice scholars and the body of research has continued to grow since the early works of Thibaut and Walker (1975), Leventhal (1980), and Tyler (1990). However, the current state of the literature is heavily focused on procedural justice in policing and courts and is lacking in the corrections context. Of the work that has been done, scholars have broadly examined predictors (e.g. Beijersbergen, Dirkzwager, Molleman, et al., 2015) and outcomes (e.g. Bierie, 2013) of inmate perceptions of procedural justice and most of the research has been conducted outside of the United States (e.g. Beijersbergen et al., 2014, 2016; Beijersbergen, Dirkzwager, Eichelsheim, et al., 2015; Beijersbergen, Dirkzwager, Molleman, et al., 2015; Reisig and Mesko, 2009). The purpose of this study was to continue to push the research forward and employ the importation and deprivation models to better understand procedural justice in prisons. Specifically, this study examined the effects of personality traits and conditions of confinement as measures of importation and deprivation on perceptions of procedural justice. This research contributes to the literature in three ways.

First, future procedural justice research should explore the impact of custody level on inmate perceptions of staff treatment in more depth. This study finds that inmates in the close custody subgroup have significantly more negative perceptions of staff compared to their lower custody counterparts. Although the relationship is significant in the specific model, we cannot draw strong conclusions that it directly impacts procedural justice. However, it may play a role in the development of perceptions and it is important

to further explore. Close custody is a unique setting as it is the middle-ground between medium custody, which is essentially an open style yard with dorm housing, and maximum custody, which includes controlled movement and cell-style housing. The close custody group has increased freedom from max custody such as having a cellmate, daily recreation, and eating in the dining hall. However, they are still in cells and experience more restricted movement and less privileges than medium custody. Close custody inmates experience less privacy and more staff contact than max custody which could be considered “worse” for the population. This suggests that there may be specific factors within custody level that contribute to the negative perceptions of procedural justice. Based on prior research that has supported the impact of staff factors (e.g. Beijersbergen, Dirkzwager, Eichelsheim, et al., 2015; Biere, 2013) and institutional factors (e.g. Brunton-Smith and McCarthy, 2016; Jackson et al., 2010; Sparks et al., 1996), it would be useful to explore the more specific dynamics of custody level to better understand the potential differences in perceptions of procedural justice. It cannot be definitively concluded that conditions of confinement directly shape perceptions of procedural justice, but further exploration of the complexities of custody levels can untangle this relationship.

Second, although this study did not find personality traits as modifiers to the relationship between procedural justice and custody level, it is critical to examine the relationship between agreeable and emotionally stable inmates and their perceptions of staff. The body of research on personality posits that low levels of agreeableness are associated with mental health disorders and substance abuse disorders (Jakobwitz and

Egan, 2005; Kotov, Gamez, Schmidt, and Watson, 2010). The current study found that high agreeableness was associated with better procedural justice outcomes. It may be that agreeable personalities serve as protective factors or encourage inmates to be more receptive to staff, regardless of how they are treated. It is also possible that simply being an agreeable person leads to more positive perceptions of other people and experiences regardless of their context. Future research should analyze this relationship thoroughly to determine the causal mechanism between agreeableness and positive perceptions of procedural justice. Similarly, emotionally stable inmates had more positive perceptions of procedural justice. Emotional instability is often characterized as anxious, easily upset or irritated, mood shifts, and excessive worry. Inmates who are more emotionally stable may not be experiencing their interactions with staff in a negative light as they are not easily bothered by others or moody. Contrarily, inmates who experience unstable qualities may quickly become upset or be anxious about staff experiences in general and perceive them negatively regardless of how they actually go.

Understanding that inmate personalities, to some extent, impact the way they perceive their treatment is important for institutional management procedures. Better understanding inmate personalities will allow corrections officers and administration to better approach and work with incarcerated individuals based on their personality style. Similar to adjusting approaches with mental health inmates, it could be helpful for staff to strategically engage the different types of inmates in different ways. Importantly, this would seem to cut across all levels of custody, as this study did not document interaction

effects whereby these important personality factors would matter more (or less) based on conditions of confinement.

Third, it is important to acknowledge that the importation model extends beyond personality and the other factors previously mentioned. Brunton-Smith and McCarthy (2016) note that some inmates base their views of prison legitimacy on pre-existing attitudes toward authority figures or other criminal justice actors. As previously mentioned, Franke and colleagues (2010), following suit of Sparks and Bottoms (1995), suggest that correctional officers increasingly employ legitimacy-building approaches to their work to increase inmate perceptions of procedural justice, fairness, and legitimacy. Based on the review of the current literature, it is clear that procedural justice is critical to corrections. The prior work supports that positive perceptions of procedural justice increase order (Bottoms, 1999; Jackson et al., 2010; Sparks and Bottoms, 1995) and decrease misconduct (Beijersbergen, Dirkzwager, Eichelsheim, et al., 2015; Reisig and Mesko, 2009) among other outcomes. There is no argument that order within the institution that manifests from procedurally just treatment and inmate buy-in is preferable compared to order enforced by inmate violence. Additionally, misconduct can have an impact on the entire institution. It is clear that increasing procedural justice in the prison environment is beneficial to both staff and inmates.

It is critical to note the limitations of this study before concluding the discussion. First, the max custody sample is much smaller than the medium and close custody groups, which could influence the statistical power of the models presented above. ADC has decreased the use of max custody placements, therefore impeding on the sample size.

Future additions to this study will address this issue with an increased max custody sample $n=100$, making it equal to its counterparts. Second, it is relevant to reiterate that procedural justice perceptions were captured at baseline, meaning inmates had only been living in their current placement for one to three weeks. It could be that the reported perceptions of procedural justice were either underdeveloped or influenced by previous experiences. So too could it be that they have not yet experienced the full “pains of imprisonment” associated with different levels of confinement. These issues will be addressed in follow-up interviews at six months with the same sample. Change over time measures will be included in the modifications to this study.

Taken all together, procedural justice is equally as important in corrections and warrants further exploration in the prison context. Procedural justice has the power to improve conditions of the institution for both inmates and staff. It is critical that continued research is conducted to understand the specific elements of custody levels that foster positive or negative perceptions of procedural justice and how those factors can be manipulated. Additionally, personality traits should be considered by scholars and practitioners in understanding and working with this specific population. The prison setting is undoubtedly unique to the police on the streets and judges in the courtroom, but the framework remains relevant and important as this population started with the police and courts.

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APPENDIX A

PERSONALITY QUESTIONS AND SCALES

Respondents were provided the following prompt:

“The final set of questions include a list of personality traits that may or may not apply to you. Please indicate the extent to which the pair of traits applies to you, even if one characteristics applies more strongly than the other. Please tell me whether you “disagree strongly”, “disagree moderately”, “disagree a little”, “neither agree nor disagree”, “agree a little”, “agree moderately”, or “agree strongly”.”

Questions were asked in the following manner utilizing a 7-point likert scale for responses.

I see myself as...

1. Extraverted, enthusiastic
2. Critical, quarrelsome
3. Dependable, self-disciplined
4. Anxious, easily upset
5. Open to new experiences, complex
6. Reserved, quiet
7. Sympathetic, warm
8. Disorganized, careless
9. Calm, emotionally stable
10. Conventional, uncreative

Scales were coded as follows:

Extraversion: Q1 and Q6 (reverse coded)
Agreeableness: Q2 (reverse coded) and Q7
Openness to Experiences: Q5 and Q10 (reverse coded)
Conscientiousness: Q3 and Q8 (reverse coded)
Emotionally Stable: Q4 (reverse coded) and Q9

APPENDIX B

PROCEDURAL JUSTICE QUESTIONS AND SCALES

Respondents were provided the following prompt:

“I am going to change gears a bit and ask you a few questions regarding your attitudes toward correctional staff and the prison environment. Please indicate whether you “strongly disagree”, “disagree”, “neither agree nor disagree”, “agree”, or “strongly agree” with the following statements. Remember that all responses will be kept confidential and ADC will not have access to your answers.”

Questions were asked in the following manner utilizing a 5-point likert scale for responses.

1. Staff members of this correctional facility treat me with respect.
2. Staff members of this correctional facility apply the rules accurately.
3. Staff members of this correctional facility respect my rights.
4. Staff members of this correctional facility give honest explanations for their actions.
5. Staff members of this correctional facility try to get the facts before doing something.
6. Staff members of this correctional facility give me a chance to express my views before they make decisions.
7. Staff members of this correctional facility are courteous to me.
8. Staff members of this correctional facility listen to me when deciding what to do with me.
9. Staff members of this correctional facility treat me fairly.
10. Staff members of this correctional facility make decisions based on opinions instead of facts.
11. Staff members of this correctional facility make decisions in fair ways.
12. Staff members of this correctional facility treat everyone equally.

The procedural justice scale was additive, with a range of 12-60.

APPENDIX C

FULL MODEL: CUSTODY LEVEL AND PERSONALITY TRAITS ON PROCEDURAL JUSTICE

Table 6. Results from Analysis Two: Custody level and Personality Traits on Procedural Justice

Variable	Coefficient	Standard Error
Custody Level		
Close	-2.34 [†]	1.39
Max	-1.80	2.24
Personality		
Extraversion	-.069	.449
Agreeableness	1.89****	.501
Open Experiences	-0.66	.519
Conscientiousness	-.408	.615
Emotional Stability	1.10*	.517
Age	-.093	.060
Race	-.718	.642
Priors	-.311	1.51
Prior Mental Health	.803	1.31

Notes: *N*=224. Prob > F = 0.007. Medium custody is used as reference category.

[†]*p*<0.1, **p*<0.05, ***p*<0.01, ****p*<0.001, *****p*=0.000

APPENDIX D

EQUALITY OF REGRESSION COEFFICIENTS TEST RESULTS

(PATERNOSTER ET AL., 1998).

Equality of Regression Coefficients Test

$$z = \frac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}}$$

Agreeableness: Medium and Close Custody

$b_1 = 2.12$ $b_2 = 1.52$

$SEb_1 = .772$ $SEb_2 = .698$

$Z = .576$

Emotional Stability: Medium and Max Custody

$b_1 = 1.27$ $b_2 = 2.26$

$SEb_1 = .793$ $SEb_2 = 1.34$

$Z = -.636$

Insignificant at $\alpha = .05$