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Prison Legitimacy and Procedural Fairness: A Multilevel Examination of Prisoners in England and Wales

Ian Brunton-Smith and Daniel J. McCarthy

The procedural justice model has been widely used as an explanation for understanding legitimacy and compliance with the law, particularly within the context of policing. Central to this model is the importance of procedural fairness—in which the treatment of citizens and offenders by criminal justice agents can play a key role in building legitimacy and influencing compliance with legal rules and values. This paper examines the relationship between procedural fairness and legitimacy within the context of corrections. Drawing on data from a longitudinal survey of more than 3,000 prisoners across England and Wales, we identify an important link between procedural fairness and prisoner perceptions of legitimacy. We further examine variations in legitimacy in terms of individual prisoner characteristics, conditions *within* prison, as well as differences *between* prisons.

Keywords: prison legitimacy; procedural justice; multilevel

Introduction

The theory of procedural justice has been highly influential in criminology, frequently applied to explain policing responses (Jackson et al., 2012; Sunshine & Tyler, 2003; Tankebe, 2009) and court procedures (Wales, Hiday, & Ray, 2010), but seldom understood within the context of corrections—a deficit from

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which this paper builds. One important issue emerging from recent research is the role of prison officers in facilitating legitimacy through procedurally fair responses to prisoners (Franke, Bieri, & Mackenzie, 2010; Jackson, Tyler, Bradford, Taylor, & Shiner, 2010). These studies have shown how poor conditions inside prison such as overcrowding, degraded physical structures, limited privacy, and lack of services can be trumped by good relations with prison staff (e.g. Franke et al., 2010). This research highlights the importance of prisoners perceiving the prison environment to be a *legitimate* source of control (feeling obligated to obey rules, expressing moral value alignment with staff, and believing in the existence of a core set of rules and regulations within the prison that officers consistently follow), as well as exercising fair treatment through the use of authority. Procedural justice, it is argued, is instrumental in ensuring compliance from prisoners in ways that are more effective (and durable) than securing order solely through direct and indirect force (see Jackson et al., 2010).

In this paper, we use data from a large-scale longitudinal survey of prisoners to analyze prisoner perceptions of legitimacy across the entire prison estate in England and Wales. Drawing directly on the procedural justice framework, we use multilevel models to incorporate information about the structural character of prisons alongside individual prisoner experiences, background characteristics, *and* a measure of institutional procedural fairness. This allows us to examine whether prisons that adopt fairer procedures are identified as more legitimate by prisoners, or whether legitimacy is shaped solely by the lived experiences of prisoners (including day-to-day interactions with staff, other inmates, and the wider prison institution, as well as time spent in cells and involved in prison-based interventions).

In testing the impact of procedural fairness on legitimacy, we make several important developments to the research literature. Firstly, although there have been a significant number of empirical applications of the procedural justice model (e.g. Jackson et al., 2012; Sunshine & Tyler, 2003; Tankebe, 2009; Tyler, 2006), there have been few applications of this model within the context of correctional facilities. As a closed institution with its own social world of rules and order based largely on the restriction of freedom and coercive operations of social control, assessing procedural fairness within prisons has important implications for correctional research and policy. These include whether prisoner perceptions of procedural fairness influence their trust and compliance with prison rules, and whether fair treatment can help establish legitimacy for prison authorities. Secondly, in examining the operation of procedural fairness, we direct attention at the characteristics of prisoners in order to explain which prisoners perceive prison to be less legitimate. By interviewing prisoners at two time points—at the start and end of their sentence—we can also understand how perceptions of legitimacy are influenced by experiences occurring at different points in their sentence. Thirdly, we assess differences between prisons in terms of legitimacy and procedurally fair practices. Given existing knowledge of specific problems identified within certain

prisons—including overcrowding, poor conditions, civil unrest, and poor service provision (Sparks, Bottoms, & Hay, 1996)—it is likely that prisons will also vary in terms of procedurally just practices. Empirical research has also identified independent multilevel effects of the broader prison environment on individual prisoner outcomes including, inmate behavior (Wooldredge, Griffin, & Pratt, 2001), assaults on staff (Lahm, 2009) and other inmates (Lahm, 2008), and other forms of prisoner misconduct (Camp, Gaes, Langan, & Saylor, 2003; Morris & Worrall, 2014). Yet, we currently know little about whether legitimacy varies across prisons, and whether procedurally fair treatment of prisoners can trump the structural differences between prisons.

Prison Legitimacy

Legitimacy has been understood as the obligation to obey decisions or directives within the context of authorities or institutions (Beetham, 1991). The greater the level of legitimacy the public confers on such institutions and laws, the more likely they are to obey (Tyler, 2006). In the context of correctional facilities, this idea is complicated by the reality that most prisoners serving a sentence have broken the law and thus failed to obey these standards of behavior. Despite this, what happens within correctional facilities in terms of the prisoner experience can serve to influence subsequent attitudes toward criminal justice and legitimacy.

In his 1994 paper, Richard Sparks posed the question “can prisons be legitimate?” He concluded that despite the coercion on behalf of the State in their instrumental power to punish, the internal dynamics of prison life, as in other social settings, rely on the delicate and often tentative balance of social order and legitimacy. Prisons are tasked with fulfilling a range of functions—many of which can be at odds with one another. Liebling (2011) has articulated this argument with respect to dynamic legitimacy in the context of power holders (i.e. the prison staff). She argues that obedience of rules and order is negotiated through an ongoing process via the behavior of prisoners and prison staff. The general functioning of prison life, while at root coercive, must therefore depend on compliance of the established rules by the inmates, and indeed, by the prison officers in enforcing such rules in a fair and consistent way. Authors such as Sparks et al. (1996) and Carrabine (2005) have gone on to argue that not only are the established rules and forms of compliance reflective of internal conditions of prison life (e.g. safety, humanity, reasonable living conditions, and so on), but that such conditions reflect broader moral beliefs about treating human beings with dignity and respect. This follows a well-established literature which has shown that prisons affording respectful treatment of prisoners are responsible for greater levels of prisoner compliance (Liebling, 2004; Reisig & Mesko, 2009; Sparks et al., 1996), as well as improving broader outcomes such as reducing reoffending and enhancing resettlement prospects (Listwan, Sullivan, Agnew, Cullen, & Colvin, 2013).

Other authors have challenged the central premise that legitimate prisons can be characterized by the compliance of the prisoners in obeying rules and maintaining a largely consensual prison environment. Carrabine (2005, p. 904), for example, argues that what appears to be a cohesive prison environment should not be necessarily viewed as indicative of compliance and higher legitimacy, but rather could be due to the "dull compulsion of rituals" whereby resignation or acceptance of powerlessness within prison produces obedience amongst inmates. The "dull compulsion" argument raises important empirical questions about how we measure and indeed interpret legitimacy as beyond compliance with rules and established order (see also Reisig & Mesko, 2009, p. 55). This further necessitates the need to disentangle whether rule following is simply prisoner acquiescence, or whether it is explained by factors such as trust, feeling safe and secure, and having good relationships with prison staff.

Order and legitimacy within prison depend heavily upon both the consistency of interactions between staff and prisoners, and the perceived sincerity of attempts to listen to and support prisoners. Crewe (2011) writing in the context of the "soft power" which prison officers utilize in prison to provide more meaningful forms of engagement with inmates, believes it can both provide a platform to enhance legitimacy, but at the same time rests on a tentative and potentially fragile process if the officer performs these roles in insincere forms or in ways which inmates perceive as inconsistent or deceptive. The role of prison officers can also be altered by the institutional fabric of the individual prison and its distinct organizational culture. For example, prison officer culture has been identified by Crewe, Liebling, and Hulley (2011) as a key factor in altering the actions of prison guards, and hence their relations with prisoners. They identified differences in the actions and cultures of prison staff in different prisons, with officers in public prisons more likely to be socialized into a culture of cynicism and suspicion which can serve to limit organizational reform. In private prisons, more of a "hands off" culture amongst prison officers was evident which was linked to staff powerlessness, including failures to provide basic safety and security inside the prison.

What is clear from existing research is that prison legitimacy in the eyes of prisoners is contingent on a range of factors, ranging from the organizational culture and actions of prison guards through to the type of prison and physical conditions. But there are also certain prisoner groups that have experienced prison as less legitimate. One of the most significant predictors of holding more negative perceptions of prison legitimacy is being a member of an ethnic minority group. Several studies have found levels of victimization to be higher in prison for ethnic minorities, especially black prisoners (Cheliotis & Liebling, 2006). This, combined with unfair exercises of power within prison, such as allocation of prison tasks, extended discipline, and failure to grant privileges, have all been linked to lower levels of perceived legitimacy. Jackson et al. (2010) also point to the importance of the disproportionate representation of minorities within prison, which they argue leads to greater strains on prisoner

staff relations. Differences in terms of legitimacy have also been uncovered in relation to the age of prisoners, with most studies finding that younger prisoners, especially those serving short sentences tend to report lower levels of perceived legitimacy (Steiner & Wooldredge, 2008).

Procedural Justice in Prisons

Tyler's (2006) influential scholarship on the social psychological properties of the exercising of authority has argued that legitimacy can be explained more by the *process* than the outcome of decisions. In the case of prisoners, where it is clear to the inmate that there is a transparent structure of rules in prison, and that the rules have been enforced to a fair and consistent level (even if the outcome is not the one sought by the individual), then it is argued that the outcome can still be considered legitimate. That is to say, the authority is justified.

Tyler's (2006) model of procedural justice highlights four central components—voice, neutrality, respect, and trust. Jackson et al. (2010) apply this model and rework its significance for understanding the prison system. *Voice* consists of attempts by authorities to involve prisoners in decision-making. This has implications for the perception of fair treatment of prisoners, where failing to give prisoners an opportunity to state their case during conflicts can compound their sense of injustice regarding the decisions made against them. *Neutrality* refers to the perception that prison staff enforce rules in ways which minimize bias and prejudice. This is significant in terms of the consistency of rule following in prison, where prisoners perceiving some prison staff as acting in ways which benefit some inmates and disadvantage others can have major impacts on compliance, conflict, and distrust of prison staff. Treating inmates with *respect and dignity* is of paramount concern when understanding the motivations of prison staff. This often rests upon a series of additional factors, including the culture of the prison, security imperatives, and the extent of repression inside prison, as well as different conditions in place for the control of certain categories of inmates. Finally, there is the connected issue of whether this warrants *trust* in prison staff and the overall penal regime. Trust is important as it has wider implications not only for prison legitimacy, but also for inmate compliance with rules and the reduction of conflict.

Reisig and Mesko (2009), using Tyler's (2006) model of procedural justice to analyze rule compliance amongst male prisoners, find a mixed picture. Of particular significance in their study was the absence of a relationship between procedural justice judgments and higher levels of legitimacy, although the authors do point to some methodological problems with this claim.¹ They did

1. Specifically, they suggest that their measures of legitimacy may be capturing coercive obedience, rather than obedience with prison rules because it is the right thing to do.

find, however, that the actions of prison guards in treating prisoners with humanity, dignity, and respect tended to promote higher levels of compliance amongst inmates. Franke et al. (2010) also examine the procedural justice model within the context of corrections. Comparing inmates housed in a boot camp to a traditional prison facility, they note differences between these institutions in levels of perceived legitimacy. According to the authors, the boot camp life was more predictable in terms of the treatment by staff, which by contrast to the prison facility was interpreted as more procedurally just. Both the boot camp and prison experienced similar environmental issues, such as a lack of privacy, boredom, and noise, but only in the case of the boot camp were these trumped by the actions of staff. Those inmates who perceived their treatment by staff as more procedurally fair were more likely to leave the institution with favorable attitudes to the criminal justice system as a whole. These findings also controlled for age, race, and criminal history, identifying that the treatment by staff influenced attitudes toward criminal justice and the legitimacy of penal regimes over and above individual proclivities.

The degree to which there is a conceptual distinction between procedural fairness and legitimacy has received both empirical support (Jackson et al., 2012; Sunshine & Tyler, 2003; Tyler, 2006) and critique (Henderson, Wells, Maguire, & Gray, 2010; Johnson, Maguire, & Kuhns, 2014; Tankebe, 2013). Within Tyler's (2006) conceptualization, procedural justice judgments influence citizen perceptions of legitimacy, which in turn increase compliance with the law. Similarly, Jackson et al. (2012) recognize the ways that procedurally fair policing can help instill citizen respect for, and moral alignment toward, the police and the rule of law. In other words, police decision-making and use of authority, if delivered fairly and with consistency, can increase levels of perceived legitimacy in accepting the police as "appropriate, proper and just" (Tyler, 2006, p. 375).

Alternative models have incorporated procedural justice within overall measures of legitimacy. Tankebe (2013) argues that overall measures of legitimacy should combine police effectiveness, distributive fairness, procedural fairness, and lawfulness. According to Tankebe, the delivery of power by police officers can be understood as a product of not *just* procedural fairness, but also the effectiveness of police decisions and outcomes which may then subsequently impact on overall levels of legitimacy. He further raises questions about the obligation to obey legal authorities—which is viewed by Tyler (2006) as a component of legitimacy (see also Jackson et al., 2012)—arguing that this should instead be considered as independent of legitimacy. Johnson et al. (2014) have also raised questions about the distinctiveness of procedural justice and legitimacy in the context of citizen perceptions of policing in Trinidad and Tobago. They suggest that legitimacy (institutional trust) and quality of decisions and quality of treatment (procedural justice) may be measuring similar perceptual understandings, with citizens conceiving them as blurred together in their assessments of policing.

Much of the research on procedural fairness and legitimacy has been situated in the context of policing. Within prisons, there are several distinctions to be made. As Liebling (2011, p. 486) argues “legitimacy tends to be treated in the literature as procedural justice plus respect, but in the prisons context there is much more than this.” As closed institutions, the delivery of power is not conditioned solely through the actions of prison guards, but regime conditions as well (Franke et al., 2010; Liebling, 2004; Sparks et al., 1996). Examples include overcrowding, inadequate facilities, scarce access to luxuries, poor quality food, and poor safety and security—factors which may be mediated by, but are also separate from, the fair treatment of prisoners by prison guards. Regime conditions are further tied to the availability of support services which prisoners are offered in prison, with higher levels of legitimacy evident amongst inmates who feel helped to engage in activities which improve their life prospects when released (Reisig & Mesko, 2009).

The Current Study

We add to this existing evidence base by examining perceptions of legitimacy across the entire prison estate in England and Wales. Covering both male and female prisons, this allows us to identify which types of prisoner are more, or less, likely to perceive staff to be a legitimate source of control, whilst also determining the extent that systematic differences in average levels of legitimacy exist between prisons. Applying insights derived from the procedural justice literature, we focus specifically on the role that procedural fairness—the degree to which prisons operate in a fair and consistent manner and have clear and transparent systems in place to respond to prisoner problems—plays in shaping legitimacy. By treating procedural fairness as a prison-level characteristic, rather than relying directly on sampled prisoners’ interpretations of fair treatment, we recognize that procedural justice reflects more than simply the actions of prison staff, capturing the broader system of mechanisms in place to respond to disruption within the prison. We also consider other important features of the broader prison context, accounting for the size of the prison and levels of overcrowding, as well as whether or not the prison is privately run. Within prisons, we examine differences in perceptions of legitimacy based on individual prisoner characteristics and assess whether early experiences are influential in shaping subsequent views.

Prisons in England And Wales

There are currently around 85,000 prisoners incarcerated in England and Wales, a rate of approximately 150 prisoners per 100,000 of the population (www.prisonstudies.org). This compares favorably with the penal system in the US (750 per 100,000) but is higher than most European countries

(Guerino, Harrison, & Sabol, 2012). At the time our data were collected, there were 135 prisons, with 10 privately run. The majority of prisoners are serving sentences for violent crimes (26%), with fewer serving time for sexual offenses (10%), drugs offenses (15%), and robbery (9%) (Ministry of Justice, 2015). The same data show the average sentence length in 2013 was 10.1 months (up from 8.4 months in 2002) and most prisoners serve sentences of less than 2 years. Like the US, there is an overrepresentation of black offenders within the prison system, with 12% of the prison population identified as black compared to approximately 3% of the general population (Ministry of Justice, 2015).

Data

Our data come from the Surveying Prisoner Crime Reduction (SPCR) project. This was a four-wave panel study of 3,849 offenders sentenced to between 1 month and 4 years in prison in England and Wales between 2005 and 2006. Prisoners were interviewed twice in prison (once on reception and once in the weeks prior to release), and twice following release (approximately two months and six months post-release).²

Conducted by Ipsos-MORI on behalf of the Ministry of Justice, the survey adopted a multi-stage clustered sampling design at wave 1. First, all reception prisons with a monthly intake of at least 10 new prisoners were identified, with samples of recently arrived prisoners (within 2–5 weeks of reception to prison) selected from each eligible prison for interview. To achieve a sufficient sample size, these samples were generated from each prison on an average of three separate occasions, although in practice access constraints within certain prisons meant that prisoners were oversampled in some prisons and undersampled in others. For those prisoners serving longer sentences (who are generally underrepresented in receptions to prison), the eligibility criteria for interview were extended to a maximum of 6 months since reception to prison.³ Initial analyses by Ipsos-MORI suggest the final achieved sample was broadly representative of the prison population, with a response rate of 60% (AAPOR, RR1). Full details on the

2. The original sample includes a total of 737 prisoners serving particularly short sentences, however, these prisoners were only interviewed on arrival to prison so are not included in the current analysis. Data from one prisoner incarcerated within an immigration center were also omitted because of a lack of suitable prison-level data. This leaves an analytic sample of 3,111 prisoners.

3. The survey is comprised of a core sample of 1,435 prisoners sentenced to between 1 months and 4 years in prison, and an additional sample of 2,014 prisoners serving sentences of between 18 months and 4 years. All analyses reported here were also conducted for each subsample separately, with all effects operating in the same direction in each model. We therefore include all data simultaneously, with a control for sample type in the models.

Table 1 Principal component scores—perceived legitimacy

	Component loadings
<i>Perceptions of Legitimacy—strongly disagree (0) to strongly agree (4)</i>	
I have been helped significantly with a particular problem by a member of staff in this prison	.68
I receive support from staff at this prison when I need it	.79
I feel I am trusted quite a lot in this prison	.67
Staff in this prison often display honesty and integrity	.79
Relationships between staff and prisoners in this prison are good	.78
I trust the officers in this prison	.79
I am being looked after with humanity here	.77
Personally, I get on well with the officers on my wing	.73
Overall, I am treated fairly by staff in this prison	.79
Staff help prisoners to maintain contact with their families	.65
Cronbach's alpha	.90

sample design are included in Cleary, Ames, Kostadintcheva, and Muller (2012a, 2012b).

Prisoners were interviewed a second time approximately four weeks prior to release (wave 2), with all those prisoners successfully interviewed at wave 1 eligible for reinterview. In practice, approximately 41% of prisoners were in a different prison at the time of reinterview. Full details on the reasons for transfer were not recorded; however, for the majority of prisoners, this is likely to result from transfers out of short-term reception prisons (Cleary et al., 2012b). Offenders were interviewed again approximately two and six months after release (waves 3 and 4) from prison; however, we do not examine data from these waves in the current study.

Dependent Variable

Following Liebling (2004, 2011), we focus on prisoner *perceptions* of staff legitimacy, emphasizing the importance of individual prisoner interpretations of their time in prison. We view this as distinct, but related to, the broader prison regime in relation to procedural justice. This conceptual position recognizes previous research which challenges the distinctiveness of procedural fairness and legitimacy (Johnson et al., 2014). Our measure incorporates a number of important features of legitimacy covering perceptions of prisoner–staff relationships, trust (in staff and by staff), fair treatment by staff, support from staff, and perceptions of staff honesty and integrity (Table 1). A total of 10 items measured on a five-point Likert scale from strongly disagree (0) to

strongly agree (4) are used.⁴ Exploratory factor analysis indicated that all 10 items are part of a single latent construct. This demonstrates that the different strands of prison legitimacy are actually wrapped up together in the minds of prisoners, with no clear distinction made between relations with staff, trust in staff, or levels of support received. As a result, for the current analysis, the items were combined into a continuous scale using principal components analysis. The scale has high internal reliability (Cronbach's alpha .90), with all item loadings above .6 and most above .7.

Independent Variables

Procedural fairness

Unlike most police encounters, encounters between prisoners and the prison establishment (consisting mostly of prison guards, as well as to a lesser extent professionals such as those offering specific support services and after/through care provision) often rest on factors relating not only to actual treatment by prison staff, but also the broader system of mechanisms in place to respond to disruption within the prison. As such, we conceive of procedural fairness as a *prison-level* attribute characterizing the broader prison regime, which in turn shapes the experiences of all prisoners in the same institution.

Our prison-level measure is derived from summary information from an independent data source—the Measuring the Quality of Prison Life survey (MQPL)—capturing overall differences in the levels of procedural fairness between prisons. This goes some way to mitigate the impact of measurement ambiguity between procedural fairness and perceptions of legitimacy that has been noted elsewhere (Henderson et al., 2010; Johnson et al., 2014; Tankebe, 2013), ensuring that any associations are not simply a reflection of shared measurement properties. Data are taken from the MQPL round in each prison that matches most closely with the data collection period of SPCR, with data spanning August 2005 to March 2009. Procedural fairness is measured as the combined score on five survey items detailing the extent that there are suitable procedures in place for prisoners to express their views, and whether they are treated fairly and consistently. The combined scores are then aggregated to the prison level to produce a single summary score for each prison.⁵

4. Basic descriptive details of prisoner responses to each question can be found in Hopkins and Brunton-Smith (2014).

5. Items were selected based on earlier exploratory work by Liebling (2004) and were intended to represent the character of the prison regime. Data confidentiality issues mean that we only had access to an overall summary measure for each prison and not the individual survey data.

- (1) There are procedures in place for challenging decisions that I feel are wrong.
- (2) Prisoners in this prison who observe the rules earn the most privileges.
- (3) This prison has procedures in place that allow me to express my views and opinions before decisions are made.
- (4) I think I receive adequate privileges bearing in mind my behavior.
- (5) Control and restraint procedures are used fairly in this prison.

For full details on MQPL see Liebling, Hulley, and Crewe (2012). Summary statistics for all independent variables included in the model can be found in Table 2.

At the individual level, prisoners' initial perceptions of prison staff, as well as information about their treatment whilst in prison are included to capture more localized deviations in the enactment of procedural fairness. Initial interactions with staff on arrival to prison are measured using data from three survey items included in the wave 1 interview, combined using principal components analysis into a single scale (question wording and component loadings in Appendix Table A1). From wave 2, data were collected on the number of hours prisoners spent in their cell on an average day. We also include indirect measures of known rule infraction, identifying whether prisoners' had received any additional punishments during their sentence, and the type of prison regime they were on (basic, standard, enhanced).⁶

Prisoner background and experiences

Background details about each prisoner cover their gender,⁷ age, ethnicity, and education level, as well as sentence length, sentenced offense type, and whether they had served any prior prison sentences. We also include a measure of the intensity of prior offending history.⁸ Prisoners' assessments of the conditions within the prison were also included, based on the combined scores from three items (question wording and component loadings in Appendix Table A1), as well as whether a prisoner had been assaulted by another inmate during their sentence. Finally, those prisoners enrolled on work programs, or

6. All prisoners enter prison on standard regime. Prisoners may be transferred to basic or enhanced regime based on behavior. Prisoners on basic regime generally have a lower volume of allowances and privileges. Prisoners on enhanced regime have a greater level of privilege, for example, more visits with greater flexibility over timings.

7. Technically, gender might be better conceived of as a prison-level attribute, as all female prisoners in England and Wales are housed separately from male offenders. However, in some instances (for example, HMP Peterborough), this is on the same prison estate as male offenders; therefore, gender is included at the individual level in our model.

8. Based on Copas and Marshall (1998), this details the rate at which offenders have built up convictions throughout their offending career, with higher scores given to offenders that have received more convictions in a given amount of time. This is calculated as: $\ln(\text{court appearances} + \text{cautions}) + 1 / \text{Career length} + 10$.

Table 2 Descriptive data

	Sample size ¹	Mean	Std. dev.	Min	Max
<i>Prison level</i>					
Procedural fairness ²	115	3.00	.19	2.58	3.45
Average population size ²	115	586.85	308.72	94.92	1,460.08
Prison overcrowded	115	.73	.45	0	1
Category A	115	.03	.18	0	1
Private	115	.07	.26	0	1
Racial equality ²	115	3.36	.17	3.02	3.88
<i>Individual level</i>					
Perceived legitimacy	1,758	0	1	-3.26	2.05
Female	3,111	.15	.35	0	1
Black or minority ethnic	3,111	.17	.38	0	1
Age (centered)	3,111	.43	10.04	-12	56
First prison sentence	3,032	.40	.49	0	1
Offending history (Copas rate)	3,031	-1.04	.90	-3.93	.89
Positive treatment by staff on arrival	3,045	0	1	-2.45	1.87
Been assaulted in prison	1,938	.12	.32	0	1
Hours locked in cell yesterday	1,782	15.0	5.09	1	24
Work program	1,939	.78	.41	0	1
Education training	1,939	.38	.48	0	1
Prison conditions	1,911	0	1	-2.60	2.07
<i>Sentenced offense</i>					
Violence	640	.21	.40	0	1
Acquisitive	906	.29	.45	0	1
Drug	669	.22	.41	0	1
Motoring	167	.05	.23	0	1
Other	658	.21	.41	0	1
Details unavailable	71	.02	.15	0	1
<i>Sentence length</i>					
Under 6 months	303	.10	.30	0	1
6 months-1 year	164	.05	.22	0	1
1 year-18 months	426	.14	.34	0	1
18 months-2 years	742	.24	.43	0	1
2 years-3 years	1,000	.32	.47	0	1
3 years-4 years	476	.15	.36	0	1

(Continued)

Table 2 (Continued)

	Sample size ¹	Mean	Std. dev.	Min	Max
<i>Education</i>					
No formal qualification	1,381	.44	.50	0	1
GCSE	1,409	.45	.50	0	1
A level	192	.06	.24	0	1
Degree or higher	129	.04	.20	0	1
<i>Regime</i>					
Basic	804	.42	.49	0	1
Standard	45	.02	.15	0	0
Enhanced	1,081	.56	.50	1	1

¹Sample size pre-imputation; ²Unstandardized figures reported.

who had participated in educational training during their sentence, were identified.

Prison context

To account for the influence of the external prison environment on prisoner perceptions of legitimacy, contextual information from the Prison Performance Digest (2011) was linked to each prison. This covered: the annual prison population size (averaged over 2005–2008); and whether or not the prison was identified as operating above capacity at any point during this period. We also distinguished those prisons that held category A prisoners,⁹ whether the prison was privately or publicly run, and whether it operated as a resettlement prison. Finally, we also retain details on the prison's record for racial equality, derived from 13 items in the MQPL survey aggregated to the prison level (for question wording see Appendix 1).

9. Adult male prisoners are given a security categorization from A to D when entering prison, based upon factors including offense committed, level of risk, length of sentence, and chances of escape, with category A being for serious offenders who pose a high risk to the public and D being the lowest risk to the public and least likely to escape.

Analytic Strategy

We use multilevel models¹⁰ to identify differences in perceptions of legitimacy within and across prisons in England and Wales (Johnson, 2010). Multilevel models allow us to explicitly account for the grouped structure of the data—with prisoners clustered within different prisons—giving us a statistical estimate of the contribution of prison differences to overall variability in levels of legitimacy. This also ensures that any differences in perceptions of legitimacy observed between prisoners are correctly adjusted to account for the impact of shared experiences amongst prisoners serving sentences within the same institution, with standard errors correctly reflecting the structured nature of the data (Johnson, 2010). Importantly, this also means that significance tests for prison-level effects are based on the number of prisons in the data-set, not the number of prisoners (Wooldredge et al., 2001). For each prisoner, we use the prison that they were being held in at the time of the second interview. For those prisoners that were not successfully reinterviewed prior to release, this was based on details of the last known prison where an interview was attempted. Prisoners were grouped within 115 prisons across England and Wales, with an average of 27 prisoners housed within each prison (range 1—118).

Despite repeated interview attempts prior to release, SPCR experienced considerable attrition by wave 2, with only 62% of the eligible sample successfully reinterviewed before leaving prison. Such a high level of missing data can have substantial implications for the accuracy of results, potentially leading to biased estimates and inflated standard errors (Rubin, 1987). To adjust estimates for the impact of missing data, a multilevel extension to standard multiple imputation (MI) procedures was used to produce a set of 10 “completed” data-sets (Carpenter, Goldstein, & Kenward, 2011). Like standard MI approaches, this involves construction of an imputation model relating the missing observations to variables that are predictive both of missingness and (ideally) the values of incomplete variables. Specified as a joint model with all incomplete variables treated as outcomes and complete variables (including so called “auxiliary” variables assumed to be predictive of missingness but not included in the model of interest) used to predict (with error) plausible values for missing outcomes. The multilevel extension to MI proceeds in a similar fashion, with a multivariate multilevel model fitted to the data to impute missing data, ensuring the complex covariance structure is retained (for full details see Carpenter et al., 2011).¹¹

MI is a more robust solution to the problem of attrition than traditional methods (e.g. inverse probability weighting, mean imputation, or casewise

10. Also variously referred to as hierarchical models, mixed effects models, random effects models, or nested models.

11. The 10 imputed data-sets were generated using REALCOM-impute with a burn-in of 1,000 draws from the posterior conditional distribution. Every 1,000th imputation was saved to ensure that the imputed data from each saved draw were independent of the previous one.

deletion), ensuring all useable data from wave 1 are included, and correctly incorporating uncertainty around the imputed values. This is based on the assumption that the data are missing at random (MAR: Rubin, 1987)—the chance of observing a variable depends on its value, but given other observed variables, this association is broken. MAR has been shown to be a reasonable assumption for the SPCR, particularly when considering data missing at wave 2 (Brunton-Smith, Carpenter, Kenward, & Tarling, 2014). Missing data were generally unrelated to prisoner characteristics (as measured at wave 1), rather, it was largely a function of problems with the data collection process (e.g. insufficient time allocated to secure reinterviews, difficulties arranging access to particular prisons).¹² We return to the issue of missing data in our discussion, where alternative missing data adjustments are considered.

Results

Table 3 includes the results from three models examining the role of procedural fairness and individual experiences in shaping prisoner perceptions of legitimacy. Looking first at the unconditional association between procedural fairness and legitimacy, model 1 identifies a significant link between the extent that a prison is classified as procedurally fair, and prisoners' views of legitimacy (accounting for 16% of the residual variation originally partitioned between prisons). Prisoners that are held in prisons where there are clearer systems in place to respond to problems, and where these systems are followed in a systematic and fair manner, are more likely to perceive the prison as more legitimate. This lends some support to the general procedural justice framework outlined by Tyler (2006), suggesting that within this criminal justice setting, assessments of legitimacy are partly shaped by whether the prison is run in a fair and consistent manner. However, considerable variability in levels of legitimacy between prisons remains, accounting for approximately 10% of the total variation.

Model 2 adds in individual- and prison-level controls. This provides us with a more stringent test of the role that procedural fairness plays by taking into account differences in the socio-demographic composition of each prison, as well as structural differences between prisons. Procedural fairness is again significantly related to prisoner perceptions of legitimacy, with the effect of a similar magnitude. However, we find no other significant differences in legitimacy between prisons, suggesting that once differences in the levels of procedural fairness between prisons have been accounted for, prisoners' perceptions of legitimacy are generally consistent across prisons.

12. Following the methodology outlined in Brunton-Smith et al. (2014), the following auxiliary variables were included "early release from prison," "difficult to access prison," "high-refusal prison," "sentenced for burglary."

Table 3 Individual- and prison-level predictors of perceived legitimacy.

	Model 1: Unconditional association			Model 2: Control variables			Model 3: Individual experience		
	Estimate	S.E.	P-Value	Estimate	S.E.	P-Value	Estimate	S.E.	P-Value
<i>Prison characteristics</i>									
Procedural fairness	.131	.047	.007	.132	.054	.017	.103	.050	.045
Population size				-.080	.054	.143	-.028	.054	.599
Overcrowded				-.026	.139	.853	.017	.132	.896
Category A				-.374	.283	.189	-.303	.264	.255
Private				.019	.174	.915	-.105	.157	.503
Racial equality				-.022	.062	.728	-.052	.058	.371
<i>Prisoner characteristics</i>									
Black, Asian, and Minority Ethnic				-.262	.074	.002	-.187	.071	.015
Female				.230	.144	.117	.249	.133	.069
Age				.009	.003	.012	.005	.003	.201
<i>Sentenced offense (ref: violence)</i>									
Acquisitive				.032	.063	.611	.100	.057	.084
Drug				.055	.079	.490	.096	.073	.195
Motoring				-.101	.114	.381	.003	.107	.976
Other				.044	.081	.591	.082	.079	.311
Details unavailable				.043	.221	.849	.125	.211	.561
<i>Sentence length (ref: under 6 months)</i>									
6 months–1 year				.117	.187	.540	.117	.187	.541
1 year–18 months				-.009	.148	.951	.003	.158	.983
18 months–2 years				.059	.137	.668	.038	.146	.797
2 years–3 years				-.084	.135	.541	-.093	.143	.520

(Continued)

Table 3 (Continued)

	Model 1: Unconditional association			Model 2: Control variables			Model 3: Individual experience		
	Estimate	S.E.	P-Value	Estimate	S.E.	P-Value	Estimate	S.E.	P-Value
3 years–4 years				.000	.139	.997	.015	.148	.918
Sample type				.083	.089	.357	.127	.081	.126
<i>Education (ref: no formal qualifications)</i>									
GCSE (equivalent to high school diploma)				.108	.051	.040	.102	.051	.053
A level (equivalent to Advance Placement)				.106	.115	.361	.096	.117	.425
Degree or higher				.057	.125	.649	.020	.117	.864
Offending history (Copas rate)				–.156	.026	.000	–.071	.034	.041
First prison sentence							.083	.069	.239
Positive treatment by staff on arrival							.281	.019	.000
Been assaulted in prison							–.060	.060	.318
<i>Prison regime (ref: Standard)</i>									
Basic							–.090	.134	.503
Enhanced							.143	.048	.005
Received additional punishment							–.177	.046	.000
Hours locked in cell yesterday							–.014	.005	.005
Work program							.106	.049	.035
Education training							.079	.038	.038
Prison conditions							.190	.023	.000
Constant	.051	.044	.251	–.170	.160	.290	–.118	.169	.488
<i>Random effects</i>									
Prison (SD)	.319	.044		.260	.041		.225	.038	
Individual (SD)	.981	.017		.957	.016		.863	.016	
Sample size (imputed)	3,111			3,111			3,111		

Within prisons, we find lower levels of legitimacy amongst black, Asian, and minority ethnic prisoners, a relationship anticipated in the work of Jackson et al. (2010). In contrast, older prisoners are identified as holding more favorable views of legitimacy. A prisoner's level of education is also positively related to legitimacy (although this is only significant when considering those who were educated to at least GCSE level—broadly equivalent to high school diplomas). The inclusion of these prisoner background characteristics has explained a small amount of the residual variability in perceptions of legitimacy between prisoners (from .96 to .92). Unexplained prison differences now account for approximately 7% of the remaining variability in legitimacy (falling from .10 to .07).

Finally, model 3 adds in details of prisoners' experiences and treatment within prisons. Here, we still identify significant differences in legitimacy relating to the degree of procedural fairness, although this has been reduced in magnitude by approximately 20%, with the effect partially mediated by individual experiences. Put differently, the effect of procedural fairness is felt via the lived experiences of prisoners, with the higher levels of reported legitimacy in prisons with better records on procedural fairness occurring, in part, because prisoners had more favorable experiences in these prisons.

At the level of individual prisoners, a number of important determinants of legitimacy are identified; both in the weeks following entry to prison, and in the months that follow. Prisoners' initial interactions with staff are directly linked to their subsequent assessments of staff legitimacy, with those prisoners reporting a positive experience on reception to prison reporting significantly higher levels of legitimacy prior to release. This underlines the influential effect that the first few days in prison can have on prisoners' overall outlook, and the extent that they perceive staff as holding legitimate authority over them.¹³ Treatment *during* a sentence is also closely aligned with legitimacy. Prisoners on a basic or standard regime held less favorable views (when compared to those on an enhanced regime), as did those that reported spending more time locked in their cell each day. Prisoners that had received additional punishments during their sentence also viewed staff as less legitimate. In contrast, involvement in paid work and educational courses—both of which tend, *ceteris paribus*, to result in additional interactions with staff—are associated with higher levels of legitimacy. This finding may potentially reflect a selection effect in which prisoners who are more engaged with prison life and more compliant with the structures within it, are also more likely to perceive prison as legitimate and form better relationships with prison staff. Finally, the within prison model shows that legitimacy is closely aligned with prisoner perceptions of the conditions within prison. Prisoners that hold more favorable

13. Additional models exploring whether initial treatment in prison held a different resonance for first-time prisoners or those serving longer prison sentences were also explored, however, these did not result in any clear differences.

views of the conditions within prison tend to view prison as more legitimate (Sparks et al., 1996). The inclusion of these variables has reduced the within prison residual variance by 15% (to .74), whilst also marginally reducing the between prison variance (to .05). As a result, unexplained between prison differences now accounts for 6% of the remaining variation in perceptions of legitimacy.

Discussion

This paper has applied Tyler's (2006) procedural justice model to corrections. Using national-level data from prisoners interviewed at two time points (on entry to prison, and just before release), we provide evidence to support the central ideas of Tyler. By linking measures of legitimacy and procedural fairness, we have illustrated that prisoner perceptions of legitimacy are significantly higher in those prisons identified as operating in a more fair and consistent manner and with more adequate procedures in place for dealing with disputes. This finding both supports existing research (Franke et al., 2010), but departs from others (Reisig & Mesko, 2009) in finding a link between procedural fairness and legitimacy. This has important consequences for generalizing links between procedural fairness and legitimacy beyond more common examples found in policing and court-based literature (Jackson et al., 2012; Sunshine & Tyler, 2003; Tankebe, 2009; Wales et al., 2010).

Our analysis shows a strong link between procedural fairness and legitimacy at the prison level, whilst also identifying important differences within particular prisons. No other structural characteristics of prisons were significantly linked to legitimacy. That legitimacy was unrelated to more traditional measures of prison differences is interesting, and runs counter to more traditional conceptions of the impact that prisons have on prisoners (e.g. Lahm, 2009; Sparks et al., 1996; Wooldredge et al., 2001). Rather, we find that it is the treatment that offenders received whilst inside prison, and the relationships they build with staff, that are central in shaping perceptions of legitimacy alongside the degree of procedural fairness. Additional analyses omitting procedural fairness from the model still failed to identify a significant effect of other prison characteristics, suggesting that the non-significant effects are not because of variations in procedural fairness between prisons based on, for example, their public/private status.

By combining information from prisoners collected on reception to prison with their views prior to release, we have also been able to provide initial insights into how experiences across the duration of a prison sentence shape legitimacy. We find that initial experiences on entry to prison exist as important determinants of legitimacy throughout prisoners' sentences (which for some prisoners could be as much as 4 years later). This underlines the

important role that early contact can have in improving prisoners' settlement *into* prison, as well as the knock on effects this can have for order and control *throughout* their sentence. The apparent stability in perceptions of legitimacy implied by this long-lasting effect of early experiences may also be taken as evidence that, for some prisoners, their views on prison legitimacy are imported into the prison, and perhaps reflect more general pre-existing attitudes (e.g. anti-authoritarian attitudes, or poor experiences of other criminal justice authorities). A more detailed assessment of *how* legitimacy changes at different stages of a sentence is beyond the scope of this study, requiring repeated measurements of legitimacy to be collected for each prisoner. We believe this is an important future step in understanding the potentially dynamic nature of prisoner perceptions of legitimacy and how they are (re) shaped across a prison sentence.

The amount of time prisoners spent in their cells, and their assessments of prison conditions are also important correlates of procedurally fair treatment from prison staff (Jackson et al., 2010). This lends support to previous research which finds that procedural fairness and legitimacy should not be divorced from measures of physical conditions inside prisons (Sparks et al., 1996). Therefore, although our analysis finds support for the role of procedural fairness in shaping legitimacy, we also recognize the importance of prisoner perceptions of the conditions *within* prison. Further findings support this, with prisoners receiving services inside prison (including work and education programs) reporting higher levels of legitimacy than prisoners who did not experience them. However, in part, we recognize this finding to be due to a selection effect, where those prisoners having access to work and education may also have made greater investments in the life of the prison, have better relationships with prison staff and be more compliant with rules inside prison.

We also find an important link between receipt of punishment whilst in prison and perceptions of legitimacy, with those prisoners that had received direct sanctions reporting significantly more negative perceptions of staff legitimacy. From Tyler's (2006) work on procedural justice, we note that the process of decision-making is seen as more important in explaining legitimacy than the outcomes of decisions. That is to say, prisoners receiving sanctions who subsequently perceive prison staff as less legitimate could be interpreted as reflecting inconsistencies or bias in the process of distributing sanctions (e.g. Bottoms, 1999). Our data leave open the possibility that prisoners may regard the *outcome* of the sanctions, rather than the *process* of delivering these sanctions as illegitimate. In other words, assessments of distributive justice are responsible for *reducing* levels of legitimacy in cases of prisoners receiving sanctions (see also Bieri, 2013).

At the level of individual prisoners, we find that black and minority ethnic prisoners had significantly more negative assessments of staff legitimacy than white prisoners. This follows a wide body of research which finds that black

and other minorities tend to have lower levels of trust in the criminal justice system (Jackson et al., 2010; Tyler, 2005), as well as receiving more negative treatment at all stages of the system—from policing (Stewart, 2007; Weitzer & Tuch, 2002) and the courts (Benesh, 2006), to prisons (Cheliotis & Liebling, 2006). Given this wider knowledge of race discrimination within the context of criminal justice, our finding is not altogether surprising. The negative experience of minority prisoners confirms that more needs to be done to relieve these tensions within the prison system, and promote more positive relations between staff and minority prisoners. However, we found no effect of the racial equality record of each prison (a prison-level measure summarizing prisoner views on the ways that minority prisoners are dealt with by the prison—see Appendix 1 for wording), suggesting a more prisoner-specific strategy for reducing racial inequalities is necessary across prison establishments.

Implications

Whilst we recognize that prisons must perform a number of functions, some of which can compete with one another (e.g. security and preventing escapes, compared with support and rehabilitation), our study highlights the importance of prisoner–staff relations for improving legitimacy. For prison establishments, improving prisoner experiences of legitimacy is important for several reasons. Firstly, prisoners who see prison as more legitimate are less likely to engage in disorder inside prisons (Sparks et al., 1996), and have lower rates of suicide and improved well-being (Liebling, Durie, Stiles, & Tait, 2013). Secondly, prisons which are safer are also likely to improve the experiences of prison staff, including reducing the risks of assault by inmates (Bottoms, 1999), as well as increasing job satisfaction and reducing stress (Lambert, Hogan, & Griffin, 2007). Thirdly, legitimacy has important potential impacts on prisoners beyond their sentence, including helping establish greater compliance with the law (Tyler, 2006), and potentially leading to lower rates of recidivism—an area of research which warrants further investigation. These findings suggest implementing more effective correctional policies which support improvements to prison legitimacy via strategies such as training for prison staff and management in the delivery and enforcement of prison rules. Steps should also be taken to ensure that prison rules are made clear and transparent to prisoners, with suitable opportunities for prisoners to voice concerns during disputes.

Limitations

Despite achieving a representative sample of prisoners at wave 1, SPCR experienced a high degree of attrition by wave 2. Multilevel MI procedures—based on the assumption that the data were MAR—were used to ensure robust

estimates and standard errors. This assumption has been shown to be plausible in the case of the SPCR, with Brunton-Smith et al. (2014) finding that missing data were largely unrelated to characteristics of prisoners, instead reflecting procedural inefficiencies in the data collection process and difficulties in securing access to particular prisons. Comparisons of the distribution of all wave 1 variables between the full sample and those successfully interviewed at wave 2 also reveals no clear bias in the reduced sample. As a further check on the robustness of our findings, sensitivity of the results to alternative missingness mechanisms based on the ease of contact within each prison was explored (following the strategy outlined in Brunton-Smith et al., 2014). The results all operated in the same substantive direction with little change to coefficient estimates. We cannot, however, discount the possibility that under certain conditions, the views and experiences of prisoners that were absent from the follow-up interview differ systematically from those that were observed, although it is difficult to determine in which direction these differences will operate.

A number of prisoners also transferred prisons between the initial interview and the follow-up interview prior to release. No details were available on the reasons for transfer, however, it is reasonable to assume that the majority of offender transfers were the result of a move out of a reception prison (Cleary et al., 2012b). For these prisoners, focusing attention on post-reception prison makes sense, as this is the prison in which they will spend the majority of their sentence and hence is where opinions may be most keenly shaped by the wider prison environment. This is not to suggest that initial experiences in prison are not important—and our models confirm that early treatment in prison was linked to later assessments of legitimacy—rather that effects of the broader prison environment will be dominated by the prison in which prisoners spend most of their time. To explore this, models were reestimated replacing details of the pre-release prison with information from the initial wave 1 interview prison. Consistent with the assumption that most transfers occurred early, and were out of short-term reception prisons, no significant between prison differences based on observable characteristics of these prisons were identified. As a further check of the sensitivity of the results, a model identifying those prisoners that moved prisons during their sentence also showed no significant difference between transferred prisoners and those that remained in the same prison. However, it is possible that for the small minority of prisoners who are transferred as a result of disturbances occurring during their sentence, the prison environment where these disturbances occurred will have a lasting additional negative impact on perceptions of legitimacy (over and above the observed effect of receiving a punishment).

Finally, there remains some conceptual ambiguity regarding the distinction between procedural justice and legitimacy (e.g. Henderson et al., 2010; Johnson et al., 2014; Tankebe, 2013). Previous studies have noted the close empirical connections between measures designed to capture dimensions of procedural justice, and measures designed to tap into perceptions of

legitimacy. Our study is not immune from these criticisms, with procedural fairness sharing common ground with legitimacy. To mitigate this somewhat, we follow Liebling (2004, 2011) in conceptualizing procedural fairness as a dimension of the prison regime (see also Sparks et al., 1996). As such it operates at the prison level rather than differing between prisoners within the same institution. Furthermore, we took our measure of procedural fairness from an independent data source—MQPL—ensuring that it remains empirically distinct from our prisoner ratings of legitimacy, and strengthening our claims that it is making an independent contribution to prisoner perceptions of legitimacy. Nevertheless, one plausible explanation for the close correspondence between procedural fairness and prisoner perceptions of legitimacy is that they are both tapping into more general views on the operation of the prison regime.

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Appendix 1. Question wording—racial equality

- (1) This prison encourages good race relations.
- (2) There is respect for all religious beliefs in this prison.
- (3) Racist comments from prisoners are not tolerated by officers.
- (4) Racist comments by staff are rare in this prison.
- (5) Race complaints are not taken seriously in this prison.
- (6) Minority ethnic prisoners in this prison lose out when it comes to opportunities for courses.
- (7) Minority ethnic prisoners in this prison lose out when it comes to work opportunities.
- (8) Minority ethnic prisoners are allocated to the worst wings.
- (9) Prisoners with foreign nationalities are not treated as well as other prisoners in here.
- (10) Black and Asian prisoners are treated unfairly in this prison in comparison to white prisoners.
- (11) Prisoners are treated differently based on the region they are from.
- (12) When my family and friends visit me in prison, they have come across racist attitudes.
- (13) The canteen products in this prison cater for prisoners of all cultural and ethnic backgrounds.

Table A1 Component loadings—-independent variables

	Component loadings
<i>Prison conditions—strongly disagree (0) to strongly agree (4)</i>	
I am given adequate opportunities to keep myself clean and decent	.87
I am given adequate opportunities to keep my living area clean and decent	.86
This prison provide adequate facilities for me to maintain a presentable appearance	.80
Cronbach's alpha	.79
<i>Positive treatment by staff on arrival—strongly disagree (0) to strongly agree (4)</i>	
When I first came into this prison I felt looked after	.81
In the first few days in this prison, staff treated me as an individual	.81
The induction process in this prison helped me know what to expect in the daily regime and when it would happen	.74
Cronbach's alpha	.69