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Procedural Justice and Regulatory Compliance

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This is a study of perceptions of the procedural justice of a business regulatory process among 341 Australian chief executives of small organizations. Only mixed support is found for the notion that procedural justice perceived by chief executives explains changes in the compliance of the organizations they run. A factor analysis suggests that five facets of procedural justice—consistency, correctability, control, impartiality, and ethicality—can be combined to form a single measure. The decision accuracy facet was not part of the general procedural justice factor. It is just one of these facets, control, that is significantly associated with changing compliance. As the chief executive's perception that they have had some control over the enforcement process increases, organizational compliance improves. The procedural justice measures correlate more strongly with regulatee satisfaction for this regulatory regime than do regulatory outcomes.

A significant reorientation of law and social science research has been effected by the social psychology of procedural justice tradition (Lind & Tyler, 1988; Thibaut & Walker, 1975; Tyler, 1990). At root, this intellectual tradition challenges forward-looking, economistic and rational choice models, with their focus on outcomes. Procedural justice scholars emphasize, in contrast, the effects of the perceived fairness of the processes that lead to outcomes. The idea is that looking back on the fairness of the processes one has experienced might shape future behavior more than looking forward to expected outcomes. Experienced fairness matters more than expected utilities. While this claim remains controversial, there can be no doubt that subjective procedural justice has some capacity to explain *Why People Obey the Law?* (Tyler, 1990). In this study, we will test the explanatory power of procedural justice in a domain where expected utility has been found to lack general explanatory power (Braithwaite & Makkai, 1991; Makkai & Braithwaite, 1994). This domain is compliance with the quality of care standards mandated for nursing homes by the Australian government. This will enable quantitative testing of procedural justice hypotheses for the first time on corporate as opposed to individual compliance.

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It might be said that the social psychology of procedural justice constructs theories of individual behavior, so there is no reason to expect that it would be relevant to corporate conduct. On the contrary, qualitative research on corporate compliance with regulatory laws that has been conducted by sociologists, political scientists, and business scholars has been replete with observations of managers' perceptions of procedural injustice undermining corporate commitments to compliance (Bardach & Kagan, 1982; Braithwaite, 1985; Levi, 1988; Sigler & Murphy, 1988; Vogel, 1986). While the procedural justice tradition is primarily about microencounters between individuals (but see Lind, Kulik, Ambrose, & de Vera Park, 1993; Lind & Tyler, 1988), there is a parallel tradition of political theory at the macro level of whole societies which advances the proposition that states secure the compliance of their people when they strike a policy bargain that the citizenry perceives as just. Levi calls this the theory of contingent consent (Levi, 1993). The study of corporate compliance involves a test of the conceptual tools of procedural justice that is intermediate between individual and societal compliance.

The capacity to abuse the organizational form enables the organizational actor to "pass on" resentments fueled by perceived injustice in ways that non-organizational actors cannot. This extends even to passing through the organization the impact of sanctions that are perceived as unfair:

> Facilities will steal the money to pay fines from food or medical supplies because he [*sic*] resents it. He sure won't take it out of profits or the Administrator's salary if he doesn't think the fine was fair. Because he resents it, he'll spite the bureaucrats by cutting the meat and eggs expenditure and blame the bureaucrats in his own mind for the way the patients are made to pay. (Executive Director of a U.S. state nursing home trade association)

A number of different facets of the procedural justice domain have been suggested in the literature. Drawing on Leventhal (1980) and Tyler (1988), six facets of procedural justice are identified in this paper—consistency, decision quality or accuracy, correctability, control, impartiality, and ethicality. *Consistency* is Leventhal's (1980) first criterion of procedural justice. It can mean consistency across time, but its important meaning in the domain of business regulation is consistent treatment of different businesses. This is the sense in which consistency is used in this article.[3] While consistency equates with the scientific conception of reliability, *decision accuracy* or quality equates with validity. It means doing what is necessary to get the decision right (Tyler, 1988). *Correctability* means being able to complain about unfairness by a law enforcer to some "agency or organization" (Tyler, 1988, p. 113). *Control* was partitioned by Thibaut and Walker (1975) into process control and decision control, while Leventhal (1980) combines them in his notion of representation.

Impartiality means absence of bias. The most important forms of prevention of favouritism or external bias in Australian society are the elimination of bias on the basis of race, sex, age, nationality or other characteristics of persons. *Ethicality* is the most vaguely defined of the procedural justice facets. Tyler (1988) defines it as "the degree to which the decision-making process accords with general standards of fairness and morality" (p. 105). This gives it a meaning with little more specificity

[3]In a way, there is neither the reality nor the pretense of consistency across time in this domain because we are dealing with a *new* regulatory program (which was accepted as being thoroughly inconsistent with the past).

than the broad domain of procedural fairness itself. When Tyler (1988) comes to operationalize ethicality, he does so in two ways—perceptions of politeness and concern for rights. We prefer to view politeness as something conceptually quite different from ethicality (and indeed from procedural justice).[4] Our preference is for Tyler's second specification of ethicality as respect for rights.

THE NURSING HOME STUDY

To test the importance of a perceptual model of procedural justice on organizational compliance, a panel design was used with two waves of inspection data and interviews with chief executive officers (directors of nursing). Such data were provided from a study of Australian nursing homes surrounding the four largest metropolitan centers in Australia where more than two-thirds of all nursing homes in Australia are located. In 1987 the Australian government moved to take over from state governments the monitoring and enforcement of standards of quality of care in nursing homes throughout Australia. At this time they also replaced the input standards that had been used to regulate the industry with 31 new outcome standards covering seven main objectives—health care, social independence, freedom of choice, privacy and dignity enjoyed by residents, the environment of the nursing home, the variety of experience available to residents, and safety (including risks from fire, violence, infection and the use of restraints).[5]

An initial sample of 410 nursing homes were inspected over a two year period.[6] The procedure for inspecting nursing homes is straightforward. A team of not fewer than two, one of whom must always be a trained nurse, visits the nursing home for an average of 6.5 hours. The team is required to inspect and rate each of the 31 standards as met, action required or urgent action required. Following this there is a compliance meeting between the nursing home and the inspection team where the team discusses its initial ratings with staff. Negotiation over the accuracy of the ratings sometimes requires the inspection team to revisit the home to gather further information. In this meeting the appropriate action plans to bring the nursing home into compliance are discussed and are included in the final report.

[4]Indeed, there is a correlation of only .17 between our measure of ethicality in Table II and a 7-point rating of the inspection team as "courteous" at one pole to "rude" at the other measured at time 1. When the courteous-rude rating is entered into the regression in Table V it is not a significant predictor.

[5]See Braithwaite, Braithwaite, Gibson, Landau, and Makkai (1991) for a detailed discussion of the standards.

[6]The government agreed to inspect a proportionate random sample (stratified by size, type of ownership, and level of disability of residents) of 242 nursing homes over a 20-month period. In order to increase sample size all additional homes inspected within the sampling regions during this time frame were included in the study (n = 168). The random and supplementary samples were compared on a range of factors (see Braithwaite, Makkai, Braithwaite, Gibson, & Ermann, 1990). There were no substantial differences between these two groups of homes in terms of geographical and organizational characteristics of the nursing home, the sociodemographic characteristics and attitudes of the directors of nursing, and the nursing home's compliance ratings. On this basis the two groups have been combined. However, the models include a control variable indicating whether or not the nursing home was part of the random sample.

Within ten days of the compliance meeting the final report is sent to the nursing home who have six weeks in which to object to its contents.[7]

It is these 31 ratings that provide the dependent measure of organizational compliance. A separate study has shown that the standards are reliable, valid, and comprehensive in their coverage of the medical, personal, and social needs of the nursing home's residents (Braithwaite, Braithwaite, Gibson, Landau, & Makkai, 1992). On this basis, the standards are summed to form a total measure of compliance ranging from 0 (no compliance) to 31 (absolute compliance). Test–retest reliabilities based on independent inspectors rating 50 homes ranged from .93 to .96 (Braithwaite et al., 1992).

Following the finalization of the first inspection report, each director of nursing was asked to participate in a face-to-face interview. These interviews were extensive, often lasting up to three hours or into a second sitting. A wide range of issues were covered, two of which are important for this article—perceptions of procedural justice and decision accuracy. A 96% response rate was obtained for the random sample homes.

A second inspection was undertaken of 341 of the initial 410 homes, mostly 18 to 20 months later.[8] One hundred and three of these homes had changed their chief executive officer between the two inspections. The directors of nursing of the remaining 238 homes were mailed a questionnaire following the completion of the inspection team's report. To maximize response rates, two follow-up letters were mailed to the respondents and the final follow-up was undertaken by telephone. Five directors of nursing refused to participate and 36 failed to return a completed schedule, resulting in a response rate of 83%.

To properly assess the importance of procedural justice it is necessary to focus not on compliance at some point in time but on whether compliance has improved over time. Perceptions of the procedural justice afforded to nursing homes by inspectors are assumed to be formed by the first encounters with standards monitoring teams experienced during the period from their first inspection through to their second inspection. Since we are testing the effect of an intervention during a finite period of time rather than the effect of an ongoing structural feature of the environment, a change in compliance model is the correct one. Improvement in compliance is most effectively captured by using the total compliance score at the second inspection as the dependent variable and controlling for compliance at the first inspection as a baseline against which to measure change. The addition of the first inspection ratings as a control in Table III partials out the nursing home's initial performance, leaving only the change in performance as the dependent vari-

[7]In the early days of monitoring the nursing homes, the report was sent to the proprietor of the home who then passed it on to the director of nursing. This changed in 1988 so that the report was sent to both the proprietor and the director of nursing.

[8]See Braithwaite, Makkai, Braithwaite, and Gibson (1992) for a detailed discussion of the follow-up rates for the study. Although preliminary data analyses indicated that the time between the first and second inspections did not significantly affect compliance, the time between the two inspections has been included in the model as a control variable. Analyses were undertaken to determine if there were any significant differences between homes that had, and had not, been visited by an inspection team. Out of seven characteristics of the director of nursing, four characteristics of the nursing home and three characteristics of the proprietor, only one characteristic of the director of nursing was found to significantly differ ($p < .01$) (Braithwaite et al., 1992).

able. This also has the effect of controlling for a variety of factors that have been shown in previous work to affect corporate compliance among nursing homes (see Makkai & Braithwaite, 1991). These factors include the type of ownership, size and age of the nursing home, and nursing resident profile. As there is no theoretical rationale as to why these factors should also affect change in the level of compliance (compliance at time 2 controlling for compliance at time 1) it is assumed that the control for initial compliance captures all of their effects.

The model does control for two additional factors. The first and most important is the geographical location of the nursing home. This factor was shown to be important in predicting first wave compliance, but as our fieldwork suggests that interstate differences in regulatory styles may have varied across time, this will impact on change in compliance. Three dummy variables are used to capture the four geographical regions—Queensland, Victoria, New South Wales, and South Australia. South Australia has been chosen as the excluded category as nursing homes located in this state had significantly lower levels of compliance than the nursing homes in the other three states. The second control variable is whether or not the nursing home had been selected as part of the original random sample.

In the models we also include measures of two alternative hypotheses—the use of praise and subjective perceptions of deterrence. These rival measures allow some comparison of procedural justice with the explanatory power of competing theories. Praise was selected for inclusion in the model because of previous evidence that it affects compliance (Makkai & Braithwaite, 1993) and because of the plausibility of the claim that inspectors who are procedurally fair will also be inspectors who offer a lot of praise. A procedural justice finding will be more robust if it shows an effect over and above the effect of praise. The praise measure is a composite scale of the use of eight different approaches to encourage compliance as reported by the individual team members (Makkai & Braithwaite, 1993). Directors of Nursing were asked the following questions:

> Different approaches will work under different circumstances in getting nursing homes to comply with government standards. How often have you used each of the following approaches to encourage compliance with the standards? Very often used, Quite often used, Sometimes used, Rarely used and Never used?

Appendix A shows the individual items. Responses to these items were summed resulting in a praise scale with a mean of 5.62, standard deviation of 2.43, and a Cronbach alpha of .80. The final scale has a mean of 5.62, standard deviation of 2.43, with a Cronbach alpha of .80.

As the inspection process is a team exercise, praise scores were averaged across the multiperson teams and then matched to the nursing home that the team inspected. Although 74% of inspectors returned usable questionnaires,[9] there were only 187 homes for which all members of the team answered a questionnaire, and there were 13 homes where no member of the team returned a questionnaire. These latter homes have been excluded from the analyses. In the case of homes where there are incomplete data on the team, we have taken what were available and

[9]Two hundred and fifty-eight inspectors were mailed questionnaires. Of these 14 refused to participate, 32 were returned to the sender, and 21 failed to return the questionnaire.

included in the models a control for whether or not there were data for all team members.[10] Table IV shows that this has no effect on the model.

A deterrence measure is included because the procedural justice paradigm is generally advanced as an alternative to conceiving compliance as motivated by rational weighing of likely outcomes such as punishment (Tyler, 1990). The subjective perceptions of deterrence measure used is a subjective expected utility model for enforcement, which is comprised of the additive and multiplicative effects of the perceived certainty and severity of five different sanctions that can be applied to nursing homes for noncompliance (Makkai & Braithwaite, 1994). The formal specification of this model is

$$\text{Compliance} = a + b_1\sum[(D_1 \times P_1 \times S_1) + \ldots + (D_1 \times P_k \times S_k)] + \varepsilon$$

where a is the constant, b_1 is the coefficient, D_1 is the perceived probability of detection, P_1 is the perceived probability of punishment, S_1 is the perceived severity of punishment, k is the full range of sanctions, and ε is the disturbance.

At this time there were three Commonwealth sanctions in force along with a number of residual state government enforcement powers. The deterrence variable specified here includes three Commonwealth sanctions: (a) withdrawal of Commonwealth funding for new admissions to the nursing home; (b) withholding annual Commonwealth funding increase to compensate for inflation; and (c) cutting off all Commonwealth funding. It also includes two state sanctions: prosecution and $2,000 fine of the proprietor, and withdrawal of the home's license to operate.

As the measure is comprised of 12 variables, there are some missing data which in a listwise procedure reduce the number of cases by 30%. To overcome this problem we have included cases with missing data in the variable but included a dummy variable where a score of 1 indicates that the home has missing data and score of 0 indicates that the home did not have missing data. This control variable was not found to be significant, as is shown in Table IV.

MEASURING PROCEDURAL JUSTICE

This article uses both a composite and a disaggregated multifaceted measure of procedural justice. We collect information on each of the six facets of procedural justice—decision accuracy, consistency, correctability, control, impartiality, and ethicality. First, perceived decision accuracy was measured in the following way. After the first inspection, directors of nursing were asked whether they agreed with the ratings that the inspection team had given the nursing home. There was high agreement with the inspectors' ratings. In 42% of homes there was complete agreement with the inspection team's ratings on all 31 standards. A further 18% agreed with ratings given on 30 of the standards. The average number of standards on which

[10]Analyses elsewhere have shown that homes where complete data for the team was available were more likely to be located in Victoria and less likely to be from South Australia. Thus, restricting the analyses would bias the sample to reflect the Victorian region.

directors of nursing agreed with inspection teams was 28.5. The lowest number of standards on which there was agreement was eight; this occurred in one instance.

Following the second inspection, directors of nursing were asked the extent of their agreement with a variety of attitudinal statements. Nine of these items had been specifically designed to capture the remaining facets of procedural justice. Table I shows the items and the distribution of responses to them. The vast majority of respondents agree that teams were impartial in their dealings with the director of nursing, and there is also relatively high agreement that teams were ethical. Directors of nursing were more likely to agree than disagree that they had some control over the inspection process, while opinion is somewhat more evenly split on the issue of consistency. Almost half of the directors of nursing neither agreed nor

Table I. Items Measuring Various Facets of Procedural Justice

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Consistency					
Standards monitoring teams are pretty consistent in the way they do their job	5	46	15	25	10
The Team that visited my nursing home two years ago gave us compliance ratings inconsistent with the way other nursing homes are rated	3	15	36	39	7
Correctability					
If you are treated unfairly by a standards monitoring team, it is easy to get your complaint heard	5	25	49	18	3
If a standards monitoring teams makes a mistake in its ratings of your home, it is extremely difficult to get it corrected	5	20	42	30	3
Control					
Standards monitoring teams have not given me enough opportunity to put my point of view to them	1	15	17	56	10
Standards monitoring teams have taken notice of the things I said to them	7	64	17	10	3
Things I said to the team that visited my home two years ago had an influence on the final ratings by the team	4	45	32	14	4
Impartiality					
Standards monitoring teams have shown no bias against me because of race, sex, age, nationality or any other characteristic of me as a person	26	58	13	2	1
Ethicality					
Standards monitoring tems have always respected my rights	9	58	21	9	2

disagreed on the issue of correctability, probably a result of their having no experience of appeal processes (which are available but rarely used).

Where there was more than one item measuring a facet they have been combined to form composite measures.[11] As there was no theoretical reason for a particular item to have a heavier weight in the scale, all items were standardized to have a variance of 1 prior to scaling. Scales with no natural metric were rescaled to run from 0 to 10.

EFFECTS OF PROCESS VERSUS OUTCOME ON REGULATEE SATISFACTION

An American study of corporate agents by Lind et al. (1993) found that procedural justice judgments about court annexed arbitration of civil suits explained acceptance of the arbitration award in preference to going to trial. These researchers found a "fairness heuristic"—procedural justice judgements that mediated the effects of process impressions and outcome evaluations. Table II shows the correlations between the different measures of procedural justice and satisfaction with the new regulatory process at time 2 for the present study. Satisfaction with the regulatory process was measured by the following four items:

> Today, my opinion of the whole standards monitoring program is highly favorable, favorable, neither favorable nor unfavorable, unfavorable or highly unfavorable;
>
> My opinion of the whole standards monitoring program since it started has gone up a lot, gone up somewhat, not changed, gone down somewhat, or gone down a lot;
>
> The standards monitoring program has not made nursing home residents any better off: strongly agree, agree, neither agree nor disagree, disagree, strongly disagree;

and

> On balance the standards monitoring program is an unwelcome development: strongly agree, agree, neither agree nor disagree, disagree, strongly disagree.

With a Cronbach alpha of .69, responses to these four items were summed to form a single measure of corporate actor satisfaction.[12] Where appropriate, item responses were reverse scored prior to scaling so that the final satisfaction measure ranged from low satisfaction (0) to high satisfaction (10).[13]

Consistent with the theory of procedural justice, perceptions of the fairness of process are more strongly correlated with corporate actor satisfaction than are the favorableness of outcomes (overall compliance ratings after the first and second inspections), with one exception. All the facets of procedural justice, except for decision accuracy, correlate significantly with corporate actor satisfaction. These correlations range from .27 for impartiality to .46 for ethicality. The composite measure of pro-

[11]Where appropriate, items were reverse scored so that a high score indicated strong agreement with the procedural justice facet.

[12]A principle components analysis of the four items resulted in a single factor being extracted which explained 53% of total variation among the four items.

[13]Items were standardized to a variance of one, prior to scaling. As the resulting scale had no natural metric it was rescored so that it ran from 1 to 10.

Table II. Correlations Between Procedural Justice and Satisfaction with the Regulatory Process

	Corporate actor satisfaction
Facets of procedural justice	
Impartiality	.27**
Ethicality	.46**
Consistency	.38**
Correctability	.44**
Control	.44**
Decision accuracy	.08
General measure of procedural justice	
Composite	.54**
Favorableness of outcome measures	
Compliance T_1	.01
Compliance T_2	.15*

*$p < .05$.
**$p < .01$.

cedural justice correlates significantly with satisfaction. Of the two measures of favorableness of outcomes, it is only compliance measured after the second inspection that is significantly associated with satisfaction, but this is weak (.15).

DIMENSIONALITY AND PROCEDURAL JUSTICE

The literature uses the term *procedural justice* to cover a number of facets all of which were conceived as potentially important contributors to this general construct. A question that arises is whether empirically these measures can be viewed as components of a single procedural justice dimension. A principal component analysis of the six domains was undertaken and the factor loadings from the rotated solution are shown in Table III. The intercorrelations among the facets are relatively high except for the decision accuracy measure. This facet is poorly correlated with control and impartiality. Its highest correlation is with consistency; directors of nursing who had high agreement with the inspection team's ratings were also more likely to perceive the teams as having been consistent in their ratings.

Tyler (1990) conducted a factor analysis on this same set of facets. A two-factor solution was obtained, with consistency and ethicality defining the second factor and all the remaining facets loading on the first factor. A two factor solution also emerged from the principal component analysis of the six facets in the present data, though a different two-factor solution. The first factor accounts for 47% of the variation in the original six variables. This factor contains 5 of the 6 facets.[14] The remaining factor comprised the decision accuracy measure, accounting for 17% of the variation in the facets. These data would seem to suggest that there is a

[14]Given that the variance of the decision accuracy measure is larger than for the other facets, the principal component analysis has been undertaken on the correlation matrix (Dunteman, 1989).

Table III. Principal Components Analysis of the Six Facets of Procedural Justice

	Intercorrelations						
	1	2	3	4	5	Factor 1	Factor 2
1. Ethicality						.84	.13
2. Control	.28					.81	−.06
3. Correctability	.32	.40				.66	.34
4. Consistency	.30	.43	.51			.62	.49
5. Impartiality	.42	.28	.32	.30		.61	.04
6. Decision accuracy	.19	.06	.21	.32	.10	.01	.94
Percent of variance explained						47	17

general procedural justice domain which can be formed empirically by creating a composite measure of the five facets. Given that decision accuracy is measured in a very different way from the other facets, which are attitudinal items with the same response categories, we must not discount the possibility that decision accuracy dropping out of the procedural justice construct is a measurement artifact.

DOES PROCEDURAL JUSTICE IMPROVE COMPLIANCE?

A general procedural justice domain was formed by combining the five facets. As the literature does not insist that particular facets of procedural justice are of more importance than other facets in affecting organizational compliance, each item was given equal weight in the scale by ensuring that all the items had a variance of 1. A low score on the resulting composite procedural justice scale indicated that the director of nursing had a low perception of the procedural justice of the regulatory process while a high score indicated that their perception of procedural justice was high.[15]

In Table IV the effects of the composite measure on procedural justice are examined. Appendix B provides the inter-correlations between the items. The composite measure of procedural justice (formed by combining ethicality, control, correctability, consistency, and impartiality) is not significantly associated with changing compliance.

Nor are subjective perceptions of deterrence a significant factor in accounting for changes in compliance. Hence, the major competing paradigm to procedural justice, rational calculation over outcomes (Tyler & Dawes, 1993), fares no better in this model. However, praise is found to have a strong and significant effect on compliance. We see that nursing home inspectors who use praise as a strategy do better at increasing compliance (see Makkai & Braithwaite, 1993 for a detailed discussion of this finding). As there is a significant positive correlation of .18 between praise and composite procedural justice, it could be that the significant praise effect is masking a procedural justice effect. However, composite procedural justice is still not significant when praise is excluded from the model.

It may be the case that empirically some facets are more important than others in changing compliance. To test this hypothesis, Table V examines the effects of each of the facets of procedural justice separately on changing compliance. Given

[15]As the scale had no natural metric it was rescored so that it ran from a low of 0 to a high of 10.

Table IV. Examining Global and General Procedural Justice on Compliance[a]

	Composite measure	
	b	(*SE*)
Controls		
Initial inspection ratings	.33	(.29)**
New South Wales	1.72	(1.08)
Queensland	1.29	(1.20)
Victoria	−1.64	(1.20)
Sample home	.07	(.87)
Length of time between first and second inspection	.03	(.08)
Gender composition of the team	.11	(.65)
Team's experience	−.12	(.58)
Full team	1.05	(.69)
Control for missing data on deterrence model	.42	(.62)
Alternative hypthoses		
Team's reported use of praise	.62	(.19)**
Full deterrence model	.01	(.02)
Procedural justice measure		
Composite	.15	(.20)
Constant	10.65	
Adjusted R^2	.30	

[a] $n = 192$. Likewise deletion of data was used when estimating the models. The model also controls for missing data on the deterrence measure.
*$p < .05$.
**$p < .01$.

that the composite measure has failed to be a significant predictor, we should not be surprised to see that all but one of the facets fail to be significant. Perceptions of control, however, are associated with a significant change in compliance over time after praise, deterrence, and other controls are entered in the model. The relationship is in the hypothesized direction, with directors of nursing who perceive themselves as having had some control over the regulatory process being more likely to be in charge of nursing homes that have improved in their compliance ratings over time. This is a strong result when we remember that a masking effect may arise from including praise in the model. Again in this model praise has a significant positive effect on compliance and praise is correlated .20 with control.

There is a competing interpretation to the theory of procedural justice for this result. This is that the fact of giving directors of nursing more control over the assessment of compliance ratings is what causes the improvement in compliance ratings. While this competing interpretation is obvious and strong, it must be tempered by recalling the extraordinarily high (.93 to .96) reliability of compliance between raters, a result that is not consistent with inspectors being led to very different ratings in response to differential assertion of control by directors of nursing.

A conclusion that subjective perceptions of control over a process increase compliance with its requirements is consistent with the literature (Tyler, 1990). Thibaut and Walker's (1975) original theory of procedural justice is really a theory of control, to the exclusion of the other facets later emphasized by Leventhal (1980) and Tyler (1988). Hence, these findings return us to the centrality of control as the heart of what Thibaut and Walker saw as procedural justice.

Table V. The Impact of Facets of Procedural Justice on Changing Compliance[a]

	b	(*SE*)	*b*	(*SE*)	*b*	(*SE*)	*b*	(*SE*)	*b*	(*SE*)	*b*	(*SE*)
Facets of procedural justice												
Ethicality	.49	(.34)										
Control			.35	(.18)*								
Correctability					−.13	(.16)						
Consistency							.02	(.15)				
Impartiality									.08	(.38)		
Decision accuracy											−.14	(.08)
Constant	9.96		9.21		11.97		11.32		11.04		15.88	
Adjusted R^2	.31		.31		.30		.30		.30		.30	
(Number of cases)[b]	(192)		(192)		(192)		(192)		(192)		(331)	

[a]These models control for initial inspection ratings, location of nursing home, length of time between first and second inspection, whether or not the nursing home was part of the random or supplementary sample, gender composition of the team, team's experience, full team, and a control for missing data on deterrence. The two competing hypotheses, praise and deterrence, are also controlled for in the model. In the case of decision accuracy the model also controlled for whether or not there had been a change of director of nursing between the two inspections.

[b]The number of cases varies for decision accuracy as this measure is taken from data provided following the first inspection. The other facets are taken from data collected following the second inspection. See text for further details.

*$p < .05$.

CONCLUSION

There is some vindication of the claims of the social psychology of procedural justice tradition in these results. Perceptions of the fairness of processes are more strongly associated with satisfaction with the regulatory process than are the favorableness of regulatory outcomes. Apart from decision quality or accuracy, the criteria of procedural justice cited in the literature are indeed strongly correlated with general perceptions of fairness. Indeed, a principal components analysis finds that they comprise a general procedural justice factor.

However, the general measure of subjective procedural justice does not significantly predict compliance, and only one of the specific facets of procedural justice significantly predicts compliance in the regressions. Even so, control, the facet that does have a significant effect in improving compliance, is precisely the facet that we, like Thibaut and Walker (1975), had predicted would be most important. The other facets, one way or another, we had concluded on the basis of our qualitative fieldwork not to be major issues. Our reliability study shows consistency to be remarkably high, at least within states (Braithwaite et al., 1992). On the other hand, at the subjective level there is a surprisingly marked concern about consistency among a substantial minority of directors of nursing. At this subjective level, impartiality and ethicality are rarely concerns about Australian nursing home inspectors. They command enormous respect on these dimensions.

Correctability is a strange facet in this domain since it is extremely rare for directors of nursing to contemplate lodging an appeal against the decision of an inspection team, let alone actually doing so. Such an appeal has yet to end up in a court, and even utilization of the tripartite (industry–government–consumer group) alternative dispute resolution mechanism (the Standards Review Panel) has rarely been used. The modal response on the correctability items is "neither agree nor disagree" because directors of nursing are responding from no basis of experience and in most cases have thought little about it. In some important ways, there is a negative relationship between the importance of control and the importance of appeal mechanisms. A nursing home inspector from New Jersey explained the common reason in both the United States and Australia why the sanction of imposing a ban on new admissions to the nursing home is rarely appealed: "Control is in the nursing home's hands. As soon as you fix this, it's lifted. Because they control their destiny, they don't challenge it." Through this process of elimination, control became the dimension of procedural justice that we always thought would be important in this context.

The implication would seem to be that in different contexts, we need to think in rather specified ways about what are the facets of procedural justice that matter. In this first test of the theory on corporate compliance with the law, voice to influence the process and the decision was important in building a commitment among managers to comply. Our qualitative fieldwork observing 58 Australian nursing home inspection events strongly confirms the importance of both process and decision control. The agenda for future quantitative work on corporate compliance might be to develop more elaborate measures of control that distinguish process from decision control. Also needed are more elaborate designs (ideally experimental designs) that

enable researchers to rule out competing interpretations of the direction of the causal processes underlying the voice–compliance association.

There is a need to be cautious about the generalizability of these results. Australian nursing home regulation is a domain where corporate satisfaction with the regulatory process is mostly high: Directors of nursing generally agree with the ratings that inspectors give them, and consistency ratings have been shown objectively to be high; concerns about impartiality, ethicality, and correctability are rarely intense. These procedural justice facets might loom as more important in regulatory settings with greater heterogeneity of client satisfaction.

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APPENDIX A

Items Used to Form Team's Praise Scale[a]

	Percent who "very often used"	Item-total correlation
When a nursing home has caring values, telling them that you see them as having caring values	45	.65
When nursing home management puts care of the residents ahead of their own interests, telling them that you see them as a home that puts residents first	40	.53
Looking for opportunities to give credit to the nursing home where it is due	45	.52
Helping the nursing home feel good about the quality of the service they are providing	41	.51
Being generous with praise when improvements are made	44	.50
Offering words of encouragement when things are well done	59	.49
Praising an instance of the nursing home solving a problem as a model for how they should set about solving other problems	17	.48
Finding out who are the caring professionals in the nursing home and trying to give them support (e.g., through praise in the report)	8	.39
(Cronbach alpha)		(.80)

[a] $n = 173$.

APPENDIX B

Intercorrelations Between Variables[a]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Initial inspection ratings	1.00													
2. New South Wales	.29**	1.00												
3. Queensland	.14**	.40**	1.00											
4. Victoria	.24**	.53**	.28**	1.00										
5. Sample home	.20**	.31**	−.10	.42**	1.00									
6. Length of time between first and second inspection	.00	−.08	.22**	.20**	.56**	1.00								
7. Gender composition of the team	.16**	.39**	.30**	−.09	−.10	−.06	1.00							
8. Team's experience	.00	−.02	−.11*	.07	−.05	.00	.11*	1.00						
9. Full team	−.01	.27**	.02	.45**	.24**	.19**	.24**	.15**	1.00					
10. Control for missing data on deterrence model	.02	−.02	.10	−.05	−.07	−.01	−.11*	.04	.07	1.00				
11. Team's reported use of praise	.31**	.32**	−.06	.40**	.17**	.04	.37*	.19**	.23**	−.04	1.00			
12. Full deterrence model	−.14*	−.04	.03	−.02	−.09	.08	−.06	−.03	−.08	.22**	.00	1.00		
13. Procedural justice measure	.21**	.25**	−.13	−.14*	−.16*	−.00	.03	.02	−.01	.08	.18*	.29**	1.00	
14. Compliance at time 2	.37**	.05	.17**	.11*	−.10	.04	.05	.04	.25**	−.07	.12*	.01	.20**	1.00
Facets of procedural justice														
Consistency	.18*	.26**	−.21**	−.06	−.02	−.13	.13	.05	−.00	.04	.19**	−.21**	.74**	.26**
Correctability	.06	.15*	−.06	−.09	−.10	−.01	.03	−.13	−.09	.11	.11	−.23**	.73**	.11
Control	.23**	.26**	−.16*	−.16*	−.19**	.03	.01	.07	.02	.07	.20**	−.25**	.74**	.08
Impartiality	.08	.06	−.01	−.06	−.13	.06	−.02	.07	.02	−.02	.05	−.16*	.62**	.09
Ethicality	.23**	.20**	−.07	−.16*	−.18*	.04	−.05	.01	.02	.10	.12	−.18**	.81**	.18*

[a] $n = 192$.
*$p < .05$.
**$p < .01$.

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