# Patterns of Bureaucracy in Intercollegiate Athletic Departments

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The objective of the current research was to verify the extent to which Gouldner's (1954) three patterns of bureaucracy were prevalent in intercollegiate athletic departments. Single and multiple-group confirmatory factor analysis (CFA) and structural equation modeling (SEM) of the data provided by 907 coaches from all three NCAA divisions ($n_{divI} = 322$; $n_{divII} = 277$; $n_{divIII} = 308$) showed that structural relationships among goals, processes, and patterns of bureaucracy were invariant among all three groups of coaches. Substantively, the factor of developmental goals through developmental processes (Trail & Chelladurai, 2000) predicted positively the presence of *representative bureaucracy* and *punishment-centered bureaucracy* and negatively the existence of *mock bureaucracy*. This means that the more athletic departments emphasize academic values, the less the coaches perceive a pattern of loose coupling between rules and actual technical activities. Implications of these results for theory and practice were discussed.

It is acknowledged that athletic departments are effective in achieving their goals related to athletic performance and provision of quality entertainment (Fink, Pastore, & Riemer, 2003; Goff, 2000; Rishe, 2003). These achievements are even more impressive when one considers the different and diverse goals an athletic department has to attain, such as athletic excellence, academic achievement of student-athletes, gender and ethnicity diversity, entertainment, and revenue generation.

Of these different goals, pursuit of excellence in sports and pursuit of educational goals have been reported to be somewhat opposed to each other (Baxter, Margavio, & Lambert, 1996; Putler & Wolfe, 1999; Trail & Chelladurai, 2000). That is, the time and energy put into one domain (i.e., athletics) is time and energy taken from the other domain (i.e., education) or vice versa. In this regard, there has been considerable criticism of athletic departments on the grounds that the student athletes are encouraged and/or made to spend more time on athletics thereby jeopardizing their chances of achieving academically (Bowen & Levin, 2003; Putler & Wolfe, 1999; Sperber, 1990; Zimbalist, 1999). To restrain such practices, the NCAA has instituted several rules governing the processes employed by athletic departments and their coaches in pursuing excellence in sport. More specifically, these rules aim to curtail those practices of athletic departments that would divert the student-athletes away from their educational pursuits.

Although intercollegiate athletics is a subset of the sport industry in general and thus governed by the institutional rules of that industry, it is also sufficiently distinct and separate from the rest of the sport industry because it is part of the institution of higher educational organizations and, to a large extent, controlled by them. Hence it is appropriate to consider intercollegiate athletics as an institution by itself (although overlapping to some extent the institutions of higher education and the sport industry). In this sense, a discussion of institutional rules and how these rules have been managed is crucial to understanding the effectiveness of college athletic departments in attaining their goals. Barley and Tolbert (1997) proposed that institutional elements, such as rules, "provide blueprints for organizing by specifying the forms and procedures an organization of a particular type should adopt if it is to be seen as a member-in-good-standing of its class" (p. 93–94). Rule compliance has been highlighted in institutional theory as a means of legitimizing the membership of an organization in the institution (DiMaggio & Powel, 1983; Meyer & Rowan, 1977; Tolbert & Zucker, 1983). In the case of an intercollegiate athletic department, rule compliance legitimizes it in two spheres—the focal university itself and the NCAA.

The problem with institutional rules occurs when these rules conflict with the technical imperatives of daily internal activities of a focal organization. This kind of conflict occurs frequently in very different types of

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organization. For example, Lopez (2007) reported that nursing home workers always ignored the universal rule of asepsis which required that a washcloth be folded nine times to clean residents' intimate parts because doing so would not allow them to assist and clean nine residents in 90 min as mandated. As another example, Firestone (1985) asserted that American educational system is so bureaucratic that to not disturb instructional activities — the end sought of all schools — high school principals negotiated with their teachers which rules were important and which were not so important to be strictly followed.

Usually, to survive, organizations should balance external institutional pressures to comply with all rules to keep the legitimacy and internal technical needs. When a conflict arises between following institutional rules and technical imperatives associated with the production and exchange of organizational products, organizations tend to loosely couple rule expectations and technical requirements (Meyer & Rowan, 1977). Basically, the loose-coupling theory (Meyer & Rowan, 1977) argues that organizations need to keep an external appearance of good citizens, who follow all the rules, while actually some rules are bent to promote internal technical efficiency. Orton and Weick (1990) report that Meyer and Rowan's (1977) loose coupling between formal structures dictated by institutional rules and technical activities has been found in very diverse environments, such as hospitals (Covaleski & Dirsmith, 1983), courts (Hagan, Hewitt, & Alwin, 1979), prisons (Thomas, 1984), nursing homes (Lopez, 2007), casinos (Sallaz, 2002), and educational organizations (Brint & Karabel, 1991; Firestone, 1985).

In the context of college athletics, Southall, Nigel, Amis, and Southall (2008) identified two competing institutional logics: Educational (based on educational goals of universities) and commercial (based on athletic performance goals of athletic departments and media interest on this performance). Based on the assumption that universities develop athletic programs to increase visibility and, consequently, to acquire valuable resources (Washington & Ventresca, 2004), Southall et al. (2008) suggested that "the commercial logic has been dominant for almost as long as the NCAA has been in existence" (p. 689). However, those athletic departments that were found to flagrantly violate the NCAA rules to attain athletic (or commercial) goals have been taken to task by the respective universities, in general, and the NCAA, in particular. In addition, it is not clear if violations of the academic rules do occur and, if so, if they follow the premise of loose coupling where there could be a collusion between administrators and coaches in bending the rules (as used in common parlance). The question then is, "is there a tacit loose coupling of institutional rules and technical (i.e., coaching) requirements?" The argument is that athletic managers may keep an appearance of conformity with the institutional rules while they allow their employees, mainly coaches, to act differently to attain some of the goals of athletic departments. A specific example is the way they deal with the NCAA rule that bars student-athletes from devoting more than four

hours per day or 20 hr per week to their sport (NCAA, 2008, bylaw 17.1.6.1). Zimbalist (1999) called this rule a "farce". Benford (2007) presented anecdotal data showing that, from athletic directors to athletes, everybody inside athletic departments agree that the NCAA 20-hr rule is universally ignored. Such loose coupling of the 20-hr rule and the actual practices in athletic departments facilitate their effectiveness in attaining athletic excellence and the quality of entertainment for the general public.

## Loose-Coupling and Patterns of Bureaucracy

Gouldner's (1954) *Patterns of Industrial Bureaucracy* has been recognized as the first and the most important analysis about how different degrees of coupling between rules and actual activities could be an effective strategy to attain organizational goals in highly institutionalized environments (Hallett & Ventresca, 2006a, 2006b). According to Gouldner (1954), when managers and employees agree on the compliance of institutional rules a pattern of *representative bureaucracy* arises. On the other hand, when managers and employees negotiate "adaptations" of rules (loose coupling), a pattern of *mock bureaucracy* arises. As noted by Hallett and Ventresca (2006b), "the loose coupling associated with mock bureaucracy is a far cry from the *tight coupling* that had been a presumed characteristic of bureaucracy prior to the emergence of new institutionalism" (p. 221, emphasis in the original). Yet, a third pattern of bureaucracy can arise inside organizations. When managers and employees disagree about compliance of rules, if these rules are enforced, a tight coupling between rules and technical activities is present and a pattern of *punishment-centered bureaucracy* emerges. All three patterns of bureaucracy are expected to be present in every organization in different proportions (Gouldner, 1954). The present study investigated the extent to which the three patterns of bureaucracy existed in intercollegiate athletics. It must be noted that Gouldner derived his three patterns of bureaucracy from his analysis of a single gypsum mine and its surface facilities. The current research is unique in applying his model to an institutional sphere defined by the NCAA for college athletics.

This research is also unique because its focus was not on the degree of compliance or noncompliance in an athletic department (i.e., if the rules were followed or bent). Instead it delved into the extent to which the rules were negotiated within each department of athletics. That is, it was on the agreement or disagreement about the adherence or nonadherence to rules inside athletic departments, and thus the identification of the patterns of bureaucracy existing in athletic departments. Gouldner and others (e.g., Ventresca, 2006) have studied agreement or disagreement about rules compliance between managers and employees to define patterns of bureaucracy. The current research followed this rationale to investigate how rules have been negotiated in athletic departments.

An additional contribution of the current investigation arises from the duality of the goals of an athletic department. Unlike most enterprises such as that of Gouldner's gypsum mine, an intercollegiate athletic department pursues two distinct types of goals—academic and athletic (Trail & Chelladurai, 2000). This duality of purposes (explained in the next section) leads to the proposition that the patterns of bureaucracy found in the athletic departments may be related to the extent to which each set of goals are pursued. For example, athletic departments that place greater emphasis on athletic goals may present signs of mock bureaucracy more frequently when compared with those departments that are more academically oriented.

## Goals of Intercollegiate Athletics

The need for loose coupling of institutional rules and organizational practices is more pronounced in the case of intercollegiate athletic departments because they pursue two divergent sets of goals. Trail and Chelladurai (2000) proposed that any attempt to understand intercollegiate athletics should move beyond a mere discussion of which rules are being violated and which are being followed and look for a better comprehension of goals and processes of intercollegiate athletics. Trail and Chelladurai (2000) divided intercollegiate athletics goals and process in two categories: Developmental goals/processes and performance goals/processes. Developmental goals/processes are related to academic achievement and social/cultural/physical wellbeing of student athletes, while performance goals/processes are related to athletic achievement and financial performance. They argued that rules violations are manifestations of different goals held and processes adopted by different stakeholders of college athletics. That might be because developmental and performance orientations are somewhat competing values inside athletic departments (Baxter et al., 1996; Putler & Wolfe, 1999; Rocha & Turner, 2008).

Given the conflicting nature of intercollegiate goals, mainly in terms of time and energy of students, one could expect that the rules established to foster the educational goals may hinder the pursuit of athletic goals. As such, it could also be expected that loose coupling is most likely to occur in those universities that greatly emphasize athletic goals than in those that do not place such an emphasis on athletic goals. Accordingly, how coaches perceive the importance their athletic departments place on different goals/processes should be highly correlated with their perceptions of different patterns of bureaucracy (degrees of coupling between rules and daily technical activities). More specifically, in athletic departments that emphasize more the performance goals and processes, coaches are likely to perceive more frequently the presence of mock bureaucracy. On the other hand, in athletic departments that emphasize developmental goals and processes, coaches are likely to perceive the presence of either representative or punishment-centered bureaucracy more frequently.

In summary, the current research investigated the relationship between intercollegiate goals and processes on the one hand, and patterns of bureaucracy on the other. The specific purposes of this research were twofold: (a) to explore and describe the structural relationships among intercollegiate athletics goals, processes, and patterns of bureaucracy in NCAA universities; and (b) to compare three different populations of coaches (based on their NCAA division membership) regarding those structural relationships. A comparison among the three NCAA divisions was used to explore Meyer and Rowan's (1977) suggestion that loose coupling between institutional form and actual activities would be very widespread in relatively more highly institutionalized settings. It is expected that as the rules governing Division I athletics are more numerous and stringent relative to those of Divisions II and III, loose coupling (or mock bureaucracy) would be more prevalent in Division I than in the other two divisions.

A unique feature of this study is that the participants were coaches in the three NCAA Divisions. Coaches have been described as "the most important contributor to overall effectiveness" of athletic departments (MacLean & Chelladurai, 1995, p. 195) and as one the most influential stakeholders in intercollegiate athletics (Trail & Chelladurai, 2002). These authors asserted that coaches' opinions have a central importance to assess goals and processes of athletic departments. Accordingly, coaches' perceptions of patterns of bureaucracy prevalent in their athletic departments are more likely to reflect the actual bureaucratic orientation of these organizations.

## Method

### Participants

The current study investigated NCAA head coaches' perceptions about the importance athletic departments place on certain goals, the frequency with which these organizations engage in certain processes, and different patterns of bureaucracy. Based on previous research detailing the unique characteristics of athletic departments belonging to the three NCAA divisions (Cunningham & Ashley, 2001; DeSchriver & Jensen, 2002; Fink et al., 2003; Geist & Pastore, 2002; Turner & Chelladurai, 2005), we treated the coaches from the NCAA divisions as three different populations of coaches. From a simple random sample of 1,000 coaches from each division, we received back 322 usable questionnaires from coaches in division I, 277 in division II, and 308 in division III. The samples consisted of mostly men ($n_{divI}$ = 229, 71.1%; $n_{divII}$ = 203, 73.3%; $n_{divIII}$ = 196, 63.6%) and were predominantly Caucasian ($n_{divI}$ = 286, 88.8%; $n_{divII}$ = 235, 84.8%; $n_{divIII}$ = 278, 90.3%). The mean age of the samples was 45.73 ($SD$ = 10.03), 43.66 ($SD$ = 10.53), and 42.71 years ($SD$ = 11.95), and the mean tenure was 10.44 ($SD$ = 8.93),

8.05 ($SD = 8.01$), and 9.48 years ($SD = 9.35$), respectively for division I, II, and III. Early to late respondents in the demographic characteristics and their ratings of each construct (as suggested by Miller & Smith, 1983) were compared. Early and late respondents did not differ in either demographic characteristics or their ratings of goals, processes, and patterns of bureaucracy, in any division. Thus, nonresponse error should not be an issue of concern (Dooley & Linder, 2003).

## Instrumentation

***Intercollegiate Athletics Goals and Processes.*** Following previous research (McGuire & Trail, 2002; Trail & Chelladurai, 2002), reduced versions of Trail and Chelladurai's (2000) Scale of Athletic Department Goals and the Scale of Athletic Department Processes were used to measure the perceived importance athletic departments placed on certain goals and the frequency with which they engaged in certain processes. D*evelopmental goals* were represented by three constructs (student-athlete academic achievement, social/moral citizenship, and careers) and 11 items. *Performance goals* were represented by three constructs (university prestige, winning, and entertainment) and 13 items. The stem for the goal items read, "Dear coach, how much importance does your athletic department place on attaining the goal of…" Responses for the items in the goals scale were based on a 7-point scale, ranging from 1 (*not important at all*) to 7 (*to a great extent*). *Developmental processes* were represented by three constructs (student-athlete social/moral education, academic eligibility, and career development) and 13 items. *Performance processes* were represented by three constructs (attracting athletes, marketing, and media relations) and 11 items. The stem for the process items read, "Dear coach, how frequently does your athletic department engage in the processes of . . ." Responses for the items in the processes scale were based on a seven-point anchored scale, ranging from 1 (*never*) to 7 (*always*).

***Patterns of Bureaucracy Scale.*** As there is no numerical index to assess content validity of a new scale (Ary et al., 2006)—the Patterns of Bureaucracy Scale in the present case, we consulted a panel of five experts (Fraenkel & Wallen, 2003) in sociology of work and institutionalism. Having provided the definitions of the constructs being measured and indicating that the target population was college coaches, we requested the panel of experts to read and evaluate the appropriateness and clarity of the items. After adopting the suggestions of these experts, the final instrument consisted of 20 items to measure patterns of bureaucracy—seven items each for mock and representative bureaucracy, and six items for punishment-centered bureaucracy. Sample items are: "Our athletic director and coaches agree that in order to create competitive teams, coaches have to modify some rules" for mock bureaucracy; "Our athletic director and coaches agree that rules should be followed exactly

as they are written" for representative bureaucracy; and "When our athletic director and coaches disagree with each other about rules, rules are dictated from top to bottom" for punishment-centered bureaucracy. Response format for the items in the bureaucracy scales was a seven-point scale ranging from 1 (*never*) to 7 (*always*).

## Data Analysis

Missing data of the current research were dealt with using full information maximum likelihood approach (Cai & Lee, 2009). After dealing with missing values, Mplus SEM package was used to conduct distinct, although interrelated, sets of analyses to verify the proposed measurement and structural models.

***Measurement Model.*** First, we used single-group confirmatory factor analysis (CFA) to check the overall measurement model fit and individual contributions of items to their assigned factors. Adopting the two-samples approach of MacCallum, Roznowski, and Necowitz (1992), we first tested the measurement model with the randomly selected calibration sample, and checked the measures of fit and the factor loadings. After refining the model, dropping some items that did not load satisfactorily in their implied constructs, we tested the measurement model again, but this time using the validation sample. At this step, we analyzed the construct validity (convergent and discriminant validity) according to Fornell and Larcker's (1981) criteria, and the internal consistency (Cronbach's alpha) of the measures.

***Measurement Invariance.*** Testing for measurement invariance is a fundamental requirement if someone wants to make group comparisons (Byrne & Watkins, 2003; Reise, Widaman, & Pugh, 1993; Widaman & Reise, 1997). Accordingly, we used multigroup CFA according to the procedures described by Widaman and Reise (1997) and Chen, Souza, and West (2005) to verify measurement invariance of the instrument across all three NCAA divisions. Multiple-group CFA is the most suitable method to check measurement invariance (Byrne & Watkins, 2003).

***Structural Model.*** After checking the measurement model, single-group structural equation modeling (SEM) was conducted to compare three plausible alternative models which might explain the structural relationships among the variables. The theoretical rationale for the first model is that goals would not directly affect the bureaucratic climate of the organizations. Goals would necessary affect the daily processes which, in turn, would affect the bureaucratic climate. The second model relaxes the above assumption (that goals do not have a direct effect on patterns of bureaucracy) and allows for both direct and indirect effects of goals on patterns of bureaucracy. The basis for this model is that goals statements are strong enough to directly affect patterns

of bureaucracy. The rationale for the third model is that the patterns of bureaucracy are directly influenced by both goals and processes without any goals-process directional effects. These three models were named: (a) fully mediated model (i.e., athletic goals influence patterns of bureaucracy only through athletic processes), (b) partially mediated model (athletic goals have a direct effect on patterns of bureaucracy as well as an indirect effect through processes), and (c) direct effects model (both athletic goals and processes influence directly the patterns of bureaucracy). Finally, we used multiple-group SEM, according to the procedures described by Bollen (1989) and Byrne (2006) to assess the structural invariance of the selected model across all three NCAA divisions.

***Measures of Fit.***   As for the measures of model fit, we used the root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), comparative fit index (CFI), Tucker-Lewis index (TLI), and chi-square value divided by degrees of freedom. For CFI and TLI, values higher than .90 are considered to have a close fit (Hair, Anderson, Tatham, & Black, 1998). For RMSEA, values less than .06 indicate a close fit of the model, values less than .08 indicate a reasonable fit, and values higher than .10 indicate no fit (Hu & Bentler, 1999). For SRMR, values less than .08 are indicative of close fit (Hu & Bentler, 1999). For the value of chi-square divided by degrees of freedom, values of 2.0 or less indicate a good fit (Byrne, 1989).

# Results

## Measurement Model

The single-group CFA using the calibration sample showed fit measures that had some room for improvement. Some items loaded below .707 in its assigned construct—indicating that its common variance was smaller than its unique variance (Anderson & Gerbing, 1988)—in all three groups. These items were dropped. Further, some items had low factor loadings for one or two groups, but not for all groups. In these cases, the decision to drop an item became much more complex. After a careful analysis, four out of 24 items from the goals scale, nine out of 24 items from the processes scale, and seven out of 20 items from bureaucracy scale were dropped. After dropping these items, a new CFA with the validation sample was conducted. Results of the CFA with the validation sample are shown in Table 1. The measurement model for all three scales in all three divisions fit the data reasonably well at the least. The chi-square divided by degrees of freedom was less than 2.0 for all three scales in all three divisions. The point estimates of RMSEA and the values of SRMR were all below .08, indicating reasonable fit (Hu & Bentler, 1999). Furthermore, the values of CFI and TLI were all above .93.

The covariance matrix of latent variables is in Table 2. Additional descriptive statistics (mean and standard deviations), internal consistency (Cronbach's alpha), and average variance explained (AVE) are shown in Table 3. Internal consistency was satisfactory for all subscales in all three divisions. All factors presented Cronbach's alphas greater than .70. The AVE was greater than .50 for all constructs, implying considerable convergent validity for all factors in all three divisions (Fornell & Larcker, 1981). To show discriminant validity, Fornell and Larcker (1981) proposed that each factor must have AVE larger than the squared correlation between this construct and another construct. Accordingly, we squared each correlation between factors and compared these squared correlations with the AVE of the two involved constructs. Although some of the squared correlations were larger than .50, none of the factors failed the test for discriminant validity.

#### Table 1   Fit Measures for the Measurement Model (Validation Sample)

|  | $\chi^2/df$ | RMSEA (90% CI) | SRMR | CFI | TLI |
|---|---|---|---|---|---|
| Goals scale |  |  |  |  |  |
| Div I | 1.91 | .076 (.062; .088) | 0.042 | 0.953 | 0.943 |
| Div II | 1.50 | .060 (.044; .076) | 0.038 | 0.968 | 0.961 |
| Div III | 1.76 | .071 (.057; .084) | 0.049 | 0.949 | 0.938 |
| Processes scale |  |  |  |  |  |
| Div I | 1.94 | .077 (.058; .095) | 0.057 | 0.949 | 0.929 |
| Div II | 1.63 | .068 (.045; .089) | 0.048 | 0.962 | 0.947 |
| Div III | 1.33 | .047 (.017; .069) | 0.047 | 0.976 | 0.966 |
| Bureau scale |  |  |  |  |  |
| Div I | 1.37 | .045 (.009; .070) | 0.054 | 0.979 | 0.973 |
| Div II | 1.75 | .074 (.050; .096) | 0.065 | 0.951 | 0.939 |
| Div III | 1.48 | .056 (.030; .079) | 0.059 | 0.971 | 0.963 |

**Table 2  Covariance Matrix of Latent Variables**

| | AC | SC | CA | UP | WI | EN | DEVG | PERG | ME | AE | CD | AT | MK | MR | DEVP | PERP | MO | RE | PB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC | 0.588 | | | | | | | | | | | | | | | | | | |
| SC | 0.575 | 0.881 | | | | | | | | | | | | | | | | | |
| CA | 0.598 | 0.839 | 1.040 | | | | | | | | | | | | | | | | |
| UP | 0.396 | 0.556 | 0.578 | 1.198 | | | | | | | | | | | | | | | |
| WI | 0.535 | 0.751 | 0.781 | 1.173 | 2.446 | | | | | | | | | | | | | | |
| EN | 0.464 | 0.651 | 0.677 | 1.017 | 1.376 | 1.669 | | | | | | | | | | | | | |
| DEVG | 0.410 | 0.575 | 0.598 | 0.396 | 0.535 | 0.464 | 0.410 | | | | | | | | | | | | |
| PERG | 0.396 | 0.556 | 0.578 | 0.868 | 1.173 | 1.017 | 0.396 | 0.868 | | | | | | | | | | | |
| ME | 0.478 | 0.670 | 0.697 | 0.462 | 0.624 | 0.541 | 0.478 | 0.462 | 0.895 | | | | | | | | | | |
| AE | 0.198 | 0.279 | 0.290 | 0.192 | 0.259 | 0.225 | 0.198 | 0.192 | 0.278 | 0.397 | | | | | | | | | |
| CD | 0.578 | 0.811 | 0.844 | 0.559 | 0.755 | 0.655 | 0.578 | 0.559 | 0.809 | 0.336 | 1.081 | | | | | | | | |
| AT | 0.348 | 0.489 | 0.508 | 0.763 | 1.032 | 0.895 | 0.348 | 0.763 | 0.406 | 0.169 | 0.491 | 1.206 | | | | | | | |
| MK | 0.456 | 0.640 | 0.666 | 1.000 | 1.352 | 1.172 | 0.456 | 1.000 | 0.532 | 0.221 | 0.643 | 1.117 | 2.155 | | | | | | |
| MR | 0.360 | 0.506 | 0.526 | 0.789 | 1.067 | 0.925 | 0.360 | 0.789 | 0.420 | 0.174 | 0.508 | 0.882 | 1.155 | 1.372 | | | | | |
| DEVP | 0.478 | 0.670 | 0.697 | 0.462 | 0.624 | 0.541 | 0.478 | 0.462 | 0.669 | 0.278 | 0.809 | 0.406 | 0.532 | 0.420 | 0.669 | | | | |
| PERP | 0.348 | 0.489 | 0.508 | 0.763 | 1.032 | 0.895 | 0.348 | 0.763 | 0.406 | 0.169 | 0.491 | 0.853 | 1.117 | 0.882 | 0.406 | 0.853 | | | |
| MO | -0.112 | -0.158 | -0.164 | -0.055 | -0.075 | -0.065 | -0.112 | -0.055 | -0.168 | -0.070 | -0.203 | -0.026 | -0.034 | -0.027 | -0.168 | -0.026 | 0.600 | | |
| RE | 0.146 | 0.205 | 0.213 | 0.099 | 0.134 | 0.116 | 0.146 | 0.099 | 0.212 | 0.088 | 0.257 | 0.069 | 0.090 | 0.071 | 0.212 | 0.069 | -0.316 | 0.858 | |
| PB | 0.168 | 0.235 | 0.245 | 0.157 | 0.213 | 0.184 | 0.168 | 0.157 | 0.236 | 0.098 | 0.285 | 0.136 | 0.179 | 0.141 | 0.236 | 0.136 | -0.153 | 0.230 | 1.824 |

Note. AC = Academic achievement; SC = Social citizenship; CA = Career of student-athletes; UP = University prestige; WI = Winning; EN = Entertainment; DEVG = Development goals; PERG = Performance goals; ME = Moral education; AE = Academic eligibility; CD = Career development of athletes; AT = Attracting athletes; MK = Marketing; MR = Media relations; MR = Mock Bureaucracy; RB = Representative Bureaucracy; PB = Punishment-centered Bureaucracy.

**Table 3   Mean (M), Standard Deviation (SD), Cronbach's alpha (a) and Average Variance Explained (AVE) for All Factors in All Three Scales**

| | Division I | | | | Division II | | | | Division III | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | SD | α | AVE | M | SD | α | AVE | M | SD | α | AVE |
| Goals Scale | | | | | | | | | | | | |
| Academic Achievement | 6.30 | 0.84 | 0.94 | 0.82 | 5.86 | 1.04 | 0.93 | 0.82 | 5.94 | 1.00 | 0.94 | 0.78 |
| Social Citizenship | 5.72 | 1.02 | 0.89 | 0.71 | 5.43 | 1.10 | 0.89 | 0.68 | 5.42 | 1.11 | 0.90 | 0.71 |
| Student career | 5.64 | 1.13 | 0.93 | 0.81 | 5.17 | 1.25 | 0.93 | 0.78 | 5.18 | 1.25 | 0.91 | 0.75 |
| University prestige | 5.93 | 1.02 | 0.80 | 0.74 | 5.35 | 1.20 | 0.78 | 0.69 | 5.18 | 1.17 | 0.72 | 0.55 |
| Winning | 4.62 | 1.42 | 0.88 | 0.73 | 4.31 | 1.52 | 0.89 | 0.76 | 3.88 | 1.36 | 0.86 | 0.67 |
| Entertainment | 4.72 | 1.25 | 0.89 | 0.70 | 4.09 | 1.31 | 0.88 | 0.61 | 3.33 | 1.25 | 0.85 | 0.63 |
| Processes Scale | | | | | | | | | | | | |
| Moral Education | 5.98 | 1.04 | 0.81 | 0.61 | 5.56 | 1.28 | 0.81 | 0.61 | 5.45 | 1.32 | 0.78 | 0.62 |
| Academic Eligibility | 6.60 | 0.70 | 0.74 | 0.64 | 6.23 | 1.02 | 0.74 | 0.59 | 6.41 | 0.99 | 0.74 | 0.53 |
| Career Development | 5.81 | 1.16 | 0.79 | 0.62 | 4.87 | 1.51 | 0.82 | 0.60 | 4.31 | 1.64 | 0.78 | 0.58 |
| Attract athletes | 5.00 | 1.31 | 0.84 | 0.69 | 4.24 | 1.48 | 0.80 | 0.72 | 4.03 | 1.44 | 0.78 | 0.67 |
| Marketing | 4.71 | 1.47 | 0.87 | 0.70 | 3.28 | 1.47 | 0.82 | 0.63 | 2.10 | 1.18 | 0.76 | 0.55 |
| Media relations | 4.69 | 1.34 | 0.86 | 0.78 | 3.91 | 1.48 | 0.86 | 0.80 | 3.06 | 1.40 | 0.87 | 0.81 |
| Bureaucracy Scale | | | | | | | | | | | | |
| Mock | 2.21 | 0.94 | 0.78 | 0.52 | 2.39 | 1.07 | 0.81 | 0.55 | 2.34 | 0.99 | 0.77 | 0.51 |
| Representative | 6.32 | 0.92 | 0.78 | 0.52 | 6.16 | 1.03 | 0.79 | 0.54 | 6.25 | 0.92 | 0.82 | 0.56 |
| Punishment-Centered | 6.03 | 1.39 | 0.92 | 0.68 | 6.05 | 1.22 | 0.89 | 0.64 | 5.81 | 1.38 | 0.92 | 0.72 |

## Measurement Invariance

We started testing the measurement invariance of the bureaucracy scale, which is a first-order factor model. A series of three hierarchically nested models were tested: Model 1 (unconstrained model); model 2 (factor loadings invariant); and model 3 (factor loadings and intercepts of indicators invariant). Each pair of models is nested in this hierarchy because a set of parameters was constrained to be equal across groups in the more restricted model. The chi-square difference test between model 2 and model 1 ($\Delta c^2 = 51.63$, $\Delta df = 20$, $p = .001$) was significant, indicating that the more restricted model failed the test of measurement invariance across groups. This test is highly sensitive to nonnormality and sample size (Brannick, 1995; Kelloway, 1995). Thus, many scholars have suggested the use of alternative goodness-of-fit indexes to assess measurement invariance (Chen et al., 2005; Cheung & Rensvold, 2002; Hu & Bentler, 1999). Cheung and Rensvold (2002) found in simulation studies that, among many good-of-fitness indexes, CFI has performed better than other indexes available in SEM software. They proposed that a difference of equal to or less than .01 in CFI between two nested models would indicate measurement invariance. The difference in the CFI between model 2 ($CFI_2 = .955$) and model 1 ($CFI_1 = .960$) was only .005, indicating invariance. Hu and Bentler (1999) suggested that point estimates and confidence intervals of RMSEA should be used to compare nested models. If point estimates are very close and confidence intervals have large overlaps, then measurement invariance can be assumed. The point estimates of RMSEA are identical for model 2 ($\varepsilon_2 = .067$; 90% CI = .059, .075) and model 1 ($\varepsilon_1 = .067$; 90% CI = .058, .075), and an almost perfect overlapping exists in the RMSEA confidence intervals of these two models. Therefore, we are very confident to assume measurement invariance between model 2 and model 1. In other words, factor loadings for the bureaucracy scale were invariant across all three groups of coaches.

The chi-square difference test between model 3 and model 2 ($\Delta c^2 = 36.80$, $\Delta df = 26$, $p = .078$) was not significant, indicating that the more restricted model did not fail the test of measurement invariance across groups. In addition, CFI and RMSEA differences confirmed the assumption of measurement invariance between model 2 and model 3. The difference in the CFI between model 3 ($CFI_3 = .953$) and model 2 ($CFI_2 = .955$) was almost nil. The point estimates of RMSEA were slightly different for model 3 ($\varepsilon_3 = .064$; 90% CI = .057, .072) and model 2 ($\varepsilon_2 = .067$; 90% CI = .059, .075). However, the RMSEA confidence interval of the model 2 is completely encompassed by the confidence interval of the model 3. Altogether, these results indicated that factor loadings and intercepts of indicators were invariant across all three groups of coaches for the bureaucracy scale.

Results of the comparisons of the above-described models support measurement invariance of both goals and processes scales among all three divisions. To conserve space, we are not reporting here the numerical results of these comparisons. The complete description of these comparisons is available from the first author upon request. The goals scale did not fail any of the full invariance tests, using CFI and RMSEA confidence intervals as parameters for comparison. The processes scale, however, failed the test of the invariance of intercepts of indicators. Given the differences among NCAA divisions, the intercepts of some factors need not necessarily be invariant among the tested groups. For example, indicators for marketing and media relations should be expected to vary in their intercepts among divisions. Therefore, we tested for partial invariance, as suggested in the literature (Byrne, 1989; Steenkamp & Baumgartner, 1998). After allowing the intercepts of these indicators to vary among groups, we found measurement invariance for the processes scale too.

## Structural Models

Results of power analysis, showed that for all three samples ($n_{divI} = 322$, $n_{divII} = 277$, $n_{divIII} = 308$), in all three structural models, we had a perfect power ($p = 1$) to reject a false null hypothesis. This should not be surprising because, in SEM analysis, power increases as a function of degrees of freedom (MacCallum, Browne, & Sugawara, 1996). The sample size used in this study was large enough to meet SEM assumptions and guarantee a power of 1.

Comparing the two nested models, the test of chi-square difference showed that there is no difference between the fully mediated model and the partially mediated model in either division I ($\Delta\chi^2 = 5.49$, $\Delta df = 6$, $p = .483$), or division II ($\Delta c^2 = 10.18$, $\Delta df = 6$, $p = .117$), or division III ($\Delta c^2 == 7.72$, $\Delta df = 6$, $p = .259$). In addition, other fit measures (RMSEA, SRMR, and CFI) were extremely alike for both models. The fully mediated model has the advantage of being more parsimonious than the partially mediated model.

Comparing the fully mediated model with the direct effects models, no formal test might be conducted because the latter is not nested in the former. The fit indices of both models were extremely alike in all three divisions. Considering former investigations, the fully mediated model seems to better explain structural relationships among the investigated variables, because the literature has affirmed that goals are set a priori, and then processes are selected (Mohr, 1973; Trail & Chelladurai, 2002; Vancouver & Schmitt, 1991). This implies a directional relationship between goals and processes, as in the fully mediated model, instead of a nondirectional as indicated in the direct effects model. The goodness-of-fit measures of the fully mediated structural model indicated a close fit to the data for division I ($\varepsilon_{divI} = .054$; 90% CI = .050, .057; $SRMR_{divI} = .062$; $CFI_{divI} = .915$), division II ($\varepsilon_{divII} = .061$; 90% CI = .057, .064; $SRMR_{divII} = .069$; $CFI_{divII} = .902$), and division III ($\varepsilon_{divIII} = .054$; 90% CI = .051, .058; $SRMR_{divIII} = .072$; $CFI_{divIII} = .902$).

Figure 1 shows the standardized regression coefficients and correlations for the fully mediated model for all three divisions. For the sake of simplicity, we omitted
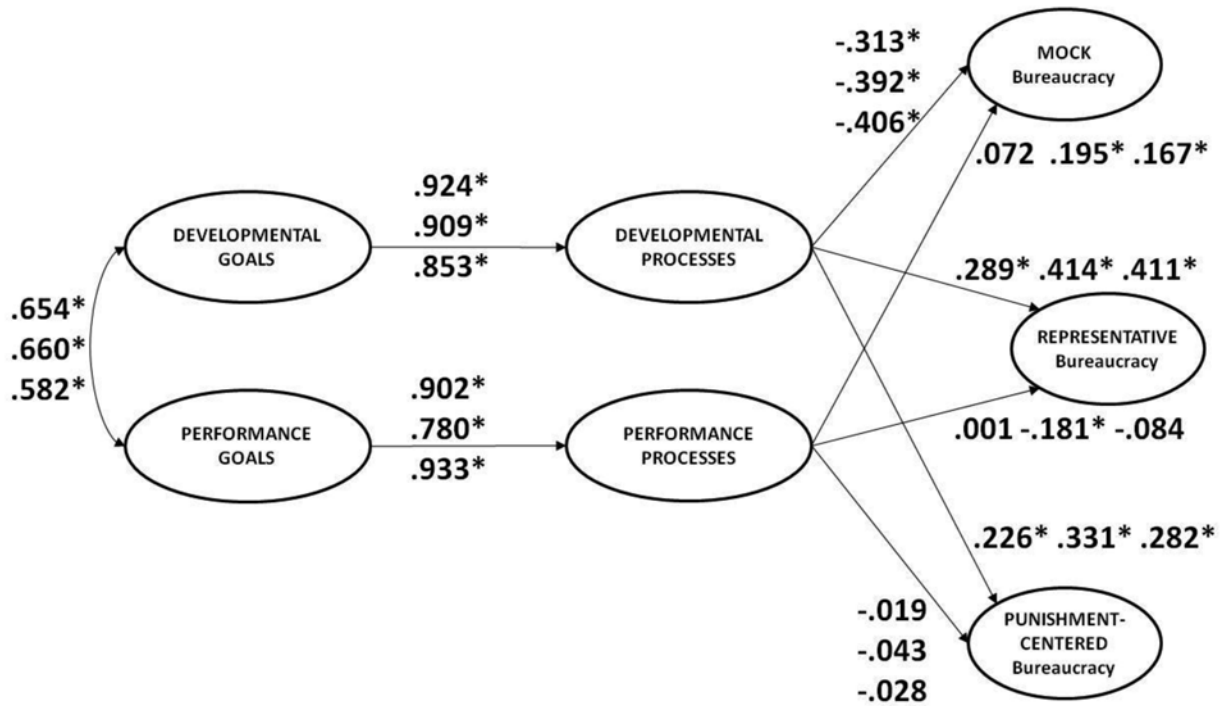
**Figure 1** - Standardized regression coefficients and correlation between exogenous variables for the fully mediated model for all three divisions.

in this figure the measurement part of the model and the errors in equations. The correlation between developmental goals and performance goals was significant for all three divisions, ($r_{divI}$ = .654; $r_{divII}$ = .660; $r_{divIII}$ = .582). The regression coefficient of developmental processes on developmental goals was large and significant for all three divisions ($\beta_{divI}$ = .924; $\beta_{divII}$ = .909; $\beta_{divIII}$ = .853). The regression coefficient of performance processes on performance goals was also large and significant for all three divisions ($\beta_{divI}$ = .902; $\beta_{divII}$ = .780; $\beta_{divIII}$ = .933). Therefore, the structural relationships between intercollegiate goals and processes were very consistent across divisions.

Particularly interesting for the current research were the findings related to the relationships between processes and types of bureaucracy. For all three divisions, *the developmental processes factor* was a significant predictor of all three types of bureaucracy. More specifically, the developmental processes factor was a negative and significant predictor of mock bureaucracy ($\beta_{divI}$ = -.313; $\beta_{divII}$ = -.392; $\beta_{divIII}$ = -.406), and a positive and significant predictor of representative bureaucracy ($\beta_{divI}$ = .289; $\beta_{divII}$ = .414; $\beta_{divIII}$ = .411) and punishment-centered bureaucracy ($\beta_{divI}$ = .226; $\beta_{divII}$ = .331; $\beta_{divIII}$ = .282). Regarding the relationship between *the performance processes factor* and types of bureaucracy, for all three divisions, the regression coefficient of punishment-centered bureaucracy on performance processes were small and not significant ($\beta_{divI}$ = -.019; $\beta_{divII}$ = -.043;

$\beta_{divIII}$ = .028). Other relationships between constructs were particular to one or two populations, but not to all of them. The regression coefficient of mock bureaucracy on performance processes was positive and significant for division II ($\beta_{divII}$ = .195) and division III ($\beta_{divIII}$ = .167), but not significant for division I ($\beta_{divI}$ = .072). Finally, the regression coefficient of representative bureaucracy on performance processes was significant for division II ($\beta_{divII}$ = -.181), but not significant for division I ($\beta_{divI}$ = .001) and division III ($\beta_{divIII}$ = -.084).

## Structural Invariance

The nested models approach was used this time to test structural invariance between models (Bollen, 1989; Byrne, 2006). Model 1 is the unconstrained model, where all single-headed arrows representing structural relationships (regression coefficients) in the model were freely estimated for each group. Model 2 is the constrained model, where these parameters were forced to be equal for all three groups. Results showed that when all regression coefficients were fixed to be invariant across groups (model 2), the model still fit the data very well. In fact, the fit indexes for the unconstrained model ($\varepsilon_1$ = .059; 90% CI = .057, .061; $SRMR_1$ = .070) and the constrained model ($\varepsilon_2$ = .059; 90% CI = .057, .061; $SRMR_2$ = .070) were the same. The test of chi-square difference showed that there is no statistical difference between the unconstrained and the constrained model ($\Delta\chi^2$ = 11.46, $\Delta df$

= 16, *p* = .780). Structural relationships among goals, processes, and patterns of bureaucracy were invariant among all three NCAA divisions.

## Indirect Effects

Considering we are analyzing a mediation model, the results of indirect effects of patterns of bureaucracy on goals, with processes as mediators, add important information about the phenomenon under investigation. Sport management literature has usually taken the traditional causal steps approach (Baron & Kenny, 1986) to test mediation models. However, as noted by Preacher and Hayes (2008), Baron and Kenny's causal steps approach relies on a set of individual tests of path coefficients, instead of testing the actual product of path coefficients, yielding neither point estimate nor standard error of the mediation effect per se. Therefore, to test the indirect effects, we applied both product of coefficient and bootstrapping strategies in this research. Using the product of coefficients strategy (Sobel, 1982), we determined a point estimate for each of the specific indirect effects, and produced standard errors and confidence intervals to these point estimates. It is noteworthy that the product of coefficient strategy assumes that the product of regression coefficients (from the predictor to a mediator, and from a mediator to the outcome variable) is normally distributed (Sobel, 1982, 1986). The problem with this assumption is that the product of coefficients is generally positively skewed and kurtotic (Preacher & Hayes, 2004; Shrout & Bolger, 2002). To deal with this problem, we applied bootstrapping, a nonparametric resampling technique that does not assume normal sampling distribution of the product coefficient (Bollen & Stine, 1990; MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2008).

As for the structural invariance, we used the constrained model and the whole sample of coaches to analyze the indirect effects from goals to patterns of bureaucracy through processes. Using the constrained model we got the same values for the unstandardized regression coefficients for all three populations and, consequently, the same values for the indirect effects. Table 4 shows the results of the indirect effects (IND), bias

corrected bootstrapping confidence intervals (CI), standard errors (*SE*), *z*-statistics, and *p*-values, taking the three divisions together. All three indirect effects from developmental goals to the three patterns of bureaucracy through developmental processes were quite large and significant when the whole sample is considered. The indirect effect from developmental goals to mock bureaucracy was negative (IND = -.380), indicating that the higher the importance athletic departments place on developmental goals, the less they engage in mock bureaucracy. The indirect effects from developmental goals to representative (IND = .440) and punishment-centered bureaucracy (IND = .418) were positive, meaning that the higher the importance athletic departments place on developmental goals, the more they engage in either representative or punishment-centered bureaucracy. Regarding the indirect effects through performance processes, the indirect effect from performance goals to mock bureaucracy through performance processes was positive and significant (IND = .110), indicating that the higher the importance athletic departments place on performance goals, the more they engage in mock bureaucracy. The indirect effect from performance goals to representative bureaucracy was negative and significant (IND = -.087), indicating that the higher the importance athletic departments place on performance goals, the less they engage in representative bureaucracy. The indirect effect from performance goals to punishment-centered bureaucracy (IND = -.010) was not significant.

## Discussion

This research was designed to explore and describe the relationships between intercollegiate coaches' perceptions of the importance placed on athletic goals and processes, and how institutional rules have been negotiated inside their respective athletic departments. Our interest was not in the proportions of the emergent patterns of bureaucracy but on their relationship to the emphases athletic departments place on different goals and processes. Results support the hypothesis that wherever performance goals and processes (e.g., emphasis on winning and recruitment) are emphasized a pattern

**Table 4   Indirect Effects (IND), Confidence Intervals (CI), Standard Errors (*SE*), z-Statistic, and p-Values for the Whole Sample of Coaches**

| Path | IND | 95% CI | *SE* | z | P |
|------|-----|--------|------|---|---|
| DEVG → DEVP → MB | -0.380 | -.499; -.269 | 0.058 | -6.58 | <.001 |
| DEVG → DEVP → RB | 0.440 | .307; .590 | 0.071 | 6.18 | <.001 |
| DEVG → DEVP → PB | 0.418 | .243; .576 | 0.083 | 5.02 | <.001 |
| PERG → PERP → MB | 0.110 | .029; .190 | 0.041 | 2.70 | 0.007 |
| PERG → PERP → RB | -0.087 | -.170; -.013 | 0.042 | -2.09 | 0.036 |
| PERG → PERP → PB | -0.010 | -.111; .084 | 0.051 | -0.19 | 0.837 |

Note. DEVG = Developmental Goals; DEVP = Developmental Processes; MB = Mock Bureaucracy; RB = Representative Bureaucracy; PB = Punishment-centered Bureaucracy.

of loose coupling between rules and actual activities (mock bureaucracy) arises. On the other hand, wherever developmental goals and processes (e.g., emphasis on academic achievement) are emphasized a pattern of tight coupling arises between rules and actual activities (representative or punishment-centered bureaucracy). In this sense, both patterns of loose and tight coupling arise depending on the goals and processes emphasized by athletic departments. In other words, different patterns of bureaucracy are used as an effective strategy to respond to different goals. These results are mainly expressed in the directional path coefficients from goals/processes to different patterns of bureaucracy.

This research adds to the literature in two different ways. First, goals and processes were used as antecedents of patterns of bureaucracy to understand why athletic departments manage rules differently. Second, coaches as one of the most important constituencies of athletic departments were investigated as to their perceptions about goals, processes, and rules negotiation. Our results showed that goals and processes set by athletic departments worked as antecedents of bureaucratic climate prevailing in these organizations. Specifically, developmental goals and processes were positively related to representative and punishment-centered bureaucracy, and negatively related to mock bureaucracy for all three divisions. Results regarding performance goals and processes were not so conclusive.

It was logical for us to seek the reactions of coaches to existing conditions in their respective universities because they are the recipients of the rules to follow and they are the ones directly enforcing as well as supervising the adherence to these rules. Further, they are the counterparts in the transactions with athletic administrators on the extent of loose-coupling. Our results showed that at the athletic department-coach level, the dominant patterns were representative bureaucracy and punishment-centered bureaucracy.

The result of a high and significant correlation between performance and developmental goals should not be surprising as the athletic departments straddle two institutional spheres—elite segment of the sport industry and the tertiary educational institutions (i.e., universities) which emphasize different sets of goals. Further, an emphasis on both sets of goals is not problematic by itself. The problem arises because the processes adopted to achieve the differing sets of goals simultaneously do conflict. For example pursuit of excellence in sport requires extraordinary physical effort over a prolonged period of training of about 10,000 hr (Ericsson, Krampe, Tesch-Romer, 1993). While the number of hours spent on athletics reduces the number of hours available for academics, the negative impact of athletic training on academics could be even greater because of the physical fatigue resulting from such training. Thus, the processes in either sphere constrain the performance of the athletes in the other sphere. Hence, loose coupling emerges as an effective strategy in athletic departments which is the central thesis of this paper.

Coaches' perceptions of "what is" with regard to goals is consistent with the perceptions of "what ought to be" by faculty and students (Trail & Chelladurai, 2000) and by university presidents (McGuire & Trail, 2002). From this perspective, the athletic departments and their managers cannot be faulted for not emphasizing the developmental goals as is often said. Even in the case of performance goals, coaches' perceptions of the emphasis placed on them paralleled preferences of faculty, students, and presidents (Trail & Chelladurai, 2000).

An encouraging finding is that the coaches perceived minimal levels of mock bureaucracy in their universities ($M$ = 2.21, on a 7-point scale). But this should not mask the fact that it could be extensively practiced in a few institutions. In fact, the frequency analysis of the responses shows that 19, 23, and 24 of the respondents from Divisions I, II, and III, respectively, scored higher than 4 on the 7-point mock bureaucracy subscale, meaning that they perceived extensive loose coupling or rule bending in their respective universities.

On the other hand, the respondents perceived a very high degree of representative bureaucracy in their departments ($M$ = 6.32, 6.16, and 6.25 in Divisions I, II, and III, respectively). The view advanced by some (Benford, 2007; Sperber, 2000; Zimbalist, 1999) that the coaches are ready to bend or break the rules is negated by the present result. The coaches appear to recognize the significance of athletics in educational sphere and accept the need for them to abide by the letter and spirit of the rules from the NCAA and their own respective universities. It is even more striking that they also perceived high levels of punishment-centered bureaucracy ($M$ = 6.03, 6.05, and 5.81 in Divisions I, II, and III, respectively) where any rule violations by the coaches were met by punishment from management. This result suggests that the managers of intercollegiate athletics extensively monitor rule violations and punish any miscreant activity.

Referring to the directional paths in our structural model (see Figure 1), the regression coefficients linking goals to processes were all relatively larger in numerical terms than those found by Trail and Chelladurai (2002) in their study of the preferences of students and faculty. It must be noted that even the faculty and students of Trail and Chelladurai's study saw a strong connection between processes and goals ($R$ = .682 and .866, for developmental and performance goals/processes respectively). However, as direct participants in the processes, our sample of coaches could have seen a more direct and stronger relationship between the goals and processes thereof. Basically, this finding shows that the respondent coaches saw great consistency between goals set and processes practiced by athletic departments. For example, the more coaches perceived the existence of performance goals (e.g., winning), the more they confirmed the practice of performance processes (e.g., attracting athletes).

When the total sample was used and the regression coefficients were constrained to be equal across divisions, five out of six indirect effects were significant (Table 4). These results indicate that developmental

goals/processes were significant predictors for all three types of bureaucracy. As a whole, the emphasis on developmental goals largely defined developmental processes which, in turn, were related to coaches' perceptions of the following of the rules either by agreement with their athletic directors (representative bureaucracy) or by enforcement (punishment-centered bureaucracy). More significantly, the higher the importance athletic departments place on developmental goals, the lower the bending of rules by coaches and athletic directors (i.e., less of mock bureaucracy). The indirect effect from developmental goals to punishment-centered bureaucracy was significant, but the indirect effect from performance goals to punishment-centered was not. That is, our respondents perceived an enhanced pattern of punishment-centered bureaucracy only where there was an augmented emphasis on developmental goals. However, they did not perceive a reduced pattern of punishment-centered bureaucracy where there was an augmented emphasis on performance goals. This could mean that an augmented emphasis on performance goal had resulted in increased use of mock bureaucracy, but it did not necessarily reduce the use of punishment-centered bureaucracy. Still relevant was the fact that it did reduce the practice of representative bureaucracy.

Gouldner (1954) developed his patterns of bureaucracy based on the negotiations at the interface between managers and employees. However, intercollegiate athletics presents different levels of interface wherein the different patterns of bureaucracy may manifest. The interfaces are (a) NCAA and an athletic department; (b) a university and an athletic department; (c) an athletic department and the coaches; and (d) the coaches and athletes. It is clear from the mandate and actions of the NCAA that the dominant pattern of bureaucracy at the NCAA-athletic department level is the punishment-centered bureaucracy. It could explain the lack of a significant and negative relationship between performance goals and punishment-centered bureaucracy. Coaches perceived that, even where performance goals were emphasized, this pattern of bureaucracy was not reduced.

It is not clear what pattern of bureaucracy will be dominant at the coach-athlete interface. Based on the close and constant interactions between the coach and his or her athletes, and their mutual dependence for the success of the athlete, the coach, and the team, one could speculate that the dominant patterns of bureaucracy at that level will be representative bureaucracy and mock bureaucracy. That is, while the administrators may force strict adherence to rules, the coaches and their respective athletes may come to a tacit agreement on the extent of loose coupling without any reference to the administrators of the larger system. This supposition is partly supported by the NCAA imposing its penalties on the coaches and players and not on the athletic administrators. Even those athletes who do not take part in such agreements are likely to be aware of the extent of loose coupling that goes on in their team operations. Therefore, future research must verify the extent of loose coupling at the coach-athlete

intersection. Such research may also point to patterns of bureaucracy unique to the coach-athlete interface.

While the current study focused on the extent of loose coupling of NCAA requirements and the athletic activities, it should not be overlooked that such loose coupling may also occur on the educational side. That is, professors and administrators have been known to set aside some of the academic rules and requirements to accommodate the needs of the athletes (Bowen & Levin, 2003; Southall, Nagel, Batista, & Reese, 2003). Future research may investigate the extent to which loose-coupling occurs on the academic side of athletes' experiences tapping the perceptions of multiple sets of informants (e.g., managers, athletes, students, and teachers, etc.) to identify and describe how different patterns of bureaucracy emerge on the academic side. Meanwhile, future research may also investigate loose-coupling as it occurs in other important fields of actions of athletic departments. For example, a recent study of Casper, Pfahl, and McSherry (2012) highlighted the importance of athletic departments' actions related to environmental sustainability. Focus on the fields of athletic performance and even the educational achievement of student-athletes might create a stimulus for managers to loose-couple actions and responsibilities related to other fields, such as environmental sustainability and social corporate responsibility.

## Theoretical Implications

This research advances the theory in three important aspects. First, while previous studies have asked students and faculty, who were not directly involved with the athletic department about their personal preferences (Trail & Chelladurai, 2002), we surveyed coaches, a direct participant and a key constituency in the processes of athletic departments and universities as a whole. Although other authors (e.g., Trail & Chelladurai, 2002; Zimbalist, 1999) have emphasized the critical roles played by coaches, this is the first study that investigated coaches' perceptions of goals, processes, and patterns of bureaucracy of athletic departments. Further, we asked coaches not about their personal preferences, but about what has actually been happening inside the athletic departments.

Second, previous investigations proposed a relationship between goals/processes and rules violations but never tested it (e.g., Trail & Chelladurai, 2000). As athletic departments straddle two institutional spheres—elite segment of the sport industry and the tertiary educational universities—they are also faced with two opposing sets of goals. We tested if emphasis on performance goals would yield a loose coupling (mock bureaucracy), while emphasis on developmental goals would produce a tight coupling (representative or punishment-centered bureaucracy) between rules and actual technical activities. As proposed, coaches perceived that athletic departments placed equal importance on developmental and performance goals. However, emphasis on developmental goals seemed to inhibit a loose coupling between rules

and technical activities. On the other hand, emphasis on performance goals motivated the loose coupling strategies. More specifically, athletic departments that emphasize developmental goals (e.g., student-athlete academic-achievement) seem to discourage loose coupling of rules and behavior. In contrast, athletic departments that emphasize performance goals (e.g., winning and entertainment) appear to favor a bureaucratic climate that permits loose coupling. This is perhaps the most important finding of this research.

Third, the newly developed Patterns of Bureaucracy Scale is a significant contribution as it is the first one to measure the extent to which loose coupling is used inside athletic departments. It is noteworthy that this new scale which was tested in all three divisions of the NCAA showed good construct validity, reliability, and measurement invariance. As this scale measures the extent to which rules and actual activities have been negotiated inside athletic departments, it complements the scales of goals and processes of intercollegiate athletics. Moreover, the development of the bureaucracy scale creates an opportunity to investigate how other important constituencies of college sport perceive rules negotiation. For example, it would be very enlightening to know how student-athletes perceive rules negotiation inside athletic departments. Student-athletes are the prime beneficiaries of the whole process and are usually reported as victims of athletic departments that are more concerned with performance goals than with developmental goals (e.g., Zimbalist, 1999).

## Practical Implications

From a practical point of view, the results of the current research provide some insights for both college athletic administrators and coaches. For instance, the finding that coaches perceived strong negative relationships between developmental goals/processes and mock bureaucracy, and positive relationships between performance goals/processes and mock bureaucracy is very indicative. That is, if athletic directors emphasized performance goals they might be sending an indirect and involuntary message to their coaches to bend the rules. Thus, it is very important for athletic directors to express strongly and openly the importance of developmental goals. Otherwise, loose coupling may occur when multiple goals compete for time and effort of the athletes and coaches. Similarly, coaches also must impress on their athletes that developmental goals reign supreme. A practical implication of this result is that if the Board and President of a university would pronounce a far greater emphasis on developmental goals than on performance goals, the athletic directors and their coaches can be expected not to break or bend the rules but to practice representative bureaucracy.

Another practical issue that has not been addressed in the current study is the relative significance of the rules that are bent. The NCAA categorizes rule breaking as minor infractions and major infractions. Recently, a panel constituted by the NCAA President has proposed the creation of a multitiered system of infractions in the place of the minor-major dichotomy of infractions (Bennett, 2011). More relevant to the present discussion is that it is also suggested that the NCAA should focus more on major infractions like paying players and less on prosecuting minor infractions like running into a recruit in an all-star game (Bennett, 2011). The analogy from the traffic rules of speeding and running the red light illustrates this proposed perspective of the NCAA. Most people speed and the police allow such speeding provided it is not too excessive (e.g., over 10% of the limit). However, very few people run the red light and, further, the police will also not tolerate any rule bending in this regard. That is, the extent of tolerance of rule breaking tends to be a function of the consequences. The negative consequences of running the red light are far more catastrophic than speeding on the highway. Hence there is mock bureaucracy in the case of speeding and punishment centered bureaucracy in running the red light.

As this research is the first effort to better understand how rules have been negotiated inside athletic departments, it is not clear from the present results if the mock bureaucracy perceived by the respondents related to minor infractions or major infractions. For example, was mock bureaucracy practiced in relation to exceeding the number of hours per week by a few hours (a minor infraction) or in accepting gifts from boosters (a major infraction). The items in the scale do not tap into these differences. Based on traffic rules analogy, future research should verify if the existence of Gouldner's (1954) patterns of bureaucracy in intercollegiate athletics reflect the proposed multitiered system of infractions. One can argue that mock bureaucracy would be practiced in the not-so-severe infractions followed by representative bureaucracy in moderately severe infractions and, finally, punishment-centered bureaucracy will be practiced in the most sever infractions. What is needed in future research is to tease out the sets of rules over which there is representative bureaucracy, mock bureaucracy, and punishment-centered bureaucracy.

In summary, the relationships between intercollegiate athletic goals and processes and types of bureaucracy in intercollegiate athletic departments were central to this investigation. Based on the theory of loose-coupling (Meyer & Rowan, 1977) and Gouldner's (1954) three patterns of bureaucracy, we proposed that coaches' perceptions about the importance athletic departments place on different goals and how frequently they engage in different processes should be related to different degrees of coupling between institutional rules (i.e., the NCAA rules) and daily activities (i.e., different patterns of bureaucracy). The respondents of this study perceived their athletic departments to place high and equal emphasis on both developmental and

performance goals. The study confirmed the existence of all three patterns of bureaucracy in all divisions. However, the extent of mock bureaucracy (i.e., loose coupling of rules and practices) was minimal ($M < 2.4$ on a 7-point scale in all divisions) while representative bureaucracy and punishment-centered bureaucracy was extensively practiced in all divisions ($M > 5.81$ on a 7-point scale). Further, the indirect effects showed that wherever greater emphasis was placed on performance goals, mock bureaucracy was practiced as an option to attain these goals.

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