

Procedural Justice, Attachment Style, Stress Appraisal, and Athletes' Attitudes Toward Their Coach

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Abstract: The study examined whether procedural justice may embody an external-situational resource, in addition to the attachment style as an internal-personality resource that improves athletes' appraisals of stress and enhances their attitudes toward their coach. Eighty-one Israeli male athletes were questioned on the degree of procedural justice employed on their team, their attachment styles, their attitudes toward their coach, and how they appraised stress. Results showed that procedural justice was much more strongly associated with positive appraisals of stress as a challenge, and positive attitudes toward the coach than attachment style, and seemed to mediate the connections of attachment style and stress appraisal with the attitudes toward the coach. Findings integrate the cognitive-phenomenological model of stress and coping with the relational factors of the procedural justice approach and the personality theory of attachment and extend their validity to the field of sport.

Key Words: Procedural justice, Attachment theory, Stress, Attitudes toward coaches, Sport psychology.

INTRODUCTION

The world of sport is decidedly stressful: the quality of an athletes' performance is constantly measured, and this has immediate ramifications for the success of the athlete and his or her team. This begins already in training sessions, where athletes must outperform their peers so that they will be chosen to compete in sporting events. The stress on athletes is redoubled in competition, where they must perform under the pressure of time, against an opponent who seeks to defeat them, and frequently also in front of a large audience of spectators. These factors make the world of sport a fitting arena for the study of stress.

The purpose of the present study was to examine a model in which procedural justice and attachment style, affects stress perceptions, which in turn influences athletes' attitudes toward their coach.

Stress: The Lazarus and Folkman Model

According to the cognitive-phenomenological model of stress [1-8] psychological stress is the product of the interaction between the individual and the environment. Individuals constantly seek clues and stimuli in their environment and evaluate how relevant they are to themselves. Stressful situations are ones that individuals assess as endangering their personal existence and welfare, and require them to perform beyond their abilities and resources.

How an individual will cope with stress is initially determined by how that person subjectively appraises the stressful event, and this in turn shapes how the individual will respond and adapt to stress. This is divided into two stages. In *primary appraisal*, individuals assess the event and

how relevant it is to their personal welfare. This determination is influenced both by the situational aspects of the event (such as the quality of the stressful event, the degree of familiarity with it, the timing and the context in which it occurs, and the ambiguity of its outcome) as well as psychosocial aspects of the individual (such as values, motivation, role expectations, personality characteristics, the individual's belief that he or she can control the event, and belief in God). Primary appraisal may lead the individual to the conclusion that the event has implications for his or her well-being, either positive or negative, or that the event has no bearing on well-being and therefore is irrelevant.

If the event is determined as stressful, it may be conceived as a *threat* (i.e., may cause harm, injury, or loss), and may be accompanied by negative emotions such as fear, worry, anger, and anxiety. Alternatively, an event construed as a *challenge* (i.e., may enable growth, learning, or other benefits for the individual) will likely be accompanied by positive emotions such as enthusiasm, excitement, and hope. In the context of sports, it can be predicted that the perception of stress as a challenge, which is accompanied by positive emotions, will lead athletes to develop more positive attitudes toward their coach, since these emotions will be attributed to the situation in which they are experienced - the team framework. Perceiving stress as a threat will have a similar influence, albeit in the opposite direction. This perception is accompanied by negative emotions and therefore should lead to more negative attitudes toward the coach.

In *secondary appraisal*, individuals assess their ability to cope with the stressful event, to achieve positive results from it, or to reduce the threat that it embodies. Thus, secondary appraisal may either increase or decrease stress, and lead to differential way of coping. Individuals examine the options and resources available to them in order to cope with the event, the probability that these will lead to the desired outcome, and their capacity to use these effectively. These may

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include internal psychological resources (social skills, problem solving skills, and individuals' positive beliefs about themselves), external situational resources (the presence of others who may provide emotional, practical, or informational support), as well as physical resources (good health, energy, and physical abilities), and material resources. In the present study, we suggest a model in which **attachment style** (as an internal psychological resource) and the perception of **procedural justice** (as a situational social support resource) are related to more constructive appraisals of stress and more positive attitudes toward the coach among athletes on a sports team.

Attachment Style

Attachment theory is a theoretical framework for understanding the quality of personal relationships in childhood and adulthood [9], including, in particular, the study of individual differences in emotional regulation [10], concern for the well-being of others [11], and adjustment to stressful situations [12].

Bartholomew & Horowitz [13] developed a model of four adult attachment styles, which derive from conceptions of the self as worthy of love and affection and conceptions of the other as responsive, supportive, and trustworthy: *secure* (having positive conceptions of both the other and the self), *preoccupied* (characterized by negative conceptions of the self but a positive and trusting attitude toward the other); *dismissing* (characterized by positive conceptions of the self and negative conceptions of the other); and *fearful* (characterized by negative conceptions of both the self and the other). Indeed, research has shown that attachment styles significantly affect how individuals perceive themselves and their social world [14-16], and their success in achieving positive and satisfying personal relationships [14, 15, 17-19].

Attachment styles may be viewed as an internal resource that help people cope successfully with life's challenges [12, 20]. People who have a secure attachment style are higher in self-confidence, sense of self-efficacy [21], and positive self-perception, which enables them to differentially organize their experiences in a manner that prevents stress from impacting the entire structure of the self [22]. From a cognitive view, they are characterized by flexibility and openness to new information [23], positive and calming assessments of situations [12], and the ability to appreciate others' points of view [20]. These abilities enable them to cope with distressing circumstances and conflicts by accepting the situation, acting constructively, communicating openly, being responsive to others' needs for emotional and instrumental support [10, 20, 24], and using more integrative strategies to solve conflicts [25]. In contrast, individuals with insecure attachment styles tend to have a higher need for cognitive closure, adjust poorly to change [23], and tend to use non-constructive coping styles.

Individual differences in attachment style are related to differences in emotional regulation and expressions of emotion together with differences in the cognitive interpretations of events [10, 21, 26]. Individuals with a secure attachment style have a more positive self-image, and evaluate other more positively in comparison to individuals with non-secure attachment style. Based on the above we can

expect a positive correlation between secure attachment style and attitudes toward the coach.

The Relationship Between Attachment Styles and How People Respond to Stress

The initial aim of attachment theory was to assess the responses of human beings to two kinds of stressful situations - loss and separation [12]. According to Bowlby [11], the attachment system is activated when infants feel distress, and its purpose is to preserve the closeness of a caregiving adult who is expected to help the infant to cope with the distress. Bowlby [27] maintains that secure attachment has a positive effect not only on interpersonal relationships, but also on coping skills and sense of personal agency. These in turn reduce the anxiety level of the individual who is coping with stressful life events, and help the individual to develop more effective strategies to cope with them.

Attachment styles have been found to impact how individuals appraise and cope with stress in numerous contexts: Among soldiers prior to basic training [28], in divorce [29], and among Israelis during the Gulf War Scud attacks [30]. Studies have also shown that individuals who have a secure attachment style report lower levels of distress and higher availability of social and family supporting compared to those with non-secure attachment styles [10, 31].

In light of these findings, the secure attachment style can be viewed as an internal resource that helps people to cope with stressful events [12, 32]. People having a secure attachment style tend to be more optimistic and have a basic trust in the world, which protects them in times of need. Their tendency to assess stressful events in positive terms enables them to adopt constructive approaches in coping with such events. Furthermore, such individuals' positive self-concept and sense of competence enables them to feel that they are capable of coping in times of distress. Accordingly, we predict that the present research will replicate the findings of previous studies demonstrating that secure attachment styles will be positively related to the appraisal of stress as a challenge and negatively related to its appraisal as a threat.

According to Mikulincer and Florian [12], people with a preoccupied attachment style tend to overwork their attachment networks and to excessively focus on their distress regarding attachment. During stressful times this is expressed in exaggerated concern with their distress and negative emotions, and with attempts to cling to their attachment figures [24, 33].

People having a dismissing attachment style cope with their distress regarding attachment by distancing themselves from the distress, both at the cognitive and behavioral levels. They avoid coping with their problems and difficulties, try to repress negative thoughts about them, and try to conceal the fact that they are in distress [24]. The findings of the study of Mikulincer and Florian [28] demonstrated that although they evaluated themselves as competent in coping with stressful events, they still tend to view them as threatening. It appears that their tendency to depend only on themselves is expressed in their assessment that they are able to cope with stress. However, for such people stress also triggers negative memories and threatens their inauthentic self-confidence, and accordingly it is perceived as a threat.

Based on the above, we predict that as has been found in previous studies, these exaggerated assessments regarding the threat level of stressful events, together with non-secure individuals' low appraisals of their ability to cope with them, will lead to the perception of stress as more of a threat and less of a challenge among the non-secures.

Procedural Justice

In the model that we would like to suggest, athletes' perceptions of the extent that procedural justice is employed on the teams serves as an external-situational resource that helps them cope in stressful situations. Procedural justice approach holds that peoples' satisfaction with how problems are resolved depends more on the quality of the decision making process than on the material outcome achieved. Procedural justice may be differentiated from the *instrumental* or *distributive justice* approaches, which are based on the principles of social exchange theory, and hold that people's behaviors in groups are based on their rational assessments of the resources they receive or expect to receive from them [34, 35]. The instrumental approach posits that membership and particular behaviors in groups are a function of this exchange of resources, where individuals are motivated to increase their gains and minimize their losses. Similarly, the distributive justice approach [36] holds that people may be prepared to compromise on what they desire and settle for what they think they deserve, if they believe that the distribution of resources is carried out in a just manner.

The *procedural justice* approach, as developed by Thibaut and Walker [37], diverts the emphasis away from material outcomes as benchmarks that determine people's feelings and attitudes. Instead, this view holds that peoples' satisfaction with how problems are resolved depends more on the quality and fairness of the decision-making process than the practical outcome that is achieved.

Thibaut and Walker focused on the field of law and in resolving conflicts through a third party, and compared the importance that people attribute to their control over the process (their ability to express their opinions) to the importance that people attribute to control over the final outcome (the decision). They found that people are willing to forfeit their control over the outcome, and still feel satisfied with it, if they are allowed to express their views throughout the process.

Other studies have demonstrated that such considerations lead people to prefer non-adversarial models over adversarial models [38, 39]; contribute to the effectiveness of mediation [40], particularly the long-term commitment of parties to carry out mediated agreements [41]; and make people more likely to accept an arbitrator's ruling rather than turn to a court of law [42]. In addition, parties attribute greater importance to the litigation process than the outcome, particularly when the level of conflict is high and when parties do not achieve their desired ruling [43].

While procedural justice research initially focused on legal and conflict situations, further studies have investigated its effects in the organizational sphere. These studies have generally found that procedural justice encourages people to act in favor of and to contribute to the organizations they

belong to, beyond their required duties [44-49], prevents negative reactions when the organization takes steps that are detrimental to its employees [50-52], and helps to develop and preserve loyalty [50, 53], commitment [50, 54, 55], and satisfaction [50, 53, 55]. For example, Greenberg [56] found that factory employees facing salary cuts responded by stealing from their employers when the cutbacks were not adequately explained or discussed with them, but that the phenomenon of theft disappeared when management explained its reasoning and expressed regret. Greenberg [57] also replicated these findings in the laboratory with participants who received less pay than they deserved. Overall, studies in the organizational field have repeatedly shown that procedural justice fulfills a more important function than distributive justice in determining the positive attitudes, values, and behaviors of employees in organizations [45-46, 56, 58-61].

Tyler and Blader [61] use the theory of social identity [62] to explain why procedural justice is so effective. According to social identity theory, people use groups and their relationships with others in order to develop and preserve positive social identity and self-image. When people feel that they belong to a group having an elevated status or in which their status within the group is high, this validates their self-image and self-esteem.

The normative procedures in a group provide individuals with opportunities to learn both about their standing within the group and the standing of their group relative to others [63]. When people receive fair treatment from authority figures in their group, this evidences their high standing in the group. Further, the use of fair decision-making practices enables people to feel proud of the group they belong to [64], since the behavior of authority figures is perceived as representing the attitudes and values of the group as a whole [65]. An example of this can be seen when elected officials emphasize the fairness of the political process as a symbol and a means to develop partisan or national pride.

Procedural Justice in the Field of Sport. Procedural justice was originally examined in the legal and organizational spheres, and has more recently been studied in the context of education [66], interpersonal relationships [67], politics [66], and public policy [68]. Yet, there has not yet been an organized attempt to examine procedural justice in the field of sport, despite evidence that athletes value various elements of procedural justice. For example, athletes express the desire to be involved in decisions that effect them [69], and numerous studies show that a coaching style that includes elements of procedural justice is beneficial to the team. Pelletier, Fortier, Vallerand, and Briere [70] found that on swimming teams where coaches were trained to use an 'autonomy-support' coaching style (i.e., inviting athletes to contribute their opinions and involving them in the decision-making process, instead of relying solely on instructions and threats), swimmers had higher attendance at practice, fewer dropped out of the profession, and swimmers' performance also unexpectedly increased. Basketball coaches who increased their use of this style led their players to feel more capable, more independent, and more connected to the team, and this increased the athletes' motivation [70]. Accordingly, several researchers have proposed applying elements of

procedural justice to improve athletes' team commitment and internal motivation [69, 71, 72]. Based on the above, it may be predicted that procedural justice will be positively related to the attitudes of team athletes toward their coach, and that as the level of procedural justice increases, players' attitudes toward their coach will be more positive.

The Relationship Between Procedural Justice and How People Respond to Stress

The central assertion of this study is that procedural justice can function as an external-situational resource that helps people in periods of stress. As may be recalled, a group that applies the principles of procedural justice is one where decisions are made in a fair manner and with consideration for the opinions and needs of all members, where people are treated with respect, and whose decision-makers are perceived as trustworthy and unbiased [61, 65, 73, 74]. It can be assumed that this type of environment provides athletes with a sense of security, stability, and creates a general positive feeling in the group. In the words of Lazarus and Folkman [7], it may be said that such groups provide athletes with a kind of 'social support' that assists them in stressful situations. Thus, we can maintain that as the level of procedural justice increases, the appraisal of stress as a challenge will increase, and the appraisal of stress as a threat will decrease.

In a group where these principles are not adhered to, athletes are likely to suspect that they will be punished for poor performance (whether by being sent back to the bench or by a monetary fine), without the opportunity to respond or appeal, and without the ability to predict or control the actions of team decision-makers. Such an ambiguity should intensify the perception of stress as a threat [7].

In view of the above, the purpose of the present study was to test a model whereby athletes' appraisal of stress acted as a mediator between their perceptions of procedural justice and their attachment style on one hand and their attitude toward their coach on the other hand, (see Fig. 1).

More specifically, we predicted that the greater the extent to which the athletes perceived procedural justice and the more secure their attachment style was, the more they would appraise stress as a challenge and the latter would be accompanied by more positive attitudes toward their coach.

In contrast, the less the athletes perceived procedural justice, and the more non-secure their attachment style was, the more they would appraise stress as a threat and the latter would be accompanied by more negative attitudes toward their coach.

METHOD

Participants

Eighty-one male athletes from 10 handball teams on the Israeli national league (the highest league in Israel) participated in the study. The athletes were "semi-professionals," earning their only or primary salary from the team. Some of them worked additional jobs or attended university while playing for their team.

The players ranged in age from 16 to 36 years ($M = 23.71$, $SD = 4.38$). The length of time they had played for their current team ranged from 1 to 20 years ($M = 5.27$, $SD = 4.84$), and the length of time they had been athletes generally, playing for any team, ranged between 1 to 26 years ($M = 12.65$, $SD = 4.80$). As can be gleaned from these data, the sample was highly diverse in terms of age and seniority.

Regarding their league placement, the questionnaire was distributed to 8 teams in the first handball division, 1 team that was in last place and in effect had dropped to the second division, and 1 team that was in third place. Regarding their league situation, during the period when the questionnaires were distributed there were 3 teams competing for the championship, 1 team competing to enter the playoff games, and 6 teams that had no chance of dropping down a division, of competing for the championship, or of making it to the playoffs. The questionnaire was distributed to 5 teams that had won their previous match and 5 teams that had lost their previous match.

Measures and Procedures

For the purposes of this study, four questionnaires were translated from English to Hebrew by two bilingual psychologists: The Stress Appraisal Questionnaire, the Procedural Justice Questionnaire, the Attachment Questionnaire, and the Questionnaire on Attitudes Toward Coach. The questionnaires were revised to suit the particular research context of athletes on a sports team. In the preliminary stage, these questionnaires were submitted to five judges (two active athletes, two retired athletes, and a sports psychologist) who completed the questionnaires and were debriefed on their subjective view of the clarity and relevance of questionnaire items to the sports context.

In the pre-test stage, the revised questionnaires were administered to 20 athletes on two handball teams prior to team practice. Athletes were informed that the questionnaires would be filled out anonymously and would be used solely

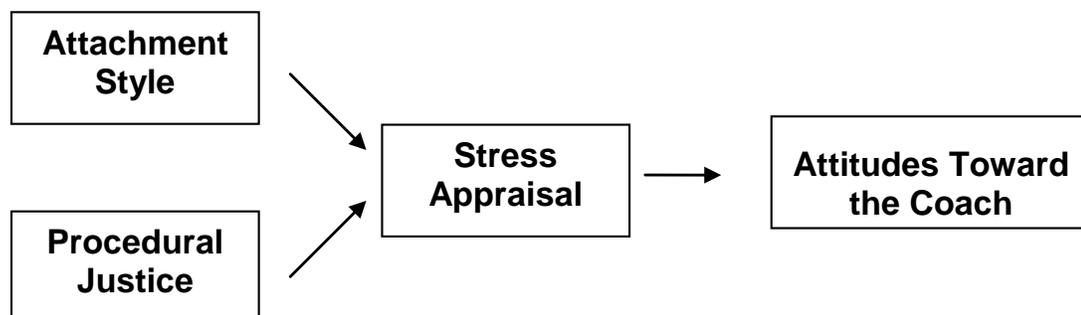


Fig. (1). Summary of the model set out in the present study.

for research purposes. Data from the pre-test sample were analyzed for reliability and some items were removed, as detailed below.

The final versions of the questionnaires were administered to 81 athletes immediately prior to or following team practice. Participants were informed that the questionnaires would be completed anonymously and would be used for research purposes alone.

A *Stress Appraisal Questionnaire* was used to assess whether respondents perceived stress positively (as a challenge) or negatively (as a threat), and included 6 relevant emotions adopted from the emotions scale by Folkman and Lazarus [3]: 3 items that expressed challenge (“secure,” “full of hope,” “motivated”) and 3 items that expressed threat (“worried,” “afraid,” “anxious”). Respondents rated how strongly they felt these emotions on a 6-point scale ranging from 1 (*not at all*) to 6 (*very much*).

We conducted a varimax rotation factor analysis to validate the questionnaire structure, which revealed 2 factors having an eigenvalue higher than 1 and which together explained 67% of the variance. All the items on the two factors (challenge and threat) had a loading higher than .40. Likewise, a Cronbach's alpha analysis revealed an acceptable level of internal consistency both for ‘challenge’ ($\alpha = .67$) and ‘threat’ ($\alpha = .78$). Accordingly, we averaged the scale items to achieve single measures for the factors of ‘threat’ and ‘challenge,’ where a higher score indicated a stronger appraisal of stress in that style.

A *Procedural Justice Questionnaire* assessed the extent to which respondents felt procedural justice was applied on their team, and was based on the questionnaire by Tyler and Blader [61]. The original questionnaire differentiated between two factors: quality of decision-making and quality of treatment. However, in the present study these factors revealed a correlation of .77 between them. In addition, a factor analysis that we conducted revealed only one factor which explained 52% of the variance and the loadings of the items ranged from .56 to .83. Therefore all 14 items were collected into a single factor. The final questionnaire included 14 statements (e.g., “The decisions on the team are made on the basis of relevant facts and not according to personal biases”), with which respondents rated their agreement on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). This scale revealed an internal reliability of Cronbach's alpha = .93. Accordingly, items were averaged to attain a single measure, where a higher score indicated that the respondent perceived a higher level of procedural justice on the team.

The *Attachment Questionnaire* assessed participants on four attachment styles - secure, preoccupied, fearful, and dismissing. The questionnaire was constructed by Bartholomew and Horowitz [13], and the version we used was translated from English to Hebrew by Finzy, Dekel, Nir, and Weizman [75]. The questionnaire includes four descriptions, one for each of the four attachment styles: *secure*, *preoccupied*, *fearful*, and *dismissing*. The respondents were asked to rate the degree to which they matched each of the descriptions on a 7-point scale ranging from 1 (*does not describe me*

at all) to 7 (*describes me to a great extent*), and to note which of the depictions most accurately described themselves. A higher score indicated that the respondents were more strongly characterized by that attachment style.

Fifty percent of the respondents were found to have a secure attachment style, 15% had a preoccupied attachment style, 12% had a fearful attachment style, and 23% had a dismissing attachment style.

The *Questionnaire on Attitudes Toward Coach* was based on a questionnaire by Tyler and Blader [61], and assessed the degree to which athletes had positive attitudes toward their coach. Respondents were asked to their agreement with 6 statements (e.g., “I am fond of my coach”; “My coach and I have a lot in common”) on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A reliability analysis revealed that the factor of ‘attitudes toward coach’ had an internal consistency of Cronbach's alpha = .92. We calculated a single measure for this factor by averaging the responses on this scale, where a higher score indicated that respondents had more positive attitudes toward their coach.

In addition, participants provided *Personal Demographic Data* including their age, the number of years they had played on sports teams in general, and the number of consecutive years that they had played for their current team. They also completed a *Team Demographic Data* questionnaire in order to control for potential differences between the levels of stress in different groups. The participants, together with their coach or manager, completed three items evidencing the level of stress on the team: *Last outcome* indicated the outcome of the last match they played prior to filling out the questionnaire, win or loss. *League placement* indicated their placement on the league table at the time the questionnaire was administered (in this case the larger the number, the lower the placement on the league table). For *league situation*, a team competing for the championship was coded with the number 1, a team competing to proceed to the playoffs was coded with the number 2, and a team that had no aim besides competing in the mid-range of the league table (having no chance of dropping to a lower division or reaching the playoffs) was coded with the number 3. During the period that the questionnaires were administered, no teams were in a position to potentially drop to a lower division.

RESULTS

Relationships Between Procedural Justice, Attachment Style, Stress Appraisal, and Attitudes Toward the Coach

Pearson correlations were calculated and presented in Table 1 to assess the relationships between attachment style, procedural justice, stress appraisal, and attitudes toward the coach.

Relationship Between Stress Appraisal and Attitudes Toward the Coach

In accordance with the model, it was found that the appraisal of stress as a challenge was positively correlated with attitudes toward the coach ($r = .45, p < .001$), demonstrating that the more athletes were inclined to appraise stress as a challenge, the more positive their attitudes toward their coach. However, results did not confirm the predicted

Table 1. Descriptive Statistics and Person Correlations (N=81)

Variable	M	SD	1	2	3	4	5	6	7	8
1. Attitudes toward the coach	3.98	1.23		-.00	.45***	.22*	-.05	-.01	-.00	.17***
2. Threat	2.03	.87			-.18*	-.22*	-.23*	-.27**	.07	-.08
3. Challenge	4.04	.73				.23*	-.03	-.03	-.08	.55***
4. Secure	4.59	1.34					-.01	-.03	-.22*	.27**
5. Preoccupied	3.14	1.46						.52***	.10	-.06
6. Fearful	3.11	1.48							.36***	.04
7. Dismissing	3.66	1.49								.09
8. Procedural justice	4.18	.92								

* $p < .05$ ** $p < .01$ *** $p < .001$.

negative correlation between the appraisal of stress as a threat and attitudes toward the coach ($r = .02$, *ns*).

Relationship of Attachment Styles and Procedural Justice to Attitudes Toward the Coach

In accordance with the model, attitudes toward the coach was positively correlated with secure attachment style ($r = .23$, $p < .05$) and with procedural justice ($r = .71$, $p < .001$). These findings imply that the more athletes perceived that procedural justice was employed on their team and the more secure their attachment style, the more positive their attitudes toward the coach. Moreover, the correlation for procedural justice was higher than for attachment style ($z = 4.12$, $p < .001$), indicating the greater importance of procedural justice in relation to attitudes toward the coach.

Relationships of Attachment Styles and Procedural Justice to Stress Appraisal

In accordance with the model, the appraisal of stress as a challenge was positively correlated with procedural justice ($r = .53$, $p < .001$) and with secure attachment style ($r = .22$, $p < .01$). Namely, the more secure the attachment style and the higher the perceived level of procedural justice, the stronger the tendency to perceive stress as a challenge. Here, again, the correlation with procedural justice was higher than for attachment style ($z = 2.31$, $p < .05$).

No correlation was found between procedural justice and the appraisal of stress as a threat ($r = -.10$, *ns*), but a negative correlation was found between appraisal of stress as a threat and secure attachment style ($r = -.23$, $p < .05$). In addition, a positive correlation was found between the preoccupied and fearful attachment styles and the appraisal of stress as a threat ($r = .26$, $p < .05$, and $r = .30$, $p < .01$, accordingly). No correlation was found between the dismissing attachment style and the appraisal of stress.

The Relationships Between Demographic Variables and Attitudes Toward the Coach

Prior to conducting the hierarchical regression analysis, we assessed whether there were significant relationships between the demographic variables and the dependent variable of attitudes toward the coach. For this purpose, Pearson correlations were calculated between the demo-

graphic (individual and team) variables and attitudes toward the coach. Findings revealed that attitudes toward the coach were positively correlated with respondent's age ($r = .21$, $p < .05$) as well as the number of years the respondent had been an athlete ($r = .26$, $p < .01$); namely, the older the athlete was, and the longer he had been an athlete, the more positive his attitudes toward the coach. No correlations were found between any of the team variables and the attitudes toward the coach.

The Relative Contribution of all Research Variables to the Attitudes Toward the Coach

To integrate the findings into a general and thorough overview and to assess the unique contribution of each of the variables to predict the attitudes toward the coach, we carried out a hierarchical regression analysis with attitudes toward the coach as the dependant variable. In the first step of the regression analyses the personal demographic variables were entered: age, number of years on the team, and number of years as an athlete. In the second step the four attachment styles were entered. In the third step the variable of procedural justice was entered. In the fourth step the variables related to appraisal of stress were entered into the regression analysis, such that in addition to the appraisal of stress as a challenge and as a threat, the analysis also included the demographic variables of the team - outcome of the team's previous match and placement on the league table. Since a correlation of $r = .90$ was found between league placement and league situation, it was decided that the regression analyses would include only the league placement. In the final step, the interactions between the different variables were entered.

As can be seen in Table 2 in the first step of the regression analysis, the contribution of the personal demographic factors to the explained variance of attitudes toward the coach was significant, $F(1, 79) = 5.83$, $p < .05$, and stood at 7%. The only variable in this step which was found to make a significant unique contribution to the explained variance was years as an athlete, $\beta = .26$, $p < .01$. This means that the longer a team member had been an athlete, the more positive his attitudes toward the coach.

In the second step, the explained variance was significant, $F(5, 75) = 2.19$, $p < .001$, and stood at 13%. This was

Table 2. Results of Hierarchical Regression Analysis for the Prediction of Athletes' Attitudes Toward their Coach

Step No.	Predictor	β	SE B	B	R ² Change	R ²
1	Years as an Athlete	.26**	.03	.07	.07*	.07*
2	Years as an Athlete	.25**	.03	.06	.06	.13*
	Secure	.23*	.11	.22		
	Preoccupied	-.08	.11	-.07		
	Fearful	.09	.11	.03		
	Dismissing	.03	.10	.08		
3	Years as an Athlete	.09	.02	.02	.39***	.52**
	Secure	.03	.08	.03		
	Preoccupied	-.03	.08	-.03		
	Fearful	-.01	.09	-.06		
	Dismissing	-.05	.08	-.04		
	Procedural Justice	.68***	.12	.92		
4	Years as an Athlete	.11	.02	.03	.03	.55***
	Secure	.05	.09	.05		
	Preoccupied	-.05	.08	-.04		
	Fearful	-.02	.09	-.02		
	Dismissing	-.03	.08	-.03		
	Procedural Justice	.63***	.14	.85		
	Threat	.13	.13	.18		
	Challenge	.12	.17	.20		
	League Placement	-.07	.03	-.03		
	Outcome of Last Match	-.14	.24	-.33		

*** $p < .001$. ** $p < .01$. * $p < .05$.

due to the unique contribution of the secure attachment style, $\beta = .23$, $p < .01$, such that the more the athlete was characterized by a secure attachment style, the more positive his attitudes toward the coach.

In the third step of the regression analysis, it was found that the explained variance was also significant, $F(6, 74) = 13.2$, $p < .001$, standing at 52%, revealing a unique, significant contribution of procedural justice to the explained variance, $\beta = .68$, $p < .001$. This means that the more athletes perceived procedural justice to be high, the more positive their attitudes toward their coach.

Likewise, it should be noted that the entry of this variable into the regression caused the unique contributions of secure attachment style and years as an athlete, which were previously significant, to become non-significant. This evidences the possible existence of a mediating model, in which the relationship between these variables and attitudes toward the coach are mediating by procedural justice.

In the fourth step the variables related to athletes' stress were entered into the regression model as predictors - appraisal of stress (as a challenge or as a threat), league placement, and outcome of most recent match. As can be seen, these variables did not make a significant unique contribution to the explained variance, which in this step remained significant, $F(10,70) = 8.61$, $p < .001$, standing at 55%. The only variable that was found to make a significant unique contribution to the explained variance in this step was procedural justice, $\beta = .63$, $p < .001$.

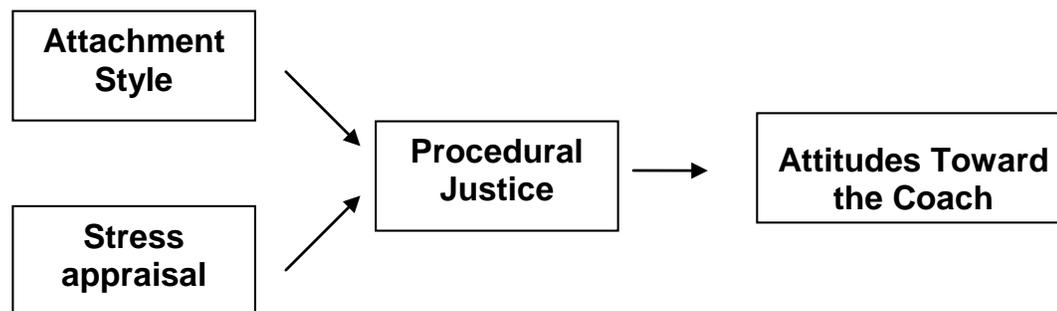
In sum, in this regression it was found that the percentage of variance in attitudes toward the coach explained by the different predictors is 55%. In light of the finding that a significant ($p < .001$) and relatively high correlation of .45 was found between the appraisal of stress as a challenge and attitudes toward the coach, and in light of the finding of a strong relationship between procedural justice and attitudes toward the coach (a correlation of .71 and β of .68), we decided to investigate the possibility that procedural justice mediates the effect of appraisal of stress as a challenge on attitudes toward the coach, and not the reverse. For this purpose, an additional regression analysis was carried out, in which procedural justice was entered in the step immediately following the entry of stress-related variables into the regression. These findings appear in Table 3 (as seen in Fig. 2).

The first and second steps in this regression analysis were identical to those of the previous regression analysis. In the third step of this regression analysis, the variables relating to athletes' stress were entered as predictors - the type of stress appraisal (as a challenge or as a threat), the team's league placement, and outcome of last match - instead of procedural justice. The explained variance in this step was significant, $F(9, 71) = .358$, $p < .001$, standing at 31%. In this step it was found that the appraisal of stress as a challenge made a significant unique contribution to the explained variance, $\beta = .43$, $p < .001$, such that the more an athlete tends to appraise stress as a challenge, the more positive his attitudes toward the coach. Likewise, it was found that the unique contribu-

Table 3. Athletes' of Prediction the for Analysis Regression Hierarchical Second of Results Attitudes Toward their Coach

Step No.	Predictor	β	SE B	B	R ² Change	R ²
1	Years as an Athlete	.26**	.03	.07	.07*	.07*
2	Years as an Athlete	.25**	.03	.06		
	Secure	.23*	.11	.22		
	Preoccupied	-.08	.11	-.07		
	Fearful	.09	.11	.03		
	Dismissing	.03	.10	.08	.06	.13*
3	Years as an Athlete	.23*	.03	.06		
	Secure	.19*	.10	.17		
	Preoccupied	-.07	.10	-.06		
	Fearful	-.03	.11	-.02		
	Dismissing	.10	.09	.08		
	Threat	.16	.16	.22		
	Challenge	.43***	.18	.73		
	League Placement	.06	.04	.02		
	Outcome of Last Match	-.12	.29	-.30	.18**	.31***
4	Years as an Athlete	.11	.02.	.03		
	Secure	.05	.09	.05		
	Preoccupied	-.05	.08	-.04		
	Fearful	-.02	.09	-.02		
	Dismissing	-.03	.08	-.03		
	Threat	.13	.13	.18		
	Challenge	.12	.17	.20		
	League Placement	-.07	.03	-.03		
	Outcome of Last Match	-.14	.24	-.33		
	Procedural Justice	.64***	.14	.85	.24***	.55***

*** $p < .001$. ** $p < .01$. * $p < .05$.

**Fig. (2).** Summary of the model based on the study results.

tion of the variable 'years as an athlete' remained significant, as did the unique contribution of the secure attachment style.

In the fourth step of the regression analysis, in which the variable of procedural justice was entered as a predictor, the explained variance in attitudes toward the coach was significant, $F(10, 70) = 8.61$, $p < .001$, standing at 55%. The only variable that made a significant unique contribution to the explained variance in this step was procedural justice, $\beta = .64$, $p < .001$. Thus, it can be concluded that as procedural justice is perceived to be higher, attitudes toward the coach are more positive.

It should be noted that the entry of this variable into the regression led to the unique contributions of appraisal of stress as a challenge, secure attachment style, and years as an

athlete, which were previously significant, to become non-significant. This finding suggests the possibility of a mediating model, in which the relationship between these variables and attitudes toward the coach are mediated by procedural Justice.

Because interactions between independent variables that were entered into the regression in the last step did not contribute to the explained variable of attitudes toward the coach, this step is not presented in Tables 2 and 3.

DISCUSSION

The present study was carried out in the field of sport, which is characterized by high stress, and it is reasonable to presume that the way athletes respond to stress will effect

their attitudes and behaviors. The present study investigated whether procedural justice may embody an external-situational resource that assists people who are under stress, much as the secure attachment style functions as an internal-personality resource in such a context [12].

We found that attachment style and procedural justice were related to how athletes appraise stress: the more athletes perceive that their team operates on the principles of procedural justice, and the more secure their attachment style, the more they appraise stress as a challenge. Further, Procedural justice was more strongly correlated with the appraisal of stress as a challenge than having a secure attachment style. Teams that apply the principles of procedural justice are characterized by fair and equitable decision-making processes, respect and consideration for the opinions and needs of members, and belief in the trustworthiness of decision-makers [61, 65, 73, 74]. We posit that these qualities may create a stable and secure environment for individuals by reducing the uncertainty and ambiguity of the potential outcomes of stressful situations, and that this enables individuals to perceive stress in more positive terms.

In addition, a team on which decisions are made fairly, and on which athletes are treated justly, create a supportive environment for individuals and provides them with one of the primary resources that help people in stressful situation: social support [7]. In light of these findings, we maintain that team decision-makers' positive treatment toward and trust in athletes- attributes that are related to procedural justice- may function as an external-situational resource for athletes and encourage them to appraise stress in more positive terms.

The findings also affirm that the more athletes perceive that procedural justice is employed on their team, the more positive their attitudes toward their coach, and that procedural justice is more strongly related to such positive attitudes than having a secure attachment style. While previous studies have demonstrated the positive effect of procedural justice on people's attitudes in such areas as law, education, and public policy, our findings affirm that this can also be replicated in the field of team sports.

In support of our predictions we found that the more athletes perceive stress as a challenge, the more positive their attitudes toward the coach. This finding may reflect the view that athletes attribute the negative and positive feelings that accompany these appraisals of stress to the team framework in which they are experienced.

Findings did not confirm the prediction that the appraisal of stress as a threat would be negatively correlated with attitudes toward the coach, or negatively correlated with procedural justice. The different pattern of correlations for the appraisals of stress as a threat or as a challenge strengthens the validity of the two-factor structure of the appraisal of stress, and the past theorizing on stress appraisal, which holds that positive and negative appraisals of stress are independent of one another, and that individuals may perceive stress as both a threat and a challenge simultaneously [1-8]. For example, an individual who is offered a job promotion may appreciate both the positive opportunities before her for advancement and recognition, while remaining wary of the risk that she might not meet the expectations of her new role.

In a similar fashion, we maintain that athletes in this study were able to harness the available external-situational resource of procedural justice to improve their situation and construe stress as a challenge, while simultaneously preserving the recognition of stress as a threat. This finding validates that negative and positive appraisals of stress are independent and distinct, and further, indicates that they are affected in a substantively different and asymmetrical manner by the resource of procedural justice.

Contribution of Each of the Research Variables to the Prediction of Attitudes Toward the Coach

Findings of the regression analysis show that attitudes toward the coach are more positive among those who have been athletes for a longer time, who have a more secure attachment style, who perceive a higher level of procedural justice on the team, and who are more inclined to perceived stress as a challenge. While all these elements may combine to elicit athletes' positive attitudes within the team environment, findings demonstrated that the contribution of procedural justice is considerable higher compared to other variables.

In addition procedural justice was found to have a mediator role between attachment styles and attitudes toward the coach and between the latter and stress appraisal.

This study connects and integrates between two bodies of knowledge that have not previously been researched in tandem. Thus, it makes a meaningful contribution to our understanding of procedural justice as well as of the study of stress, and opens a path to additional studies that may examine procedural justice in different contexts. In addition, our findings evidence the importance of procedural justice, not only by comparison to other theoretical approaches, but in a particular field in which it has not previously been studied - the field of sport.

The more accepted approaches today in the field of sport are the instrumental and distributive justice approaches, which have many limitations and drawbacks. The instrumental approach encourages a narrow domain of behavior [47], can impair internal motivation [76-78], leads to inefficient use of resources [61], and intensifies competition between groups members and harms the network of relationships between them [79, 80]. The distributive justice approach is limited by the tendency of group members to over-estimate their contributions, and the disparity between expected and deserved rewards may lead to dissatisfaction and resentment [61]. Researchers in the field of sport have also observed the negative implications that this approach may have. They maintain that rewards that are distributed to only some members of a team - whether or not these are allotted on the basis of exceptional performance - impair the internal motivation of team members who do not receive such rewards, become a source of conflict between them, and reduce team spirit [81, 82]. Thus, the findings of the present research may encourage managers and coaches who want to promote more positive attitudes among athletes toward their team, and to increase athletes' commitment and loyalty, to consider using aspects of procedural justice in the decision-making process such as consistency, impartiality, neutrality, respect, and trust [61, 65, 73, 74], among others. In an earlier research we

found already the contribution of procedural justice as promoting group loyalty and commitments among athletes [83].

Moreover, our findings suggest that by creating an environment characterized by aspects of procedural justice, it is also possible to achieve more positive evaluations of stress. This is relevant not only for sports teams, but in other contexts that are characterized by high stress such as military units, hospitals, or competitive businesses. Stress is an inevitable part of the daily routine in such environments, and since the level of stress cannot always be reduced, procedural justice may provide an effective strategy for leading people to perceive stress in more positive terms. This may likely have positive implications for their behavior and performance as well.

The present study was carried out on real groups in the field of sport, which adds to the authenticity and external validity of its findings. However, this research design also limited the number of available participants for the study and precluded the possibility of carrying out a path analysis to examine the mediation model. Thus, a broader research study in the field may be conducted in the future, which will allow for the assessment of the general model in a direct manner. Furthermore, the replication of the findings of this study in other environments characterized by high stress may broaden the validity of its conclusions.

A further limitation of this study is that we focused on athletes' perceptions of stress and their attitudes toward their coach, and not on the strategies they used to cope with stress or actual behavior. Previous studies of procedural justice in the organizational field have evidenced its positive effect on employee behavior, and stress studies have also shown that appraisal and coping are strongly related [7]. Given that attitudes are strongly predictive of behavior [84]. It will be worthwhile to investigate these issues directly.

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