PERSONALITY TRAITS AND STUDENTS' MISBEHAVIOR: EFFECTS ON FRENCH PHYSICAL EDUCATION TEACHERS' ANGER RESPONSE

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Summary.—The aim was to assess intensities of State Anger over one week, reported by physical education teachers working in Education Priority Zone schools, to obtain descriptive data in diaries of these teachers' actions and reactions related to students' misbehavior. French physical education teachers (N=175) completed the Trait Anger Scale, the Trait Anxiety Inventory Form Y2, the Self-Esteem Scale, and the Depression Inventory. Cutoff scores on Trait Anger provided two groups (High Trait Anger, n=44 and Low Trait Anger, n=24). Participants (N=68) recorded State Anger and gave information about student misbehaviors in memorandums. Analysis showed mean State Anger was low. Participants' Trait Anger and personality correlates suggested they differed in reactions to students' misbehaviors. Findings were discussed in relation to the literature.

A common critique of personality traits is their limited predictive power for concrete behavior and responses (Mishel & Shoda, 1998). One reason advanced for this limited predictive power is that traits may only affect groups' behavior and reactions in specific, relevant situations which draw particular sensitivities or vulnerabilities associated with the trait (Kenrick & Funder, 1988). Langhorne, Stone, and Coles (1974) analysed teachers' impressions and 12 students' misbehaviors but did not assess personality traits. A key task for researchers, then, is to identify a significant student context in which personality traits most strongly influence teachers' reactions to the event.

The present study is an analysis of personality traits predisposing physical education teachers to experience anger in reaction to students' misbehavior, in classes situated in the school context of the Education Priority Zone. "Emotions are inevitably present in any teaching/learning event" (DiPardo & Potter, 2007, p. 337), but teachers in Education Priority Zones are more likely to express feelings of anger, low self-esteem, and depression and experience more anxiety about their relationships and interactions with disrup-

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tive students than those who teach in privileged schools (Durivage, 1989). Moreover, Kulinna, Cothran, and Regualos (2006) indicated that “student misbehavior is just one small piece of the management domain, but it is a critical one” (p. 39). Consequently, using emotion diaries, data on teachers’ state anger were collected in these secondary schools (with students between 11 and 18 years old) and were analysed in relation to teachers’ personality traits (trait anger, trait anxiety, self-esteem, and depression).

The aim of this study was to examine intensities of state anger reported by physical education teachers after every lesson over a 1-wk. period and to assess correlations among scores on personality traits, state anger, and students’ misbehavior.

**Education Priority Zones and Reasons for Studying Physical Education Teachers**

Many developed countries have adopted education policies that direct additional resources to disadvantaged schools. In France, the Education Priority Zone (Zone d’Education Prioritaire, ZEP) is a program started in 1981 designed to restore equal opportunity by pursuing a goal of equity in disadvantaged areas. Socioeconomic indicators are the main factor in deciding which schools belong in ZEP. There are 911 ZEP in France in which the operating principle is to reinforce the educational action in communities in which there is a high rate of school failure. Such a sample comprises heterogeneous groups of students living in urban centres, coming from poor socioeconomic backgrounds and mostly from broken homes. Several studies in ZEP schools showed that often students become alienated from school and even society and have negative expectations about the future (Moisan & Simon, 1997; Lance 2007). Kulinna, Cothran, and Regualos (2006) stated that school location is an important contextual variable. Urban teachers reported more episodes of student anger and misbehavior than did suburban and rural teachers. Perron and Downey (1997) suggested that achieving discipline in secondary schools is more difficult than in elementary settings. Thus, Guillaume (2001) reported that of 400 teachers, 40% thought that ZEP classes were “very undisciplined,” with at least five disruptive students per class. Students’ misbehavior is a major problem that disrupts the teachers’ efforts and includes uproar to physical and verbal aggression. To overcome such problems, ZEP schools have additional resources, such as do Education Priority Areas in England.

Most of the literature related to students’ misbehavior has focused on teachers in general or students. However, some studies have assessed participants’ understanding of misbehavior in physical education settings (Fernandez-Balboa, 1991; Supaporn, Dodds, & Griffin, 2003; Ishee, 2004; Kulinna, Cothran, & Regualos, 2006). Only a few French studies have been conduct-
ed with physical education teachers working in ZEP schools (Ria, Gal-Petitfauq, & Durand, 1999; Ayme, Ferrand, & Reynes, 2004; Bodin, Robène, Héas, & Blaya, 2005). These studies assessed the physical education teachers' emotional responses toward disruption in teaching and found that anger in response to students' misbehavior was the most frequently mentioned negative emotion as was the desire to control such anger. Students' misbehavior requires teachers spend time on management rather than student learning, which distracts both teachers and students from learning (Fernandez-Balboa, 1991). Anger can distract physical education teachers from focusing on teaching (Ayme, et al., 2004).

State and Trait Anger

Spielberger and colleagues (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983; Spielberger, 1988; Spielberger, Reheiser, & Sydeman, 1995) distinguished between state and trait anger. State anger refers to a temporary emotional reaction which may range from mild irritation to intense rage and includes concomitant physiological and biological changes (Cacioppo, Bernston, Larsen, Poehlmann, & Ito, 2000); there are three factors: feeling angry, feeling like expressing anger verbally, and feeling like expressing anger physically. Trait anger refers to a personality characteristic which predisposes persons to experience anger more frequently and intensely (Deffenbacher, 1992). People scoring high on trait anger should in general respond with more intense anger to an event than those scoring low and express their anger in more maladaptive patterns (Deffenbacher, Oetting, Thwaites, Lynch, Baker, Stark, et al., 1996). Several studies exploring the relationship between the two components of trait anger and state anger have produced correlations between these variables of .30 to .47 (Deffenbacher, Oetting, Thwaites, Lynch, Baker, Stark, et al., 1996; Kassinove, Roth, Owens, & Fuller, 2002). Moreover, persons scoring low on self-esteem react more emotionally to failure than those who score high on self-esteem (Dutton & Brown, 1997). Spielberger, et al. (1995) noted that "individuals who experience a high level of Trait Anger also report high anxiety and depression and low self-esteem" (p. 51). Many researchers highlighted links among these various dimensions. Trait anger is correlated with trait anxiety (Deffenbacher, Oetting, Lynch, & Morris, 1996; Triemstra, van der Ploeg, Smrt, Briet, Alder, & Rosendaal, 1998; Asmundson, Wright, Norton, & Veloso, 2001), low self-esteem (Triemstra, et al., 1998), and depression (Hull, Farrin, Unwin, Everitt, Wyke, & David, 2003).

Emotional Diaries

Some research has studied state anger reported by teachers at the end of classes as emotional incidents (Erb, 2002), "significant emotional episodes" (Hargreaves, 2000, p. 816), emotions during teaching over 3 years
(Zembylas, 2004), key events which have had a particularly strong emotional effect (Lasky, 2000, p. 846), or emotional incidents during postlesson interviews (Chaliès, Ria, Trohel, Bertone, & Durand, 2004). Often, semistructured interviews have been used to obtain information about subjective experience of emotions. Few researchers have focused on the day-to-day experience of emotions in the classrooms, although this information is an essential step in developing more effective management strategies (Vogler & Bishop, 1990). Thus, Sutton and Conway (2002) and Sutton, Conway, and Genovese (2002) suggested the use of emotion diaries might improve understanding of teachers’ emotions from the teachers’ perspective.

Three hypotheses were tested. First, State Anger intensity and its three subscales should be high for physical education teachers, but those scoring high on Trait Anger should report higher State Anger than those low in Trait Anger. Second, it was expected that teachers scoring high on Trait Anger would report higher Trait Anxiety, higher Depression, and lower Self-esteem than those scoring low on Trait Anger. Third, it was expected that teachers with high Trait Anger would report different behaviors in relation to students’ misbehavior than those low on trait anger.

**Method**

**Participants**

Participants were recruited through French public secondary high schools classified as ZEP in Lyon’s academy. Physical education teachers (35 men and 33 women, $M_{age} = 38.2$ yr., $SD = 10.2$) volunteered and provided informed consent to participate. Of these 68 teachers, 66% were married, 88% were fully qualified teachers, 25% of teachers worked in vocational schools, and 75% in colleges. These participants had acquired from 1 to 35 years of teaching experience ($M = 14.5$ yr., $SD = 10$).

**Measures**

The Trait Anger Scale.—This scale was designed to measure propensity to experience and express anger across a variety of situations (Spielberger, 1988). It has been translated into French and validated by Borteyrou, Bruchon-Schweitzer, and Spielberger (2008). The scale has 10 items, rated on a 4-point Likert-type scale using verbal anchors of 1: Almost never and 4: Almost always. There are two subscales, Angry Temperament, the respondents’ disposition to express anger without provocation (4 items, e.g., “I am a hot-headed person”), and Angry Reaction, the respondents’ disposition to express anger when provoked (4 items, e.g., “I feel infuriated when I do a good job and get a poor evaluation”). Items 7 and 9 do not contribute to the subscales. This scale has been used to identify persons with high Trait Anger (Deffenbacher, Demm, & Brandon, 1986). In this study, Cronbach
alpha was .74 for Trait Anger and factorial analysis showed that the two factors explain 56% of the variance.

The State Anger Scale.—This 15-item scale was designed to measure anger felt at the time of testing (Spielberger, 1988). It has been translated into French and validated by Borteyrou, et al. (2008). The State Anger Scale is divided into three subscales: Feeling Angry (5 items, e.g., “At the moment, I am furious”), Feel Like Expressing Anger Verbally (5 items, e.g., “At the moment, I feel like swearing”), and Feel Like Expressing Anger Physically (5 items, e.g., “At the moment, I feel like hitting someone”). Respondents rated items on a 4-point Likert-type scale with anchors of 1: Not at all and 4: Very much so. The highest possible score for the whole test is 60, and the lowest possible score is 15. In this study, Cronbach alpha was .88 and factorial analysis showed that the three factors explained 65% of the variance.

Trait Anxiety Inventory Form Y2.—This inventory (Spielberger, et al., 1983), translated into French and validated by Schweitzer and Paulhan (1990), was used to assess Trait Anxiety. On the Trait Anxiety Inventory, the total score is the sum of 20 items (e.g., “I am nervous and restless,” “I am having disturbing thoughts,” and “Irrelevant thoughts are going through my head and bothering me”). Each item is rated on a 4-point Likert-type scale. In this study, Cronbach alpha was .88.

Self-Esteem Scale.—Rosenberg’s 10-item scale (1965) has been used to assess global self-esteem in a variety of contexts (e.g., “I feel that I am a person of worth, at least on an equal basis with others”). Vallières and Vallee (1989) translated this scale into French and validated it. Participants responded to the items on a 4-point Likert-type scale with anchors of 1: Strongly disagree and 4: Strongly agree. Higher scores reflect higher global Self-esteem. In this study, Cronbach alpha was .83.

Beck Depression Inventory.—This scale is a 13-item short form (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) translated into French and validated by Collet and Cottraux (1986). The short form is considered an acceptable substitute for the long form (Beck, Rial, & Rickels, 1974). The answers to questions reflect how intense are the depressive symptoms expressed by a respondent. The 13 items are rated on severity using anchors of 0: No symptoms and 3: Severe symptoms. This scale assesses cognitive, behavioral, and somatic symptoms of depression. Total scores on depression were provided by Collet and Cottraux (1986): 0–3, no depression; 4–7, mild depression; 8–15, moderate depression; 16 or higher, severe depression. In this study, Cronbach alpha was .87.

Procedure

Permission to conduct the study was granted by the University Human Research Ethics Committee. The protocol took place in two phases. First,
175 physical education teachers were recruited to participate by the first author. They were advised of the purpose of the study and the voluntary nature of their participation. These teachers taught in 60 public secondary high schools (137 from colleges and 38 from vocational schools), accounting for 66% of the high schools classified as ZEP. They completed the Trait Anger Scale and the three other questionnaires (Trait Anxiety Inventory, Self-Esteem Scale, and Beck Depression Inventory). Their administration took between 12 and 15 minutes. Cutoff scores on Trait Anger were set at the upper quartile (>21) and lower quartile (<18) following the method of Tafrate, Kassinove, and Dundin (2002), because previous research showed that participants in the upper quartile often have serious anger-related consequences (Tafrate & Kassinove, 1998; Hazebroek, Howells, & Day, 2001; Kassinove, et al., 2002). In the upper quartile were 44 participants, and 24 were in the lower quartile. Those with scores in between were excluded from the analysis. In terms of group equivalence, $\chi^2$ and independent $t$ test analyses indicated that the High and Low Trait Anger groups were similar in age, sex distribution, and years of teaching experience. These 68 selected participants completed self-administration of the State Anger Scale over five days (Monday through Friday), immediately at the end of each physical education lesson to limit underestimation (Averill, 1982). The daily recording of experiences for one week provided detailed documentation of State Anger for each respondent (Sutton & Conway, 2002). Moreover, a section entitled “memorandum” was included in the diary to encourage teachers to explain and comment on their anger incidents. Participants were asked to write all the information they wished to explain the anger incidents (i.e., “Give all information on anger incidents spent during your lesson, students’ misbehavior, and your comments”). Transcripts were analysed individually for content. All subjects returned their diaries by post. The research was carried out over a 1-mo. period.

Data Analysis

First, multivariate analysis of variance analysed State Anger intensity and personality traits for the groups High and Low on Trait Anger. More specifically, a univariate test compared intensity of global State Anger intensity of the two groups, and correlations assessed associations of rated global State Anger with subscales for low ($\leq 17$), moderate (18–21) and high ($\geq 22$) intensities. Second, a univariate test compared the groups High and Low on Trait Anger with scores on Depression, Self-Esteem, and Trait Anxiety. Values of effect size were reported; .10, .25, and .40 are conventionally defined as small, medium, and large effect sizes, respectively (Cohen, 1988). Third, an inductive content analysis was applied to analyze memoranda made at the end of each physical education lesson. Participants’ comments upon angry
incidents were on the average about 10 lines in length. Data were read thoroughly and independently by the second and third authors for emerging themes. These researchers then met to discuss the findings. Until agreement was reached, the raw data themes were combined into lower order themes. Then, the lower order themes were combined into higher order themes, and the latter were regrouped into two categories. In a further step, peer debriefing sessions, including direct meetings with the first author and other researchers considered as “disinterested peers” (Lincoln & Guba, 1985, p. 308), were conducted to discuss and debate the authors’ interpretations of the overall findings. In this stage, all the memoranda were read again by external audit to ensure that the higher order themes were representative of the original material. Throughout the process, themes and subthemes were adjusted, using analyst triangulation (Patton, 2002).

Credibility

Credibility data was achieved in three ways (Lincoln & Guba, 1985): (a) independent coding of data, (b) checking the categorization process by researchers experienced in qualitative methods, and (c) examination and confirmation by the participants during the presentation session of the researchers’ analysis. Translation of the quotes from French into English was reviewed by a native speaker of English.

Results

State Anger

The 68 teachers completed the State Anger scale consistently after each physical education lesson and reported a total of 493 measurements of State Anger. Each lesson lasted two hours, and the teachers had on the average six to eight classes per week. Mean State Anger rated intensity by the two independent groups ($t = -2.5; p < .01$) High ($M = 17.1$) and Low ($M = 16.0$) on Trait Anger were obtained. Multivariate analysis yielded differences between the two groups and yielded a significant effect for global State Anger and personality traits ($\lambda_{4,63} = 0.75$), Rao $R = 5.11$, $p < .001$). Follow-up univariate analyses indicated the reported angry incidents were perceived as significantly more intense by the High Trait Anger group than the Low Trait Anger group ($p < .01$; see Table 1).

Reports of moderate and high intensities of State Anger, however, immediately after the teaching session were few. Participants only reported 92 angry incidents (17%) with State Anger intensities greater than 17 (the high score on the low intensity). In contrast, many participants ($n = 401$ angry incidents, 83%) reported intensity below or equal to 17 ($\chi^2 = 192.4$, $p < .001$). Most teachers felt mild irritation. Table 2 indicates that when Global State Anger score was 17 or less, the correlation with Feeling Angry was high,
TABLE 1

<table>
<thead>
<tr>
<th>Measure</th>
<th>High Trait Anger</th>
<th>Low Trait Anger</th>
<th>Effect Size</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>Range</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Global State Anger</td>
<td>17.2</td>
<td>3.7</td>
<td>15–26</td>
<td>15.9</td>
<td>3.1</td>
</tr>
<tr>
<td>Trait Anxiety</td>
<td>48.0</td>
<td>7.9</td>
<td>26–56</td>
<td>41.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>33.5</td>
<td>3.4</td>
<td>25–40</td>
<td>35.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Depression</td>
<td>3.7</td>
<td>3.6</td>
<td>0–12</td>
<td>2.0</td>
<td>3.2</td>
</tr>
</tbody>
</table>

contrasting with very small correlations with the other two subscale ratings. Intensities of Feel Like Expressing Anger Verbally and Feel Like Expressing Anger Physically are very low. Although in all State Anger categories of intensities, Feeling Angry seemed most often reported by physical education teachers, all subscales of State Anger strongly correlated with the global State Anger score when intensity was moderate and high. The first hypothesis can only partially be confirmed.

TABLE 2

Correlations Among Feeling Angry, Feel Like Expressing Anger Verbally, Feel Like Expressing Anger Physically, and Global State Anger for Low, Moderate, and High Intensities (N = 493)

<table>
<thead>
<tr>
<th></th>
<th>Global State Anger</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low: ≤ 17 (n = 401)</td>
</tr>
<tr>
<td>Feeling Angry</td>
<td>1.00</td>
</tr>
<tr>
<td>Feel Like Expressing Anger Verbally</td>
<td>0.05</td>
</tr>
<tr>
<td>Feel Like Expressing Anger Physically</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*p < .05.

Personality Traits

Follow-up univariate analyses indicated that High and Low Trait Anger groups (see Table 1) differed also on Trait Anxiety scores (p < .001) and Self-esteem scores (p < .02), but not significantly on Depression scores (p < .06). The High Trait Anger group had a higher mean on Trait Anxiety and lower score on Self-esteem: Trait Anxiety scores fell at the lower end of the average range (46 to 55; Schweitzer & Paulhan, 1990). The second hypothesis can only partially be confirmed.

Content Analysis

The inductive content analyses of the memoranda regarding State Anger and students’ misbehavior yielded four higher order themes for physical education teachers in the High Trait Anger group, three higher order themes for those in the Low Trait Anger group, and 10 lower order themes (see Table 3). The statements illustrate the variety of memoranda.
<table>
<thead>
<tr>
<th>Higher Order Theme</th>
<th>Lower Order Theme</th>
<th>$f$</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Trait Anger ($n=44$)</td>
<td>Different types of students' misbehavior</td>
<td>32</td>
</tr>
<tr>
<td>Report precisely all types of students' misbehavior</td>
<td>Frequency of student misbehavior</td>
<td></td>
</tr>
<tr>
<td>No talk about reactions to misbehavior and focus on disappointment</td>
<td>Not to be a policeman</td>
<td>29</td>
</tr>
<tr>
<td>Report anxiety and watchfulness</td>
<td>Loss of authority</td>
<td></td>
</tr>
<tr>
<td>Report physical sensations linked to State Anger</td>
<td>Head-related sensations</td>
<td>22</td>
</tr>
<tr>
<td>Low Trait Anger ($n=24$)</td>
<td>Actions of punishment</td>
<td>19</td>
</tr>
<tr>
<td>Act with authority to misbehavior</td>
<td>Remind of clear rules</td>
<td></td>
</tr>
<tr>
<td>Decrease tension</td>
<td>Establish a safe, secure learning environment</td>
<td></td>
</tr>
<tr>
<td>Try to let the anger fade away</td>
<td>Make jokes; redefine coarse language; create a feeling of trust and openness</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**High Trait Anger Group**

Reporting precisely all types of student misbehavior.—Of these physical education teachers ($n=32$), 63% reported different types of misbehavior by recalling the elements which elicited irritation or anger. These negative behaviors were related to beginning the lesson (forgetting sports clothes, systematic exemptions), the tasks (unwillingness, refusal to practice the sport, not following directions), behavior toward the teacher (oppositions, confrontations, insults), the group (brawls between students, verbal disruptions including chattering or taunting, dangerous behavior), and the material (damage, acts of negligence). Their reports indicated the frequency of students' misbehaviors in physical education classes as three or four per lesson.

No reactions to misbehavior and focus on disappointment.—Of this group ($n=29$), 66% did not write about punishment-based strategies and classroom management strategies but focused on their feeling of disappointment. They did not feel respected in their work or in their knowledge. They reported a feeling of uselessness and being required to be “policeman” rather than to transmit knowledge. Such feelings were unbearable for them. One participant explained it this way: “I have the feeling that I am not respected in my social utility. My work is to teach physical skills. I am a teacher... To be a policeman is not my job. I am angry...” Moreover, the reported events evoked a feeling of loss of authority and vulnerability. For them, authority is taken for granted as the foundation of teaching and learning. This is described by a teacher who wrote, “To lose face is to lose my credibility, my authority...I was sorely disappointed. I was angry five times in this lesson.”
Report anxiety and watchfulness.—Of this group \( (n = 22) \), 50% reported anxiety, feeling on the alert and thinking that everything can deteriorate into a serious incident if students are inactive. An example of the comments was, “I never sit down. I am like a watchtower and I notice warning signs. I listen with my eyes. I feel discomfort and I am always anxious and irritated.”

Report physical sensations linked to State Anger.—Of this group \( (n = 7) \), 60% reported head-related sensations such as headaches and dizziness when they felt irritated because the students were unpredictable. A teacher expressed it this way, “I saw them being stupid and hanging a classmate on the fixed bar. I experienced an incredible headache before reacting.”

Low Trait Anger Group

Act with authority to misbehavior.—Of these physical education teachers \( (n = 19) \), 79% were more inclined to engage immediately in action to punish students or resolve the situation (students’ exclusion, inclusion of a memo in a notebook, reminder to respect rules, reminder of the meaning of the word “responsibility”). They did not precisely report the students’ misbehavior. They underlined that it was important to remind the students immediately of the teacher’s authority and the need for respect, to establish clear rules, and to give an impression of being dominant, solid, and firm. One example was, “I don’t allow any errors. Today, I show the painfully disruptive students out the door. I reinforce clearly defined rules. The class did not budge after this incident.” Moreover, preoccupation was to establish a safe, secure learning environment. This was expressed, for example, as follows: “Physical activities are organized and structured to minimize the chance of injury from collision with other students or objects. I deliver instruction, and I want students to respect it.”

Decrease tension.—Of this group \( (n = 10) \), 42% highlighted that, if punishment for reasserting the rules and for confirming adult status was necessary, it was not appropriate for a teacher to get angry. It was preferable to decrease tension in other ways, such as making jokes or redefining coarse language, particularly to reduce the intensity of students’ misbehavior. This is described by a teacher who wrote, “Alarm started on arriving in gymnasium. I understood immediately that it was a student who had planned the job... I was irritated, but I wanted to show control and be calm. I started to joke to defuse the atmosphere. Afterward, I informed students of the negative consequences of this behavior and the lesson proceeded without problems.” Participants emphasized their desire to create a feeling of trust and openness with students. “I try to reduce tension and build trust, signal openness and sincerity by a positive attitude. I try to talk without any aggression.”

Try to let the anger fade away.—Of this group \( (n = 3) \), 13% indicated that they tried to let their anger fade away, as illustrated by the statement,
“Faced with a noisy class, I tried to let my anger disappear by writing the word detention on the board with the time (5 min., 10 min., etc.).” The third hypothesis is confirmed.

**Discussion**

The aim of this study was to gain information about intensities of state anger experienced by physical education teachers working in ZEP schools at the end of each physical education lesson over one week, to obtain descriptive data about teachers' actions and reactions related to students' misbehavior, and to seek a greater association of the relationship of personality traits with state anger and students' misbehavior.

The data suggested that most of the anger measures recorded during the week were weak, corresponding to mild irritation. Spielberger, et al. (1995) have shown that state anger is a short-lived component of anger. However, participants scoring high on trait anger reported, on average, higher state anger. In line with other research (Deffenbacher, Oetting, Thwaites, Lynch, Baker, Stark, et al., 1996; Asmundson, et al., 2001), present results showed that participants scoring high on trait anger had a higher mean on trait anxiety and a lower one on global self-esteem than those scoring low on trait anger. Analysis showed no differences in depression between the two groups. Thus, knowing participants' trait anger, their trait anxiety and self-esteem associated with teachers' reports supports hypotheses.

Findings indicated that participants scoring high on trait anger reported precisely the students' negative behaviors which provoked their irritation. Contrary to other studies in physical education (McCormack, 1997; Kulmina, Cothran, & Regualos, 2006), these participants did not classify various misbehaviors ranging from mild to severe. All students' negative misbehavior seemed important enough to be mentioned, and participants characterized the misbehavior by referring to the action (Ishee, 2004). They pointed out their preoccupation with keeping the students involved in activities. Maintaining students’ activity was based on the teachers’ conviction that inactive students were a threat linked to a loss of classroom control and an increase in classroom disruptions. This preoccupation seemed to be a key influence on state anger. The reports described a climate of tension. Moreover, as suggested by Mathews and Mackintosh (1998), anxiety states were associated with increased attention to threat and a greater likelihood of pessimistic interpretation of an ambiguous event. Participants scoring high on trait anger were sensitive to threatening stimuli. Bond, Rauo, and Wingrove (2006) indicated that persons could decrease angry feelings when they were encouraged to express feelings of vulnerability. In their reports, participants scoring high on trait anger showed they were aware of vulnerability but did not want to acknowledge that. This might account for angry feelings and some partici-
pants' headaches or dizziness when angry. Present results are consistent with other research showing anger is a common concomitant of headaches (Duckro, Chibnall, & Tomazic, 1995; Nicholson, Gramling, Ong, & Buenevar, 2003). Tafrate, et al. (2002) have reported that head-related sensations were often associated with vulnerability of adults with high scores on trait anger. Finally, Baumeister, Bushman, and Campbell (2000) showed that people are angry when their status is threatened. In this study, participants scoring high on trait anger indicated that students' misbehavior brought into question their authority status.

In contrast, participants scoring low on trait anger indicated that they had a good handle on classroom situations, reacting with authority and maintaining order among the students for whom they were responsible. "If the anger is justified and the response is appropriate, usually the misunderstanding is corrected" noted Averill (1983). Results showed that these teachers expressed state anger in adaptive patterns and behaved in ways which corresponded to anger-in-control, such as tension-reduction behaviors.

These results provide information on physical education teachers working in ZEP schools. The use of diaries allows a better understanding of the association of trait anger with personality correlates, state anger, and students' misbehavior. Moreover, the strength of this study is the participants' qualitative reports and the relevance of the affective traits (trait anger, trait anxiety) associated with these reports. Some limitations must be considered. First, the sample size was smaller than desired. This was the result of using upper and lower quartiles of physical education teachers' scores on trait anger. Second, all the lessons were observed in Lyon's academy and its local geographical environment among ZEP schools. Third, it would be interesting to use diaries research in greater depth as a tool for self-assessment (videotaped lessons and review) to understand better how teachers view and comment on their own displays of anger and how emotional experience reflects an interaction between persons and situations. Contextual variables in physical education also influenced teachers' and students' behavior (Kulinna, McCaughtry, Cothran, & Martín, 2006). Finally, the use of dichotomization of groups based on trait anger might underestimate the relations which were observed.

Nevertheless, the findings give some insight into the behavior of physical education teachers working in ZEP schools and showed that some teachers developed effective management techniques. Additional studies should address how physical education teachers working in ZEP schools might successfully interact with students, since the precise nature of the adaptative interventions is not clear.

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