

Injustice in physical education: gender and the perception of deprivation in grades and teacher support

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(Received 17 March 2005; Accepted in final form 11 November 2005)

Abstract. School as an institution is not powerful enough to fight external mechanisms leading to gender inequalities. Sport, as Physical Education (PE), remains a male domain and appears as a site for the reproduction of hegemonic masculinity. In PE, girls obtain lower grades than boys; teachers support boys more. This paper focuses upon the French pupils' perceptions of injustice with respect to teacher support and grades relative to gender and social gender role orientation. Data were collected through questionnaires from 1620 pupils in secondary school. Although boys, Androgynous and Masculine pupils, obtained significantly higher grades in PE, they felt more deprivation. Concerning teacher support, girls' perceptions of injustice were similar to boys' perceptions, and Undifferentiated pupils perceived the highest deprivation level. Pupil's perceptions may not be free of gender stereotypes.

Key words: Physical Education; injustice; gender; grades; teacher support

1. Introduction

Schools are scenes of reward allocation and justice distribution (Dubet & Duru-Bellat, 2004; Stowell, 2004). Three classes of allocated rewards in school life have been distinguished by Dar and Resh (2001, 2003): relational, instrumental and symbolic rewards. We distinguish only two classes of rewards in our research: instrumental (grade distribution) and relational rewards (teacher support). Teachers assess pupils' aptitude and performance, put pupils into instrumental groups, evaluate their class and homework, and grant praise and grades. Teachers offer pupils personal support, encouragement and esteem. More specifically, social support at school has been hypothesized to facilitate academic achievement and to prevent school-related

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behavioural problems (Dubow et al., 1991; Grannis, 1992; Cutrona et al., 1994; Samdal & Wold, 1998).

Issues of gender know no boundaries, and there are many gender inequalities within physical education (PE) programmes, educational institutions and school environments. Gender stereotypes may play a role in teachers' assessments of pupils' work and in teacher intervention, in particular with regards to biases against female pupils. In this paper, we focus on gender inequalities in PE and we aim to investigate how pupils' perceptions of injustice (similar to perceptions of deprivation) in grades and teacher support are formed. In particular we want to assess the effect of gender and gender-related self-concept on perceptions of injustice. Which gender experiences the greater injustice in grades and teacher support? Do girls (or pupils with a lower Masculinity score) who "objectively" get lower rewards in PE also feel more deprived? This paper begins with a general discussion of gender inequalities in education, and in PE specifically. We then present the definition of the perception of deprivation and finally, we approach our study.

2. Gender difference in education

Studies mentioned in this part were carried out with regards to teaching in other subjects, but not in PE. Schools are described by Sadker and Sadker (1986) as institutions that systematically produce and reproduce gender inequalities. Teaching attitudes and practices are based on relational models which are marked by an "implicit sexism" (Mosconi, 1994; Pichevin & Hurtig, 1995). Observations of pupil-teacher interactions showed that teachers, in mixed classes, without being aware of it, interact definitely more with boys than with girls (Sadker & Sadker, 1986; Dart & Clarke, 1988; Mosconi, 1994; Subirats & Brullet, 1998; Duffy, Warren, & Walsh, 2001). Teachers spend one third of interaction time with girls and two thirds with boys, as noted by various authors (Spender, 1982; Mosconi, 1994). Boys were reprimanded significantly more often, received more teacher attention and had more questions directed to them than girls (Younger & Warrington, 1996).

Moreover, students' behaviour evaluation by teachers was found to be influenced by gender stereotypes (Duru-Bellat, 1990). Teachers disadvantage girls compared to boys in their approval or disapproval concerning class work, an exercise or an answer (Spender, 1982). Teachers mark girls' work as either correct or incorrect, but provide boys with more detailed explanations about how they can improve upon their performance, as noted by Marshall and Smith (1987). On the level of school results, teachers allotted girls' success to their work and their conformity (they do what they can), while that of boys' was allotted preferentially to their intellectual abilities (Mosconi, 1994). In line with teacher expectancy research

(Brophy, 1998), teachers' stereotyped expectations such as the "talkative, social girl" and "the non-talkative, athletic boy" may actually influence that child's self-perceptions. "School judges the child's performance, and the child responds by evaluating himself in turn" as noted by Bruner (1996, p. 37).

3. Gender in physical education

More and more studies explore the issue of gender in PE (Scraton, 1990; Flintoff, 1997; Waddington, Malcolm, & Cobb, 1998; Colwell, 1999; Davaise & Louveau, 1998). Flintoff (1997) reports that although institutions think they are providing a gender equitable educational experience for intending teachers, the whole PE establishment is so male orientated that the hegemonic process continues unchallenged. Girls are victims of many gender inequalities in PE (Lentillon & Cogérino, 2003). PE is a subject with a "male" connotation, since sport in general is an activity which by its history and image remains a male domain (Hargreaves, 1994; Scraton, Fasting, Pfister, & Bunuel, 1999). In addition, physical activities considered as "masculine" are more practiced in PE than activities considered as "feminine". In PE schedules, we often find football, wrestling or rugby and much less often dance, rhythmic gymnastics or synchronized swimming (Cleuziou, 2000). The vocabulary of physical activities in PE revolves often around the notions of achievement, test and confrontation which do not match the girls' approach and "natural" engagements. The culture taught in school does not correspond completely to girls' expectations.

Gender stereotypes are integrated by PE teachers. As in other subjects, boys received significantly more feedback than girls but the gender difference is less, since teachers would spend 58% of interaction time with boys and 42% with girls (Couchot-Schiex & Trotin, 2005). If we look at PE grading at the Baccalaureate (final exam of the secondary school in France), we notice that boys get better grades than girls, by +1.1 points (Cleuziou, 2000). Moreover, gender differences in grades are higher in physical activities which require more practice in PE (Cleuziou, 2000; Vigneron, 2005). The four physical activities that are most often evaluated (athletics, volleyball, badminton and table tennis) are most discriminating in favour of boys: 1.87 points separate boys and girls in racket sports, 1.76 points in collective sports, 1.39 points in athletics (Cleuziou, 2000).

4. Perception of deprivation

Perception of deprivation, similar to perception of injustice, is defined as an evaluative response (Eagly & Chaiken, 1993; Olson & Zanna, 1993), whether cognitive or emotive, as the belief that one does not receive the rewards one deserves. This perception arises when individuals see a gap between the rewards they feel they are entitled to and those they actually

receive. This perception is subjective, depending on the individual's definition of his or her entitlement, as put aptly by Markovitsky (1985, p. 822): "... justice is in the eye of the beholder". In this study, the perceived just reward is defined by the respondent and deprivation (or injustice) is conceptualized as a cognitive perception of the congruency, or discrepancy, between actual (received) and expected (entitled) reward and not the emotions that may accompany it (Lerner, 1987). The distinction between cognitive perception and emotional reaction to injustice has been made by several researchers, though most assume their covariation (e.g., Guimond & Dube-Simard, 1983; Markovsky, 1985; Petta & Walker, 1992; Jasso, 1996). A perception of deprivation may influence attitudes, aspirations, and behaviour inside and outside school. Disadvantaged pupils who usually obtain lower or fewer rewards in school are expected to develop a predisposition for a sense of deprivation.

5. Purpose statement

This study examines pupils' perceptions in teacher support and grades in PE relative to gender and social gender role orientation. It explores the impact of the social construction of gender identities in pupils' perceptions in PE. We aim to cast light on how perceptions of injustice in school are formed among girls and boys. The following questions will be addressed:

1. Is there a difference between female and male pupils in their level of sense of deprivation concerning grades and teacher support in PE?
2. Is there a relationship between pupils' levels of sense of deprivation and their social gender role orientation?

Pupils' perceptions are interesting since they play a significant role in their motivation, and the motivation is one of the key factors which determine the chances of progress or development of pupils (Wentzel, 1998). Students' perceptions of teacher support are related to positive changes in their motivation and engagement as noted by Ryan and Patrick (2001). Teacher support and encouragement for pupils, as well as acceptance and effective control of the pupils, are correlated to positive pupils' perceptions (Coelho, 2000).

Little research has been done on pupils' perceptions and attitudes (Gagnon et al., 2000; Martel, Gagnon, & Tousignant, 2002; Dar & Resh, 2003; Sabbagh, Faher-Aladeen, & Resh, 2004) and on pupil's perceptions in gender issues (Shropshire, Carroll, & Yim, 1997; Flintoff & Scraton, 2001; Lentillon, 2005). Dar and Resh (2003) explored the sense of deprivation with regard to instrumental and relational rewards among junior high school students in Israel. They were interested in five subjects: mathematics, English, literature, biology and geography, but not in PE. In

PE, a study conducted on 296 pupils of 9 to 11-year old (Martel et al., 2002) noted that pupils perceived a large variety of inequality in PE. In all, five types of injustice perceived by pupils were identified: injustices related to the management of the discipline (41%), related to the activities practiced (18%), to the management of time (16%), related to the preferences of their teacher (11%), related to peers' behaviours (9%) and related to the judgement of their teacher (5%). More than 60% of pupils estimated that they were sometimes treated in an unjust way by their PE teacher, as noted by Gagnon et al. (2000). Concerning the gender issue, girls ignore this differential treatment and generally believe that PE teachers treat both sexes equally. The opposite is true for boys (Shropshire et al., 1997).

6. Hypotheses

It was hypothesized that student perceptions will be affected by gender and gender-related self-concepts. In line with the "psychological price" argument, we may suppose that disadvantaged pupils are more prone to perceive themselves deprived in PE. Consequently, our hypotheses for this study were:

1. Gender differences: Receiving lower academic rewards in PE, female pupils should perceive more deprivation in grades and teacher support than male pupils.
2. Gender-related self-concept differences: In a masculine subject like PE, pupils with a lower Masculinity score (Undifferentiated and Feminine pupils) should perceive more deprivation in grades and teacher support than pupils with a higher Masculinity score (Androgynous and Masculine pupils).

7. Research methodology

7.1. SUBJECTS

The data were derived from a large study of secondary schools in France (collected in 2003) that included 1620 pupils in 19 different schools, 10 Middle Schools and nine High Schools.¹ The school sample was selected to represent a variety of pupils' social background. The average age of the pupils (908 girls and 708 boys) was 15.12 years ($SD=1.75$).

Information was collected through questionnaires that pupils filled out in their classes in the presence of a researcher and a teacher. The questionnaire took approximately 20 min to complete. All pupils were informed that completion of the questionnaire was voluntary and anonymous, and none refused to take part. Pupils were also assured that confidentiality would be maintained and encouraged to answer as honestly as possible.

7.2. MEASURES OF PERCEPTION OF INJUSTICE

Questionnaires were designed to capture the degree of perception of injustice (or deprivation) concerning two domains: “Instrumental perception of deprivation” was examined regarding grades and “relational perception of deprivation” was examined regarding teacher support.

7.2.1. *Perception of Injustice in Grades*

Actual grades: Grades in PE. The grading system in French schools is on a 20-point scale, with 20 being the highest and 0 being the lowest.

Just grades: Pupil’s perceived grade entitlement in PE (scale as above).

Perception of injustice (deprivation) in grades: The difference between “actual” and “just grades”. For example: which grade did you receive? X; which grades did you expect to receive? Y; where deprivation = $X - Y$. A score of zero denotes receiving due reward, a negative score denotes deprivation and a positive score denotes perceived preferential treatment.

7.2.2. *Perception of Injustice in Teacher Support*

Perception of injustice in teacher support was calculated using five types of teacher support: praise, encouragement, advice, correction and duration of support. We constructed five item measures of cognitive perception relating to these five types of teacher support using a seven-point Likert scale (Vallerand & Hess, 2000). The perception of deprivation was measured on scales that run from negative to positive values, where zero denotes perfect justice (see Jasso, 1980), negative values represent under-reward (perceived deprivation), and positive values represent over-reward (perceived gratification). In other words, pupils evaluated the degree of (in)justice in each of the relational items on a seven-point scale: “much less” (score -3), “less” (-2) “a little less” (-1), “as much as” (0), “a little more” (1) “more” (2) or “much more” (3) than deserved.

Factor and correlation analyses were performed to test the validity of the teacher support perception scale. This scale proved internally consistent ($\alpha = 0.85$). Factor loadings varied from 0.72 to 0.83 suggesting homogeneity between items. Test-retest (3 weeks) Pearson correlation was high (0.79) for the teacher support perception scale. These analyses, consistent with earlier research provided support for the scale measure. Studies on the social support of children and adolescents have shown that they do not distinguish different types of support; e.g. emotional, tangible and informational support (Cauce et al., 1994; Torsheim, Wold, & Samdal, 2000).

7.3. INDEPENDENT VARIABLES

In addition to these scale measures, the questionnaires gathered some psychological measures (such as self-esteem, self-evaluation of sport ability,

gender-related self-concept), some background demographic (such as gender, age) and sports-participation information (number of hours of sport per week). For this paper, we only considered the gender and the gender-related self-concept.

7.3.1. *Gender-Related Self-Concept*

In order to evaluate the gender-related self-concept, the French short version of the Bem Sex-Role Inventory (Bem, 1974, BSRI) for adolescents was used (Fontayne, Sarrazin, & Famose, 2000). Respondents indicated how well the item described them, from “almost never true” (1) to “almost always true” (7). The 18 items are grouped into two subscales: Masculinity and Femininity. The masculine items describe positive characteristics stereotypically associated with being male in our society (e.g., self-reliant). The feminine items describe positive characteristics stereotypically associated with being female in our society (e.g., sympathetic). A person’s Masculinity and Femininity scores are the means of the eight items on the Masculine subscale and 10 items on the Feminine subscale. The BSRI showed high levels of internal consistency and validity for our sample, the alpha scores being 0.82 and 0.86 for Masculinity and Femininity subscales. The present study used the traditional fourfold classification system based on sample-specific medians on the Masculinity and Femininity subscales. The “Masculine” group included respondents who scored above the sample median on the Masculinity and below the sample median on the Femininity scale. The “Feminine” group included respondents who scored above the sample median on the Femininity and below the sample median on the Masculinity scale. The “Androgynous” group included respondents who scored above the sample medians on both the Masculinity and the Femininity subscales. The “Undifferentiated” group included respondents who scored below the sample medians on both the Masculinity and the Femininity scales.

7.3.2. *Gender*

Gender was coded “0” for male and “1” for female.

8. Results

8.1. OVERVIEW: DEGREE OF INJUSTICE

Before investigating the effects of gender and gender orientation on the perception of deprivation, initial descriptive statistics were run to examine patterns of the sample. Means and standard deviations of the deprivation variables included in the analyses are presented in Table I.

As a group, the strongest sense of deprivation was about grades. Pupils felt under-rewarded in grades (−0.29) and over-rewarded in teacher support

Table I. Means (*M*), Standard deviation (SD) of measures (*N* = 1620)

	<i>M</i>	SD
Actual grades	12.97	3.21
Just grades	13.31	3.18
Perception of injustice (grades)	-0.29	2.79
Perception of injustice (teacher support)	0.31	1.36
Masculine score	4.40	1.23
Feminine score	5.09	1.08
Gender (female)	0.56	0.49

(0.31). They received lower grades than expected but more teacher support than expected. A low correlation between perceptions of injustice in grades and teacher support point to a domain-specificity of sense of deprivation reactions ($r = 0.09$, $t(1508) = 3.48$, $p < 0.001$).

8.2. GENDER DIFFERENCES IN PERCEIVED INJUSTICE

The data were analysed initially by gender to determine whether there were any differences in perceived teacher support and grades for girls and boys, using independent *t*-tests. Some individuals did not respond to some items in the questionnaire. In these instances, the data were coded as missing and the persons were excluded from the analysis.

As can be seen in Table II, the mean scores on actual and just PE grades and perceptions of injustice in grades were very different. Girls obtained lower grades in PE ($M = 12.38$) than boys ($M = 13.71$) [$t(1517) = 8.15$, $p < 0.001$], expected lower grades ($M = 12.52$) than boys ($M = 14.29$) [$t(1503) = 11.13$, $p < 0.001$], and perceived a lower level of sense of deprivation

Table II. Means and (Standard Deviations) for relationships between gender and cognitive perceptions of teacher support and grades

	Female (<i>N</i> = 908)	Male (<i>N</i> = 708)
Actual grades	12.38 (3.20)	13.71*** (3.07)
Just grades	12.52 (3.07)	14.29*** (3.04)
Perception of injustice (grades)	-0.04 (2.82)	-0.59*** (2.74)
Perception of injustice (teacher support)	0.31 (1.38)	0.30 (1.34)

*** $p < 0.001$.

concerning PE grades ($M = -0.04$) than boys ($M = -0.59$) [$t(1516) = -3.80, p < 0.001$].

Concerning teacher support, the sense of deprivation was similar for girls and boys. Both groups felt over-rewarded concerning teacher support ($M = 0.31$ for girls and 0.30 for boys).

8.3. SOCIAL ROLE ORIENTATION DIFFERENCES IN PERCEIVED INJUSTICE

Besides biological gender, a second level of analysis examined relationships between social role orientation and sense of deprivation levels. First, we analysed the relationship between social gender role orientation and pupils' perceptions. Second, this was done separately for girls and boys to see if patterns related to social role orientation and perceptions are similar or different for the two genders. One-way analysis of variance (ANOVA) was used to examine relationships between the social role orientation and the indices of cognitive perceptions. A follow-up Scheffé test was used when significant differences were present. One set of ANOVAs was conducted for social role orientation on grades indices, while a second set was conducted for teacher support perceptions.

There were significant differences amongst pupils relative to grades and teacher support perceptions, as can be seen in Table III.

Concerning grades, Androgynous and Masculine pupils obtained significantly higher grades ($M = 13.61$ and $M = 13.85$, respectively), and expected higher grades ($M = 14.34$ and $M = 14.14$, respectively), than did Feminine or Undifferentiated pupils [actual grades: $M = 12.01$ and $M = 12.32$, respectively, $F(3, 1481) = 31.79, p < 0.001$; just grades: $M = 11.97$ and $M = 12.54$, $F(3, 1468) = 56.34, p < 0.001$]. Similarly, Androgynous pupils perceived higher deprivation levels in grades ($M = -0.74$) than did Feminine and Undifferentiated pupils [$M = 0.17$ and $M = -0.15$ respectively, $F(3, 1479) = 7.28, p < 0.001$]. Among Androgynous pupils, the difference between the actual and just grades was higher than in the case of Feminine and Undifferentiated pupils.

Concerning teacher support, there were significant differences too. Undifferentiated pupils perceived higher deprivation levels in teacher support ($M = 0.09$) than the three other social orientation groups [Feminine: $M = 0.37$; Androgynous: $M = 0.39$; Masculine: $M = 0.37$, $F(3, 1548) = 4.25, p < 0.01$].

Concerning the analyses done separately for girls and boys, results were similar to the global sample results for actual and just grades, but there were some differences concerning perceptions of injustice in grades and teacher support. Amongst boys in the four social role orientation categories, there were no significant differences relative to grades and teacher support's perceptions. For the female sub-sample, social role orientation was significantly related to perceptions of injustice, as represented in Table III.

Table III. Mean scores on pupils' perceptions according to social role orientation

Social role orientation according to the revisited version of the BSRI						
	Fem. (1)	Andr. (2)	Undiff. (3)	Masc. (4)	F	Groups
Pupils (N = 1561)	N = 382	N = 431	N = 374	N = 374		
Actual grades	12.01	13.61	12.32	13.85	31.79***	2 versus 1; 4 versus 1; 3 versus 2; 4 versus 3
Just grades	11.97	14.34	12.54	14.14	56.34***	2 versus 1; 4 versus 1; 3 versus 2; 4 versus 3
P of Inj (grades)	0.17	-0.74	-0.15	-0.33	7.28***	2 versus 1; 3 versus 2
P of Inj (teacher support)	0.37	0.39	0.09	0.37	4.25**	3 versus 1; 3 versus 2; 4 versus 3
Female (N = 884)	N = 314	N = 234	N = 223	N = 113		
Actual grades	11.88	13.08	11.91	13.28	10.55***	2 versus 1; 4 versus 1; 3 versus 2; 4 versus 3
Just grades	11.80	13.60	11.96	13.29	20.14***	2 versus 1; 4 versus 1; 3 versus 2; 4 versus 3
P of Inj (grades)	0.24	-0.53	0.04	-0.04	3.27*	2 versus 1
P of Inj (teacher support)	0.39	0.43	0.05	0.41	3.70*	3 versus 1; 3 versus 2
Male (N = 675)	N = 68	N = 196	N = 150	N = 261		
Actual grades	12.56	14.23	12.94	14.10	9.67***	2 versus 1; 4 versus 1; 3 versus 2; 4 versus 3
Just grades	12.68	15.20	13.39	14.52	17.94***	2 versus 1; 4 versus 1; 3 versus 2; 4 versus 3
P of Inj (grades)	-0.12	-0.97	-0.41	-0.47	2.24	
P of Inj (teacher support)	0.26	0.34	0.14	0.35	0.93	

Groups 1 (Fem.) is Feminine, 2 (Andr.) is Androgynous, 3 (Undiff.) is Undifferentiated, 4 (Masc.) is Masculine.

P of Inj: Perception of Injustice.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

Androgynous females expressed stronger perception of injustice in grades ($M = -0.53$) than Feminine females [$(M = 0.24)$ ($F(3, 830) = 3.27, p < 0.05$]. Undifferentiated females felt less gratified in teacher support ($M = 0.05$) than Feminine ($M = 0.39$) and Androgynous females ($M = 0.43$) [$F(3, 876) = 3.70, p < 0.05$].

When Femininity and Masculinity scores were assessed individually, the Femininity score was found to be negatively related to actual grades and positively related to sense of deprivation in teacher support, but correlations were moderate, as shown in Table IV [$r = -0.07, t(1485) = -2.80, p < 0.01$, and $r = 0.10, t(1552) = 3.84, p < 0.001$, respectively]. Pupils with a higher Femininity score received lower grades and perceived less deprivation in teacher support than pupils with a lower Femininity score. In contrast, the relationship was stronger between the Masculinity score and the actual grades [$r = 0.28, t(1485) = 11.40, p < 0.001$], just grades [$r = 0.38, t(1472) = 15.92, p < 0.001$], and perception of deprivation in grades [$r = 0.12, t(1483) = -4.61, p < 0.001$]. A low positive, but significant, correlation was revealed for the Masculinity score and perception of deprivation in teacher support [$r = 0.07, t(1552) = 2.94, p < 0.01$]. Pupils with a higher Masculinity score received higher grades, expected higher grades and perceived more deprivation in grades and teacher support than pupils with a lower Masculinity score.

9. Discussion

The purpose of this study was to examine perceptions among pupils in PE by gender and by social role orientation. When perceptions were examined relative to gender, significant differences emerged only concerning grades. Results concerning actual grades relate to previous studies which indicate that boys obtain higher grades in PE (Cleuziou, 2000). Our findings negate our initial intuitions, regarding the effect of gender on perception

Table IV. Intercorrelations between scores of feminine and masculine subscales and perceptions in PE

	Score of femininity	Score of masculinity
Actual grades	-0.073**	0.284***
Just grades	-0.045	0.383***
P of Inj (grades)	-0.014	-0.119***
P of Inj (teacher support)	0.097***	0.074**

** $p < 0.01$.

*** $p < 0.001$.

P of Inj: Perception of Injustice.

of deprivation. Although girls obtained lower grades in PE, boys felt more deprivation in grades than girls. Boys expected higher grades than girls. These results correspond with Resh's results (1999). In her study, boys were actually deprived in instrumental rewards (grades and ability group) compared to girls and they "justly" perceived deprivation.

Concerning teacher support, although girls were disadvantaged, girls' perceptions of injustice were similar to boys' perceptions. The data are consistent with Shropshire et al.'s results (1997). They examined primary school children's attitudes to PE and found that girls ignore differential treatment and generally believe that teachers treat both sexes equally. The opposite is true for boys.

When a more finely grained analysis was done, examining the pupils' social role orientation relative to their perceptions, several differences became apparent. Androgynous and Masculine pupils obtained significantly higher grades and expected higher grades than Feminine or Undifferentiated pupils. This result supports an earlier study which noted that androgynous orientation among pupils was related to higher grades in PE (Fontayne, 1999). Otherwise, our results do not support the hypothesis concerning gender-related self-concept. Androgynous pupils expressed the highest perception of deprivation level in grades, while Feminine and Undifferentiated pupils expressed the lowest ones. In teacher support perceptions, Undifferentiated pupils perceived the highest deprivation level compared to the three other social gender orientation groups. Also, when Femininity and Masculinity scores were assessed individually, pupils with a higher Femininity score received lower grades and perceived less deprivation in teacher support than pupils with a lower Femininity score. Pupils with a higher Masculinity score received higher grades, expected higher grades and perceived more deprivation in grades and teacher support than pupils with a lower Masculinity score. With regards to analyses conducted separately for girls and boys, results showed that social gender orientation affected more the girls' perceptions than boys' perceptions. These results contradict the "behavioural flexibility" theory (Bem, 1974). An Androgynous social role orientation was seen as more psychologically healthy, since it was proposed that people who possess a combination of masculine and feminine traits are able to draw upon both sets of strengths, when needed (Bem & Lenney, 1976; Bem, Martina & Watson, 1976). Our results contradict also the research on gender role orientation related to satisfaction, for example, that for men and women, Androgynous respondents tended to report higher levels of job satisfaction (Eichinger, Heifetz, & Ingraham, 1991; Eichinger, 2000).

There is a difference between real disadvantages and perceptions of deprivation. Subjective well-being does not derive only from the objective situation. It is evident that perception of deprivation is subjective, depending on one's believed entitlement. It can be increased by either raising

entitlement or decreasing the actual reward (Deutsch & Steil, 1988). The shaping of the perception of a just (entitled) reward is more complicated and much less explicit than the actual reward distribution. The theory of relative deprivation updates mechanisms of cognitive deformation which bring disadvantaged groups to regard their situation as equitable and legitimate (Walster, Walster, & Berscheid, 1978). In the long run, the underprivileged groups end up believing that the unfavourable situation is deserved (Tajfel, 1984). Girls are actually deprived in instrumental and relational rewards compared to boys and they "justly" perceive deprivation.

In order to preserve a positive image of oneself towards others, disadvantaged individuals, in particular girls, may tend to minimize their real dissatisfaction (Hafer & Correy, 1999). Another explanation for these findings is that gender differences may be too negligible to be perceptible by pupils.

These results may be explained also by the internalization by pupils of the equity principle in academic reward distribution. This equity principle in this domain would moderate entitlement for rewards among disadvantaged pupils, thus reducing their sense of deprivation. According to the unidimensional equitarian conception of social justice (Adams, 1965; Homans, 1961, 1974; Markovsky, 1985; Jasso, 2000), advantaged and disadvantaged pupils should not differ in their levels of sense of deprivation, at least not in the school instrumental domain with regard to grades. Homans (1961, 1974) claims that individuals adopt this all-encompassing rule (equity principle) as a guiding principle in their evaluations of and expectations for just rewards. Specifically, they expect that rewards (a) will reflect directly individuals' levels of investment and contribution; and (b) will correspond to the level of reward others receive in return for the same level of investment and contribution. Relating their achievement to their own merit, disadvantaged pupils do not tend to feel unjustly under-rewarded (Resh, 1999). But this reasoning is, however, open to criticism. Scholars who criticize the equity theory doubt that this principle is universal and applicable to the distribution of all cases of social resources in different contexts. They claim that it does not take into account cases (such as equality distributions) in which investments and contributions are not relevant criteria for distributing resources (Törnblom, 1992). According to the multidimensional approach to social justice judgments (Deutsch, 1985; Törnblom, 1992; Sabbagh, 2002), individuals differ in how they conceive a just reward because of the varying values deriving from cultural and social position, and, especially, because of varying amounts of personal resources that they bring into the distributive process (Jasso, 1980; Humphreys & Berger, 1981; Cook & Hegtvædt, 1983; Robinson, 1983; Deutsch & Steil, 1988).

We can finally attribute our findings to socialization practices (Williams, 1993). A social differentiation between genders is further consolidated on the basis of this psychological bias. Societal ideologies discourage women's

participation in sports. For young boys, participation in sport typically is seen as “natural” or inevitable, because of strong encouragement by parents, peers and societal norms (Messner, 1998), but this is not the case for girls. In addition, the values and ideologies surrounding sports, such as toughness, aggression and competition, are consistent with, and act to reinforce, hegemonic notions of masculinity (Messner & Sabo, 1990). Statistics on sports participation reflect the gendered nature of this form of leisure activity. In France for example, men are considerably more likely than women to participate, and to participate frequently, in organized and informal sports activities (MJS/INSEP, 2002). The value allotted to sport is thus more important among boys than among girls (Trew, Scully, Kremer, & Ogle, 1999). PE holds the first position compared to other subjects for boys and only the third position for girls (Terrail, 1997). Boys (171 adolescents, age 16–19 years) experience greater enjoyment and less boredom than girls in PE (Spray, Biddle, & Kenneth, 1999).

This paper draws on data gathered from a more extensive study on pupils’ perceptions in PE. Besides questionnaires, we have conducted in-depth interviews with pupils and the results of these interviews support the hypothesis that pupils’ perceptions may be influenced by societal gender ideologies. Broader societal values and structures may indeed affect perceptions of grades and teacher support in PE.

Moreover, other variables may be determinants of perceptions of injustice in PE. In this study, we measure also the effect of other individual characteristics (such as age, sporting practices, self-esteem, sport self-competence, success or failure in PE) and of contextual characteristics (such as classroom effect and gender stereotyping of sport activities) on the pupils’ feelings of injustice. A weakness in personal resources (lack of sport talent, failure in PE) probably reflects a predisposition to perception of deprivation (Dar & Resh, 2003; Resh, 1999). The gender of the teacher can also have an impact on pupils’ perceptions. Quantitative analyses of teaching evaluation data have shown that student gender interacts with teacher gender in determining ratings (Basow, 1995; Bachen, McLoughlin, & Garcia, 1999).

10. Conclusion

School as an institution is not powerful enough to fight external mechanisms leading to gender inequalities. The curriculum is generally perceived as having failed to deliver gender equality. School, as well as PE, contributes to creating gender inequalities. In reality, girls and boys receive objectively different rewards in PE: girls’ grades are lower than those of boys and teachers’ interventions support boys more often. However the objective gender inequalities are not to be confused with perceptions of injustice. We saw that the pupils’ sensitivity to gender inequalities differs according

to their gender and gender-related self-concept. Pupils' perceptions may not be free of gender stereotypes. Pupils displaying gender-biased perceptions may be reinforcing the stereotype in a situation magnified by the inequality of power. Teachers should be aware of pupils' unconscious integration of gender stereotypes and should challenge pupils' self-conception.

Acknowledgements

We thank the directors and PE teachers of secondary schools for their support in the distribution of questionnaires in classrooms. Without them, this research could not have been done.

Notes

¹In France the Middle School (Collège) is composed of 11 to 16-year old teenagers and the High School (Lycée) is composed of 16 to 19-year old teenagers.

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