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AUTONOMY SUPPORT OR DIRECT CONTROL?

High School Students' Experience of their Teacher's Behaviour

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The main goal of the present study was to detect teacher behaviour (as perceived by students) in a sample of Hungarian high school students and to test its possible relationship with certain sociodemographic (gender) and school variables (faculty, school year, school achievement) as well as with psychological variables (self-efficacy, aggressive behaviours, and boredom). Using a sample of 385 high school students in Debrecen, a major metropolitan centre in the eastern region of Hungary (ages 15 to 20, 39.2% female), findings supported the claim that students benefit the most when teachers support their autonomy. Teachers' autonomy-supportive behaviour was associated with decreased levels of verbal and psychic aggression, and an increased level of self-efficacy. In addition, teachers' directly controlling behaviour was a predictor of self-efficacy, whereas the supportive but 'laissez-faire' behaviour was associated with a higher level of boredom. These findings underline the importance of teachers' autonomy-supportive behaviour but also emphasise that the role of teacher behaviour may be dependent on the specific context of the cultural and social environment.

Keywords: teacher behaviour, autonomy support, directly controlling, boredom, self-efficacy, aggressive behaviour

Autonomieförderung oder unmittelbare Kontrolle? Erfahrungen von OberschülerInnen hinsichtlich des Lehrerverhaltens: Ziel der vorliegenden Studie ist, das von den SchülerInnen erfahrene Lehrerverhalten in einem Sample von ungarischen OberschülerInnen zu untersuchen sowie zu ermitteln, wie es mit bestimmten soziodemografischen (Geschlecht), schulischen (Fakultät, Jahrgang, Schulleistung) und psychologischen (Selbsteffizienz, aggressives Verhalten und Langeweile) Variablen zusammenhängt. Das Sample umfasste 385 OberschülerInnen aus Debrecen, einer Großstadt in Ostungarn (15–20 Jahre, 39,2% Mädchen). Die Ergebnisse bestätigen die Annahme, dass die SchülerInnen vor allem davon profitieren, wenn die LehrerInnen ihre Autonomie fördern. Das autonomiefördernde Lehrerverhalten geht mit weniger verbaler und psychischer

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Aggression sowie größerer Selbsteffizienz einher. Auch die unmittelbare Kontrolle der LehrerInnen fördert die Selbsteffizienz der SchülerInnen, wobei die sogenannte „Laissez-fair"-Einstellung mit der Langeweile zusammenhängt. Unsere Ergebnisse unterstreichen die Wichtigkeit des autonomiefördernden Lehrerverhaltens sowie die Tatsache, dass die Rolle des Lehrerverhaltens vom kulturellen und sozialen Umfeld nicht unabhängig ist.

Schlüsselbegriffe: Lehrerverhalten, Autonomieförderung, unmittelbare Kontrolle, Langeweile, Selbsteffizienz, aggressives Verhalten

1. Introduction

Students' experience of their school environment may have an impact on their behaviour, decisions, and academic achievement; the student–teacher interaction has a particularly deep, long-term impact on their personality, view of social life, and value system (Wolfradt & Dalbert 2003; Israelashvili 1997). Experience of teacher justice (instructor fairness) involves students' satisfaction with their teacher, fairness of evaluation of student achievement, and a general school climate of classes (Peter & Dalbert 2010). In addition, teacher behaviour is a significant predictor of students' learning motivation (Ratelle et al. 2007). The self-determination theory supports that students' motivation for self-regulated learning may be facilitated by strengthening their psychological need for autonomy in contrast with harsh teachers' controlling behaviour (Reeve & Jang 2006). From an educational point of view, autonomy support means encouragement of independence and freedom, that is, completing assignments without the help of a teacher. However, teacher autonomy support means more of a carefully planned teacher behaviour that is called volitional functioning, such as giving a meaningful rationale, providing students with a number of choices and clear expectations as well as using inviting (rather than controlling) language (Buff et al. 2011). This is more than independence and unlimited freedom that may often lead to a 'laissez-faire' climate where students lack sufficient guidance. Autonomy support, on the other hand, may be experienced by students as a truly competence-supportive teacher behaviour (Vansteenkiste et al. 2012).

Teachers' interpersonal styles may also influence students' health and well-being; for example, directly controlling teacher behaviour (including giving frequent directives and not allowing critical and independent opinions) would arouse anger and anxiety in students beside amotivation in terms of learning (Assor et al. 2005), problem behaviour and skipping school (Vansteenkiste et al. 2012). Whereas supportive teacher behaviour may increase student self-esteem and life statisfaction, it may decrease boredom, and help avoid problem behaviours such as substance use and depression (Nett et al. 2011; Walsh et al. 2010). In addition, experience of teacher justice is a key feature of a school environment that is related to student achievement (Peter et al. 2012), well-being (Kamble & Dalbert 2011), self-e-

steem and self-efficacy (Correia & Dalbert 2007), and less bullying behaviour (Donat et al. 2012).

The literature suggests that teachers vary in their interpersonal styles, that is, in how they teach and motivate students, and that autonomy-supportive teacher behaviour has the most positive influence on students' achievement and well-being (Reeve 1998; Reeve et al. 1999). Since previous studies support the concept that students benefit when teachers support their autonomy, we should know more about these interrelationships. Therefore, the main goal of the present study was to detect teacher behaviour (as perceived by the students) in a sample of Hungarian high school students and to test its possible relationship with certain sociodemographic (gender) and school variables (faculty, school year, school achievement) as well as with psychological variables (self-efficacy, aggressive behaviours, and boredom). Based on previous research results, we hypothesised that a teacher behaviour characterised by autonomy-supportive orientation might have a positive role, whereas a directly controlling behaviour might have the opposite.

2. Subjects and method

Data were collected in Debrecen, a major metropolitan centre in the eastern region of Hungary. Data collection was going on in the spring of 2012, in the frame of the 'Youth Sports Research' project. In this pilot phase of the research, three high schools were chosen from a list of all high schools in town: one with a normal curriculum, another one with a sports faculty, and one with a mixed curriculum. Altogether 385 questionnaires were processed and analysed (response rate was above 95%, the remaining students likely consisted of youth absent or those youth whose parents did not want them participating in the study). Since schools and classes were randomly selected, this sample represents well the grammar school population of the town. Of the sampled students, 39.2 percent were female, aged between 15 to 20 years (school years from 1 to 4; M = 17.3 years, SD = 1.2 years). Parents were informed about the study, and their consent was obtained. Using a standardised procedure of administration, trained graduate students distributed the questionnaires to students in each class, after briefly explaining the study objectives and giving the necessary instructions. Students completed the questionnaires during the class period. Student participation was voluntary and confidential.

The self-administered questionnaire contained items on teacher behaviour, sociodemographics (gender), school-related variables (faculty, school year, school achievement), and psychological variables (self-efficacy, aggressive behaviours, and boredom).

Teachers' autonomy-supportive or controlling interpersonal styles were measured by a 12-item *Teacher Behaviour Scale* that was developed by Stöber (2002). Items described teacher behaviour and the students had to report how they perceived it during class period. Response categories were based on the level of

agreement with the statements that varied from 1 = not at all agree to 6 = entirely agree. The scale was translated and back-translated from German (original language) and English into Hungarian by bilingual translators and was validated on Hungarian samples of high school students (JÁMBORI 2007). Factor analysis with varimax rotation was used to detect teachers' interpersonal styles (as perceived by the students) based on the statements of teacher behaviour. All items and Cronbach's alpha values of reliability of the teachers' interpersonal styles are shown in *Table 2*.

Self-efficacy was measured by means of the *General Self-Efficacy Scale* (SCHWARZER & JERUSALEM 1995), using the Hungarian validated version. The scale measures a generalised sense of self-efficacy that refers to global confidence in one's coping ability across a wide range of demanding or novel situations (e.g., 'I can always manage to solve difficult problems if I try hard enough'). It consists of 10 items, with a response range from 1 to 4. Cronbach's alpha reliability with the current sample was 0.82.

Three subscales of *The Aggression Questionnaire* (BUSS & PERRY 1992) were used to measure three forms of aggression: physical aggression (nine items), verbal aggression (five items), and anger (seven items). The scales were previously applied on Hungarian samples (PIKÓ et al. 2006). Children were asked to rate each item on a scale from 1 ('extremely uncharacteristic of me') to 5 ('extremely characteristic of me'). Cronbach's alpha coefficients based on the present data were: physical aggression 0.84, verbal aggression 0.76, and anger 0.74.

Boredom at school settings was measured by four items of the *Flow Scale* developed by OLÁH (2005) derived from a *Flow Scale* published by CSÍKSZENTMIHÁLYI and LARSON (1984). It measures a general feeling of classroom settings and not a concrete situation. The subscale of boredom consisted of four statements with a Likert-type response scale that varied from 1 = almost never to 5 = almost always. Cronbach's alpha coefficient was 0.67 for this subscale. Descriptive statistics for these psychological variables can be seen in *Table 1*.

The SPSS program was used in the calculations with a maximum significance level of 0.05. The analysis begins with an examination of the descriptive statistics where t-tests were calculated for gender differences in study variables. Factor analysis with varimax rotation was conducted to detect the teachers' interpersonal styles using items on teacher behaviour as perceived by the students. Eigenvalues above 1 were applied as the point to stop extracting factors. In the final factor structure, factor loadings greater than 0.3 were included. Cronbach's alpha values of reliability and variance explained were calculated. In the further analyses saved factor scores were included by using ANOVA and t-tests. Finally, correlation coefficients were calculated for detecting bivariate relationships between perceived teacher behaviours and psychological variables (that is, aggressive behaviours, self-efficacy, and boredom).

3. Results

Table 1 provides descriptive statistics for psychological variables in this sample of Hungarian youth. There were no differences by gender in the mean scores of verbal or psychic aggression and boredom ($p > 0.05$), whereas boys scored higher on physical aggression and self-efficacy scales.

Table 1
Descriptive statistics for psychological variables by gender

	Boys (n = 234)	*Girls (n = 151)*	*Significance*
Verbal aggression			
Mean (SD)	15.8 (3.7)	15.7 (3.9)	$p > 0.05$
Physical aggression			
Mean (SD)	24.2 (7.2)	17.8 (6.1)	$p < 0.001$
Psychic aggression			
Mean (SD)	18.5 (5.5)	18.0 (4.8)	$p > 0.05$
Self-efficacy			
Mean (SD)	30.1 (4.5)	29.1 (3.7)	*$p < 0.05$*
Boredom			
Mean (SD)	1.7 (0.6)	1.7 (0.5)	$p > 0.05$

Note: Students' t-test.

Factor analysis was conducted to detect teachers' interpersonal styles (perceived teacher behaviours). The analysis provided a three-factor solution with good reliability values (Cronbach's alpha). Eigenvalues above 1 were applied as the point to stop extracting factors. Variance explained was 59.3 per cent. *Table 1* presents the final factor structure for this solution in which only factor loadings greater than 0.3 were included (Kaiser's criterion).

Table 2
Final factor structure for students' perception of teacher behaviour

My teachers…	*Autonomy-supportive behaviour (Eigenvalue = 3.0)*	*Directly controlling behaviour (Eigenvalue = 2.1)*	*Supportive behaviour inclined toward a 'laissez-faire' attitude (Eigenvalue = 2.0)*
		Factor loadings	
1. provide clear regulations and guidelines on how I should behave.	–	0.720	–0.320
2. are interested in my willingness to follow school regulations.	0.392	0.687	–
3. want me to follow their regulations all the time.	–0.420	0.677	–
4. define exactly what I can do and what I should not.	–	0.776	–
5. show me how to complete an assignment independently.	0.698	–	–
6. acknowledge my feelings when I feel something is unjust.	0.643	–	0.357
7. allow me to question their decisions.	–	–	0.669
8. provide me with a number of choices when working on an assignment.	0.601	–	0.363
9. accept it when I have my own opinion.	0.547	–	0.563
10. encourage me to question certain statements.	–	–	0.797
11. listen to my opinion as if I were an adult.	0.650	–	0.429
12. do not listen to my opinion.	–0.665	–	–
Cronbach's alpha	0.79	0.70	0.77
% variance	24.9	17.6	16.8

Note: Factor analysis with varimax rotation. Only factor loadings > 0.03 were indicated for interpretation

Table 3
Descriptive statistics for factor scores of teacher behaviours by sociodemographic and school variables

	Autonomy-supportive behaviour	*Directly controlling behaviour*	*Supportive behaviour inclined toward a 'laissez-faire' attitude*
Gender (Mean, SD)			
Boy	0.222 (1.037)	–0.558 (1.005)	0.009 (0.9915)
Girl	–0.03 (0.941)	0.087 (0.989)	0.088 (1.016)
Significance[a]	p > 0.05	p > 0.05	p > 0.05
Faculty (Mean, SD)			
Sports	–0.147 (0.920)	–0.079 (0.991)	0.023 (0.982)
Normal	0.190 (1.066)	0.101 (1.005)	–0.030 (1.025)
Significance[a]	*p < 0.05*	p > 0.05	p > 0.05
School year (Mean, SD)			
First	0.396 (1.042)	0.185 (1.035)	–0.064 (1.040)
Second	–0.130 (0.860)	–0.070 (0.946)	–0.017 (0.995)
Third	–0.226 (0.931)	–0.065 (1.011)	0.049 (0.975)
Fourth	–0.138 (1.028)	–0.129 (0.961)	0.052 (0.992)
Significance[b]	*p < 0.05*	p > 0.05	p > 0.05
Academic achievement (Mean, SD)			
D or E	–0.057 (1.072)	0.029 (1.032)	0.021 (1.080)
C	–0.122 (0.979)	–0.087 (1.021)	–0.069 (0.972)
A or B	0.232 (0.949)	0.117 (0.937)	0.095 (0.985)
Significance[b]	*p < 0.01*	p > 0.05	p > 0.05

Note: [a]Student's t-test; [b]Analysis of variance.

Factor 1 was labelled 'Autonomy-supportive behaviour' which is characterised by items on providing clear regulations and accepting student opinion as well as encouraging students to complete assignments independently. On the other hand, in this case teachers do not want their students to follow regulations all the time. They listen to students' opinion and pay attention to their willingness to follow regulations. Factor 2 was labelled 'Directly controlling behaviour'. This factor expresses the teacher's strong need for students to follow school regulations all the time, and teachers of whom this style is characteristic set out very precise rules and instructions. Finally, factor 3 was labelled 'Supportive but inclined toward a „laissez-faire" behaviour'. This factor dominantly includes supportive elements, but teachers do

not care whether students are willing to follow their regulations or not. This type of teacher behaviour is more related to acceptance and listening than to providing clear regulations. Since all of the three factors have satisfactory coefficients of reliability, saved factor scores were applied in subsequent analyses.

Table 3 displays the relationship between saved factor scores and other variables including sociodemographics (gender) and school-related variables (faculty, school year, and academic achievement). There were no gender differences in the level of factor scores for teacher behaviours ($p > 0.05$). However, those with a normal curriculum (in contrast with students of the sports faculty), first-year students (as opposed to years 2 to 4) and those with better marks (A or B, as compared to C, D, or E) reported more frequent autonomy-supportive behaviour from their teachers.

The results of calculated correlation coefficients for the relationships between psychological variables and factors of teacher behaviour are shown in *Table 4*. Autonomy-supportive behaviour was associated with decreased levels of verbal ($r = –0.15^{**}$) and psychic aggression ($r = –0.13^{*}$) and with an increased level of self-efficacy ($r = 0.14^{**}$). Teachers' directly controlling behaviour was positively associated with self-efficacy ($r = 0.11^{*}$). Finally, the supportive behaviour that was simultaneously inclined toward a „laissez-faire" attitude was correlated with a higher level of boredom ($r = 0.09^{*}$).

Table 4
Bivariate relationship between teacher behaviours and psychological variables (correlation analysis)

	Autonomy-supportive behaviour	*Directly controlling behaviour*	*Supportive behaviour inclined toward a 'laissez-faire' attitude*
Self-efficacy	0.14^{**}	0.11^{*}	–0.05
Boredom	–0.03	0.02	0.09^{*}
Verbal aggression	$–0.15^{**}$	0.09	–0.09
Physical aggression	0.03	–0.02	–0.02
Psychic aggression	$–0.13^{*}$	0.02	0.01

Note: Correlation coefficients $^{*}p < 0.05$; $^{**}p < 0.01$.

4. Discussion

The literature suggests that teachers' interpersonal styles vary and this has a deep, long-term impact not only on students' motivation to learn and their academic achievement and school climate (Assor et al. 2005; Stöber 2002; Israelashvili

1997; Reeve et al. 1999; Vansteenkiste et al. 2012) but also on their personality development (Wolfradt & Dalbert 2003), well-being, and mental health (Assor et al. 2005; Correira & Dalbert 2007; Vansteenkiste et al. 2012; Walsh et al. 2010). In particular, teachers' autonomy-supportive behaviour received considerable attention in studies since findings confirmed that students benefited the most when teachers supported their autonomy (Reeve 1998; Reeve et al. 1999). Autonomy support in class is more than encouragement of independence in completing assignments; rather, a carefully planned teacher behaviour that helps students develop intrinsic motivation and creative competence (Vansteenkiste et al. 2012). On the other hand, research found that teachers' directly controlling behaviour undermined intrinsic motivation and might have detrimental effects on children's development (Assor et al. 2005). Therefore, we intended to detect teacher behaviour (as perceived by the students) among high school students and tested its possible relationship with certain sociodemographic, school-related and psychological variables.

Using factor analysis we detected a three-factor solution for teachers' interpersonal styles: a factor called 'Autonomy-supportive behaviour', another one labelled as 'Directly controlling', and a final one named 'Supportive behaviour' inclined toward a 'laissez-faire'. Previous results indicated only two factors, regulation-oriented (controlling) and autonomy-supportive behaviour (Stöber 2002; Jámbori 2007). However, it seems there is a need to differentiate between autonomy support that may be experienced by students as truly competence-supportive teacher behaviour and an interpersonal style which also has supportive elements but lacks interest in students' willingness to follow teacher's regulations (Vansteenkiste et al. 2012).

Our hypotheses (autonomy-supportive orientation might have a positive role, whereas directly controlling behaviour has the opposite) were partly confirmed. First, our findings showed that autonomy-supportive behaviour was associated with decreased levels of verbal and psychic aggression, and an increased level of self-efficacy. These results are in concordance with previous research results (Assor et al. 2005; Correia & Dalbert 2007; Donat et al. 2012; Kamble & Dalbert 2012; Vansteenkiste et al. 2012; Walsh et al. 2010). In addition, those with higher academic achievement (better marks) also reported more autonomy support from their teachers. This finding is also similar to previous research results (Kamble & Dalbert 2012; Peter et al. 2012). There were no gender differences in the perception of teacher behaviour. However, first-year students reported being given more autonomy by their teachers; this may be due to older students' greater openness to criticism towards their teachers or their greater need for autonomy.

On the other hand, we have also found that teachers' directly controlling behaviour did not play a negative role in students' well-being; on the contrary, it was positively correlated with self-efficacy. Previous research findings supported a detrimental influence of this teacher behaviour (Assor et al. 2005). To our best knowledge, no previous studies in Hungary have investigated this relationship thus far. However, previous studies found that parental control and demandingness might

serve as protection against substance abuse and as a source of well-being for those whose parents continued to provide parental monitoring; this suggests that there is a need for demandingness and parental control even in this age period (Pikó & Balázs 2012; Roche et al. 2008). In addition, a previous study from Egypt suggested that an authoritarian rearing style within an authoritarian culture did not have such detrimental consequences as the same within a liberal culture (Dwairy & Menshar 2006). Since Hungary is a post-socialist country with a long-standing experience of an authoritarian social structure, school climate may still be dominantly authoritarian where autonomy support has not received considerable attention thus far (Pikó 2002). Nevertheless, authoritarian guidelines may be detrimental for long-term personality development; however, it may be beneficial in some aspects, such as effectiveness of learning/teaching. These findings suggest that these interrelationships may be context- and culture-specific, and more research is needed for further clarification.

Finally, we have also found that a supportive teacher behaviour that was inclined toward a 'laissez-faire' attitude was associated with a higher level of boredom. This finding is not surprising; whereas teachers' supportive behaviour and their acceptance of and listening to students' feelings (that is, providing emotional support for them) are important aspects of students' well-being, they do need clear regulations (Pikó & Balázs 2012). This type of teacher behaviour may not provide enough motivation for students, therefore it may lead to boredom (Nett et al. 2011).

All in all, our results provide further evidence that autonomy support from teachers seems to be the most beneficial in terms of students' academic achievement, well-being, and psychological health. We must also add here that our findings suggest that we should take the specific cultural context into account, such as society's experiences with democratic or authoritarian principles, since these may influence not only teacher behaviours but also students' perception of them. While these findings provide further support for the role of teachers' interpersonal style in school climate, the cross-sectional study design and self-reported and indirect data on teacher behaviours may be viewed as limitations. Although the specific cultural context may restrict our data from generalisability, we also believe that this is also the strength of the paper since there are relatively few studies on similar issues from a post-socialist country like Hungary. All in all, we believe that our findings make a valuable contribution to our understanding of the nature of teacher behaviour and its role in youth's well-being.

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