Determinants of verbal aggression, physical violence, and vandalism in schools. Results from the „Nuremberg pupils survey 1994: Violence in schools.“

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1 Introduction

1.1 The federalised structure of education in Germany

The Federal Republic of Germany is a democratic welfare state (see Article 20 of the German Constitution) with a federal structure. Article 7 of our Constitution places the entire education system under government supervision, while Articles 70-75 confer „cultural and educational sovereignty“ - and thus overall responsibility for education policy - on the individual Länder. Since the incorporation of the former German Democratic Republic on 3 October 1990, Germany has consisted of 16 Länder, each with its own separate education policy. This federalised structure is reflected not only in different views (largely determined by party policy) concerning the organisation of schools and the content and goals of education, but also in correspondingly different approaches to the issue of violence in schools.

1.2 Violence in schools as a social problem

In recent years there have been increasing reports in the German media about increasing brutality and violence among school pupils. This media exposure has rapidly revealed shortcomings in educational and sociological approaches to the issue of violence in schools, and has prompted calls for up-to-date empirical studies. However, this is not an entirely new issue. But until a few years ago, there were no up-to-date scientific data on the current scale of the problem, and in particular there were no data to support the repeated claims in the media that violence in schools is on the increase. The last major empirical findings in the mid-eighties did not lead to comparable follow-up studies which might have allowed scientifically substantiated conclusions to be drawn as to whether violence in schools is increasing or decreasing.

The topic of violence in schools returned to scientific discussion with the work of the German Independent Government Commission on the Prevention and Control of Violence, the so-called „Violence Commission“ (see Schwind et al. 1990). This Commission came to the conclusion „that there is no evidence of a continuous increase in aggressive behaviour among pupils in German schools“ (Schwind et al. 1990: 71). However, the renewed focus on the

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2 This means that the individual Länder are assigned primary legislative and administrative responsibility in the fields of education, culture, science and research (see Secretariat of the standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany 1997: 33).
issue of violence in the school setting has led to the widespread initiation of new research projects on the subject.\footnote{For a current state-of-the-art-report of the German research on „violence in schools“, see Funk 1997.}

\section{Description and analysis}

To date there have been no quantitative studies representative of Germany as a whole on the issue of violence in schools. The topicality of this issue has admittedly led to a series of local and regional surveys on the subject among head teachers, teachers, pupils, parents, etc.\footnote{For a list of these surveys, with an appraisal of the methodology, see Krumm (1997). The theoretical underpinning of the surveys is examined in Holtappels (1997).} However, partly because classroom research of this kind is necessarily subject to ministerial approval at Land level, such surveys have always been limited to the Länder concerned and can therefore only provide evidence about individual Länder, or in some cases only about certain local authorities.

\subsection{Definitions}

While the key concepts in the literature in languages other than German are „bullying“ and „anti-social behaviour“, the debate in Germany has centred on the concept of „violence“.\footnote{In fact, in the current German version of Olweus the verb „to bully“ is actually translated as „mobben“ („to victimise“) and the noun „bully“ as „Gewalttäter“ („perpetrator of violence“) (see Olweus 1996: 11). For a short summary of the German research on „bullying“ see Funk (1998).} Innumerable diverse definitions of „aggression“ and „violence“ can be found in the literature.\footnote{Schubarth (1993: 31) has noted a broadening, differentiation and pluralisation of the concept of violence in recent years.}

Current German studies of violence in schools tend to use the definition provided by Hurrelmann in his special report to the Violence Commission:

„Violence in schools comprises the entire spectrum of activities and acts which result in physical and mental pain or injury to individuals operating in the school setting, or the aim of which is to damage objects on school premises“ (Hurrelmann 1990: 365).

This broad definition covers acts of physical violence and verbal or psychological forms of violence - including threatening or sexist - that are committed by or directed at pupils, teachers or other individuals, as well as violence directed at property (vandalism). This relatively
abstract definition has been made more specific operationally in empirical studies, i.e. by inquiring about specific acts occurring in the school setting.

2.2 Nuremberg Pupils Survey 1994: Violence in Schools

This presentation draws on results from the „Nuremberg Pupils Survey 1994: Violence in Schools“. In this study 1,458 pupils from the 7th, 8th, and 9th classes out of lower secondary schools (Hauptschule), intermediate secondary schools (Realschule), and higher secondary schools (Gymnasium) were interviewed in spring 1994. The sample consists of 62 classes out of 38 schools and is representative of the city of Nuremberg (Nuremberg is located in the northern part of the Federal State of Bavaria and has approx. 500,000 inhabitants).

In the Nuremberg Pupil Survey 1994: Violence in Schools, pupils were asked how often they themselves had committed 20 specific acts of aggression or violence during the previous half of the school year.

Figure 1 summarizes the respective results: Calling other pupils names or subjecting them to verbal abuse was quite clearly the commonest act of violence or transgression (boys 82.9%, girls 74.1%). This finding, which confirms the predicted high frequency of verbally aggressive behaviour patterns, has also emerged in other studies. Fighting with another pupil (boys 48.4%, girls 15.8%), spreading lies about pupils (boys 40.9%, girls 23.0%), verbally abusing teachers, whether or not to their face (boys 35.6%, girls 32.4%), and damaging (boys 40.1%, girls 27.7%) or dirtying (boys 32.0%, girls 31.6%) school property were also common transgressions. The following transgressions, in contrast, were mentioned relatively rarely: sexually harassing other pupils (boys 6.2%, girls 1.6%), threatening them with weapons (boys 3.9%, girls 0.9%) and in particular sexually harassing teachers (boys 3.1%, girls 0.9%) or threatening them (boys 3.0%, girls 1.2%).

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7 This survey was authorized by the Bavarian State-Ministry for Education, Culture, Science, and Arts (AZ III/9-04106-8/47 124) on 4 April 1994. I would like to express my thanks to the Hans Frisch-Foundation, the Dr. Alfred Vinzl-Foundation, the club „Teacher’s Home Nuremberg“, the Department for Schools and Culture of the city of Nuremberg as well as the Savings Bank of the city of Nuremberg for the financial support of this research. I also thank the students of the seminar „violence in schools“ for their dedicated collaboration. For a theoretical introduction to this study and its methodology, see Funk (1995a).
Using factor analysis, the reported transgressions and acts of violence are summarized under the following four headings (see Figure 2):

- telling lies and name-calling / verbal aggression;
- fighting / physical violence;
- vandalism; and
- threats involving weapons or sexual harassment.

Over three-quarters of the girls in the Nuremberg study (77.3%) and nine out of ten of the boys (86.9%) admitted having lied to other pupils or called them names. More than half of the boys (53.1 %), but only one girl in six (17.7%), admitted to having been involved in fights. Over half of the boys (57.7%) and nearly half of the girls (45.4%) admitted to having committed acts of vandalism, and as many as one boy in ten (10.8%) - but fewer than one girl in twenty (3.6%) - reported having threatened others with weapons or having sexually harassed other pupils (see Funk 1995b: 52).
Victim experiences" in schools

On the basis of statements by pupils, the Nuremberg Pupils Study distinguished between "victim experiences" of a verbal kind (being verbally abused, lied about, called names or insulted) and those of a non-verbal kind (being beaten up, bullied, threatened with weapons or sexually harassed) (see figure 3). While girls (81.4%) claimed notably more often than boys...
(75.2%) that they had suffered verbal abuse and also sexual harassment (girls 5.8%, boys 3.7%), in the case of all other offences it was boys who reported „victim experiences“ more often than girls (Funk 1995b: 54).8

Research on violence in schools knows that perpetrators of violence often report corresponding victim experiences of their own, and vice versa. This finding is backed up by the correlations between (a) lying about other pupils or calling them names and (b) being lied about or called names by other pupils (with a Pearson r = .39), and between (a) beating up other pupils and (b) being beaten up oneself (r = .31) in the Nuremberg Pupils Study (Funk 1995b: 59).9

1.3 Supposed causes of violence in schools

In a very broad view, Hurrelmann seeks the causes of violence among pupils wherever a „clear reduction in self-esteem and in opportunities for later personal development [is] perceived“ (1990: 368).

In my own research I identify the following specific factors as influencing young people’s readiness to use violence: individual personality traits, family background, peer group, school, and exposure to media (see Funk 1995a: 13ff. as well as figure 4). The Nuremberg Pupils Survey 1994 follows a structural-individualistic approach, focusing theoretically on the acting person (that is the pupil) but also considering the structural aspects of the embeddedness of the pupil in relevant social relations (see Büschges et al. 1998).

Figure 4 draws attention on the interdisciplinary view emphasizing

- the acting pupil (demography, attitudes, personal characteristics),
- it’s social relation to others outside school (family10, labour participation in the context of the household, peers, etc.),
- it’s social relation to others inside school (fellow pupils, teachers),

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8 Boys vs. girls: „Called names/verbally abused“, 69.5% vs. 57.1 %; „Lies spread about me“, 58.7% vs. 51.6%; „Beaten up“, 19.2% vs. 5.5%; „Blackmailed“; 8.9% vs. 6.6%; „Beaten up by a gang“, 7.0% vs. 1.6%; „Threatened (with a weapon)“. 4.8% vs. 1.4% (see Funk 1995b: 54).

9 Since almost all empirical studies are designed as cross-sectional studies, i.e. the questions are only asked at a single moment in time, no conclusions can be drawn about the direction of causality - in other words, it is not possible to conclude that pupils only become violent after having had victim experiences of their own.

10 Problem factors in the young person’s family background include: poor family relationships („Jack of warmth“); parental separation and divorce; absence of siblings; poverty and deprivation; a changeable, aggressive, over-strict or over-permissive parental approach to upbringing; lack of supervision; the parents (or single parent) being away at work; etc.
Figure 4: Social relations and settings with predictors of violent actions

2 Determinants of Verbal Aggression, Physical Violence, and Vandalism in Schools

Let's now ask for the determinants of verbal aggression, physical violence, and vandalism in schools and consider them as dependent variables in multiple linear regression analyses
The independent variables I consider are located on the „levels“ or in the „spheres“ I already introduced: that is the person itself, the social context of his family, his peer group the housing conditions, the school situation, the media consumption, and the nationality. Please note, that this kind of analysis explicitly assumes a certain direction of influence, that is: independent variables influencing dependent variables. As you may see, this assumption is not always clear and without doubt.

2.1 Determinants of Lying and Name Calling

First let’s have a look at the column explaining the verbal aggression of pupils, or in other words the lying and name calling (see figure 5). Obviously on the level of the pupil itself, his approval of violence, his sex (that is being male) and his need for stimulation significantly intensify his verbal aggression. Good relations to the parents on the other hand have a lowering influence on lying and name calling. The more violent his peer group the more a pupil is lying and calling names on others. Good relations between teachers and pupils again have a lowering influence on lying and name calling. The same is true for being a foreigner. Speaking statistically, 26.6% of the variation of the factor „lying / name calling“ on the level of the individual pupils can be explained by the combination of the independent variables introduced.

2.2 Determinants of Fighting / Physical Violence

A look at the column explaining the fighting or physical violence of pupils (see figure 5) reveals the following significant causal relations: On the level of the pupil itself, again his approval of violence, and also his readiness to act violently significantly intensify his involvement in fighting. While older pupils seem to be less involved in fights, boys again significantly act more violently. Also, the need for stimulation again significantly intensifies the fighting of a pupil. Since no significant determinants can be found on the family level, naming peers or single friends as being most important both lowers the score on the index of fighting or physical violence. Again, the more violent his peer group the more a pupil is involved in fights. Also again the good relations between teachers and pupils have a lowering influence on physical violence. And, last but not least, visiting a lower secondary school is intensifying

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13 Since the fourth factor reported, that is „threats involving weapons or sexual harassment“ is not distributed like a bell curve, no multivariate analyses may be computed with this factor.

14 The residual category of the original variable was „friends in clubs [Vereinen]“. This means, that the characteristic „friends in clubs“ is supposed to intensify the pupil’s involvement in fights.
the pupil’s involvement in fights. With the independent variables introduced, about 39.3% of the variation of the index „fighting“ can be explained.

2.3 Determinants of Vandalism in Schools

Finally, vandalism in schools shall be explained. As you can see in figure 5, again both a pupil’s approval of violence and his readiness to act violently significantly intensify his violent actions against school equipment. The older a pupil the more he commits acts of vandalism. As already known from both of the aspects of violence against persons, the need for stimulation again intensifies the extent of vandalism. But as a new significant predictor, conscientiousness is significantly lowering it. The same is true for a good relationship to the parents. Also already well known is the intensifying effect of violent peers on committing acts of vandalism. The more a pupil sees possibilities for participation (or co-determination) in school, the less he commits acts of vandalism. This surely gives school experts a convenient instrument for the prevention of violence in schools. Quite an interesting aspect is displayed by the effect of the school level: Visiting a lower secondary school or an intermediate secondary school both lowers the acts of vandalism at schools. With grammar schools being the residual category, this means that pupils visiting grammar schools are significantly more vandalizing the school premises. A new significant predictor intensifying vandalism in schools is the consumption of films and videos with horror elements. Finally, foreign students seem to vandalize less than their German counterparts.

3 Summary of the results and conclusions

3.1 Summary of the regression results

As a result of this regression analyses the following aspects should be emphasized:

There is a strong link between attitudes, that is „approval of violence“ and „readiness to act violently”, and overt aggressive or violent behaviour of pupils.

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There are some ad hoc explanations possible for this surprising finding: One might assume a stronger shyness among pupils at grammar schools to act violently against other pupils. Or one might assume that in grammar school there is just a better opportunity structure, this means there are just more things (computers, overheads, etc.) to damage or vandalize. After all, I have to admit that this are just vague assumptions.
Figure 5: Significant regression results of verbal aggression, physical violence, and vandalism of pupils

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Lying / Name calling</th>
<th>Fighting</th>
<th>Vandalism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>Beta</td>
<td>Beta</td>
</tr>
<tr>
<td>Person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approval of violence</td>
<td>.1202 ***</td>
<td>.1523 ***</td>
<td>.0973 **</td>
</tr>
<tr>
<td>Readiness to act violently</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of the pupil</td>
<td>-.0661 **</td>
<td>.0728 **</td>
<td></td>
</tr>
<tr>
<td>Sex of the pupil</td>
<td>.1227 ***</td>
<td>.2147 ***</td>
<td></td>
</tr>
<tr>
<td>Social isolation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need for stimulation</td>
<td>.1035 ***</td>
<td>.0634 *</td>
<td>.1133 ***</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td></td>
<td></td>
<td>-.1597 ***</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controlling upbringing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assisting upbringing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good relationship to parents</td>
<td>-.1001 ***</td>
<td>-.1011 ***</td>
<td></td>
</tr>
<tr>
<td>Single parent household</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peers most important</td>
<td>-.1000 ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single friends most important</td>
<td>-.1131 ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship to peers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violence of peers</td>
<td>.2690 ***</td>
<td>.2182 ***</td>
<td>.1783 ***</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of flat/house</td>
<td>.0927 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of town/suburb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pupil-pupil-relation</td>
<td>-.1388 ***</td>
<td>-.0613 *</td>
<td></td>
</tr>
<tr>
<td>Teacher-pupil-relation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School problems</td>
<td></td>
<td>-.0804 **</td>
<td></td>
</tr>
<tr>
<td>School participation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower secondary school</td>
<td>.0967 ***</td>
<td>-.1812 ***</td>
<td></td>
</tr>
<tr>
<td>Intermediate secondary school</td>
<td></td>
<td>-.1593 ***</td>
<td></td>
</tr>
<tr>
<td>Media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media: action</td>
<td>-.0559 *</td>
<td></td>
<td>-.0543 *</td>
</tr>
<tr>
<td>Media: horror</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign nationality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>.4181 **</td>
<td>.1029</td>
<td>.1239</td>
</tr>
<tr>
<td>Multiple R</td>
<td>.52118</td>
<td>.63153</td>
<td>.56202</td>
</tr>
<tr>
<td>R Square</td>
<td>.27163</td>
<td>.39883</td>
<td>.31587</td>
</tr>
<tr>
<td>R Square Adjusted</td>
<td>.26607</td>
<td>.39309</td>
<td>.30804</td>
</tr>
</tbody>
</table>

Source: Nuremberg Pupils Survey 1994: Violence in Schools

1) * = significant on the 95%-level; ** = significant on the 99%-level; *** = significant on the 99.9%-level.
Clearly, the quality of the social relations has an impact on the three factors of aggressive or violent behaviour in school: The better the social relations towards the parents or the teachers, the less violent actions are reported by the pupils.

This influence is hardly transferable to the peer group relations since aggressive pupils can have good relations to violent gangs as well as less aggressive pupils can have good relations to non-violent peer groups. However, what can be said without doubt is, that the more violent the peer group is, the more violent the single pupils behaves in school. But even though this is the strongest predictor for „lying / name calling“ and „fighting“, the direction of influence in this case is not at all clear. We do not really know whether a violent peer group influences a pupil to commit more violent actions or if a violent pupil is just looking for like-minded violent peers!

The influence of age towards aggression or violence is not the same for all aspects of aggression or violence.

Clearly, boys are more aggressive and violent than girls.

It is really hard to proof the influence of the media on aggressive or violent behaviour of pupils, since regression analyses report so called isolated or partialized coefficients, holding all other influences constant. Researchers expect media influences in social situations where there is a cumulation of problematic aspects in social relations or the embeddedness of a pupil. These cumulations would have to be modelled via so called interaction terms.

3.2 Which conclusions can be drawn from this results?

In my opinion only interventions or prevention activities on multiple levels are likely to succeed in tackling the different aspects of aggression and violence in the school setting. Other research I have not presented today, clearly refers on the class and the school context of a pupil (see Funk and Passenberger 1997 or Mooij 1996). Violence in school is not an isolated problem of the schools. School life is just a part of a pupils life. Boys and girls also are embedded in other social contexts of which influences of different quality must be considered in action plans to tackle violence in schools. Obviously the social relations and the improvement of school participation are a most promising point of departure for adequate prevention activities since they are most easily to influence.
Literature


Hurrelmann, Klaus. 1991. „Wie kommt es zu Gewalt in der Schule und was können wir dagegen tun?” *Kind, Jugend und Gesellschaft*, vol. 36, no. 4: 103-108.


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