

## **MMPI-2 configurations among victims of bullying at work**

Stig Berge Matthiesen and Ståle Einarsen

*Section of Work and Organizational Psychology,*

*Department of Psychosocial Science,*

*University of Bergen, Norway*

Bullying at work, the systematic exposure to psychological violence and harassment in the workplace, places a serious strain on many employees. The aim of this study was to investigate psychological correlates of bullying among former and current victims using the MMPI-2. A total of 85 individuals, recruited among members of two Norwegian associations of bullying victims, participated in the study. Two hypotheses were tested: (1) Bullied victims have an elevated personality profile on the MMPI-2, although different kinds of personality profiles may be distinguished; (2) the personality profiles of the victims are related to the type of behaviour and the intensity of the behaviours experienced by the victim. Both hypotheses were confirmed. The study demonstrated, using cluster analysis, that the sample of bullied victims can be divided into three personality groups (“The seriously affected”, “The disappointed and depressed”, and “The common”). The elevated 3-2-1 personality profile was most typical. Surprisingly, the victims of the common cluster reported the highest level of exposure to bullying, suggesting a vulnerability factor among the other victims. The scores on the new MMPI-2 Content scales were also analysed. The seriously affected group reported a high level of generalized anxiety, fear of specific incidences, and many health concern worries.

Bullying in the workplace has been described as “the research topic of the 1990s” (Hoel, Rayner, & Cooper, 1999). The relevance of the bullying concept has not been weakened by the onset of the 21st century. Bullying as an extreme form of social distress has been claimed to be the cause of more invalidism and trauma

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Requests for reprints should be addressed to S. Berge Matthiesen, University of Bergen, Department of Psychosocial Science, Christiesgate 12, N-5015 Bergen, Norway. Email: stig@uib.no

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than all other sources of work-related stress taken together (Wilson, 1991). A number of definitions of the concept of "bullying" in the workplace have appeared in the literature. In an American clinical case study dating from the 1970s, a psychiatrist defined bullying or harassment as persistent attempts on the part of one person to annoy, wear down, frustrate, or elicit a reaction from another (Brodsky, 1976). It is behaviour that continually provokes, presses, frightens, humiliates, or in some other way creates unpleasantness in the target. Leymann (1996) describes bullying as hostile and unethical communication systematically directed at one or more persons. What has gradually become the most common definition of bullying focuses on negative actions occurring repeatedly over a certain period of time, and from which the person affected finds it difficult to protect him- or herself (Einarsen, 2000; Einarsen, Raknes, & Matthiesen, 1994). Hence, there must be an imbalance of power between the parties involved in bullying. It is, consequently, not bullying if two more or less equally "strong" persons come into conflict, or when only an isolated instance has occurred. Such bullying seems to develop gradually, the core being the victim's experience of being exposed to systematic, continual, and partly intentional aggression in a situation (in this case, the workplace) in which such behaviour ought not to occur (Einarsen, 1999).

Bullying may either take a direct form, such as verbal abuse, or be indirect (e.g., libel and slander, the withholding of information, etc.). We may also distinguish between work-related actions that make it difficult for the victim to carry out his or her work or involve taking away some or all of the responsibilities on one hand, and actions that are primarily person related on the other (Einarsen, 1999). Spreading rumours, libels, ignoring opinions, teasing/insolence, and undesired sexual approaches are all examples of the latter. In a study among 138 Norwegian victims of bullying, three main types of bullying behaviours were described: (1) social and/or organizational exclusion, (2) being blamed for poor work performance, and (3) hurtful teasing, jokes, and ridicule (Einarsen, Raknes, Matthiesen, & Hellestøy, 1994).

Single occurrences of negative acts may in themselves be common in working life, and may be more or less harmless (Leymann, 1990). However, to the extent that they are systematically and continually aimed at a particular person, and to the extent that the victim feels defenceless against the actions or the persons performing them, they become acts of bullying and create a situation capable of threatening the victim's physical and psychological health. In a study of 450 male industrial workers, no less than 88% had experienced at least one type of negative and unwanted action in the course of the previous 6 months. However, people who systematically experienced being exposed to such treatment reported significantly poorer psychological health than those who only experienced it now and again (Einarsen & Raknes, 1997). According to Niedl (1995), a person who is exposed to aggressive actions will feel bullied only if he or she experiences these actions as hostile, unpleasant, degrading, and aimed

directly at him- or herself. If the person feels incapable of defending himself or is unable to flee from the situation, serious health problems may occur. Actions that the victims experience as personally insulting seem to have particularly negative consequences for their health (Niedl, 1996).

Various organizational and social conditions have been found to correspond with interpersonal conflicts (van de Vliert, 1998) and bullying (Einarsen, 1999), including differences in values between members of a group and between members of a group and their superiors (Jehn, 1994). The work environment hypothesis has gained support in research (Einarsen, Raknes, & Matthiesen, 1994), in as much as bullying has been found to correlate with dissatisfaction with management, role conflicts, and a low degree of control over one's own work situation. A situation with high demands on co-operation requirement, combined with limited control of working time, appear to be factors that contribute to bullying, as conflicts are more likely to remain unsolved and may, therefore, likely escalate into bullying (Zapf, Knorz, & Kulla, 1996).

The personality hypothesis has been relatively little studied with respect to bullying. However, victims of bullying at work have been shown to portray a poor self-image as well as being anxious in social situations (Einarsen, Raknes, Matthiesen, & Hellesøy, 1994). Victims of bullying have also been described as conscientious, literal-minded, somewhat simple and straightforward, and as overachievers with an unrealistic view both of their own abilities and resources and of the demands made by particular situations (Brodsky, 1976). In another study, Vartia (1996) demonstrated a significant relationship between bullying and personality factors such as neuroticism and a negative self-image. In a study of 60 Irish victims of bullying, using a comprehensive measure of personality based on a five-factor model, Coyne, Seigne, and Randall (2000) found victims to be less extroverted and independent than a control sample of non-victims, as well as more unstable and conscientious. After studying a number of victims of bullying, Thylefors (1987) claimed that they could be characterized by the fact that in conflict situations they reacted by becoming more active and aggressive than others.

However, studies that have examined the relationship between bullying and personality, and that have utilized more comprehensive measures of personality, are few. One exception is Gandolfo's (1995) study of Americans who claimed compensation from insurance companies for harassment in the workplace. In this study ( $N = 47$ ) the victims' personality profiles were studied by means of the MMPI-2 and compared with those of a control group. The control group consisted of 82 persons who were claiming compensation without experiencing harassment. In five of the ten personality dimensions an elevated personality profile ( $t > 65$ ) was identified in the victims of bullying, indicating severe psychological and emotional disturbance. The results for the non-harassed group were similar on four of these five scales in the Gandolfo study, hence indicating that there was no significant difference between harassed and non-harassed.

Other components of their personality profile included depression and a tendency to convert psychological stress into psychosomatic symptoms. Gandolfo's study did not report what kinds of harassment the victims had experienced, who the perpetrators were, conditions in the workplace, or the like. In a recent longitudinal study among schoolchildren, the tendency to internalize problems contributed uniquely to gains in victimization over time (Hodges & Perry, 1999). Whether this personality factor is pronounced among adult victims as well is an important but not yet thoroughly investigated research question.

The suggestion that exposure to bullying may be related to the personality of the victim is a controversial point of view within the academic debate. Leymann (1996) claimed that there are no personality differences between victims and other workers, and thus categorically rejects the idea that the personal characteristics of the victim are capable of playing any part in the development of bullying. Both bullies and victims' colleagues frequently report that the personality and manners of the victim are important factors in explaining why the victims are bullied (Einarsen, Raknes, Matthiesen, & Hellesøy, 1994). Even if the victim's personality cannot explain a bully's behaviour, it is obvious that it will have some influence on how he or she experiences and interprets incidents at work, as well as the possibility of mastering the problems experienced there (Einarsen, 2000). Although the experience of being exposed to social exclusion may be based on a real situation, such an experience does not represent an objective description of the environment irrespective of the personality of the individual (Lakey, Tardiff, & Drew, 1994). The experience of being bullied is a result of a cognitive process of evaluation. We must assume that such a process is affected by personality variables as well as situational variables. In a study of how women reacted to what they all experienced as sexual harassment, those who had a weak belief in their own coping resources and those who portrayed many inappropriate beliefs regarding interpersonal relations (dysfunctional attitudes), reacted more emotionally to incidents of sexual harassment than other women (Einarsen, Lillebråten, & Roth, 1998). A study of negative social interactions in organizations found that the relationship between this and psychological discomfort disappeared if personality factors such as self-esteem, locus of control, and dysfunctional attitudes were controlled for (Lakey et al., 1994). Hence, the following hypotheses were put forward and tested in the present study.

*Hypothesis 1.* Victims of bullying have an elevated personality profile showing a tendency to emotional and psychological disturbance on a wide range of personality factors. The hypothesis aims to verify or reject the findings of Gandolfo's (1995) study in the context of a Norwegian culture and among a group of victims of bullying who have not necessarily sought medical, psychological, or legal support. In a study of German victims of bullying, Zapf identified two categories of victims: a group that could not be distinguished from

most other workers, and a group characterized by neuroticism and poor social skills (Zapf, 1999). Based on clinical interviews, Brodsky (1976) also claims that victims are characterized by various personality disorders. Hence, we believe that a sample of victims may be grouped into different clusters on the basis of personality configurations.

*Hypothesis 2.* The personality profiles of the victims are related to the type of behaviour and the intensity of the behaviours they have experienced. We anticipate that persons who have experienced different kinds of bullying, be it in terms of intensity or the kind of behaviour involved, will portray different personality profiles. In connection with this hypothesis we looked at relationships between the main dimensions of the MMPI-2 (clinical scales), and the degree and type of bullying experienced. Victims who report a high frequency of experienced bullying and behaviours that may be characterized as personal derogation, will portray an especially elevated MMPI-2 profile. Both Einarsen and Raknes (1997) and Zapf et al. (1996) have shown that the experience of personal attacks have a stronger correlation with mental health variables in victims than behaviours that are work related.

## METHOD

### Participants

A questionnaire was mailed to some 180 members of two support associations for victims of bullying at work. The questionnaires were distributed by the support associations, and returned directly to the authors. A total of 85 persons returned the questionnaires. All of them confirmed that they were victims of bullying at work; 22% of the participants were still suffering from bullying at the time of the study. All participants described how they were subjected to a series of negative actions at work over a long period of time. The mean age of the sample was 51 (range 30–74). Women made up 77% of the sample. Although most sectors were represented in the sample, most of the participants had worked or were working in the office/administrative sector (39%), health care (27%), or teaching (13%). A minority was still working (38%), with 16% on sick leave, 11% unemployed, and 8% retired; more than a quarter (27%) were in receipt of a disability pension. The sample had a relatively high educational level, in that 60% had a university or college degree, and 29% had finished high school or vocational training.

Twenty-two per cent of the respondents reported on-going bullying at the time of the survey, and another eight per cent reported that the bullying had continued up to a point within the last 6 months. Among 32% of the sample said the experienced bullying had ceased more than 5 years ago, 7% was bullied 12 months ago, 10% was bullied 1–2 years ago, and 23% were bullied 2–5 years ago. Sixty-two per cent of the victims reported that they had been bullied for a

time period of more than 2 years, while 24% were subjected to bullying for a time period of 1–2 years. Eighty-five per cent of the sample was bullied by their supervisors or managers, whereas 50% were bullied by colleagues. Many of the victims reported to be bullied by more than one other person.

## Questionnaire

*MMPI-2.* The personality of the victims was measured by means of the MMPI-2. The first edition of the MMPI was developed in the 1940s as a complex psychological instrument designed to diagnose mental patients into different categories of neurosis and psychoses (McKinley & Hathaway, 1943). Since that time its use has extended to all kind of settings, including employment agencies, university counselling centres, mental health clinics, schools, and industry (Duckworth & Anderson, 1995). MMPI consists of 566 items. Although the measure can be divided into a considerable number of subscales (more than hundred), the most typical use of MMPI is to evaluate the overall profile configuration of the 10 clinical scales, in particular the combination of the two or three scales with highest scores. Three validity scales are also part of a standard interpretive procedure of MMPI. Thus, 10 clinical scales and three validity scales are included in most graphical presentations of the MMPI profiles. *T*-scores are most commonly used in MMPI evaluation (standardized scores, in which the scores of the original, norm group, indicating normality, are set to 50 on each of the MMPI scales).

The clinical scales in MMPI are: Scale 1 (Hs, Hypochondrias), scale 2 (D, Depression), scale 3 (Hy, Hysteria), scale 4 (Pd, Psychopathic deviate), scale 5 (Mf, masculine-feminine interests), scale 6 (Pa, Paranoia), scale 7 (Pt, Psychasthenia), scale 8 (Sc, Schizophrenia), scale 9 (Ma, Mania), and scale 0 (Si, Social introversion–extroversion). The validity scales are as follows: L (Lie scale), F (Infrequency or feeling bad scale), and K (Correction scale). Modern comprehension of the symptoms and the clinical content reflected in several of the main MMPI scales have been modified throughout the years, even if the old labels have been retained. A consequence of the somewhat outdated clinical labels of the MMPI main scales (e.g., the application of the psychopathic deviate and psychasthenia concepts), is that most clinical journals usually only refer to the numbers, not the labels, of the main scales.

A revised version of MMPI, named MMPI-2, was introduced at the end of the 1980s (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989). Several items were replaced and others were modified. MMPI-2 was also standardized using a more representative norm group. The MMPI-2 operates with a *t*-value of 65+ indicating an elevated score (Graham, 1993) This cut-off score indicates distinct psychological problems or pathology. MMPI-2 contains several new clinical scales in addition to the original 10 main scales. Some of the most important ones are 15 scales created by a procedure that combined rational and

statistical methods, labelled MMPI-2 Content scales (Butcher, 1990). Twenty-two clinical relevant areas were identified, and thereafter refined into 15 scales, e.g., Type A behaviour and Self-esteem. The Content scales are believed to have higher face validity and to reflect more homogenous clinical concepts than many of the predecessors in MMPI-1, according to Butcher. Both the traditional clinical scales and the new content scales are used in the present study.

MMPI-2 has been translated into Norwegian, and it has been thoroughly tested (e.g., Ellertsen, Havik, & Skavhellen, 1996; Ubostad & Ellertsen, 1999; Young & Ellertsen, 1991). A Norwegian control group (soldiers) has been shown to have a profile that is very similar to the American norm group, which indicates that the American norm data may be used as a control for Norwegian samples (Ellertsen et al., 1996).

*Bullying.* Bullying was measured using the Norwegian version of the Negative Acts Questionnaire (NAQ; Einarsen & Raknes, 1997; Einarsen, Raknes, Matthiesen, & Hellestøy, 1994). First, the participants were presented with a definition of bullying and asked whether they had experienced such bullying. The definition they were presented were as follows: "*Bullying takes place when one or more persons systematically and over time feel that they have been subjected to negative treatment on the part of one or more persons, in a situation in which the person(s) exposed to the treatment have difficulty in defending themselves against them. It is not bullying when two equal strong opponents are in conflict with each other*". They were then asked to indicate which, of a total of 22 types of specific bullying actions they had experienced while at work, and how often these had occurred (never, occasionally, weekly, or daily). The NAQ score of each person was also summed up to a total score of the intensity of the experienced bullying behaviours. Two subscales were also created based on the factor analysis reported in the Einarsen and Raknes study (1997), labelled "personal derogation" (nine items) and "work-related harassment" (three items), in addition to the index summing up the total score of the NAQ items. Cronbach's alpha for NAQ, and for the two subscales, was .85, .81, and .75, respectively. In addition, the respondents were asked who had bullied them, how long the bullying had lasted, and when it took place.

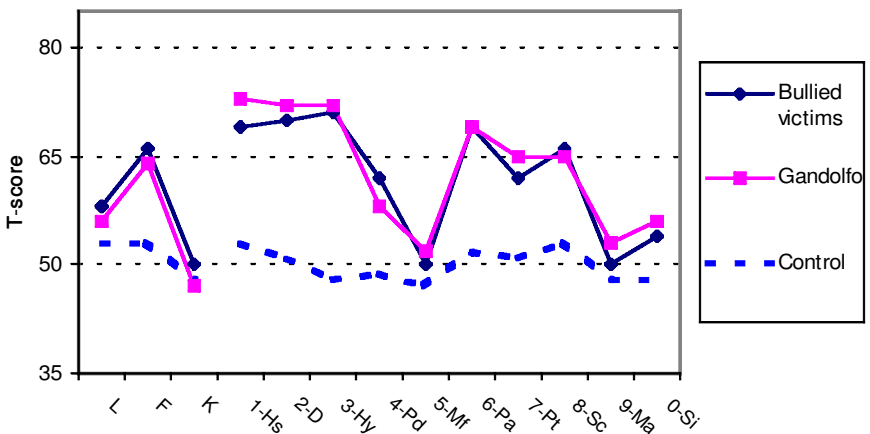
## Statistics

The data were coded and processed using the statistics package SPSS 9. The following statistical procedures were employed: frequency analysis, cluster analysis, correlation analysis, univariate analysis of variance, and multivariate analysis (MANOVA). A technique that is often used to reveal clinical configurations is cluster analysis (Keller & Butcher, 1991), which is a multivariate technique that classifies objects (individuals or variables) in such a way that each individual is very similar to the others in the cluster with respect to a previously

defined selection criterion (Hair, Anderson, Tatham, & Black, 1995). The clusters express high intra-cluster homogeneity and high extra-cluster heterogeneity in the individuals or variables, and are closely related in a geometrical plot.

## RESULTS

As shown by Figure 1, victims of bullying revealed an elevated personality profile, indicating severe psychological disturbance. On six of the ten clinical scales the group mean was elevated ( $t$ -score  $> 65$ ). The figure also presents the profile from Gandolfo's (1995) study. The profile configurations for the two groups of victims of bullying were more or less identical. In both samples it was the configuration of the clinical scales 1, 2, and 3 that showed the most pronounced elevations, with a 3-2-1 configuration as the overall statistical tendency. The 3-2-1 slope is in general associated with females, and is commonly called the "hysterectomy profile" (Duckworth & Anderson, 1995). Marital difficulties and conflicts, such as husbands with infidelity and drinking problems or lack of sexual desire are some of the external problems often associated with 3-2-1 configurations. The MMPI-2 profiles of the male and female respondents were also compared. However, no significant gender differences were revealed on the clinical scales, using univariate mean  $F$ -tests ( $p > .5$  for all comparisons). This was also the case when we compared victims who still are working with those who are not, with one exception (scale 9, Ma). Those who still work report a significant higher level of psychic energy and felt more compelled to act using that energy,  $F = 4.06$ ,  $df = 1/82$ ,  $p < .05$ .



**Figure 1.** MMPI-2 profiles, clinical main scales. A sample of bullied victims is compared with Gandolfo's sample and a Norwegian control group of soldiers.

A cluster analysis for the whole sample, in which the number of clusters was not specified (Ward's agglomerative method, with Euclidean distance measurements for each individual case), identified five clusters of victims, which could be combined into three stable clusters. The selection criterion consisted of the 10 clinical scales in the MMPI-2. The sample of victims of bullying was divided into sub-groups on the basis of these three clusters (Table 1).

The first cluster comprised 32% of the victims. A feature common to all members of this group was their extremely elevated personality profiles, in which seven of the clinical scales had a *t*-score above +65. Four of the scales were particularly elevated (*t*-score 80+). In addition to the previously mentioned 3-2-1 configuration, scale 6 (Pa), was highly elevated, indicating severe trouble with distrustfulness and scepticism against the surroundings as important features. This group was labelled "The seriously affected".

Cluster 2 consisted of victims with a more "normal" personality profile, and consisted of 25% of the sample. This group had *t*-scores <55 on eight of the ten scales, while the tenth was not elevated beyond the normal range (Table 2). We labelled this group "The common group" as they did not portray any psychological disturbance above what is considered normal in the control group. Like those in cluster 1, the persons in cluster 3 (44% of the sample) showed an

TABLE 1  
Mean MMPI-2 *t*-scores and standard deviations for the three groups of victims of bullying (*n* = 85); clinical scales\*

Scale*	Cluster 1 <i>The "seriously affected"</i> ( <i>n</i> = 27)		Cluster 2 <i>The "common"</i> ( <i>n</i> = 21)		Cluster 3 <i>The "disappointed and depressed"</i> ( <i>n</i> = 37)	
	<i>M</i>	( <i>SD</i> )	<i>M</i>	( <i>SD</i> )	<i>M</i>	( <i>SD</i> )
L	57.59	(10.27)	59.00	(12.21)	58.19	(8.47)
F	74.26	(15.76)	58.19	(8.37)	64.06	(15.16)
K	49.11	(9.50)	53.14	(11.31)	47.81	(8.27)
1. Hs	83.89	(8.34)	55.62	(10.83)	65.43	(9.55)
2. D	82.67	(8.15)	53.52	(6.53)	69.14	(9.09)
3. Hy	89.59	(9.54)	58.62	(10.26)	65.41	(10.30)
4. Pd	69.30	(15.42)	52.38	(8.85)	62.59	(12.21)
5. <i>Mf</i>	49.96	(7.80)	50.19	(10.69)	48.92	(8.54)
6. Pa	81.26	(11.14)	52.67	(8.02)	70.35	(12.10)
7. Pt	74.11	(9.67)	47.52	(6.92)	61.86	(8.25)
8. Sc	76.30	(10.11)	54.67	(7.32)	64.92	(9.94)
9. Ma	52.19	(12.61)	48.90	(6.37)	48.84	(8.91)
0. Si	57.44	(10.34)	46.86	(7.86)	56.32	(10.08)

\*See text for explanations.

elevated personality profile in which four of the scales were elevated. However, the MMPI-2 configuration for this group was less elevated and the respondents in this cluster first of all portrayed an elevated 6-2 configuration. Only scale 6 and 2 had *t*-scores above 65, leading us to label this cluster "The disappointed and depressed". People with an elevated 6-2 profile are touchy, take offence easily, and become tired and depressed quickly, according to Duckworth and Anderson (1995). They are also troubled with a great deal of other directed anger, along with fatigue and depression.

Table 2 gives an overview of the results of these three clusters on the MMPI-2 Content scales. The MMPI-2 Content scales were less elevated compared to the scores on the main clinical scales. The "seriously affected" had elevated scores on generalized anxiety/negative affectivity, depression and health adjustment/health concern. The "common" and "disappointed and depressed" did not have elevated scores on any of these 15 subscales. However, the content scales confirmed the impression from the main clinical scales. The "seriously affected"

TABLE 2  
Mean *t*-scores and standard deviations for victims of bullying; MMPI-2 content scales. The sample is divided into three subgroups. Comparison of mean scores, univariate analysis of variance (F)

<i>Content scales</i>	<i>Cluster 1</i> <i>The "seriously affected"</i> <i>(n = 27)</i>		<i>Cluster 2</i> <i>The "common"</i> <i>(n = 21)</i>		<i>Cluster 3</i> <i>The "disappointed and depressed"</i> <i>(n = 37)</i>		<i>F</i>
	<i>M</i>	<i>(SD)</i>	<i>M</i>	<i>(SD)</i>	<i>M</i>	<i>(SD)</i>	
Anx Anxiety	71.30	(9.00)	46.71	(16.08)	60.81	(9.06)	50.47***
Frs Fears	53.00	(10.80)	45.14	(10.06)	55.76	(10.85)	6.75**
Obs Obsessiveness	53.89	(8.78)	42.71	(5.71)	51.08	(9.62)	10.72***
Dep Depression	71.78	(8.06)	51.76	(9.97)	63.76	(8.11)	32.18***
Hea Health concern	77.19	(10.02)	53.67	(11.99)	61.76	(7.48)	38.74***
Biz Bizarre mentations	43.78	(25.34)	40.95	(30.99)	52.49	(25.66)	1.49
Ang Anger	62.15	(30.31)	60.81	(28.83)	61.00	(25.65)	.02
Cyn Cynicism	47.19	(30.15)	55.76	(26.19)	50.03	(32.56)	.48
Asp Antisocial practices	58.59	(30.51)	50.76	(31.61)	53.81	(30.82)	.40
Tpa Type A	44.89	(27.04)	57.10	(24.11)	61.76	(28.37)	3.12*
Lse Low self-esteem	46.04	(27.82)	38.57	(28.61)	56.46	(27.55)	2.94
Sod Social discomfort	50.96	(28.92)	50.38	(33.94)	46.05	(28.43)	.25
Fam Family problems	51.70	(32.61)	52.05	(24.79)	56.24	(26.18)	.07
Wrk Work interference	63.78	(25.33)	49.48	(27.66)	52.68	(28.74)	1.93
Trt Negative treatment indicators	51.37	(28.71)	45.90	(32.06)	51.03	(28.09)	.26

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . *df* = 2/82 for all of the univariate analysis of variance models.

had the most negative score of the three groups on nine out of fifteen subscales, whereas the least atypical profile configuration was revealed among the "common". The group differences were significant in six out of fifteen comparisons, according to univariate analysis of variance, and were revealed for the scales for anxiety, fears, obsessiveness, depression, health concern, and type A behaviour (Table 2).

Using univariate analysis of variance we also found a significant difference between the three groups as far as number and frequency of experienced negative actions were concerned,  $F = 3.72$ ,  $df = 2/76$ ,  $p < .05$ . However, post hoc tests (LSD procedure) revealed that the "common group" had experienced the highest number of negative actions,  $p < .05$ . The number of reported negative actions was also studied with respect to each of the main clinical scales, as shown in Table 3. Only two out of ten scales correlated significantly with exposure to bullying behaviours (scales 1—Hs and 9—Ma). These results suggest that those who felt most affected by negative actions, were least troubled psychosomatically (Hs). The same individuals were also in possession of psychological energy for which they were unable to give social expression (Ma). The two subscales of NAQ, "personal derogation" and "work related harassment", did not correlate significantly with any of the clinical main scales (Table 3). The correlation analysis revealed a relationship between the length of time since the bullying had taken place and scale 6. Those still being bullied were the ones most suspicious of their social environment,  $r = .22$ ,  $p < .05$ .

Three of the MMPI-2 Content scales correlated with bullying, as measured by the NAQ total: anxiety,  $r = -.39$ ,  $p < .001$ , fear,  $r = -.36$ ,  $p < .01$ , and health concern,  $r = -.35$ ,  $p < .05$ . "Work-related harassment" did not correlate with any of the main clinical scales, nor with the Content scales. It was found, on the other hand, a significant association between "personal derogation" and five of the Content scales: anxiety,  $r = -.39$ ,  $p < .001$ , fears,  $r = -.33$ ,  $p < .01$ , health concern,  $r = -.28$ ,  $p < .05$ , cynicism,  $r = .26$ ,  $p < .05$ , and low self-esteem,  $r = -.26$ ,  $p < .05$ . Being exposed to many specific negative acts corresponded with a cynical attitude towards the surroundings. The direction of the other correlation

TABLE 3  
Pearson's product moment correlation analysis between level of experienced negative actions and MMPI-2 main clinical scales

	<i>L</i>	<i>F</i>	<i>K</i>	<i>1.Hs</i>	<i>2.D</i>	<i>3.Hy</i>	<i>4.Pd</i>	<i>5.Pd</i>	<i>6.Pa</i>	<i>7.Pt</i>	<i>8.Sc</i>	<i>9.Ma</i>	<i>0.Si</i>
NAQ total	.11	-.16	.32**	-.24*	-.18	-.18	-.08	-.01	-.18	-.10	-.20	-.25*	-.03
Personal derogation	.16	-.19	.36**	-.15	-.16	-.08	-.08	-.02	-.22	-.14	-.18	-.19	-.11
Work-related harassment	-.07	.09	.08	-.17	-.08	-.13	.15	-.07	.13	.07	.02	-.14	.07

\* $p < .05$ , \*\* $p < .01$ .

coefficients indicates the opposite: Victims most troubled with generalized anxiety, fear of specific incidents, as well as many health concerns, reported exposure to fewer specific negative acts. The correlation coefficients were about the same after a control for the time period since bullying occurred (using partial correlation).

The difference between the F and K scales in the MMPI-2 has traditionally provided an indicator of social desirability or a “cry for help” (Havik, 1993). Some of the participants in our study had elevated F and K scores. An F minus K index has been developed to detect faking bad and faking good profiles. The index number is obtained by subtracting the raw score of K from the raw score of F. If the resultant number is positive and above 11, the profile is called a “fake–bad” profile (Duckworth & Anderson, 1995). Only two of the victims in our sample obtained a F–K raw score above 11.

## DISCUSSION

This study demonstrated that victims of bullying at work typically portray an elevated type 3-2-1 personality profile, a finding that offers support to hypothesis 1. An elevated 3-2-1 profile is most frequently encountered in women, and is closely related to psychosomatic troubles, which may last for many years (Duckworth & Anderson, 1995). According to Duckworth and Anderson this configuration is linked to symbiotic relationships, either in the immediate family or in other social interactions, e.g., at work. When men report a 3-2-1 configuration, which seldom happens, this indicates serious psychosomatic problems resulting from stress and anxiety. The stress is then converted into physical symptoms (Graham, 1993). Persons with this configuration employ defence reactions such as displacement and denial on a large scale, and may have problems with more finely graded psychological explanatory mechanisms to their problems, again according to Graham.

The personality profile that appeared in the present study was surprisingly similar to the configuration identified by Gandolfo (1995) in his study of American victims of harassment who had applied to their insurance companies for compensation for insult and injury. In comparison with our sample of victims, Gandolfo’s group contained fewer women, and the participants were younger, which makes the similarity in the results even more striking.

The present study has also shown that victims of bullying are not a homogeneous group—they can be divided into subgroups. This finding disagrees with results from a study of female victims of violence, in which a relatively homogeneous personality configuration appeared (Rollstin & Kern, 1998), but is more in line with earlier clinical evaluations of victims of bullying and their health problems. In a study of American victims of bullying, Brodsky (1976) found, based on a clinical evaluation, that some victims developed vague physical symptoms, another group reacted with depression and depressive after-

effects such as sleeplessness, impotence, and lowered self-respect, and a third group developed symptoms related to anxiety and nervousness. In terms of personality, Brodsky also distinguished between a number of groups of victims of bullying such as passive-dependents, obsessive-compulsives, and those being paranoid.

The present study identified a subgroup of victims who had the most elevated profiles in spite of reporting a relatively low exposure to specific negative actions, the “seriously affected”. This result may be regarded as partially supporting hypothesis 2, that personality is of importance in determining how bullying is experienced and how it is reacted to. However, the result does not support the direction of the relationships between bullying and personality set forward in hypothesis 2, in which a high exposure to specific behaviours were suggested to be related to an elevated personality profile. Members of the seriously affected group were depressive, anxious, suspicious, uncertain of themselves, and troubled by confused thoughts. The seriously affected group displayed a MMPI-2 profile that was decidedly more elevated, for example, than a group of men and women who had been sexually abused in childhood ( $N = 92$ ) and who had sought therapeutic treatment (Kalgraff & Lyle, 1998).

The most characteristic feature of the “disappointed and depressed” was their tendency towards becoming depressed and being suspicious of the outside world. It is not surprising that a person may become extremely sceptical and suspicious of other people after having been subjected to sustained bullying. However, this group had a much less elevated profile than the members of cluster no. 1. The “common group” cluster is also interesting: its members had a quite normal personality, in spite of having experienced the largest number of negative actions. Such a result supports the notion that a specific vulnerability factor may exist. Persons who are already suffering from psychological problems are probably more likely to suffer long-term psychological and physical problems in the wake of bullying and serious personal conflicts. Persons with psychological problems, low self-confidence, and a high degree of anxiety in social situations may also be more likely than others to feel bullied and harassed, and they may find it more difficult to defend themselves if they are exposed to the aggression of other people. It is also possible that persons who display a lack of social skills are more likely to arouse irritation and frustration in others, thus entering into conflicts which they are also unable to deal with in a constructive fashion (Zapf, 1999). Such people may even be suitable scapegoats for a number of problems in a community of workers.

However, the fact that there is a negative relationship between the number of negative actions experienced and the psychosomatic problems (HS—scale 1) offers support to a vulnerability hypothesis. Those who had experienced the largest number of negative actions, and thus perhaps are having the best reason to feel bullied, reported fewest psychosomatic problems. They also reported the highest level of cynical attitudes towards their surroundings. A cynical attitude in

general could be interpreted as a coping strategy against bullying, making the individual less psychological vulnerable in interpersonal conflict situations.

The finding that the subgroup of bullied victims that had been exposed to most bullying at the same time reported an inconspicuous MMPI-2 profile corresponds partially with the results of a study of German victims of bullying (Zapf, 1999). Zapf identified a group of victims who could not be distinguished from other workers in terms of self-esteem, neuroticism, or their style of dealing with conflicts. They had, however, many psychosomatic problems and were exposed to many negative actions. These victims seemed to be random victims who often tried to alter their situation, for example by leaving their place of work relatively soon and looking for a new employer. Zapf also identified a group of victims with an urgent need for psychiatric treatment. These could be characterized by their poor social skills and insensitivity to conflicts, and they had probably suffered from anxiety and depression even before they were bullied.

There is every reason to believe that it is the "seriously affected" group that is most likely to contact health personnel such as psychologists and psychiatrists, as well as to adopt judicial means of obtaining restitution (Zapf, 1999). Hence, based on these results, we must warn both psychologists, psychiatrists, and other professionals to generalize observations of the personality of victims of bullying purely on the basis of clinical experience.

## Methodological limitations

As a field of research, bullying in the workplace has been criticized for its ad hoc case-study design and anecdotal evidence. The various definitions and measuring instruments used have also been a source of criticism (Hoel et al., 1999). However, it is essential to experiment with research design (Beehr, 1995). Against this background it is therefore important to ensure that some of the most comprehensive and most used instruments available to psychological research are utilized in order to understand the phenomenon of bullying at work. The MMPI-2 is one such instrument. Nevertheless, when studying the personality of bully victims, one is faced with many problems. First of all, the personality of the individual is so multifaceted that many aspects will not be explained even by complex tests such as the MMPI-2. Second, it is difficult on the basis of an MMPI-2 profile to determine what constitute stable personality characteristics and what may be the cause of long-term victimization.

Leymann and Gustafsson (1996) point out that chronic post-traumatic stress conditions, from which they believe many victims suffer, may in itself bring about permanent changes in personality. These changes may be displayed in the form of depressive tendencies or as compulsive conditions, such as excessive animosity and suspiciousness, a chronic feeling of nervousness and of being in danger, an exaggerated concern with one's own fate, hypersensitivity to unfairness, and a constant and exaggerated identification with the sufferings of

others. Many of these symptoms may then surpass the limits of tolerance of the immediate social environment, and may well lead to the person concerned becoming further isolated and lonely. According to Leymann and Gustafsson (1996), such symptoms must not be mistaken for the symptoms of the patient's pre-morbid level of functioning, but rather, as an expression of a personality in the process of disintegration due to exposure to bullying at work. It is difficult to implement a longitudinal research design in which focus is on the personality of the victims of bullying. Therefore, it is interesting to shed light on the personality of the victim as it appears at a given point in time, and on how aspects of personality interact, for example, with psychosocial and organizational conditions, in line with Einarsen's (1999, 2000) theoretical model of how bullying develops.

It is also important to distinguish between representative studies that aim to demonstrate the frequency and nature of bullying at work (Einarsen, Matthiesen, & Skogstad, 1998) on the one hand, and those attempting to demonstrate the phenomenology of bullying (Brodsky, 1976) on the other. There is every reason to believe that the participants in our study are not typical of all Norwegian victims of bullying. Women, older workers, administrative personnel, and persons who are not currently employed, are overrepresented in our study (Einarsen & Skogstad, 1996). Young workers and men in blue-collar occupations participated only to a limited extent. It is possible that vulnerability and the psychological correlates of bullying are different in this group and that we would have found other MMPI-2 configurations had they been included. For example, there is reason to believe that a national representative sample would have produced a larger proportion of victims in the "common group". According to Zapf (1999) such people would find it easier to exit a bullying situation and find work elsewhere. They would, consequently, be less likely to come into contact with support groups for victims of bullying.

There is always a risk that participants respond in a socially acceptable manner (Crowne & Marlowe, 1964), or in such a way that social expectations are met (e.g., that bullying lead to a misery life situation). The difference between the F and K scales in the MMPI-2 has traditionally provided an indicator of such social desirability or a "cry for help" (Havik, 1993). Some of the participants in our study had elevated F and K scores. The relationship between F and K (F minus K) have been considered to be one of the indicators of an invalid MMPI protocol. Nevertheless, research suggests that the F-K index is of little value in identifying invalid MMPI-2 protocols, according to Havik. One must distinguish between the results of a single clinical profile and those of a whole group of subjects. A group trend in response profile will be much more robust with respect to individual fluctuations in "social desirability". However, social desirability could also have caused many of the participants to respond extremely negatively and uniformly to questions regarding the type of bullying they had experienced. However, this seemed not to be the case in the present study as only two participants portrayed a so-called "fake-bad" profile.

## CONCLUSIONS

Our first hypothesis, that victims of bullying portray a personality profile indicating severe psychological disturbance, may be interpreted as being partially confirmed. An elevated MMPI-2 profile was revealed for the total sample, in line with Gandolfo's (1995) study. However, when the sample was divided into three subsamples, one of the subsamples had a quite normal personality profile. This indicates that the associations between bullying and personality are complex. In line with this, hypothesis two—stating that intensity and the kinds of bullying experienced are related to the personality profile of the victim—was also confirmed. However, the observed relationship between the intensity of the experienced bullying and the profile of the MMPI-2 was in opposite direction of what we anticipated. Our data suggest, then, that some victims of bullying are either more sensitive to bullying, or react more dramatically than do others when bullying takes place. Hence, our findings disagree with the claim of Leymann (1996) that personality is irrelevant in connection with bullying at work. We cannot speak of a general “victim personality” as such, since the participants in this study appear to have different personality configurations and thus various degrees of susceptibility. These findings remind us that people, including victims of bullying, are diverse and may react quite differently upon being exposed to tough interpersonal conflicts. This kind of knowledge must be taken into consideration by both managers and health care personnel who are trying to understand and help victims of bullying at work. However, we still know very little about the relationship between bullying and personality. Studies of bullying and work in which aspects of personality are illuminated are therefore still needed, e.g., utilizing a research design that combines surveys and longitudinal design with thorough qualitative interviews.

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