Review of Psychology
1997, Vol. 4, No. 1-2, 49-61

UDC 159.9

# Effects of PTSD label and presented symptom pattern on evaluation of target's responsibility and personality

VERA ĆUBELA

This study aimed to examine whether impression about a person with posttraumatic stress disorder (PTSD) could be altered by manipulating with the recognizability of presented symptom pattern and the label for it. Three vignettes describing a male person with complete symptom profile of PTSD and its recognizable and unrecognizable parts were presented to 228 students. About one half of them was told that target is in fact a PTSD casualty. Students rated the target with regard to responsibility for causing actual condition and a number of personality traits.
The label manipulation produced significant effect only on the perception of target's introversion. The effect of the symptom pattern variable was more pervasive, and obtained patterns of differences between conditions suggest that the tendency of positive evaluation, as well as the perception of causal uncontrollability are due to the presence of recognizable symptoms and not necessarily to the absence of unrecognizable symptoms, while the very presence of unrecognizable symptoms might provide a basis to see a person as a "disordered personality".

Persons with posttraumatic stress disorder (PTSD) seem to elicit somewhat controversial social reactions for they are sometimes met with rejection and denial rather than pity and compassion. An attributional perspective is frequently used to explain the negative reactions in the first place (e. g. Janoff-Bulman, 1992; Figley, 1985), suggesting that the issue of a person's responsibility could be crucial in social evaluation of PTSD casualties.

According to the attribution model of Bernard Weiner (1995), responsibility judgments are primarily determined by causal controllability: when actual condition of a person is attributed to the uncontrollable cause, he/she is held not responsible. Since PTSD is by definition a disorder which onset is uncontrollable, it could, therefore, be expected for a person labeled as PTSD casualty (or with an other label embraced by the PTSD concept) to be judged as not responsible and, consequently, elicit positive rather than negative affects and readiness to give him/her support - a pattern of reactions postulated by the Attribution - Affect - Behavior sequences of Weiner's model. The findings of some studies support such a pattern of reactions to targets labeled "Vietnam war syndrome" (Weiner, Perry and Magnusson, 1988), "war syndrome" (Lin, 1993, cited in Weiner, 1995) and "PTSD" (Ćubela, 1996a) casualties.

Yet, Lopez and Wolkenstein (1990) suggested that investigators of attributions and judgments need to be cognizant of the multiplicity of causal factors, and its implications this has for understanding the role of causal attributions in the judgment process. Indeed, a number of mainly theoretical analyses of the development of the PTSD concept and reactions of professionals and lay persons toward people with this syndrome shows that - beside the traumatic event itself as its necessary cause - this syndrome may also be attributed to other factors that have different causal properties as, for example, "moral weakness" or "premorbid personality"(e. g. de Vries, 1996; Quarantelli, 1985; van der Kolk, Weisaeth & van der Harth, 1996). Moreover, it seems that the traumatic event itself is not necessarily to be perceived as if it is completely out of control of the person. Namely, in the second part of the study reported by Weiner, Perry and Magnusson (1988), onset-controllability was manipulated by the information on the degree to which a person with Vietnam syndrome has himself contributed to the circumstances in which he was traumatized. In brief, while the results indicated that the information suggesting that the person could not influence these circumstances ("he was drafted and saw hazardous duty") was in fact redundant, this perception of onset-uncontrollability significantly changed when an internal and controllable cause ("he signed up for a second tour of duty knowing it involved seek-and-destroy missions") was sug-

Vera Ćubela, Faculty of Science and Arts, Department of Psychology, Krešimirova obala 2, 23000 Zadar, Croatia. E-mail: vcubela @ffzd.hr. (Correspondence concernig this article should be sent to this address).

The paper was presented at the 13th Ramiro Bujas' Days, Zagreb, Croatia 1997.

gested. The obtained change in the pattern of ratings was small, but evaluatively consistent: the subjects have rated the person as more responsible, more blameworthy, less likable, and they were less likely to provide personal help for the person.

It should be emphasized here, however, that in all the above mentioned studies the diagnosis was the only information about the actual condition of target that was presented to the subjects. It seems, however, reasonable to assume that in real-life settings, in order to draw a conclusion on the causes of the person's actual condition, people take into consideration some other relevant information available to them as, for example, the presenting symptoms. Moreover, some authors argued that people actually tend to focus on symptoms rather than broader causative conditions, so PTSD casualties become just another group of patients ultimately separated from conditions that produced them (Becker, 1992; Leventman, 1978). Therefore, an attributional analysis of social reaction toward PTSD casualties should focus also on judgments of responsibility for symptoms of this disorder. As noted by Lopez and Wolkenstein (1990), the perception of the original cause of the disorder may be quite different from the perception of the present functioning.

So, what is the social reaction to PTSD as a symptom profile? Beside some clinical observations and reports on countertransference issues in the treatment of PTSD, there are no empirical data about this topic. However, research on some other clinical phenomena from the attributional perspective may provide insight into the factors determining relationship between symptoms and reactions they elicit when expressed in social context.

Namely, research on so-called emotional expressiveness of schizophrenics' family members have shown that their reactions towards the schizophrenic relative are related to some features of the patient's symptom profile. Specifically, it has been found that the family members are hostile and critical of the symptom pattern of schizophrenia which is predominantly negative. Lopez and Wolkenstein (1990) argue that the family does not actually recognize these symptoms and, therefore, does not attribute them to the illness but to some personal factors which the patient can influence. According to Weiner (1995), the topic is really on passive disfunctioning conditions that are generally attributed to internal and controllable factors because they are more frequent and known to most people through personal experience, as is the knowledge that most people succeed in drawing out of them.

Findings on the relationship between household reactions toward schizophrenics and their symptom profile are interesting here also because of the matter that some parts of the PTSD symptomathology have been explicitly referred as similar to the negative symptoms of schizophrenia (see e. g. van der Kolk & McFarlane, 1996; Stretch, 1986). The point in question are so-called symptoms of avoidance and numbing of responsiveness which seem to present the main problem in the diagnosis and treatment of this disorder (Epstein, 1989). These are also regarded as one of the principal causes of problems in the social functioning of a person with PTSD (e. g. Epstein, 1989; van der Kolk & McFarlane, 1996). Parallel to the mentioned Weiner's interpretation, this could reflect the general tendency to attribute these kinds of symptoms to internal and controllable factors.

In a previous study on a group of students from Mostar, this author established that reactions of intrusion were recognized as symptoms of PTSD in the first place, while the reactions of avoidance and, especially, numbing of responsiveness, were rarely identified as PTSD symptoms on the part of the students (Ćubela, 1996b)[1]. It was also found that the label PTSD did not significantly change the impression that the reactions of avoidance and denial are relatively controllable. On the other hand, the label significantly increased the impression on uncontrollability of intrusive reactions. It has been suggested that intrusive reactions represent a kind of resonance of the traumatic experience, i. e. the immediate reaction to the traumatic event, in the actual functioning of the individual, so they may - as well as the PTSD label - transmit the information about the primary cause of actual state that is uncontrollable. Hence, it has been suggested that manipulating with the PTSD symptom profile could have an impact on the perception of causes of the actual condition and, consequently, on the

judgment of the person's responsibility for this condition. Inasmuch as presenting symptoms are recognizable, we expect for the person - being labeled as PTSD casualty or not - to be held not responsible for causing the actual condition.

But, if the symptom pattern, labeled as PTSD, is dominantly unrecognizable, the so-called contrast effect could be expected (i. e., the tendency of a more negative evaluation of a person with this kind of symptom profile when it is labeled as PTSD than when it has no label). Skowronski et al. (1993) suggested that this effect should be evident primarily in judgments of person's attributes that are less central to the construct described by the label. Thus, if responsibility judgments refer to the cause of actual condition, and if we suppose that PTSD label convey an information about that cause, we don't expect this effect to occur in responsibility judgments but in judgments of some other attributes of the person e.g., personality traits.

[1] That study aimed to analyze students' concept of PTSD symptom profile. Hence, there is no assumption about students' "expertness" in the use of the term *(un)recognizable* symptoms in this paper. It simply refers to the proportion of students who did (not) identify them as reactions they personally believe to be the symptoms of this disorder.

Finally, it is well established in the area of person perception that people have a tendency to view others in a way that is evaluatively consistent. Since responsibility judgment is in fact an inference about the person, it might have an evaluative component, and it could be expected to be evaluatively consistent with the overall impression about the person. That is, if there is a general tendency to evaluate a person negatively, it should be manifested as in the judgments of persons' responsibility so in judgments of his/her personality characteristics. It could be argued here that ascribing greater responsibility for causing actual condition indicate, in fact, a tendency of negative or, at least, less positive evaluation, and it is expected to occur primarily in the relative absence of recognizable symptom pattern.

The aim of this study was to verify these assumptions, that is, to examine whether perceived causality of actual condition and judgments of personality could be altered by presenting to observers the patterns of the PTSD symptom profile that differ in recognizability, and to what extent this effect is dependent upon the label provided for the condition. Actually, the concept of PTSD has rarely been used so far in the person perception research although it seems to have potential to advance our understanding of the processes underlying social reactions toward dysfunctional conditions. This concept seems to be useful primarily in research using attribution theory as a conceptual framework. As stated by de Vries (1996), the very introduction of PTSD in the psychiatric taxonomic system was a definite recognition of the external causality of psychopathological disorder. Yet, this assertion does not necessarily apply to the lay concept of PTSD, as well. Moreover this concept should be of our concern since the war events resulted in an increased number of PTSD casualties for whom lay people provide an environment which influence on posttrauma process could be detrimental as well as beneficial. Furthermore, as previous analysis showed, even in professionals perceived causality of this disorder could not be reduced to the exogenous event by which the pathological process was set in motion. Having in mind the attribution theory predictions, this assertion suggests that reactions toward PTSD casualties could be expected to vary at least to some extent. This study was primarily designed to analyze some conditions under which such variations might occur.

## METHOD

### *Design and Participants*

A 3 x 2 factorial design was used with presented PTSD symptom pattern (complete/ recognizable/ unrecognizable) as one variable and PTSD label (presented vs. not presented) as an other variable.

Since recognizability of PTSD symptoms has been previously analyzed in the group of students at the University of Mostar, the current study was carried out on the sample from the same population. A total of 228 students (163 females and 65 males) participated in the study. They were assigned into six groups defined by the combination of the two variables described above.

### *Stimulus material*

PTSD includes a number of symptoms, which are not always immediately or directly observable, so even clinical judgments have to rely on a person's self-report to some extent. In this study it was important to ensure that participants get an information about all relevant symptoms, and to present it in a form of description provided by the target himself seemed to be an adequate solution.

Thus, a vignette has been constructed describing a PTSD symptom profile in the form of an excerpt from the interview with a male person who talks about problems related to his actual functioning. The description of the PTSD symptom profile was done in such a way that it could easily be divided in two parts representing mainly recognizable and mainly unrecognizable symptom patterns of PTSD (on the basis of the previous study results). That is, three vignettes were prepared for this study: vignette R (recognizable symptom pattern), vignette U (unrecognizable symptom pattern) and vignette C (complete symptom pattern). These vignettes are given in the Appendix.

The form of the excerpt from the interview has been chosen to ensure the context in which the target's self-disclosure would seem legitimate and credible to the participants and which could be interpreted in terms of the beginning stage ("need for help") of the Weiner's AAB sequence. Furthermore, we had in mind the remarks of Wyer and Carlston (1994) that in research in the area of person perception informations about the target are usually presented as isolated, discrete units, and as being accurate and representative for the target person. The narrative that was used here was supposed to be interpreted only as an accurate transcription of the information disclosed by the target himself, and that information was not supposed to be perceived as unbiased or complete. Finally, on the basis of some data on different processing of information about the target when he/she is (not) the source of that information (Wyer et al., 1990), it was expected that presented informations would spontaneously be interpreted in terms of the target's attributes if he is himself the source of these informations.

*Dependent variables*

*Judgments of target's responsibility.* Students have rated the responsibility of the target for causing his actual condition on a five-point scale (from 1= "not at all responsible" to 5 = "entirely responsible").

*Judgments of target's personality traits* were devised primarily as a means to get an information about the evaluative implications of the PTSD label and different symptom patterns. An instrument of the semantic differential form seemed to be adequate for that purpose since it has frequently been shown that an evaluative dimension underlies the ratings on this kind of scales. As stated by Hinton (1993), this evaluation could refer to various personality dimensions, depending on the selected set of adjective pairs. According to Skowronski et al. (1993), the evaluation would refer primarily to the personality dimensions which are peripheral to the rated concept. In this study that concept was defined by the presented PTSD symptoms and label. Instead of presupposing which personality traits are more or less central to this concept, it was decided to use a broader set of adjective pairs that would refer to divers dimensions. In fact, an instrument of the semantic differential form has already been developed by žužul et al. (1987) to measure three basic dimensions of the Eysenck's model of personality. It was called NEP (an acronym which stands for Neuroticism, Extraversion and Psychoticism), and, in its third (C) form, includes 66 seven-point bipolar scales. The central position on the scales (4) is defined as a position of majority of people; the highest scale value (7) is given to the symptomatically positive adjective on each scale (i. e. the one indicating extraversion, neuroticism or psychoticism) while the lowest value (1) is given if a respondent indicate the extreme position of the scale which is defined by a symptomatically negative adjective.

Originally, this instrument was designed to be used as a self-report measure of the mentioned dimensions and, to our knowledge, author knows, it has not been used so far in the area of social perception. Although no change in the instrument is actually needed to be used for such a purpose, in this study a set of 54 items was chosen (18 from each NEP subscale), and the item "good-bad", which is not included in the NEP, was added for an easier identification of the personality dimension(s) on which the target is explicitly evaluated. The criteria for twelve-item omission were in fact arbitrary. The main reason to do this was to avoid the frequent use of the same adjective in various combinations. Namely, according to our experience, it usually produces a considerable amount of distraction and loss of motivation in respondents. In fact, the ratings presented in this paper were just a part of the task the students were asked to complete in a broader research. This reason is certainly disputable. One could also argue that such an omission probably produced a change of the instrument latent structure. Indeed, a confirmatory factor analysis of the data collected in this study provided solution that accounted about 35% of the common variance, and the hypothesized groupings of items were not adequately represented in the three obtained sets of loadings. Yet, even if all the items were used in this study, one would not expect a three-factor solution to entirely match the one obtained for the data based on self-ratings. Finally, although the authors report that confirmatory analyses of self-report data provide a satisfactory representation of the hypothesized latent structure (Žužul et al., 1987), exploratory analyses showed more complex factor structure (Mandić, 1988).

An exploratory analysis of the data in this study (a principal factor analysis with $R^2$ of the respective item with all other items as commonalities) provided a six-factor solution that accounted for 41.5% of the common variance. Factors were rotated by a Varimax rotation. Items' loadings on the rotated factors of .30 or higher are given in Table A in Appendix, and the Table B displays the mean values for each item in the whole sample.

As it could be seen from the Table A, "good-bad" item loaded significantly only *Factor 1* which was labeled "prosocial orientation" of the target person. It should be noticed that all 18 items from the NEP-C psychoticism scale loaded this factor, but the ratings of the target on these items were in direction of poles representing normality in contrast to psychoticism. Relatively high loading of the "good - bad" item only on this factor indicated that in this study the target was explicitly evaluated or judged as a "good/bad person" in a sense of his perceived prosocial orientation or the absence of overt antisocial tendencies. *The second factor* was identified as "neuroticism" as it was defined mainly by the items belonging to the NEP-C neuroticism scale and the mean ratings of the target on these items were very close to the pole indicating neuroticism. All items defining *the third factor* belong to the NEP-C extraversion scale. The mean ratings of the target on these items were close to the introversion pole suggesting the label "introversion" for this factor. *Factor four* in this analysis showed loadings greater than .30 for five items, but it was found rather difficult to give a meaningful interpretation to this set of loadings. Three items defining *factor five* ("persistant - irresolute", "active - passive" and "self-confident - helpless") appear to refer to target's efforts to cope with actual problems or the degree in which he was adopting the position of the "hopeless victim" or that of the "survivor". It could be then labeled "victim vs. survivor role" dimension. *Factor six* in this analysis was marked by the items describing quick-temperedness, seriousness, rigidity, violence, pessimism and self-sufficiency - attributes that appear to be similar to those of secondary or neurotic psychopaths who engage in antisocial behavior under the influence of emotional disorder (Levenson, Kiehl & Fitzpatrick, 1995). While mean

ratings on items defining the first factor indicate the tendency to perceive the target as a person that does not show overt antisocial tendencies, students seem to have recognized a disposition for antisocial behavior in target's impulsivity and quick-temperedness. Content of this factor's may refer to "personality disorder" that is often considered while judging PTSD casualties in clinical settings as well (Scurfield, 1985; Carroll & Foy, 1994).

*Procedure*

The study was done during regular in psychology lessons on existing groups of students. Therefore it was difficult to achieve an equal number of participants in all experimental conditions. The students were told that the study dealt with impression formation, and that they would get an excerpt of the interview with a male person on whom they had to try to form an impression on the basis of given information. To indicate their impression, along with the excerpt students were given a set of rating scales on which they were to rate that person. One group of students ($N$=99) was told that the vignette refered to a person with a PTSD diagnosis. The rest of the students ($N$=129) did not get this information. In each of these two main groups one of three vignettes was given to the individual participants in random order.

## RESULTS

*Judgments of target's responsibility for causing the actual condition*

The mean values of responsibility ratings are shown in Table 1.

While the target was generally rated as somewhat irresponsible for the cause of his actual condition, a two-way ANOVA revealed main effect of presented symptom pattern on these ratings, $F(2/222) = 18.67$, $p$=.00. Results of the Scheffé's procedure showed that the target in the unrecognizable symptom pattern condition (vignette U) was rated more responsible than targets in the complete (vignette C) and recognizable (vignette R) pattern conditions. The main effect of the label variable was not significant ($F(1/222) = 2.03$, $p = .15$). The effect of the Symptom pattern X Label interaction ($F(2/222) = 2.31$) reached significance at $p$=.10 level. Results of the Scheffé's procedures showed that the target with unrecognizable symptoms in no-label condition was rated more responsible as compared with targets with recognizable symptoms in label and no-label conditions ($p$=.00 in both conditions), as well as targets with complete symptom profile in label and no-label conditions ($p$=.00 and $p$=.08, respectively). The difference between the two unrecognizable symptom pattern conditions (label vs. no label) was not significant ($p$=.76), so the results do not support the hypothesis that the label manipulation in this symptom pattern condition would show the contrast effect. On the other hand, targets with this symptom pattern in both label and no-label conditions were ascribed more responsibility than the target with recognizable symptoms for which the PTSD label was not provided ($p$=.01 and $p$=.00, respectively)

*Judgments of target's personality traits*

The factor analysis of the ratings of the personality traits obtained in the whole sample resulted in six factors, one of which was not interpreted (factor four in the Table A in Appendix). The scores on Varimax rotated factors were derived and inserted into analyses of variance to provide the basis for testing effects of the two independent vari-

*Table 1*

Mean values for responsibility ratings of target in PTSD symptom pattern X label conditions

| | *PTSD label* | | |
|---|---|---|---|
| *PTSD symptom pattern* | Provided $N$=99 | not provided $N$=129 | Total $N$=228 |
| Recognizable | 2.06 | 1.84 | 1.94 |
| $N$=79 | (1.027) | (.913) | (.965) |
| Complete | 2.00 | 2.42 | 2.26 |
| $N$=74 | (.926) | (1.118) | (1.061) |
| Unrecognizable | 2.74 | 3.12 | 2.95 |
| $N$=75 | (1.094) | (1.042) | (1.077) |

*Note:* The higher the rating, the greater the level of ascribed responsibility for causing the actual condition. Standard deviations are in parentheses.

ables on personality judgments. The Table 2 displays the results from these analyses.

The most pronounced effect of the experimental manipulation was obtained for the label variable on third factor, labeled "introversion": mean score in no-label condition was lower than in PTSD label condition ($M$= -.28 and $M$= .36, respectively), suggesting that the target was perceived as more introverted when PTSD label was not provided.

The main effect of the symptom pattern variable was more pervasive. On the first factor in this solution, on which the target was in fact rated as a good/bad person in a sense of the absence of antisocial tendencies, two significant differences were obtained, both applying to the unrecognizable symptom pattern condition: target described in the U vignette was less positively evaluated than the targets in the C and R vignettes ($M_U$ =.42, $M_C$ =-.14 and $M_R$ =-.26). Two significant differences were also obtained for the scores on the factor six, which seems to reflect the tendency to attribute some psychopathic tendencies to the target. The results of the Scheffé's procedure showed that they were perceived primarily when unrecognizable symptoms were (also) presented (vignettes U and C): the mean factor score in the recognizable symptom pattern condition ($M_R$ = -.25 ) was significantly lower than in complete and unrecognizable conditions ($M_C$ =.13, $M_U$=.14). Finally, on the factor five, labeled "victim vs. survivor role" dimension, Scheffé's procedure revealed only one significant difference: the target in unrecognizable symptom pattern condition was rated more in a direction of the "victim" pole of this dimension than the target in recognizable symptom pattern condition ($M_U$ = .22 and $M_R$ =-.14).

It should be noticed that no significant interaction effect neither the main effects were obtained for the scores on the second factor ("neuroticism") which is probably the most pronounced personality attribute of the target person in the descriptions used in this study.

## DISCUSSION

Students' impressions about the targets in three vignettes describing symptom patterns of PTSD were analyzed in terms of judgments of target's responsibility and personality traits.

In general, students tend to rate the target mainly as not responsible for causing his actual condition. This finding is in line with previous research on perception of responsibility of targets labeled (Vietnam) war syndrome or PTSD casualties (e. g. Weiner et al, 1989; Ćubela, 1996a). Yet, it should be noticed that in this study responsibility judgments refer explicitly to the responsibility for *causing* actual condition, while in the previous studies the meaning of responsibility judgments (i. e. responsibility for causing actual problems or responsibility for solving them) has not been precised. This distinction could be important while considering evaluative implications of responsibility judgments of PTSD casualties. A tendency of negative evaluation is commonly recognized in so-called blaming-the-victim phenomenon that refers in fact to the ascribed responsibility for causing the problem. On the other hand, the evaluative implications of judgments of responsibility for solving actual problems are less clear, but it seems that ascription of responsibility for the disorder outcome is the one preferred by trauma recovery models (e. g. Janoff-Bulman, 1992; Figley, 1985). To avoid problems in interpretation resulting from the ambiguity of responsibility judgment, in this study it was specified to refer to the causing the actual condition.

Factor analysis of personality traits ratings showed six factors underlying personality judgments in this study. Overall, the target was perceived as fairly neurotic and introverted person, behaving somewhat as "hopeless victim". Although the prosocial orientation or the absence of overt antisocial tendencies appears to be crucial in judging whether the target is a good person or not, an other dimen-

*Table 2*

Effects of PTSD symptom pattern and label on 55 personality traits ratings: Results of analyses of variance of factor scores

| | | Factor 1 | | Factor 2 | | Factor 3 | | Factor 4 | |
|---|---|---|---|---|---|---|---|---|---|
| Source of variation | *df* | *F* | *p* | *F* | *p* | *F* | *p* | *F* | *p* |
| Symptom pattern | 2/222 | 11.10 | .00 | .87 | .42 | .24 | .78 | 4.92 | .01 |
| Label | 1/222 | 1.07 | .30 | 1.54 | .22 | 29.95 | .00 | 3.57 | .06 |
| Symptom pattern X Label | 2/222 | 2.03 | .13 | .57 | .56 | 1.51 | .22 | .68 | .51 |

sion underlying students' ratings of target's personality seems to refer to a kind of emotional or personality disorder that could be seen as a potential for antisocial behavior.

In this study, however, we are primarily interested in the differences in the impression about the target that could be ascribed to the manipulation with the PTSD label and presented symptom pattern of this disorder.

The symptom pattern variable had more pervasive influence on the impression about the target than the label manipulation. In fact, the label variable produced significant effect only on the scores on the third personality factor in this study, i. e. introversion. Specifically, the impression about the target as an introverted person was significantly reduced when he was labeled a PTSD casualty. It seems that PTSD label provided an explanation for target's introverted behavior.

The absence of the label effect on responsibility judgments even in the unrecognizable symptom pattern condition (vignette U) is noteworthy. It could imply that U vignette actually was not an unrecognizable symptom pattern, and that some caution is needed in interpretation of the symptom pattern effect on responsibility ratings in terms of patterns' recognizability. As it has already been mentioned, recognizability differences between symptom patterns were only supposed here on the basis of the results of the previous research on the recognizability of individual symptoms. In this study, however, these symptoms were presented in the context of other symptoms, but the recognizability of such symptom patterns actually was not assessed. It seems plausible, however, to suppose that the label effect on responsibility judgments was mainly based on the perceived controllability of the primary distant cause of the target's actual condition (traumatic experience in combat) that was actually suggested in all vignettes in the part in which the target mentioned his fellow soldiers. In other words, we suggest that - as long as responsibility for causing actual condition is concerned - PTSD label primarily convey an information about that primary cause of actual condition. Some comments that participants made in a discussion after the study seem to support this explanation. Actually, even in no-label condition some students pointed out the similarity of target's problems with those of soldiers who had traumatic experiences in combat and for whom they knew or suspected to be PTSD casualties.

On the other hand, as the analysis of the label X symptom pattern manipulation showed, the label manipulation resulted in a more subtle effect on responsibility judgments. It was manifested in ascriptions of greater responsibility to the target with unrecognizable symptoms in no-label condition as compared with targets expressing (also) recognizable symptoms. Such a pattern of differences was not found when this pattern was labeled PTSD, neither this labeling produced significant effect on perception of the same pattern. Thus, if the absence of the main effect of the PTSD label suggests that the patterns might not differ in their recognizability and that some other factor, underlying the difference between symptom pattern conditions, should be considered to explain eventual effect of the symptom manipulation, this pattern of results indicate that such a factor could be of more importance when responsibility of the target is considered in no-label condition. One interpretation for that factor could be in terms of active vs. passive symptoms, as suggested by B. Weiner (1995), or in terms of intrusive vs. avoidant reactions, as suggested by M. Horowitz (1992).

The effect of the symptom pattern manipulation was most pronounced on the factor labeled prosocial orientation, which is - at least in this study - a personality dimension on which the target was primarily judged as good or bad person. The obtained pattern of differences between conditions was in fact similar to that obtained for responsibility judgments: target with unrecognizable symptom pattern was less positively evaluated and rated more responsible for causing actual condition than targets with complete or recognizable symptom patterns. In other words, the impression about the person with the PTSD symptom profile (vignette C) as a "good person" that was mainly not responsible for causing the actual condition did not change as long as intrusive reactions were present in the symptom pattern (vignette R). It was the absence of these reactions and the saliency of less recognizable symptoms of this disorder (vignette U) that resulted in less positive impression and perception of greater responsibility of the person for the cause of actual condition. According to Weiner's attribution model, such a change in perceived responsibility could reflect the tendency to attribute the actual condition of the person - being labeled as PTSD casualty or not - to more controllable and probably internal cause(s) when predominantly unrecognizable symptoms are manifested. The interaction effect suggests that such a tendency would be pronounced primarily when no label for that condition is provided. Furthermore, it was found that responsibility ratings correlated significantly only with the first personality factor scores in this study ($r$=.37, $p$< .05), and when introduced in factor analysis with personality trait ratings, it had significant loading (i.e. over .30) only on the first factor. This finding was consistent with the assumption that responsibility judgments actually have an evaluative component and that greater ascribed responsibility might indicate less positive evaluation of the person.

Symptom pattern manipulation produced somewhat different effect on the factor six that supposedly refers to psychopathic tendencies. Actually, these tendencies were perceived as less pronounced in the absence of unrecognizable part of the PTSD symptom profile. That is, the very presence of avoidance reactions and less recognizable symptoms in general, but not necessarily the absence of

recognizable symptoms, seem to result in a tendency to see something pathological about the person's personality. In other words, this pattern of differences might imply perception of some enduring impediments in target with unrecognizable symptom pattern that is in fact an attributional inference about his actual functioning.

This interpretation may seem tentative, because the items defining this factor are not "pure" and have relatively small loadings on this factor. The same remark can apply to the factor six in this solution which was labeled "victim vs. survivor role" dimension. Yet, these "small" factors' contents appear to be similar to the issues that are considered by professionals working with PTSD casualties (personality disorder and coping style), so they may also contribute to our understanding of dimensions people might be using when judging PTSD casualties.

In general, the results of this study indicate that students tend to evaluate a person manifesting PTSD symptom profile as a socially good person (at least when he can be identified as an soldier with traumatic experiences from combat), but this positive evaluation is due in fact to the presence of recognizable symptoms of PTSD. When these symptoms (primarily the intrusive symptoms) are not manifested, less positive evaluation and even perception of some responsibility for causing actual problems can be expected. On the other hand, the very presence of symptoms of avoidance, numbing of responsiveness, alcohol or drug consumption and other less recognizable symptoms might result in perception of "disordered personality".

One might argue that the presence of both recognizable and unrecognizable symptoms is necessary for the diagnosis of PTSD, so we are dealing here with reactions to dysfunctional conditions that actually are not PTSD. Still, one can hardly expect that the full range of PTSD symptom profile would be expressed in social interaction, and what it was tried in this study was to establish how the overall impression about the person is influenced by the presence of the two symptom patterns. Although recognizability was supposed to be the defining difference between these patterns, one cannot be confident in such an interpretation of the effect of the symptom pattern variable because the patterns also differ on the very nature of presented symptoms. An explanation in terms of passive vs. active symptoms seems plausible as well.

Furthermore, results of this study suggest that the PTSD label would have in fact a very small impact on the overall impression about the person. However, the confidence in this conclusion also needs more evidence. The absence of the contrast effect, which was expected to occur at least in judging personality traits, suggests that the operationalization of the unrecognizable symptom pattern might need some refinements (the information about the primary cause, although quite ambiguous, should be excluded from stimulus material), and the recognizability of presented patterns of symptoms should be assessed.

Finally, there are some important limitations of this research that should be noted. The study used written case material rather than studying actual social exchanges. Although the vignette technique is frequently used in the area of social perception, an objection is often rised concerning the artificiality of this kind of stimulus material in which the "observer" is exposed to the description of the target rather than the target himself. This argument also applies to this study.

The method used here retains a sizeable discrepancy from the actual social interaction in another way as well. Namely, the amount of target's self-disclosing in this study possibly does not match the one a lay person might meet in a usual interaction with a PTSD casualty. On the other hand, the form of an excerpt from the interview could be closer to lay persons' experience with self-disclosing PTSD casualty than some real actor as a source of information would be. The reasons for using self-report form of presentation have already been discussed in the "Method" section of this paper.

Perhaps more important concern is the very content of the vignettes. The description of the PTSD symptom profile used here is just one of a number of possible case descriptions that could be made. The fact that the clinical expressions of PTSD also vary in a considerable extent could not be a satisfactory argument and certainly does not eliminate the problem of representativeness of the case description used here. The generalizability of this study results is therefore constrained by the way the symptoms were sampled and presented to the students. An additional limitation arises from the fact that the primary cause of actual condition was suggested although our intention was not to provide such an information but to focus, instead, on presenting symptoms. Thus, if any generalization about the target person is to be made from these results, it should be limited to the young man experiencing and expressing PTSD symptoms as a result of some (unknown) combat trauma.

Whatever the practical relevance of this study results could be, it is perhaps more important that the consistency of the obtained symptom profile effect with the predictions derived from attribution theory points to usefulness of PTSD concept in its empirical verification.

## CONCLUSION

This study aimed to identify some implications of PTSD label and symptom patterns for understanding social evaluation of PTSD casualties that could be of theoretical

and practical importance. It provided an empirical evidence that impression about the person's personality and even judgments of his/her responsibility for causing actual condition can be significantly altered primarily by manipulating the presenting symptoms. This result is consistent with some clinical observations reported in PTSD literature, and generally supports the symptom profile effect on social reactions that was found in research on some other clinical phenomena. This effect was interpreted here in terms of pattern's recognizability. However, beside previous study results, there is actually no basis for conclusion that recognizability is the factor to which symptom's effect should be attributed, and further research is needed to understand the factors underlying this effect.

Furthermore, research focusing on the ascriptions of responsibility for the outcome of this disorder, as well as on causal properties other than controllability might advance our understanding of social perception of PTSD casualties.

## REFERENCES


BECKER, R. F. (1988). *The Deficiency of the PTSD-Concept when Dealing with Victims of Human Rights Violations*. Paper presented at the ISTSS Conference "Trauma and Tragedy", Amsterdam.

CARROLL, E. M., & FOY, D. W. (1994). Utvrđivanje i liječenje posttraumatskog stresnog poremećaja izazvanog borbom u medicinskom centru [Assessment and treatment of combat-related posttraumatic stress disorder in hospital]. In D. W. Foy (Ed). *Liječenje posttraumatskog stresnog poremećaja. Kognitivno-bihevioralni postupci [Treating PTSD. Cognitive-Behavioral Strategies]* (pp. 41-63). Jastrebarsko: Naklada Slap.

ĆUBELA, V. (1996a). *Uloga nekih atribucijskih procesa u socijalnoj percepciji PTSP-a* The Role of Some Attribution Processes in Social Perception of PTSD. Paper presented at X. Psychology Days, Zadar.

ĆUBELA, V. (1996b). Socijalna percepcija PTSP-a: prepoznatljivost i percipirana mogućnost kontrole nekih simptoma [The Social Perception of PTSD: The Recognizability and the Perceived Controllability of Certain Symptoms]. *Radovi Filozofskog fakulteta u Zadru, 35* (12) , 59-67.

DE VRIES, M. W. (1996). Trauma in Cultural Perspective. In B. A. van der Kolk, A. C. McFarlane & L. Weisaeth (Eds.) *Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body and Society* (pp. 398-413). New York: The Guilford Press.

EPSTEIN, R. S. (1989). Posttraumatic Stress Disorder: A Review of Diagnostic and Treatment Issues. *Psychiatric Annals, 19*, 556-563.

FIGLEY, C. R. (1985). From Victim to Survivor: Social Responsibility in the Wake of Catastrophe. In: C. R. Figley (Ed.) *Trauma and Its Wake: The Study and Treatment of PTSD* (pp. 398-415). New York: Brunner/Mazel.

HINTON, P. R. (1993).*The Psychology of Interpersonal Perception*. London: Routledge.

HOROWITZ, M. (1992). *Stress Response Syndromes*. New Yersey: Jason Aronson.

JANOFF-BULMAN, R. (1992). *Shattered Assumptions: Towards a new psychology of trauma*. New York: The Free Press.

LEVENSON, M. R., KIEHL, K. A., & FITZPATRICK, C. M. (1995). Assessing Psychopathic Attributes in a Noninstitutionalized Population. *Journal of Personality and Social Psychology, 68* (1), 151-158.

LEVENTMAN, S. (1978). Epilogue: Social and Historical Perspectives on the Vietnam Veteran. In C. R. Figley (Ed). *Stress Disorders among Vietnam Veterans. Theory, Research and Treatment* (pp. 291-295). New York: Brunner/Mazel.

LOPEZ, S. R., & WOLKENSTEIN, B. H. (1990). Attributions, Person Perception and Clinical Issues. In S. Graham & V. S. Folkes (Eds.) *Attribution Theory: Applications to Achievement, Mental Health and Interpersonal Conflict* (pp. 103-120). Hillsdale, N. J.: Erlbaum & Ass.

MANDIĆ, D. (1988). *Kanonički odnosi između osobina ličnosti ispitivanih NEP-1 skalom i Cattellovim 16 PF upitnikom [Canonical Relationships between Personality Traits Measured by NEP-1 and Cattell's 16 PF Questionnaire]*. Faculty of Philosophy, University of Zagreb.

QUARANTELLI, E. L. (1985). An Assessment of Conflicting Views on Mental Health: The Consequences of Traumatic Events. In C. R. Figley (Ed.) *Trauma and Its Wake: The Study and Treatment of PTSD* (pp. 173-215). New York: Brunner/Mazel.

SCURFIELD, R. M. (1985). Post-trauma Stress Assessment and Treatment: Overview and Formulations. In C. R. Figley (Ed.) *Trauma and Its Wake: The Study and Treatment of PTSD* (pp. 219-256). New York: Brunner/Mazel.

SKOWRONSKI, J. J., CARLSTON, D. E., & ISHAM, J. T. (1993). Implicit versus Explicit Impression Formation: The Differing Effects of Overt Labeling and

Covert Priming on Memory and Impressions. *Journal of Experimental Social Psychology, 29*, 17-41.

STRETCH, R. H. (1986). Post-traumatic Stress Disorder Among Vietnam and Vietnam-Era Veterans. In C. R. Figley (Ed.) *Trauma and Its Wake, Vol. II: Traumatic Stress Theory, Research, and Intervention* (pp. 156-192). New York: Brunner/Mazel.

VAN DER KOLK, B. A., & McFARLANE, A. C. (1996). The Black Hole of Trauma. In B. A. van der Kolk, A. C. McFarlane & L. Weisaeth (Eds.) *Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body and Society* (pp. 3-23). New York: The Guilford Press.

VAN DER KOLK, B. A., WEISAETH, L. & VAN DER HART, O. (1996). History of Trauma in Psychiatry. In B. A. van der Kolk, A. C. McFarlane & L. Weisaeth (Eds.) *Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body and Society* (pp. 47-76). New York: The Guilford Press.

WEINER, B., PERRY, R. P., & MAGNUSSON, J. (1988). An Attributional Analysis of Reactions to Stigmas. *Journal of Personality and Social Psychology, 55*, 738-748.

WEINER, B. (1995). *Judgments of Responsibility: A Foundation for a Theory of Social Conduct.* New York: The Guilford Press.

WYER, R. S., BUDESHEIM, T. L., & LAMBERT, A. J. (1990). Cognitive Representations of Conversations about Persons. *Journal of Personality and Social Psychology, 58 (2),* 218-238.

WYER, R. S., & CARLSTON, D. E. (1994). The Cognitive Representation of Person and Events. In R. S. Wyer & T. K. Srull (Eds.) *Handbook of Social Cognition, Vol 1: Basic Processes* (pp. 41-98). New Yersey: Lawrence Erlbaum Associates.

ŽUŽUL, M., MILJEVIĆ, R., KNEZOVIĆ, Z., & KULENOVIĆ, A. (1987). Composite of Osgood Rating Scales as a Measure of Basic Personality Dimensions. *Acta Instituti Psychologici Universitatis Zagrabiensis, 17*, 59-68.

*Received* November 1997
*Accepted* February 1998

# APPENDIX

## VIGNETTE "C"

I'm constantly tense and on my guard. For example, while I'm sitting in a café I don't hear the music but sounds that mean that someone is coming, getting up... While I am in a company I can't follow the conversation easily because it seems as if I'm continually expecting something to happen... I don't know what... And usually I'm not concentrated; sometimes I can't even concentrate on reading the newspaper or watching TV. I'm tense. To calm down ... I take a pill or drink something.

I'm especially disturbed by sounds, even when children throw firecrackers. I'm startled even when someone suddenly touches me... I cannot relax in any way or enjoy in anything, not even in what I once liked very much.

I continually think of what happened. Those scenes come back to me constantly... I am already, beforehand, afraid of going to sleep because those awful dreams, for which I wake up, keep repeating... Those scenes appear to me even before sleep, and sometimes even during the day. They appear suddenly and in any kind of situation: when I'm at home, in company, with friends... Then I feel a strong uneasiness, anxiety, fear; I sweat; I feel as something is flowing through my body, I tremble... The same is when something reminds me. And almost everything reminds me, whether I hear on television that that place is being mentioned or I see pictures of a similar region. Or, at the time of the anniversary - then I feel it again. That is why I do not like being reminded. Actually, I do not quite remember everything... But when something reminds me... That is why I avoid ... I do not like it when it is mentioned, especially when people gather and retell it, as if they were competing on who had gone through more and through worse. I become irritable; I begin to feel anxious, an anger in me... Some people assume an air of importance; they had been living comfortably and I had risked my life...

Fellow soldiers? I feel nice with them. I think that they understand me. Other people cannot understand this.

It is very difficult to me to express what I feel... At home I'm expected to act "normally", as before, to take delight in the everyday things and to talk about them, but I have no interest for that... We have become estranged. I feel as if they are not that close and dear to me as they had been before ... Even with my girlfriend it is not as it used to be. It is as if I am not capable of loving any more, to show it nor to feel it as before... I do not know what is to become of us, of me... I am worried about the future, I do not see any perspective.

I would like to forget and really talk, act as I once used to, but I cannot, I don't know if I will ever be able to... I would like to sit with friends and talk in a normal way. But I do not like to do this, I cannot talk about what happened. It is very difficult to express... feelings... People do not understand that. If I talked about it I'm afraid that I would lose control. That is why I don't like it when people talk, retell. I become nervous. I feel like striking them ... That is how I hit that young man...

## VIGNETTE "R"

I'm constantly tense and on my guard. For example, while I'm sitting in a café I don't hear the music but sounds that mean that someone is coming, getting up... While I'm in a company I can't follow the conversation easily because it seems as if I'm continually expecting something to happen, I don't know what...

I'm especially disturbed by sounds, even when children throw firecrackers. I'm startled even when someone suddenly touches me... I cannot relax in any way and enjoy in something, not even in what I liked once very much...

I continually think of what happened. Those scenes come back to me constantly... I'm already, beforehand, afraid of going to sleep because those awful dreams, for which I wake up, keep repeating... Those scenes appear to me even before sleep, and sometimes even during the day. They appear suddenly and in any kind of situation: at home, in a company, with friends... Then I feel a strong uneasiness, anxiety, fear; I sweat; I feel as if something is flowing through my body, I tremble... The same is when something reminds me of it. And almost everything reminds me: whether I hear on TV that that place is being mentioned or I see pictures of similar regions. Or, at the time of the anniversary - than I felt it again. That is

why I don't like being reminded. Actually, I don't quite remember everything... But when something reminds me... That is why I avoid... I don't like it when it is mentioned, especially when people gather and retell it, as if they were competing on who had gone through more and through worse. I become irritable: I begin to feel anxious, an anger in me... Some people assume an air of importance; they had been living comfortably and I had risked my life...

Fellow soldiers? I feel nice with them. I think they understand me. Other people cannot understand this...

VIGNETTE "U"

I'm constantly tense and on my guard. For example, while I'm sitting in a café I don't hear the music but sounds that mean that someone is coming, getting up... While I'm in company I can't follow the conversation because it seems as if I'm continually expecting something to happen, I don't know what... And usually I'm not concentrated, sometimes I can't even concentrate on reading the newspaper or watching TV. I'm tense. To calm down ... I take a pil or drink something.

I'm especially disturbed by sounds, even when children throw firecrackers. I'm startled even when someone suddenly touches me... I cannot relax in any way or enjoy in anything, not even in what I once liked very much.

It is very difficult to me to express what I feel... At home I'm expected to act "normally", as before, to take delight in the everyday things and to talk about them, but I have no interest for that... We have become estranged. I feel as if they are not that close and dear to me as they had been before... Even with my girlfriend it is not as it used to be. It is as if I'm not capable of loving any more, to show it nor to feel it as before... I don't know what is to become of us, of me... I'm warried about the future, I don't see any perspective.

I would like to forget and really talk, act as I once used to, but I cannot, I don't know if I will ever be able to... I would like to sit with friends and talk in a normal way. But I don't like to do this, I cannot talk about what happened. It is very difficult to express ... feelings... People do not understand that.

Fellow soldiers? I feel nice with them. I think that they understand me. Other people cannot understand this.

Actually, I don't quite remember everything... but when something reminds me... If I talked about it I'm afraid that I could lose my control. That is why I don't like people retelling. I become nervous, irritable, a kind of anxiety comes over me, an anger. I feel like striking them... That is how I hit that young man...

*Table A*

Varimax Rotated Factor Loadings of 55 Personality Trait Items

| item | $r_{iF1}$ | $r_{iF2}$ | $r_{iF3}$ | $r_{iF4}$ | $r_{iF5}$ | $r_{iF6}$ |
|---|---|---|---|---|---|---|
| 1. taciturn - talkative | | | .57 | | | |
| 2. satisfied - unsatisfied | | .54 | | | | |
| 3. courteous - incourteous | .58 | | | | | |
| 4. communicative - uncommun. | | | .50 | | | |
| 5. calm – restless | | .67 | | | | |
| 6. benevolent - malevolent | .65 | | | | | |
| 7. rejected - accepted | | | | | | |
| 8. worriless - worried | | .65 | | | | |
| 9. hearty - moody | .47 | .36 | | | | |
| 10. self-sufficient - friendly | | | .33 | | | -.32 |
| 11. relaxed - tense | | .80 | | | | |
| 12. good-natured - violent | .70 | | | | | |
| 13. reserved - outspoken | | | .62 | | | |
| 14. optimist - pessimist | .34 | .44 | | | | .33 |
| 15. normal - strange | .43 | | | | | |
| 16. slow – fast | | | | | | |
| 17. deliberate - rash | .48 | | | | | |
| 18. noble - cruel | .64 | | | | | |
| 19. withdrawn - exposed | | | .57 | | | |
| 20. tranquil - anxious | | .52 | | | | |
| 21. reasonable-unreasonable | .61 | | | | | |
| 22. closed - open | | | .71 | | | |
| 23. stable - unstable | | .57 | | | | |
| 24. thoughtful - negligent | .56 | | | | | |
| 25. bad – good | -.61 | | | | | |
| 26. quiet - noisy | .36 | | .56 | | | |
| 27. controlled - irritable | .39 | .45 | | | | |
| 28. honest - dishonest | .61 | | | | | |
| 29. bad-humored -good-humored | | -.34 | .35 | | | |
| 30. determined-hesitating | .30 | .35 | | | | |
| 31. responsible - irresponsible | .63 | | | | | |
| 32. unsociable - sociable | | | .33 | .36 | | |
| 33. composed - nervous | | .75 | | | | |
| 34. pleasant - unpleasant | .68 | | | | | |
| 35. quiet - lively | | | .37 | | | |
| 36. persistant - irresolute | | .36 | | | .58 | |
| 37. tidy - untidy | .59 | | | | | |
| 38. passive - active | -.32 | | .44 | | -.33 | |
| 39. self-confident-helpless | | .43 | | | .32 | |
| 40. lovable - insolent | .64 | | | | | |
| 41. sure-goer - adventurer | | | | .51 | | |
| 42. fresh - tired | | .55 | | | | |
| 43. obeying - disobeying | .44 | | | | | |
| 44. rigid - flexible | | | | | | -.39 |
| 45. steady - insecure | | .52 | | | | |
| 46. humble - boastful | .48 | | | .32 | | |
| 47. serious - cheerful | | -.36 | .30 | | | -.41 |
| 48. invulnerable - vulnerable | | .45 | | | | |
| 49. mild - violent | .48 | | | | | .34 |
| 50. cold - passionate | | | | .62 | | |
| 51. controlled - quick-tempered | .50 | .31 | | | | .46 |
| 52. considerate-inconsiderate | .60 | | | | | |
| 53. boring-amusing | -.31 | | | .32 | | |
| 54. concentrated- absent-minded | | .69 | | | | |
| 55. conscientious-unconscien. | .46 | | | | | |
| eigen values | 8.30 | 6.20 | 3.53 | 1.68 | 1.30 | 1.84 |
| % of variance | 15.1 | 11.3 | 6.4 | 3.1 | 2.4 | 3.3 |

*Table B*

Mean values of 55 personality trait ratings of target in the whole sample ($N$=228)

| item | *M* | item | *M* | item | *M* |
|---|---|---|---|---|---|
| 1. taciturn-talkative (E) | 3.12 | 20. tranquil - anxious (N) | 6.10 | 39. self-confident - helpless (N) | 5.35 |
| 2. satisfied-unsatisfied (N) | 6.53 | 21. reasonable - unreasonable (P) | 3.36 | 40. lovable - insolent (P) | 4.21 |
| 3. courteous-incourteous (P) | 3.60 | 22. closed - open (E) | 2.68 | 41. sure-goer - adventurer (E) | 3.84 |
| 4. communicative-uncomm. (E) | 3.29 | 23. stable - unstable (N) | 5.75 | 42. fresh - tired (N) | 6.23 |
| 5. calm -restless (N) | 6.58 | 24. thoughtful - negligent (P) | 3.53 | 43. obeying - disobeying (P) | 3.88 |
| 6. benevolent-malevolent (P) | 3.05 | 25. bad - good | 5.37 | 44. rigid - flexible (E) | 3.01 |
| 7. rejected - accepted (E) | 3.45 | 26. quiet - noisy (E) | 2.66 | 45. steady - insecure (N) | 6.04 |
| 8. worriless - worried (N) | 6.52 | 27. controlled - irritable (N) | 5.80 | 46. humble - boastful (P) | 2.56 |
| 9. hearty - moody (P) | 5.07 | 28. honest - dishonest (P) | 2.70 | 47. serious - cheerful (E) | 1.92 |
| 10. self-sufficient - friendly (E)) | 3.44 | 29. bad-humored - good-hum. (E) | 2.14 | 48. invulnerable - vulnerable (N) | 5.77 |
| 11. relaxed - tense (N) | 6.71 | 30. determined - hesitating (N) | 4.80 | 49. mild - violent (P) | 4.32 |
| 12. good-natured - violent (P) | 3.83 | 31. responsible - irresponsible (P) | 3.62 | 50. cold - passionate (E) | 3.24 |
| 13. reserved - outspoken (E) | 2.85 | 32. unsociable - sociable (E) | 3.34 | 51.controlled-quick-tempered(N) | 4.87 |
| 14. optimist - pessimist (N) | 5.78 | 33. composed - nervous (N) | 6.46 | 52. considerate - inconsider. (P) | 3.68 |
| 15. normal - strange (P) | 4.39 | 34. pleasant - unpleasant (P) | 4.07 | 53. boring - amusing (E) | 3.82 |
| 16. slow - fast (E) | 3.97 | 35. quiet - lively (E) | 3.37 | 54.concentrated-absent-mindedN | 6.33 |
| 17. deliberate - rash (N) | 3.92 | 36. persistant - irresolute (N) | 5.01 | 55.conscientious-unconscien.(P) | 3.53 |
| 18. noble - cruel (P) | 3.49 | 37. tidy - untidy (P) | 3.61 | | |
| 19. withdrawn - exposed (E) | 2.17 | 38. passive - active (E) | 3.36 | | |

*Note.* Letters, given in brackets, indicate the NEP-C scale from which the individual item was taken (E - extraversion scale; N - neuroticism scale; P - psychoticism scale). The second member of an adjective pair is a symptomatically positive adjective to which a higher scale value (7) was given.