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ABSTRACTS
APPLICATIONS OF THE MULTI-FACETED AGGRESSION INVENTORY FOR BOYS BY OLWEUS TO AN ITALIAN SAMPLE

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The aim of this paper is to examine the self-prediction of the aggression in boys and girls with ages from 10 to 18 years. The questionnaire was set up for pre-adolescents by Olweus in 1975 and was translated and adapted in Italy for a pre-adolescent and adolescent population. The questionnaire was submitted to pre-adolescents and adolescents coming from different geographic areas. A factor analysis carried out on the items of the questionnaire reveals four factors: verbal aggression against people in an authoritative role, physical aggression against peers, aggression inhibiting responses and positive self-reports. The scores reveal differences in age levels and in sex in these factors.
APPLICATION OF OLWEUS' MULTI-FACETED AGGRESSION INVENTORY FOR BOYS TO AN ITALIAN SAMPLE.
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Many authors of different theoretical positions were and are interested in the phenomenon of aggression. For this reason the origin of aggression is a problem which has been explained in different ways: on the one hand, ethologists and psychoanalysts consider aggression as an instinutial factor or as a drive, while on the other, behaviourists and supporters of a social learning-theory are of the opinion that aggression is behaviour learned and dependent on external stimulus that provoke an individual's response. The only question on which all these opinions agree is the existence of an aspect of aggression that shows itself in certain patterns of behaviour. Some of these patterns demonstrate aggression directly, while others give the impression of a block or an inhibition of the foregoing kind of behaviour.

In spite of the fact that most of the theoretical hypotheses agree on the fact that it is possible to verify concretely aggression in human patterns of behaviour, very few methods have been elaborated to measure aggressive tendencies or behaviour; a still smaller number is disposable in Italy.

The existent ones, are founded often on projective techniques, what, as many authors underline, suffer from an inadequate standardisation with respect to both administration and scoring.

Olweus, a Scandinavian author, tried, at the first, to study overt aggression in an interpersonal situation on the basis of the aggressive responses to a projective technique purposely constructed (Olweus, 1969). This test was very carefully standardized and based on a theory of aggression put forward by the author himself.

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Later, however, knowing that this technique was not so easy to use, if the examiner was not of a particularly high clinical ability, to score and analyses the responses, Olweus decided to construct an aggression inventory. Both the inventory and the projective techniques were designed to measure an individual's habitual aggression and inhibitory tendencies. The inventory, unlike the projective technique, is quicker and easier to use and also to administrate to bigger populations, even if it doesn't offer all the information that a clinical instrument like the projective technique does.

Because of the few works on aggression existing for the Italian population, we thought that a validation of Olweus' inventory could furnish a useful instrument for the measurement of the aggression and inhibitory tendencies in the Italian population and in particular in the preadolescent population as in Olweus' original work.

Before describing the criteria of the validation we used for the adaptation of the inventory to the Italian population, we should like to give a brief detail of some definitions that are fundamental to the questionnaire.

Olweus, rather than defining aggression takes into consideration the aggression response and defines it as "any act or behaviour which implies, can imply and/or, to some extent, can be regarded as meant to inflict damage or affliction (either physical or mental)" (Olweus, 1973, P.271). Among aggression responses, Olweus also includes any manifestation of individual inner reactions, that may be presumed to be or to have been, meant to cause damage or affliction to either people or things. Any aggression response results from an individual's inner processes. Besides cognition factors, situational and contextual components and an individual's habitual dispositions, such a process entails two particular tendencies.
One of them, known as aggressive tendency, is the individual's disposition to evaluate certain situations as frustrating, harmful, threatening. The other, known as inhibitory tendency is the disposition to evaluate his or her aggressive tendencies as dangerous, unpleasant, painful or inappropriate.

On the basis of what is said above aggressive behaviour is not the result of a single factor, but of a series of different factors that may, or may not, produce behaviour definable as aggressive. Among these factors, the most notable ones are social habits, that differ, in different cultures, according to age and sex. It is therefore necessary to assess whether the Italian sample reacts in the same way as the Swedish sample, and so whether the items show similar aggression responses or whether the situations considered take on a different meaning where Italians are concerned.

For the preceding assertions it is clear that for the application of Olweus' inventory to the Italian population it is necessary to carry out some research to study the characteristics of the Swedish method for the Italian population. With the aim of an adaptation of the Olweus' questionnaire we carried out four research projects on sample differing in sex, age and location.

Sample of the research.

The first research project availed itself of the said questionnaire, ratings and check-list, on a sample of 68 male subjects, also 12 to 14 years of age and belonging to the lower-middle class, living in a Southern town.

A second research project utilized, besides Olweus' questionnaire, another specially prepared and the Survey of Interpersonal Values questionnaire. The sample consisted of 91 subjects, aged between 15 and 16, some attending a Technical School and some the science stream of a High School in a town in Northern Italy, belonging respectively to the high and to the low socio-economic class.
A third research project utilized Olweus' questionnaire only, applied to 50-subjects sample of both sexes, ranging between 17 and 19 years and attending a Primary Teacher's Training College (female sample) and a Technical School (male sample) in Padua.

The last research project concerns 202 subjects of both sexes, ranging between 16 and 18 years and attending either a Lower Secondary School or the Science stream of a High School; and is therefore different from all those in the previous Italian studies.

Validity

The criteria we adopted for the Italian validation in the four research projects were of different kinds. First of all we decided to study some aspects of the validity; more exactly: content validity, concurrent validity, construct validity. Later we evaluate the reliability of the inventory.

A) Content validity

For the content validity we only considered the aspects the translation of the inventory.

The main modifications we thought necessary to carry out, were:

a) The items concerning physical sports were substituted by other kinds of sports more familiar to Italian people.

b) For the choice of the filler (which were not quoted in the Olweus report) we tried to look for items as neutral as possible that is lacking in implication of aggressive behaviour.

c) In the first of the quoted researches, the terms "teacher" was replaced by the more general "adult"; the aim of this modification was to make the situation refer to more contexts.

d) We tried to maintain the meaning each item was aimed to express, but at the same time we tried to translate the items in such a way that they would be understood by the subjects and the rest of the Italian population.
We proceeded by successive elaborations, trying to improve the content of the items from one research project to the next. In our mind the best result was obtained in the last project, where we could better combine the meaning of the items and the reality of the situation described.

B) Construct validity

To verify the construct validity we used factor analysis, the correlation with other tests, age and sex differentiation.

a) Factor analysis

Regarding factor analysis, this methodology was applied in all the four researches. We summarize in table 1 the results of such analysis.

<table>
<thead>
<tr>
<th>Factor Project</th>
<th>First Project</th>
<th>Second Project</th>
<th>Third Project</th>
<th>Fourth Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Verbal hostility towards adult</td>
<td>Aggression inhibitory responses</td>
<td>Aggression inhibitory responses</td>
<td>Physical aggression</td>
</tr>
<tr>
<td>II</td>
<td>Aggression inhibitory responses</td>
<td>Physical and verbal aggression and aggressive impulses</td>
<td>Verbal aggression inhibitory responses</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>Activity</td>
<td>Positive self-reports</td>
<td>Positive self-reports</td>
<td>Positive self-reports</td>
</tr>
<tr>
<td>IV</td>
<td>Positive self-reports</td>
<td>Fillers</td>
<td>Social desirability Verbal aggression</td>
<td></td>
</tr>
</tbody>
</table>

The factors are listed in order (maximum to minimum) according to the number of variance they contain. Two aspects appear very clearly: 1) "Verbal aggression", "Positive self-reports", "Aggression inhibitory responses" appear in all the researches; 2) the factor "Aggressive impulses" never appear in our researches.
b) Correlation with the other tests

In the second project we calculated the correlations between the factors and S.I.V. (Survey of Interpersonal Values) in Messchieri's Italian adaptation. We identified the following significant correlations:

- The S scale (Support) and the R scale (Recognition) of the SIV are not significantly correlated with any of the factors of the Olweus' questionnaire.

- The C scale (Conformity) is significantly correlated (.30) with Olweus' first factor "Aggression inhibitory responses" in the feminine sample.

- The I scale (Independance) is significantly, but negatively correlated with the first factor "Aggression inhibitory responses" (−.32 for the males and −.30 for the females) and positively with the second factor "Physical, verbal aggression and aggressive responses" (.31 for males and .33 for females).

- The B scale (Benevolence) is significantly correlated with the first factor (.29 for males and .35 for females) and with the second factor (−.25 for males and −.36 for females).

- The L scale (Leadership) is significantly and positively correlated with the first factor in the male sample (.21) but not in the female sample.

c) age and sex differentiation

In the second research project on the factor series obtained from the factor analysis we carried out a two-factors analysis of variance: sex and cultural level to decide if the two variables sex and cultural level or their interaction influenced the factor scores; we obtained the following results.

- In the first factor (Aggression inhibitory responses) we observed a significant influence of the sex variable (the males obtained a score significantly lower than the female) and of the cultural level (subjects with a lower cultural level obtained a
score higher than the subjects with higher cultural level), but not from their interaction.

- In the second factor (Physical, verbal aggression and aggressive responses) we found only one significant effect due to sex; the mean score of males is significantly higher than that for females.

- In the third factor (Positive self-reports) the analysis doesn't show any significant effect for the examined variables.

In the fourth research again we carried out analysis of variance on the factor scores (it was a two-factor analysis: sex for age):

- in the first factor (Physical aggression) we found a significant effect of sex (males are more physically aggressive than females), age (the preadolescent are more physically aggressive than the adolescents) and their interactions (preadolescent males are more aggressive, while adolescent female are less aggressive);

- in the second factor (Verbal aggressive towards teachers and adults) we found the same as in the first factor;

- in the third factor (Aggressive inhibitory responses) only the variable sex had a significant effect (the female show a greater number of aggression inhibitory responses than the males);

- in the fourth factor (Positive self-reports) only the variable age had a significant effect (the preadolescents show a tendency to evaluate themselves more positively than the adolescents).

C) Concurrent validity.

In the first research project the methodology was exactly the same as in Olwues' original work. So we used the same rating scale of overt aggression behaviour and the same adjective list. The agreement index between the judges on the rating scales was satisfactory. We can summarize the correlations between the factors in the factor analysis and the rating scales thus:

- the first factor (Verbal hostility towards adult) is significantly correlated with "Start fights" (.32) and with "Verbal
protest" (.36);
- the second factor (Aggressive inhibitory responses) is significantly correlated (.24) with "Verbal protest";
- the third and fourth factors don't present significant correlations with any one of the rating scales.

Concerning the correlation between the factors and the adjective listing the only significant correlations appear between verbal hostility toward adults and "habitual aggressive feelings" and "habitual anxious feelings".

In the second research project again we used the same rating scales of overt behaviour; we obtained the following results:
- for the male sample, we found a significant positive correlation between the second factor (Physical, verbal aggression and aggressive responses) and the scales: "Start fights" (.28), "He prefers play and activities in which the physical strength finalized" (.29), "Arguing and quarrelling with other people" (.26);
- for the female sample we found only one correlation between the third factor (Positive self-reports) and the scales: "Tendency to make turn of and to humiliate others" (.30), "He insults others by words and gestures" (.32).

Reliability

The reliability was calculated using the Cronbach alpha coefficient only in the last but most extended research project. We found:

- Physical aggression .955
- Aggression inhibitory responses .965
- Positive self-reports .916
- Verbal aggression .898

Conclusions

The different research projects we carried out on different samples seem clearly to support the validity of Olweus' Inventory
for the Italian population too. Above all it seems important to us to underline some similarities and some differences in some aspects of the questionnaire in the Scandinavian and Italian population.

a) Even if we found significant difference due to sex, the inventory seems useful also in the feminine sample.

b) The factors we identified with fourth analysis are, in general, similar to the ones identified by Olweus except the factor "Aggressive impulses".