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The Development of the P.E.T. Scale for the Measurement of Physical and Emotional Tormenting Against Animals in Adolescents

ABSTRACT

The Physical and Emotional Tormenting Against Animals Scale (P.E.T.) is a new self-administered scale to measure physical and emotional abuse against animals among adolescents. This study is a first attempt to establish the reliability and validity of this newly developed scale with a non-clinical sample of 1396 Italian adolescents, aged 11-17 years. The scale measures different dimensions of animal abuse, ranging from mild to more severe: bothering, tormenting, hitting, harming, and being cruel to an animal. The scale measures the prevalence and frequency of directed and witnessed abuse against animals. Principal components analysis suggested a two factor solution, with factors labeled "direct" and "indirect" animal abuse; internal consistency was good for each factor. The direct animal abuse factor was significantly correlated with the Child Behavior Checklist's single item assessing engagement in cruelty against animals. These findings suggest that the PET scale has potential as an instrument for the measurement of animal abuse. Future studies of the PET scale's psychometric properties, and cross-validation on new populations, are needed.

Keywords: animal abuse, scale validation, adolescents

In the last decade there has been an increased interest in cruelty against animals, primarily committed by criminals or people with antisocial personality

disorders who already, during childhood and adolescence, showed symptoms of conduct disorder (CD). Since 1987, physical cruelty against animals committed by children has been included as one of the symptoms for the diagnosis of CD in the DSM III-R (American Psychiatry Association, 1987), subsequently included in the DSM IV (American Psychiatry Association, 1994). CD is defined as “a repetitive and persistent pattern of behavior in which the basic rights of others or major age appropriate societal norms or rules are violated” (American Psychiatry Association, 1994, p. 90). It requires that at least 3 of 15 separate symptoms are present in the previous 12 months for a diagnosis of CD, among which ‘destruction of property’ (intended as fire setting and vandalism) and ‘aggression to people and animals’. Most studies have been clinical and criminological in their nature looking at the relationship between animal cruelty and antisocial behaviors, especially among violent offenders (Miller & Knutson, 1997). Animal abuse can be found in adults with personality disorders who are cruel and violent against people, but in adolescents it also represents an early indicator of externalizing maladjustment (Ascione, 2001; Duncan & Miller, 2002; Lockwood & Ascione, 1998).

Cruelty against animals has been defined only recently by the Humane Society of the United States as set of “behaviors that are harmful to animals, from unintentional neglect to intentional killing” (Humane Society of the United States, 1999). Ascione (1993) previously defined animal cruelty as a “socially unacceptable behavior that intentionally causes unnecessary pain, suffering, or distress to and/or death to an animal” (Ascione, p. 228).

As outlined by Ascione (2001), animal abuse may vary in frequency, severity, and chronicity and can range from “exploratory/curious animal abuse” like an “immature teasing of animals (a toddler pulling a kitten along by the tail) to serious animal torture (stealing neighborhood pets and setting them on fire)” (Ascione, 2001, p. 5).

Cruelty against animals can be witnessed as well as committed. Exposure to forms of violence increases the risk of further development of such behaviors as learned within the family or the community (Bandura, 1973). Mild forms of abuse, which are not assessed as pathological or included in a diagnosis of CD, often are underestimated, overlooked, and underreported. This is more likely to happen if information is based on parental reports or chart

reviews. As outlined by Miller (2001), the best way to measure early stages of mild animal cruelty is to ask children and adolescents directly.

Studies conducted by Ascione (1998, 2001), Baldry (2003) and Flynn (1999) have shown that cruelty against animals is strongly associated with child abuse and domestic violence (Flynn, 2000c; Shapiro, 1996). Flynn (1999, 2000a, 2000b) found a significant correlation between children who are directly abused or who are exposed to family violence and cruelty against weaker creatures. Ascione (2000) indicated that 54% of the battered women compared with 5% of non battered women reported that their partner had hurt or killed pets.

Baldry (2003) reported that half of all participants recruited from the Italian population of preadolescents and adolescents reported having abused animals at least once by being cruel or hitting, harming or tormenting them. Except for those children who were exposed both to domestic violence and to abuse by one or both parents, boys were twice as likely as were girls to report violence against animals. Animal abuse was associated with exposure to animal abuse and to violence by a mother against a father.

Assessing animal abuse is an important research and clinical tool for the early detection of maladjustment and for the prevention of further violence perpetuated or suffered at a young age. Animal abuse has been measured in several ways. However, few instruments provide an easy to self-administer scale valid for a non-clinical population of school-aged adolescents.

Information from a random sampling of a community's young people with no clinical problems is a reliable guide to understand the prevalence of the problem under investigation. Most studies conducted have used clinical instruments such as semi structured interviews (Boat, 1999) and included clinical samples. The types of violence against animals emerging from these studies are rather severe. Clinical instruments tend to measure physical cruelty against animals, underestimating other forms of abuse such as emotional tormenting of animals.

Duncan and Miller (2002), indicate that assessment measures for childhood cruelty against animals are scarce. Often, they are included in measures that are wider in scope: the Child Behavioral Checklist (CBCL), (Achenbach &

Edelbrock, 1983) or the Interview for Antisocial Behavior (Kadzin & Esveltd-Dawson, 1986). The adult version of the CBCL includes one item (#15) where the guardian who is completing the questionnaire is asked to indicate on a 3-point scale whether the child has been cruel to animals in the previous six months. Achenbach developed a self-administered version of the Youth CBCL scale for adolescents aged 11-18 in which youngsters have to self-report their answers regarding their behavior and somatic conditions. Unfortunately, this Youth version does not include the item measuring cruelty against animals, though it would be possible to include this single item derived from the adult version in the Youth version, reformulated in a self-report manner. This single item, however, does not assess all forms of animal abuse nor does it measure exposure to cruelty against animals by others within the family, the community, or the school. The single item is meant to be used in conjunction with other measures of “aggressive behaviors.” This item, however, is often used as a measure to determine cruelty against animals (Ascione, 2001).

Ascione, Thompson, and Black (1997) were the first to develop an extensive instrument to measure animal maltreatment. The Children and Animals Assessment Instrument (CAAI) is a semi-structured interview for children and their parents. The interview adopts a qualitative and quantitative method that scores for several dimensions of cruelty to animals: severity, frequency, duration, recency, and empathy. The CAAI, however, requires extensive time to administer and to code the answers.

Boat (1995, 1999) developed the Boat Inventory on Animal Related Experiences (BIARE), a semi-structured inventory to be used as a screening and information-gathering instrument. Although not standardized or normed, it is a useful tool, addressing different aspects of animal-related experiences: cruelty to animals, killing of animals, and sexual interactions with them. The instrument explores exposure to cruelty and abuse against animals. Good for support in a clinical setting, it is less useful for community samples and especially for self-completing purposes because it is too long to administer.

The aim for constructing the *P.E.T.* Scale, therefore, was to develop a short, closed-ended measure—easy to self-administer to non-clinical adolescents—in order to disclose the prevalence, severity, and type of physical and emotional tormenting of animals committed or witnessed.

Self-reported anonymous scales are valid measures for understanding sensitive issues; they are reliable measures for several behaviors such as self-reported delinquency, bullying, and victimizing (O'Brien, John, Margolin, & Erel, 1994). Youngsters are the most reliable respondents to report about their own experiences, and they provide useful information about involvement in any socially undesirable action. Social desirability can be controlled by adopting anonymity of the measures and by formulating items in such a way that respondents perceive any of the actions investigated as part of a possible normal pattern of behaviors. Using this funneling technique helps respondents, first, to provide answers about other's behavior and, subsequently, to disclose their own. Socially desirable scales also can be included.

Method

The Pilot Study: Construction of the Questionnaire

To ensure that participants in the study understood the meaning of the words used in the Scale describing direct animal abuse, a pilot study first was conducted with 300 adolescents, aged 11-17 years who had to provide examples for each of the five different categories included in the final *P.E.T.* Scale measuring "animal abuse." These five categories were selected according to the review of the literature on animal abuse and on what emerged from two different focus groups conducted with same age youngsters on the issue of pet and animal ownership and different possible behavior with them. In the Focus Groups (conducted prior to the pilot test) youngsters watched a video showing some children first hugging a dog and then starting to pull the dog's fur and tail. The video was interrupted, and participants were invited to discuss what they had just seen. They were asked to talk about "nice" things that could be done to animals as well as "bad" and to think at different possible ranges of nice and bad behaviors toward animals. A content analysis revealed four bad behaviors: bothering, tormenting, being cruel, and hitting animals. Several youngsters used the general term, "harming," by which they were indicating different things that caused suffering to the animal. The following five categories were chosen for the pilot study (tormenting, being cruel, bothering and harming). The pilot study also served to cross check the meaning youngsters gave to these categories with those provided in the focus groups.

The questionnaire used in the pilot study consisted of five open-ended questions, each question beginning with, “According to you:”

1. What does it mean being cruel to animals?
2. What does it mean tormenting animals?
3. What does it mean bothering animals?
4. What does it mean hitting animals?
5. What does it mean harming animals?

Respondents had to indicate in a few lines what they meant with each of the five different types of behaviors listed and provide examples for each of them. The answer helped to interpret the meaning of each category; results were then content-analyzed to check for consistency in the meaning provided for each category across respondents. This was done to ensure that when we asked adolescents with the *P.E.T.* Scale whether they ever tormented, hurt, hit, bothered, or harmed animals, had been cruel to animals, semantically they all referred to the same pattern of behaviors. Answers were divided into categories by two different raters (inter-raters reliability assessed with Cohen’s Kappa was $k = .87$, $p = .001$) and then were included in the structured self-reported questionnaire.

Participants

The original sample size consisted of 1396 adolescents recruited from 20 middle and high schools in Rome and province. Schools were randomly selected from the register of middle and high schools of the province district. Forty of all participants (corresponding to the 2.8% of the total) had all, or almost all, questions regarding animal abuse and socio-demographic measures missing data. Therefore, these participants were removed from the final sample that consisted of 1356 youngsters (45.5% girls and 54.5% boys). Their age range varied from 11 to 17 years (mean age = 14.1 years, $SD = 2.6$).

Procedures

In Italy, there is no official ethical commission for the evaluation of research projects; researchers have specific ethical and deontological guidelines that they have to address when conducting studies—especially if these are conducted with under-age youngsters on sensitive topics. Researchers are asked

to adhere to the ethical guidelines when researching with under-age young people.

One week before the collection of data, students received an envelope with a letter informing parents about the study and asking them to sign the letter if they did not agree that their child could take part in the study. The letter also assured parents of the anonymity and the confidentiality of the study. Parents had to acknowledge receipt of the letter in their children's diaries. Of all parents who read the letter (95%), no one returned the form signed. Only those students whose parents read about the study could take part in it.

On the day of the collection of data, two psychology research assistants instructed the class to sit separately so as to allow no conferring, talking, or helping when filling in the questionnaire. No time limit was imposed, and the average time to complete the questionnaire was about half an hour. Students were to write down the date, the class, and the name of the school and mark the box corresponding to the option they chose. After completing the questionnaire, each student sealed it in a white envelope and placed it in a box for the research assistant to remove.

Questionnaire

The self-reported questionnaire consisted of the *P.E.T.* scale and the self-administered Youth CBCL questionnaire with the addition of the item #15 derived from the adult-administered version measuring cruelty against animals ("Have you been cruel to animals?").

The *P.E.T.* scale includes items for the measurement of direct physical and emotional abuse to animals, as well as witnessed violence against animals by peers, parents, or adults in general. The *P.E.T.* is a 9-item scale: Four items measure indirect (witnessed) animal abuse (by a peer, an adult, the father or the mother); five items measure direct animal abuse by the respondent. The four questions measuring indirect animal abuse required respondents to indicate if any people mentioned in the scale ever had harmed the animal. The other five items measured direct child animal abuse intended as physical and emotional abuse: bothering, tormenting, hitting, harming, or being cruel to an animal.

Respondents could answer on a 5-point Likert Scale ranging from 1 = never to 5 = very often. The scale range gives the opportunity to determine not only the prevalence rate but also the intensity of each act reported. Though it is not possible with this type of measure to gather information on violence toward different types of animals (Boat, 1999), the scale provides an index of different forms of animal abuse.

The scale also includes two screening questions about ownership and type of animals. The animal abuse items are preceded by phrasing the harming of animals as an acceptable event. This was done so that respondents could perceive the behaviors presented as something *normal* that can happen to others as well as to themselves; this procedure is used to reduce false negatives due to social desirability.

Results

Individual Items

Table 1 displays mean scores and standard deviations for each of the nine P.E.T. items for the total sample and for boys and girls separately. Mean scores were compared using *t*-tests. It is hardly surprising that these scores are relatively low. Participants are recruited from a community school-based sample, not from a clinical one that potentially would have resulted in higher rates of antisocial behaviors. For all items, gender differences emerged indicating that boys were significantly more likely to abuse animals than were girls.

Factor Structure

To determine the underlying factor structure of the scale, a Principal Components Analysis with varimax rotation was performed using all 9 items. A two-factor solution resulted: (a) direct animal abuse, explaining 38.1% of the total variance and (b) indirect animal abuse, explaining 14.1% of the total variance. As shown in Table 2, loadings of each item on its corresponding factor is $> .50$.

Internal Consistency

All 5 items measuring direct abuse were added together to form a “direct abuse” subscale; this subscale demonstrated good internal reliability as assessed

Table 1. T-test Means Comparisons and Standard Deviations of the P.E.T. Scale's Items, Overall and According to Gender Differences

<i>P.E.T. Scale items</i>	<i>Overall</i>	<i>Sd</i>	<i>Girls</i>	<i>N</i>	<i>Boys</i>	<i>N</i>	<i>t-test</i>	<i>df</i>
1. Bother animals	1.52	.85	1.26	617	1.73	729	10.77***	1344
2. Harm animals	1.30	.71	1.09	618	1.46	728	10.17***	1344
3. Tormenting animals	1.47	.82	1.32	620	1.58	728	6.17***	1346
4. Being cruel to animals	1.23	.64	1.10	619	1.33	728	6.90***	1345
5. Hitting animal	1.21	.60	1.12	621	1.28	729	5.08***	1348
6. Adult harming animal	2.15	1.12	2.08	620	2.21	729	2.22*	1347
7. Father harming animal	1.13	.46	1.08	614	1.17	729	3.60**	1341
8. Mother harming animal	1.08	.38	1.05	618	1.09	725	2.31*	1341
9. Friend harming animal	2.29	1.19	2.10	618	2.43	728	5.19*	1344

Note: Respondents could answer on a five point Likert scale ranging from 1 = 'never' to 5 = 'very often'. Differences in N's are due to missing values. High values are in the direction of greater abuse *p < .05; **p < .01; ***p < .001.

Table 2. Structure Matrix of the P.E.T. Scale

<i>Animal abuse</i>	<i>Component</i>	
	<i>Direct 'P.E.T.'</i>	<i>Indirect 'P.E.T.'</i>
Hurt animals	.864	.191
Bother animals	.823	.143
Cruel against animals	.796	.156
Tormenting animals	.742	.057
Hit animals	.654	.202
Father hurt animals	.191	.689
Adult hurt animals	.129	.671
Mother hurt animals	.121	.606
Friend hurt animals	.264	.507

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax.

Table 3. Intercorrelation of the P.E.T. Items and the Item of the Child Behavioral Check List Measuring Cruelty against Animals

	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. <i>I am cruel against animals</i> (CBCL #15 item)	/.244**	.218**	.153**	.199**	.009	.008	.003	.038	.143*	.090*	.011
2. Bother animals	/.485**	.278**	.308**	.227**	.102*	.170**	.090*	.247**	.218**	.407**	.052
3. Harm animals	/.257**	.354**	/.159**	.275**	.164**	.242**	.187**	.218**	.122**	.290**	.062
4. Tormenting animals	/.370**	.132**	.245**	.210**	.122**	.110*	.006	.199**	.128**	.298**	.056
5. Being cruel to animals	/.174**	.313**	.242**	/.174**	.313**	.242**	.205**	.309**	.131**	.131**	.325**
6. Hitting animal	/.324**	.104*	/.324**	/.324**	.104*	/.324**	/.324**	.052	.118*	.118*	.160**
7. Adult harming animal	/.052	/.087*	/.052	/.052	/.087*	/.052	/.052	/.052	/.052	/.070	.087*
8. Father harming animal	/.131*	.234**	/.131*	/.131*	.234**	/.131*	/.131*	/.131*	/.131*	/.131*	.234**
9. Mother harming animal	/.040	•	/.040	/.040	•	/.040	/.040	•	•	•	•
10. Friend harming animal											
11. Direct P.E.T.											
12. Indirect P.E.T.											

*p < .05 **p < .01

with Cronbach's Alpha ($\alpha = .84$). The 4 items measuring indirect abuse were added together to form an "indirect abuse" subscale; for this subscale, internal consistency was somewhat weaker ($\alpha = .69$). However, this is not surprising given that the items comprising this subscale measure the behavior (harming animals) of different people (adult, peer, father, and mother).

Concurrent Validity

Each of the items of the *P.E.T.* scale as well as the direct and indirect abuse subscales were correlated with the item (#15) measuring cruelty against animals derived from the adult version of the CBCL (Table 3).

Bivariate correlations of item #15 with the subscale of direct animal abuse and with the individual items on that subscale were all significant, the only exception being, hitting animals. In contrast, the total score and individual items on the subscale of indirect abuse generally did not show significant correlations with the item #15.

Discussion

The current study is a preliminary step for the development and validation of a new scale measuring adolescents' animal abuse: the *P.E.T.* Scale. The Scale assesses physical and emotional abuse and exposure to animal abuse by parents, adults in general, and peers. The scale was developed to have an easy-to-administer instrument intended not for clinical diagnosis but for the measurement of the prevalence and frequency of different types of abuse—including the more subtle and less-searched types of abuse such as tormenting or bothering an animal by adolescents aged 11 to 18 years. The scale presented is innovative in the field because it is a self-report assessment of animal abuse perpetrated and/or witnessed by young people, and it includes more items measuring the construct.

The validation of a new scale implies several steps in addition to determining the factor structure, the internal consistency, and the significant correlation with another measure; it would require calculation of test-retest reliability, cross-validation with another sample, and measures of social desirability that were not addressed at this stage. For these reasons, the present study has

some limitation and it should be considered as a work-in-progress for validating the scale.

The scale is thought of as a useful tool that could be used together with other self-reported measures of antisocial behavior such as bullying or delinquency. It also could be useful for investigating the relationship between animal abuse and other forms of abuse in the family context such as direct child abuse or exposure to domestic violence, which has been found to be significantly correlated with cruelty against animals (Ascione & Arkow, 1999; Baldry, 2003).

The scale that has been developed is a measure for assessing the prevalence and frequency of different types of animal abuse. The types of abuse measured include not only severe cruelty against animals (more frequently found in clinical youth with conduct disorders) but also milder forms of tormenting behaviors against animals. The latter is reported more often by youngsters who have no conduct disorder but—because of not being clinically referred—could go underreported.

The scale proved to have two separate dimensions: direct animal abuse and exposure to animal abuse by adults and peers with good internal reliability with regard to direct abuse. The measure of indirect abuse turned out to be independent from direct abuse, which is surprising. To establish the construct validity of the *P.E.T.* scale, all 9 items and the 2 subscales for direct and indirect abuse correlated with the single item of the CBCL measuring cruelty against animals. The significant correlations emerging support the validity of the scale, although caution should be used because the single CBCL item is part of a whole scale and has not been validated separate from its inclusion in the larger YSR scale. However, it has been used alone before as a measure of cruelty against animals (Ascione, 2001).

The subscales measuring direct and indirect abuse appear to be independent of each other. This is surprising, if we think that children or adolescents could learn to abuse animals by observing parents, peers, or other adults. If we look at individual correlations of the items, they appear to be significant. Indirect abuse addresses animal abuse by different persons: that a friend's harming an animal is not related to the father or mother's harming an animal is not surprising because the friend is a different person altogether. This might also be the reason why the reliability of this subscale was not very

high, though it appears that there are two components underlying the whole measure.

Higher correlational scores between items of the *P.E.T.* scale and the single measure derived from the CBCL, might have been expected, especially with regard to the item measuring cruelty against animals. Relevant differences between the two measures used could account for the relatively low correlational scores. The *P.E.T.* scale requires respondents to rate their answers on a 5-point scale (ranging from never to very often); the CBCL item requires respondents to rate their answers on a 3-point scale by indicating whether the statement (“I have been cruel to animals”) is untrue, somewhat true or untrue for them. In addition, the CBCL measurement refers to what has happened in the previous six months whereas the *P.E.T.* Scale refers to life experiences, leading to a higher prevalence rate.

The first steps for the validation of the *P.E.T.* Scale show promise. However, the Scale should be tested with another sample to cross validate its factor structure; in addition, because data are based only on self-reported measures, future studies adopting this instrument should validate it also against external criteria such as parents, teachers’ reports, or clinical records.

Learning about animal abuse in adolescents recruited from the community who do not present any clinical problem can shed further light on the early precursors of violence helpful for the development of strategic prevention programs.

Appendix

The P.E.T. Scale (Physical and Emotional Tormenting animals)

Please read the following questions and check a box according to your own experience. Remember that there are no right or wrong answers; we are interest in what has happened to you or what you have seen; only you can tell us about it!

The questionnaire is completely anonymous so you can feel free to answer according to what has really happened without any fear of being identified.

Have you ever had any animals at home?

Yes (which _____) No

Sometimes friends enjoy themselves by harming animals, have you ever seen a friend or a school mate hurting an animal in same way?

Never

Hardly ever

Sometimes

Often

Very often

Have you ever bothered animals that you had at home or any other animal (if you did, please describe how _____)?

Never

Hardly ever

Sometimes

Often

Very often

Have you ever hurt them (by kicking them, pulling their tail, or hair)?

Never

Hardly ever

Sometimes

Often

Very often

Have you ever tormented them, for example by not letting them sleep, or by removing the food when eating?

Never

Hardly ever

Sometimes

Often

Very often

Have you ever been cruel to them, enjoying yourself by seeing the suffering?

Never

Hardly ever

Sometimes

Often

Very often

Have you ever hit them in some way either with your hands, or stick or with a belt?

Never

Hardly ever

Sometimes

Often

Very often

Sometimes adults also hurt animals, have you ever seen an adult hurting an animal?

Never

Hardly ever

Sometimes

Often

Very often

Have you ever seen your father hurting an animal?

Never

Hardly ever

Sometimes

Often

Very often

Have you ever seen your mother hurting an animal?

Never

Hardly ever

Sometimes

Often

Very often

Thank you for your collaboration!

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Note

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