

Brief report

Croatian children's experience of war is not reflected in the size and placement of emotive topics in their drawings

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Objectives. The claim that topics in children's drawings convey the children's emotional attitude towards those topics was investigated.

Design. The influence of an emotional topic (neutral man, friendly and enemy soldier) and trauma group (child with father or father killed in war) was examined on the size of the topics and their placement relative to a self-portrait drawing.

Methods. Sixty Croatian children drew a man, followed on a separate page by either (a) a Croatian soldier, (b) an enemy soldier or (c) a second drawing of a man. The child's self-portrait drawing was placed on each page.

Results. There were no significant main or interaction effects on size or placement of topic.

Conclusions. There are unlikely to be reliable features of drawings that portray the child's emotional attitude towards the topic drawn.

Despite the continued use of drawings in clinical assessments and as a therapeutic tool, Thomas & Jolley (1998) note that there is still little empirical support in clinical samples that drawings reveal either the child's personality (see Machover, 1949) or current emotional state (see Koppitz, 1968). The lack of supportive evidence, Thomas and Jolley (1998) argue, is due to the dubious validity of the body-image assumption: that a drawing of an unidentified person conveys the child's self-concept. An alternative approach asserts that the ways in which topics known to the child are drawn (e.g., their size and placement) indicates the child's emotional attitude towards those topics. This theory derives from Lowenfeld's (1939) claim that children exaggerate features of a topic that are important to them, and forms the basis

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of such tests as the 'Kinetic Family Drawing Test' (Burns & Kaufman, 1970). As an extension to Lowenfeld's claim, it has more recently been suggested that children draw feared topics relatively small due to a defence mechanism being activated. The theory has been tested during the last 10 years by analogue studies on normal children in which the emotional significance of topics are often manipulated through character descriptions (for review, see Thomas & Jolley, 1998). Although some significant effects have been reported, the effects appear weak and were easily masked by varying the instructions and presentation of materials. Thomas & Jolley (1998) recommended that for the importance hypothesis to be properly tested future research is required on samples of children drawing topics that are of personal significance to them.

The present study took up this recommendation by asking Croatian children to draw Croatian and enemy soldiers who had fought in the recent war in Croatia (1991–1995). It was considered that children in this country would continue to hold particularly negative emotions about the war as populations of the warring factions had lived together in multi-national communities. This is likely to be especially true for children whose father had been killed during the war. Soldiers were chosen as the topic for the drawings as Croatian children admitted to psychiatric clinics for war-related disturbances commonly drew soldiers. For example, Kuzmic (1992) cites examples of drawings in which Croatian soldiers were shown in a favourable light whilst the enemy was shown under attack.

In the study 60 Croatian 7- to 10-year-olds (23 boys and 37 girls) added personal details to a pre-drawn outline of a human figure provided on a small piece of paper (10 cm × 21 cm) to make it look like themselves. Each self-portrait drawing was then attached on top of the left-hand side of a horizontally presented blank A4 page so that the edges of the two pieces of paper were aligned. All children then drew a man within the remaining space. The self-portrait drawing was removed and placed on another blank A4 page in the same arrangement described above. In the remaining space the child drew either another man (control condition), a Croatian (friendly) soldier or an enemy soldier.¹

Because of widespread national conscription it was expected that almost all of the fathers of the children would have been soldiers. The fathers of 30 children had been killed during the war in Croatia. The school psychologist confirmed that all the children were Croatian and had lived in Zadar whilst the town had been attacked from land, sea and air. Children in the two trauma groups (with/without father) were matched on age, sex, school class, examination achievement (school marks) and drawing ability (as assessed by teacher). Allocation to the three characterization of topic conditions (man, Croatian and enemy soldiers) was made on the basis that approximately equal numbers in the two trauma groups were represented in each condition. All instructions were given in Croatian. Each child was tested individually in a quiet area within a school in Zadar, Croatia during February 1997. Hostilities ended in Zadar in August 1995 but peace was not settled until the Dayton agreement was signed in November 1995.

High agreement between two independent raters was found for placement of topic

¹ A full set of instructions and materials are available from the author.

(111/120 drawings), measured by the distance between the centre of the heads on the self-portrait figure and on the topic drawn (man/soldier). The raters also agreed the size (i.e. height) of the topics within 2 mm for 115 of the 120 drawings. One of the rater's measurements was randomly selected for data analysis except in the aforementioned instances of disagreement in which a third rater's measurements were used. The final size and placement measurements are presented in Table 1.

Table 1. Mean size and placement (cm) of man drawings (control, friendly and enemy soldiers) by characterization condition and trauma group

Trauma group		Characterization condition		
		Neutral	Friendly	Enemy
Placement: Distance between man drawings and self-portrait drawings				
Without father	First drawing	13.19	12.50	13.01
	Second drawing	13.71	12.52	12.87
With father	First drawing	13.32	12.40	13.43
	Second drawing	12.83	12.51	13.73
Size: Height of man drawings				
Without father	First drawing	7.93	8.98	8.36
	Second drawing	8.39	7.79	7.89
With father	First drawing	10.31	8.89	9.04
	Second drawing	9.47	8.43	8.87

Note. All first drawings were of a neutral man.

For placement of topics, the distance of the second drawing from the self-portrait figure was subtracted from the distance of the first drawing from the self-portrait figure. A two-way between-subjects ANOVA revealed no main effect for characterization of topic, $F(2, 54) = 0.25$, $p = .98$, $MSE = 0.04$, nor for trauma, $F(1, 54) = 0.36$, $p = .55$, $MSE = 0.53$. The trauma \times characterization interaction was also not significant, $F(2, 54) = 1.95$, $p = .15$, $MSE = 2.88$.

For size of topics, the height of the second drawing was subtracted from the height of the first drawing. A two-way between-subjects ANOVA revealed no main effect for characterization of topic, $F(2, 54) = 0.99$, $p = .38$, $MSE = 2.35$, nor trauma group, $F(1, 54) = 0.08$, $p = .78$, $MSE = 0.18$. The trauma \times characterization interaction also failed to reach significance, $F(2, 54) = 2.47$, $p = .09$, $MSE = 5.90$, $\epsilon = 0.08$, power = 0.26. Hence, the present study's findings indicated that these children's feelings towards an emotive topic did not influence their drawings or the topic's size and placement on the page.

Nevertheless, further analysis on the size (trauma \times characterization) interaction was conducted due to the medium to large effect size and low power. Simple effects confirmed a non-significant tendency for the 'without father' group to draw both characterized soldiers (friendly/enemy) smaller compared to their neutral man drawings, whereas drawings of a second neutral man by other children in the 'without father' group were larger than their first neutral man drawing ($p = .06$,

$\varepsilon = 0.10$, power = 0.32). In contrast, the differences between the first and second drawings of the 'with father' group did not vary in respect of characterization ($p = .63$, $\varepsilon = 0.02$, power = 0.10). The tendency of the 'without father' group to draw smaller soldiers than man drawings was particularly striking as their soldier drawings contained more than twice as many details as shown in their man drawings. Including extra details often increases the size of a drawing (Henderson & Thomas, 1990). Hence, the soldier drawings produced by the 'without father' group may have been even smaller than the man drawings if the number of items drawn had been similar across all topics drawn. It is possible that the bereavement of losing one's father as a consequence of the war induced a broad negative affect towards soldiers *per se*, and that a defence mechanism produced smaller drawings of soldiers regardless of what army they belonged to. The aforementioned effect size for height differences between soldier and man drawings for children who had lost their father in the war may indicate future research with larger samples to increase the power of the significance test.

The present study represents an extension of previous tests of the importance hypothesis by asking children to draw a topic that has represented an important emotional figure in their lives. The preliminary findings confirm the non-significant effects of emotional significance of topic on size and placement reported in the previous analogue studies. We suspect that there is no consistent relationship between emotional significance and particular features in drawings due to the idiosyncratic and unpredictable nature of a number of contrasting influences that emotional significance has on the drawn topic (see Thomas & Jolley, 1998). The present findings also complement those of Catte and Cox (1999) who tested Koppitz's (1968) theory that drawings can reveal the level of the child's own emotional disturbance. Catte and Cox (1999) reported few emotional indicators shown in drawings produced by a clinical sample and only very small differences between the clinical sample and matched controls. Thus, we question whether there are general features in children's drawings that reflect the child's own emotional state or their emotional attitude towards the topics drawn.

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