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A COMPARISON OF THE HAND TEST RESULTS OF FINNISH AND LITHUANIAN SCHOOLCHILDREN

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Abstract. *Although the Hand Test (HT) scores should be cautiously approached when using individuals from different cultures, the quantitative results of Finnish and Lithuanian groups of 13 year old children seem to be in line with Stetson's and Wagner's (1980) hypothesis on potential use of HT in different cross-cultural studies. Finnish children scored higher on Exhibition, Active, Tension, Fear subcategories, on Environmental and Maladjustive combined categories, also on Total Number of Responses and Average Initial Response Time. Lithuanian children scored higher on Description subcategory. The differences were more marked between the Finnish and Lithuanian girls than between the boys of these nations. The results are fixed as a starting point for long-term cross-cultural research.*

Keywords: *the Hand Test, cross-cultural psychology, cultural differences.*

The Hand Test (HT) is a projective technique that uses pictures of hands as the projective medium. It consists of nine cards containing simple line drawings of hands in various positions. The 10th card is blank. The test is a nonthreatening, brief, and easily administered instrument. It was specifically designed to assess overt behavioural tendencies (Wagner, 1983; Wagner, Rasch & Marsico, 1992). The HT also has been used to diverse populations of different ages and clinical groupings and has been shown to successfully differentiate among various clinical groups.

The reliability and validity of this technique have been well established (Bodden, 1984).

Only few studies have examined cultural differences on the HT.

Oswald and Loftus (1967) used 114 secondary school boys, 52 male delinquents, and 26 female delinquents from South Australia in comparison with American samples. The HT results of the study showed marked differences between the groups.

A study by Stetson and Wagner (1980) compared the HT responses for Chinese, Iranian, and American students. The test was given to 30 males from Taiwan and 30 males from Iran. All participants were university students and matched by age and year in school to an American student. The Iranian group scored higher on Dependence, Average Initial Response Time, and High Minus Low score, and lower on Active and Environmental, than their American counterparts. The

Chinese group scored higher on Communication, Interpersonal, Average Initial Response Time, and High Minus Low score than the American group. The Iranian group scored higher on Dependence, Passive, and Crippled and lower on Exhibition, Direction, Aggression, and Acting Out Score than Chinese group. No differences were found between the two American groups.

A study by Bizova (1997) reveals differences between Komi and Russian samples in contrast with the sample of individuals of mixed Komi and Russian nationality.

The results obtained by earlier-mentioned scientists indicate not only the potential use of the HT in cross-cultural studies but also the fact, that interpretation of the HT scores should be cautiously approached when using individuals from other cultures.

The HT scores are related to acting-out behaviour (Wagner, 1983). It was hypothesized in this study that the HT will manifest the differences between Finnish and Lithuanian schoolchildren in Aggression responses and in Interpersonal combined category scores.

Method

Our study and results are a part of cross-cultural study with the HT made with Finnish and Lithuanian schoolchildren. The study was supervised by prof. Edwin Wagner (USA) and prof. Nils Lie (Norway). The children in this cross-cultural study were from Finland, Japan, Lithuania, Pakistan, and Romania.

The results of our comparison consists of answers of 30 Finnish girls and 30 boys and 55 Lithuanian girls and 50 boys with average age of 13 years old. Children were tested individually during schooldays by authors in Lithuania and in Finland.

The Finnish sample was 50 children from countryside school near Tampere, second largest city in Finland, and 10 children from Tampere. All children were from public secondary school.

Lithuanian children also were from public secondary school – from one of the schools of the Lithuanian capital Vilnius. There are four parallel classes at Lithuanian public schools as a rule (with approximately 25–30 boys and girls in each). All children from four seventh classes (with average age of 13 years old) were tested.

The scoring of quantitative categories of the HT, although demands experience from examiner, is not very complicated. Some answers were the same as in the HT manual. Nevertheless, to reduce amount of examiner errors to minimum, problematic answers were translated to English and their scoring was discussed. We also had possibilities to consult our supervisors for scoring and interpretation of the results.

According to previous studies, the intergroup comparisons were statistically analysed by a two-tailed Student t test.

Results

The HT results of Finnish and Lithuanian children are in Table 1.

Finnish children in this study showed significant tendency toward more Exhibition, Active, Environmental, Tension, Fear, and Maladjustive responses than the Lithuanian children. Also the differences between the amount of responses, and Average Initial Response Time are significant. The Lithuanian children gave more Description answers (Table 1).

The results between girls and boys are seen in Table 2 and Table 3.

The differences between the Finnish and Lithuanian girls are more marked than the differences between boys of these nations (Table 2 and Table 3).

Table 1. ***Means, Standard Deviations, and t-test Results for the Major HT Variables of Finnish and Lithuanian Samples***

	Finnish sample (N = 60)		*Lithuanian sample (N = 105)*		
Variable	*M*	*SD*	*M*	*SD*	*t*
AFF	2.65	1.60	2.42	1.26	–1.02
DEP	0.22	0.49	0.23	0.51	0.15
COM	2.30	1.70	2.20	1.31	0.42
EXH	*0.38*	*0.61*	*0.09*	*0.31*	*–3.51***
DIR	0.50	0.70	0.52	0.75	0.20
AGG	1.17	0.79	1.11	0.79	–0.41
INT	7.22	3.65	6.57	1.59	–1.30
ACQ	0.57	0.70	0.62	0.81	0.42
ACT	*4.88*	*2.71*	*2.37*	*1.46*	*–6.65***
PAS	0.58	0.89	0.44	0.65	–1.11
ENV	*5.97*	*3.17*	*3.43*	*1.54*	*–5.83***
TEN	*0.37*	*0.69*	*0.02*	*0.14*	*–3.87***
.CRIP	0.20	0.48	0.21	0.43	0.13
FEAR	*0.10*	*0.30*	*0.01*	*0.10*	*–2.25**
MAL	*0.67*	*0.93*	*0.24*	*0.45*	*–3.34***
DES	*0.02*	*0.13*	*0.10*	*0.34*	*2.39**
BIZ	0.00	0.00	0.04	0.24	1.65
FAIL	0.30	0.67	0.21	0.54	–0.93
WITH	0.32	0.68	0.35	0.50	0.34
R	*13.90*	*5.77*	*10.41*	*0.37*	*–4.65***
AIRT	*7.02*	*3.14*	*5.67*	*3.83*	*–2.59**
H–L	14.20	9.99	12.17	7.69	–1.37
PATH	1.37	1.46	0.94	1.31	–1.92

* p<0,05
** p<0,001

Table 2. ***Means, Standard Deviations, and t-test Results for the Major HT Variables of Finnish and Lithuanian Samples of Girls***

	Finnish sample (N = 30)		*Lithuanian sample (N = 55)*		
Variable	*M*	*SD*	*M*	*SD*	*t*
AFF	2.63	1.56	2.42	1.29	–0.68
DEP	0.23	0.50	0.20	0.40	–0.33
COM	2.50	1.68	2.56	1.41	0.19
EXH	*0.53*	*0.73*	*0.04*	*0.19*	*–3.66***
DIR	0.40	0.56	0.45	0.72	0.36
AGG	1.07	0.64	1.00	0.72	–0.42
INT	7.37	3.13	6.73	1.72	–1.04
ACQ	0.47	0.57	0.56	0.81	0.64
ACT	*4.37*	*2.13*	*2.38*	*1.46*	*–4.56***
PAS	0.60	1.00	0.40	0.66	–0.98
ENV	*5.43*	*2.54*	*3.35*	*1.65*	*–4.06***
TEN	*0.30*	*0.65*	*0.02*	*0.13*	*–2.34**
CRIP	0.17	0.38	0.15	0.40	–0.24
FEAR	*0.20*	*0.41*	*0.02*	*0.13*	*–2.38**

Continuation of table 2

	Finnish sample (N = 30)		*Lithuanian sample (N = 55)*		
Variable	*M*	*SD*	*M*	*SD*	*t*
MAL	*0.67*	*0.92*	*0.18*	*0.43*	*–2.72**
DES	0.03	0.18	0.16	0.42	1.98
BIZ	0.00	0.00	0.04	0.27	0.74
FAIL	0.27	0.69	0.16	0.37	–0.76
WITH	0.30	0.70	0.36	0.65	0.42
R	*13.50*	*4.54*	*10.45*	*0.86*	*–3.64***
AIRT	7.20	3.11	6.02	3.57	–1.53
H–L	15.07	10.52	12.40	7.92	–1.21
PATH	1.27	1.51	0.91	1.32	–1.13

Table 3. ***Means, Standard Deviations, and t-test Results for the Major HT Variables of Finnish and Lithuanian Samples of Boys***

	Finnish sample (N = 30)		*Lithuanian sample (N = 50)*		
Variable	*M*	*SD*	*M*	*SD*	*t*
AFF	2.67	1.67	2.42	1.25	–0.75
DEP	0.20	0.48	0.26	0.60	0.46
COM	2.10	1.73	1.80	1.07	–0.96
EXH	0.23	0.43	0.14	0.40	–0.98
DIR	0.60	0.81	0.60	0.78	0.00
AGG	1.27	0.91	1.24	0.85	–0.13
INT	7.07	4.15	6.40	1.44	–0.85
ACQ	0.67	0.80	0.68	0.82	0.07
ACT	*5.40*	*3.15*	*2.36*	*1.47*	*–4.98***
PAS	0.57	0.77	0.48	0.65	–0.54
ENV	*6.50*	*3.66*	*3.52*	*1.42*	*–4.28***
TEN	*0.43*	*0.73*	*0.02*	*0.14*	*–3.08**
CRIP	0.23	0.57	0.28	0.45	0.41
FEAR	Answer was not scored				
MAL	0.67	0.96	0.30	0.46	–1.96
DES	0.00	0.00	0.04	0.20	1.43
BIZ	0.00	0.00	0.04	0.20	1.43
FAIL	0.33	0.66	0.26	0.53	–0.55
WITH	0.33	0.66	0.34	0.66	0.04
R	*14.30*	*6.83*	*10.36*	*1.03*	*–3.14**
AIRT	*6.85*	*3.21*	*5.29*	*2.93*	*–2.22**
H–L	13.33	9.53	11.92	7.23	–0.75
PATH	1.47	1.43	0.98	1.30	–1.56

The girls differ in Exhibition, Activity, Environmental, Tension, Fear, Maladjustive, and Total Amount of Answers (with higher results in Finnish sample).

The results of the boys show significant differences between Active, Environmental, Tension, The Amount of Responses and Initial Response Time (with higher results in Finnish sample).

Discussion

The hypothesis about differences between Finnish and Lithuanian schoolchildren in Aggression responses and in Interpersonal combined category scores was rejected.

The aggression and directive behaviour according to this study is not common between teenagers in both nations.

The pathological features are low in both samples. These results correspond with American studies among normal children (Wagner, Rasch & Marsico, 1992). We remember that our children also come from normal public schools.

The preliminary analysis of the results shows that the Finnish children have a more marked tendency to activity and environmental management than the Lithuanian children. A higher number of responses indicates greater adjustive potential in Finnish sample.

The Finnish pupils also feel more emotional tension, especially the girls compared with the Lithuanian children. The previous studies showed that Exhibition and Tension responses are normally more common among girls than boys (Stetson & Wagner, 1980).

Findings in Tension, Fear, and Maladjustive scores (with higher results in Finnish sample) partly contradict the data of some Lithuanian psychologists about high level of anxiety among Lithuanian schoolchildren of this age (for example, Žukauskienė, 1997).

Explaining the results we can base ourselves on the similarities and differences of the situation in both countries.

Lithuania has experienced important changes during past decade. These changes have influenced not only economic but also social and psychological life of Lithuanians, and psychological characteristics of schoolchildren. These changes produced high aspirations and great aims among young people, and also higher possibility of failure. So, activity, competition and tension are characteristics of Lithuanian schoolchildren.

On the other hand, Finnish culture nowadays is more individualistic and also causing trying (activity) and tensional features in people. In addition, as indicated by the Hofstede's (1997) studies, Finns live in a feminine culture. It is possible, that the feministic features of this country influenced the earlier mentioned differences between the Finnish and Lithuanian girls.

Conclusion

We can speculate that due to similarities in social features of present-day Finnish and Lithuanian culture there are not so much differences between psychological characteristics of these two European peoples with quite different languages and different history.

Beyond doubt one HT testing is not enough. Psychologists of both countries badly need more psychosocial studies and various methods. We also need many cross-cultural psychosocial studies and various methods for examining normal children in different nations.

Anyway, the results of our research are fixed only as a starting point for long-term cross-cultural investigation and as a task to be included in further cross-cultural research.

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LIETUVIŲ IR SUOMIŲ MOKSLEIVIŲ RANKOS TESTO REZULTATŲ PALYGINIMAS

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Santrauka

Nors tarpkultūriniai tyrimai Rankos testu nėra paplitę, kiekybiniai lietuvių ir suomių trylikos metų moksleivių tyrimo šiuo testu rezultatai dera su Stetsono ir Wagnerio (1980) hipoteze apie plačias šios metodikos tarpkultūrinio taikymo galimybes. Suomių moksleiviai gavo aukštesnius pasirodymo, aktyvumo, įtampos, baimės subkategorijų, aplinkos ir blogo prisitaikymo suminių kategorijų, taip pat bendro atsakymų skaičiaus ir vidutinio atsakymo laiko įverčius. Lietuvių moksleivių buvo aukštesni apibūdinimo subkategorijos įverčiai. Kitaip negu tikėtasi, imčių nesiskyrė agresyvumo subkategorijos ir tarpasmeninių santykių suminės kategorijos rezultatai. Gauti ženklesni lietuvių ir suomių mergaičių įverčių skirtumai nei berniukų. Tyrimo rezultatai siejami su šalių dabarties socialinės raidos ypatybėmis ir fiksuojami kaip pradžios taškas tolesniems tarpkultūriniams tyrimams Rankos testu.

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