

**FINNISH NORMS FOR THE HARVARD GROUP SCALE OF HYPNOTIC  
SUSCEPTIBILITY, FORM A**

**SAKARI P. I. KALLIO<sup>⊗</sup> AND MIKKO J. IHAMUOTILA<sup>⊗</sup>**

⊗ Department of Psychology/Centre for Cognitive Neuroscience  
University of Turku, Finland

⊗ M.Sc., Private practitioner, Turku, Finland

Address for Correspondence:

Sakari Kallio

University of Turku

Department of Psychology

FIN 20014 Turku, Finland

Tel: +358-2-3338554

Fax +358-2-3335060

email: shakal@utu.fi

Finnish norms of the Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A) of Shor and Orne (1962) are presented. The aggregate sample of 285 subjects consisted of 3 groups (N = 129, N = 116 and N = 40) which were tested during 1996 and 1997. Comparisons are made with the normative sample of Harvard students (American sample), an Australian sample and with three translated versions; the Danish, German and Spanish adaptations of HGSHS:A. In the Finnish sample, items 2 (eye closure), 11 (posthypnotic suggestion) and 12 (amnesia) received high passing percentage in comparison with the reference data, but generally the Finnish normative data were congruent with these index studies.

The Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A) developed by Shor and Orne (1962) is probably the most widely used group test for initial screening of hypnotic susceptibility. Although the limitations of the instrument as an estimate of the full range *hypnotic* susceptibility has been criticized (Kirsch, 1997; Woody, 1997), it nevertheless is a satisfactory tool for preliminary screening of participants for research purposes. During the last ten years, the German (Bongartz, 1985), Spanish (Lamas, del Valle-Inclan, Blanco & Diaz, 1989) and Danish (Zachariae, Sommerlund & Molay, 1996) norms have been published. The normative studies indicate that the properties of HGSHS:A are generally comparable over different cultural and linguistic contexts.

This article presents normative data on a Finnish translation of the HGSHS:A as administered to a sample of Finnish subjects. The results are compared with American and Australian norms (English), as well as Danish, German and Spanish (translated) norms.

## METHOD

### *Subjects*

A Finnish translation of the HGSHS:A was administered to 285 unpaid subjects. The largest cadre of subjects (group 1; N = 129; 12 males, 117 females) consisted of students at a nursing school. The Ss were recruited by a noticeboard advertisement inviting the students to participate in a "group hypnosis session". The sessions were held in a lecture hall and the group size in testing varied from 17 to 55 Ss. The second group (group 2; N = 116; 17 males, 99 females) was university students from different faculties participating in an introductory course of psychology. The course required that students participate as research subjects in a variety of psychological tests for a total of three hours. Students were offered the option of participating in a "group hypnosis session". Each testing took place in a small lecture room and the size of the group varied from 11 to 30 Ss. The third group (group 3; N = 40; 11 males, 29 females) consisted of two separate subgroups; students enrolled in a sport massage school,

and high school seniors. Both subgroups were tested during their psychology class and the subjects were previously informed that a group hypnosis session would take place during the following psychology lesson and that participating was voluntary. All students of both subgroups participated in the sessions. The combination of these samples gave an aggregate sample of 285 subjects, 40 males (14%) and 245 (86%) females, with an age range of 16 - 51 years and a mean age of 21.6 (S.D. = 4.2). Only a small percentage (7%) of the subjects had any previous experience with hypnosis.

### *Procedure*

All subjects were administered a Finnish translation of HGSHS:A (Kallio, 1996) which closely followed the original version of the scale by Shor and Orne (1962). The information given before the session was translated from HGSHS:A and the test procedure also carefully followed the HGSHS:A manuscript. The preliminary information was given by the first author and after this the subjects were asked to fill in the first page of the response booklet, which also was a verbatim translation of the original version of HGSHS:A. The induction procedure and the suggestions were read aloud by the second author. After completing the response booklet the subjects were given an opportunity to ask questions or give comments. All sessions were conducted by the authors.

### *Scoring*

The scoring of the response booklets followed the procedure described by Shor and Orne (1962). Subjects received a score of 1 if they had marked item A (indicating an experienced behavioral change for a given suggestion) and a 0 if item B was marked (indicating that the behavioral change was not experienced). Amnesia was scored as 1 if the subject recalled fewer than four out of twelve items before the amnesia was lifted.

### *Statistical analysis*

The groups were compared using the nonparametric Kruskal-Wallis test. When a statistically significant difference was observed the analysis was continued using the Mann-Whitney test. Reliability estimates for the total sample were calculated using the Kuder-Richardson test (Formula 20).

## RESULTS

### *Mean total scores*

The mean and standard deviation are presented in Table 1 together with the reference samples of the German (Bongartz, 1985), Spanish (Lamas et al., 1989), Australian (Sheehan and McConkey, 1979) and American (Shor and Orne, 1963) samples. Zachariae et al. (1996) did not report the aggregate data for the Danish sample. The mean score of the Finnish sample is among the highest together with the Spanish and American samples. No significant differences were observed between males and females ( $Z = -.384$ ,  $p = .701$ ).

TABLE 1. Mean Scores and Standard Deviations of the Finnish and Reference Samples

Sample	X	S.D.	N
Finnish	7.26	2.61	285
Spanish	7.13	2.61	220
German	6.5	2.43	374
Australian	5.45	2.95	1944
American	7.39	3.04	132

The homogeneity of the groups 1, 2 and 3 was examined and a statistically significant difference was observed in mean total scores ( $\chi^2 = 11.139$ ,  $p = .004$ ). Multiple comparison of the mean total scores revealed that group 1 (nursing students) significantly differed from the other two groups ( $Z = -2.771$ ,  $p = .006$  vs. group 2 and  $Z = -2.709$ ,  $p = .007$  vs. group 3) which, on the other hand, did not differ from each other ( $Z = -.582$ ,  $p = .560$ ).

### *Score distributions*

The fact that the group of nursing students significantly differed from the others gave reason to examine the differences more carefully. A comparison of the score distribution between the groups revealed that the nursing students scored significantly higher in test item 5 “fingerlock” ( $Z = -2.958$ ,  $p = .003$  vs. group 2 and  $Z = -2.294$ ,  $p = .022$  vs. group 3) and test item 11 “posthypnotic suggestion” ( $Z = -4.942$ ,  $p < .001$  vs. group 2 and  $Z = -3.787$ ,  $p < .001$  vs. group 3). A comparison of the score distributions between group 2 (university students) and group 3 (sport massage and high school students) did not show any statistically significant difference.

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### *Item Difficulty*

The pass-rates of subjects passing each individual item are shown in Table 2 together with the data of the reference samples. The Finnish mean is somewhat higher than that in the Australian and German samples but quite similar to the American and Spanish samples. The Finnish sample shows high percentages in comparison to others in item 2 (eye-closure), item 3 (hand lowering), item 11 (posthypnotic suggestion) and item 12 (amnesia).

TABLE 2. Item Pass Percentages for the Finnish, Danish, German, Spanish, Australian and American Samples.

HGSHS:A (individual items)	Finland (N=285)	Denmark (N=376)	Germany (N=374)	Spain (N=220)	Australia (N=1944)	America (N=132)
1. Postural Alteration	84 (3)	86 (1)	73 (3.5)	73 (3)	61 (3)	86 (2.5)
2. Eye Closure	86 (2)	48 (10)	73 (3.5)	64 (6)	57 (4)	74 (4)
3. Hand Lowering	89 (1)	75 (3.5)	83 (1)	60 (7)	71 (1)	89 (1)
4. Arm Immobilisation	43 (10)	72 (7)	52 (6.5)	58 (9)	36 (9)	48 (10.5)
5. Finger Lock	66 (5)	76 (5)	57 (5)	67 (5)	53 (5)	67 (5)
6. Arm Rigidity	53 (7.5)	75 (3.5)	52 (6.5)	69 (4)	41 (7)	57 (6)
7. Hands Moving	78 (4)	78 (2)	74 (2)	79 (1)	71 (2)	86 (2.5)
8. Inhibition	56 (6)	73 (6)	49 (8)	74 (2)	42 (6)	50 (9)
9. Hallucination	28 (12)	38 (11)	47 (9.5)	29 (11.5)	25 (11)	56 (7.5)
10. Eye Catalepsy	52 (9)	61 (9)	47 (9.5)	59 (8)	38 (8)	56 (7.5)
11. Posthypnotic Suggestion	37 (11)	11 (12)	31 (12)	29 (11.5)	17 (12)	36 (12)
12. Amnesia	53 (7.5)	71 (8)	36 (11)	52 (10)	33 (10)	48 (10.5)
Mean	60.4	63.6	56.2	59.4	45.0	61.3

Numbers in parentheses represent rank orders for the items from (1) most passed to (12) least passed.

### *Reliability*

The point biserial correlations between each of the twelve items and the total HGSHS:A score omitting that item are presented in Table 3. The total scale reliability as well as the item reliability are generally comparable with the other three European samples (Danish, German and Spanish) but tend to be smaller in comparison to the two untranslated samples (American and Australian).

TABLE 3. Reliability Data: Item-Scale Correlations and Total Scale Reliability for the Finnish Sample and the Reference Samples.

Individual HGSHS:A Items	Finnish (N=285)	Danish (N = 376)	German (N = 374)	Spanish (N = 220)	Australian (N = 1944)	American (N = 132)
1. Postural Alteration	.20	.17	.21	.30	.39	.34
2. Eye Closure	.19	.16	.06	.27	.39	.30
3. Hand Lowering	.08	.24	.25	.09	.25	.48
4. Arm Immobilization	.48	.45	.33	.38	.36	.66
5. Finger Lock	.54	.55	.42	.52	.59	.86
6. Arm Rigidity	.41	.44	.42	.51	.55	.89
7. Hands Moving	.25	.29	.18	.22	.42	.44
8. Inhibition	.40	.44	.38	.40	.51	.78
9. Hallucination	.33	.35	.23	.31	.34	.48
10. Eye Catalepsy	.46	.50	.47	.46	.53	.74
11. Posthypnotic Suggestion	.27	.19	.14	.11	.18	.46
12. Amnesia	.28	.18	.09	.18	.18	.39
Total scale (Kuder-Richardson)	.71	.70	.62	.69	.76	.80

The Finnish data seem quite comparable to the pattern of findings in the reference samples, as indicated by the rank order correlation coefficients of the item-scale reliabilities (Table 4). The rank order correlation (Spearman) coefficients range from  $r = .53$  (with the Australian sample) to  $r = .88$  (with the Danish sample). The correlation coefficient with the Australian sample is rather low compared to those found between the reference samples (Table 4), which range from  $r = .60$  to  $r = .90$ .

TABLE 4. Rank Order of the Correlation Coefficients for the Finnish Sample and the Reference Samples

	Denmark	Germany	Spain	Australia	America
Finland	.88	.72	.83	.53	.77
Denmark		.89	.76	.62	.89
Germany			.78	.70	.90
Spain				.85	.74
Australia					.60
America					

## DISCUSSION

The normative data for the Finnish version of the HGSHS:A are quite congruent with the other European, Australian and American results. The mean and the variance are very similar especially to Spanish and the original American samples. The pattern was also quite similar to that in the reference samples. Item 2 (eye closure) obtained a very high passing percentage (86%) which may be interpreted as a sign of motivation. Item 12 (amnesia) show rather high passing percentage in three studies: Danish, Spanish and Finnish. This suggests that the wording to “write ... a list of the things that happened since you began looking at the target” may lead to a somewhat different meaning when translated. In Finnish the verb “happen” (tapahtua) has a passive connotation (more like “occur”) and a better translation might have been more active “tehdä” = “do” (write ... a list of the things that *you did* since you began looking at the target). Lamas et al. (1989) reports a similar change made to the Spanish preliminary version of HGSHS-A with the result that the percentage of amnesics diminished dramatically. The rather high item pass percentage may also be related to the same cultural differences as are speculated by Zachariae et al. (1996) in regard to the very high Danish passing percentage in this item. The Finnish students are also, like the Danish students, encouraged to respond in a reflective and autonomous manner and therefore many of them listed different feelings and sensations and ran out of time before they even reached the first item.

Within the Finnish sample some modest difference emerged, with nursing students (volunteers participating out of interest) scoring higher than the other student groups who were to a degree obligated to participate in research. The same kind of difference between volunteers and non-volunteers has been previously reported by e.g. Coe (1964) and Sheehan and McConkey (1979).

In conclusion, our results suggest that the HGSHS-A administered in a Finnish translation gives results consistent with the native reference data (Shor and Orne, 1963; Sheehan and McConkey 1979) as well as with the other translated versions (Bongartz, 1985; Lamas et al., 1989; Zachariae et al., 1996) and thus serves as a valuable tool for initial screening of susceptibility also in Finland.

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#### Acknowledgements

This research was supported by the Signe and Ane Gyllenberg Foundation. Professor Heikki Hämäläinen is also gratefully acknowledged for arranging funding in the early stages of this research.