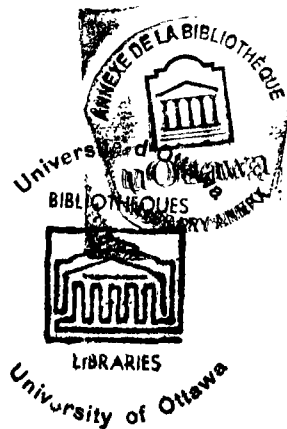


THE PREPARATION OF
"L'inventaire de la personnalité Brown-Ottawa"

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the intermediary of the
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Master of Arts degree.



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INTRODUCTION

L'inventaire de la personnalité Brown-Ottawa is a French translation of Fred Brown's Personality Inventory for Children.

The preparation of the French version of this psychoneurotic questionnaire will be discussed in the following sections of this report:

Neuroticism in Childhood	page 1
Psychoneurotic Questionnaires	7
Item Selection	11
Test Similarity	17
Item Validation	19
Third Experimental Copy	24
Reliability	32
Norms	35
Summary and Conclusion	40

A cursory inspection of the six Tables and the two Figures will make known the gist of the report, and a glance at the Conclusion will tell of plans under way for the further standardization of the Brown-Ottawa.

NEUROTICISM IN CHILDHOOD

Fred Brown's Personality Inventory for Children is a psychoneurotic questionnaire. It is proposed as an easy and accurate means of selecting those children in the school population who might be in need of clinical attention. It is concerned with "nervousness", "neuroticism", "neurotic tendencies", or again "emotional instability" in children ranging in age from 9 to 14 years, and found mostly in grades 4 to 9 inclusively.

Many are the names given this particular behavior, and many are the concepts used in its interpretation. Some effort must be made to clarify this confusion. Fortunately, the author of the questionnaire has written purposely to define his concept and to link it to his questionnaire.¹

Most people understand the nervous child to be overactive, twitchy, restless, high-strung and easily excited. That is a popular conception. The school teacher's conception does not vary much from that pattern, except possible to refer to the specific school activities of the child which impinge upon his (or her) "discipline". Disorderly motor activity is their criterion. Aggressive actions towards persons and property are real offences: physical restlessness, left-handedness, nail-biting, pencil chewing and such minor annoyances. Whilst the truly significant symptoms

1 Fred Brown, "The Problem of Nervousness and Its Objective Verification in Children", in The Journal of Abnormal and Social Psychology, Vol. 31, No. 2, July 1936, p. 194-207.

of neuroticism, like sleeplessness, fatigue, inability to concentrate, seclusiveness, and the like, are not given a moment's consideration. As a matter of fact, Myers even wrote: "Teachers customarily either ignore or admire (and, therefore, encourage) those forms of behaviour which reflect poor mental health in their pupils".² The contrast between the teacher's point of view and that of the mental hygienist has been particularly stressed in the last eight or ten years and does not require lengthy elaboration.

Fred Brown's concept is that of the mental hygienist. Moreover, it is a product of his psycho-social theory of the neurosis,³ with very little sympathy for "Freudian contentions" and "the weed-infested fields of scientific and pseudo-scientific psychoanalysis".

Recognition and treatment of the nervous child are the objectives. Yet these objectives are difficult. Nevertheless, serious research has made the two problems much easier, and given the practitioner both a generous hand and a daring challenge. Recourse to such weird explanations as witchery and demoniacal possessions is but a joke today. Deciding, on the grounds of some Victorian training, that the child is a "bad boy" greatly in need of moral indoctrination and some vigorous punishment is not considered wise and commendable any more. Dismissal of the case in terms of "mental case", implying that the sufferer is a malingerer with a fertile imagination, will stand no more as an alibi for ignorance or

2 C. Roger Myers, Toward Mental Health in School, Toronto, University of Toronto Press, 1939, p. 61.

3 Op. cit., p. 198.

negligence on the part of the examiner.

Even the mere designation of the condition is highly inadequate, whether it be in general terms of "nervousness", or in more specific terms of "home maladjustment", "inferiority feeling", and the like. Treatment is in order, as it is for a good number of mental ailments. Hence yesterday's "Mental Asylums" have become today's "Mental Hospitals", and yesterday's undifferentiated labelling of patients has given way to our day's specialized and personalized treatment.

Exact discrimination of the nervous children and the administration of proper therapeutic measures is seriously hampered when no clear-cut picture of such a child is available. Perusal of the technical literature on nervous children confronted Fred Brown with a plethora of symptomatic descriptions which were even paradoxical and contradictory at times. He wrote:

. . . let us examine a child who is the victim of a nervous condition. We note that the symptoms are unstable and variable. They are prone to shift rapidly in a short period of time. Headaches appear and persist in spite of medication, only to disappear with unaccountable celerity later on. Pains appear in various parts of the body and are of such diffused intensity as to render localization difficult. Apnea and feelings of suffocation are common. Certain foods bring on nausea and vomiting. Habit spasms, restlessness and muscle twitching are observed and persist against medical treatment. These signs are usually complicated by general irritability toward family, siblings and friends. Morose moods alternate with periods of jubilation and euphoria. Speech is disturbed by stuttering and stammering. Antagonism to supervision at home and in the school appears. Temper is short and violent; studies suffer, and the child either becomes an aggressive nuisance, filled with ideas of his own immense importance or else shrinks within himself and renounces the external world.⁴

4 Op. cit., p. 197.

To unravel this Gordian knot of young abnormal personalities, he began with the assumption that: "the neurosis, varied as its manifestations may be, exhibits a pattern characteristics of its course".⁵ Moreover he justly claims that it is a natural manifestation, the effect of certain comprehensible causes.

Firstly, he differentiates nervousness, a so-called functional condition, from those evidencing a pathological basis.

Nervousness, as distinguished from a physical disease, is not a "condition by itself". It generally arises from a gradually developed incompatibility with environment and social demands which may be of a sexual nature in the adult but seems rarely to be so in childhood despite Freudian contentions!. . .

A second distinction between nervousness and a physical disease lies in the existence of an unhygienic social situation or configuration in contradistinction to the presence of a toxic organism. We may thus define a functional state, such as nervousness, as a response to a social setting of a certain type which elicits behavior of a distinctly non-modal type.⁶ (The italics are his.)

Others may have a genetic conception of neurosis, others an exclusively functional conception or again an exclusively environmental concept. It is not the place here to discuss these divergent views. Brown's notion interests us at present, because his questionnaire was built on it. If we read the quotation well, we understand that "nervousness" for him is a functional condition brought on as a reaction to an irritating or incompatible social situation. It is also very interesting to note that the social demands which precipitate nervousness "may be of a sexual nature in the adult but seem rarely to be so in childhood".

5 Op. cit., p. 196.

6 Op. cit., p. 198.

Secondly, Brown proceeds to trace the fundamental pattern of a nervous condition in objective terms.

1. In the etiology of every nervous state we find a "reaction impediment". A barrier is building up tension, and this internal tension has no normal outlet. Hence a variety of tentative, or substitute, or compensatory or even regressive responses are elicited.

2. The generation of a neurotic state is further fostered by the "nullification of response". The subjects atypical responses remained unheeded and failed their purpose. Hence the attention-procuring behavior.

3. The third causatory factor is the subject's inability to meet the demands of an exacting environment. Hence the non-modal, disordered behavior, which may also, but need not necessarily be, disorderly. The emotional phase of nervousness will be nothing more than a disproportion between the stimulating situation and the response.⁷

With these notions in mind, the recognition of neurotic children with their specific problems should prove easier, and their treatment more promising. If we maintain, as most practitioners do, that it is much easier to cure such an ailment in childhood than in later years, it would seem that an early recognition of preneurotics and even prepsycho-
tics should be of utmost importance. The task is monumental, if it is to be undertaken on the basis of investigation into every individual home.

⁷ Fred Brown, "The Nature of Emotion and Its Relation to Anti-social Behavior" in Journal of Abnormal and Social Psychology, Vol. 28, No. 4, January 1934, p. 446-458.

But our day has known the development of several group techniques in the psycho-social field. Why not develop such a mass study procedure to screen out the preneurotics from our school population? That is exactly the purpose of Fred Brown's questionnaire.

PSYCHONEUROTIC QUESTIONNAIRES

Ever since Stanley Hall launched his first studies in Child psychology, several techniques have been tried in the objective approach to the diagnosis of neuroticism in children.

Jung devised in 1910 his "association tests" which were adapted for children by Lowell and Woodrow. These were soon neglected for several reasons: they are time-consuming, difficult to administer, and still more difficult to analyze and interpret in their results.

Mateer, among others, claimed that the clinical analysis of answers on intelligence test responses would permit recognition of preneurotics. This idea has been challenged. It has never completely lost ground. This contention between theorists does not help the practitioner. Moreover, gathering clues of neurotic tendencies from psychometric techniques is an unwieldy procedure, unadaptable to group study and difficult to apply.

The questionnaire method, with all its shortcomings, still claims to furnish greater simplicity of administration and more accuracy of diagnosis, providing, of course, the questionnaire is both valid and reliable. The logical assumption behind all such inventories is that the neurotic individual confronted with a list of pertinent symptoms of the syndrome in question form will mark them in a very different way than a normal individual.

The first psychoneurotic inventory, Woodworth's, compiled in 1919 for the detection of potential neurotics among drafted men, was modified by Johnson and Mathews for use with children without regard to applicability

er validity of questions. Such attempts proved unreliable and even led Symonds to state in 1932 that "The psychoneurotic inventory loses its usefulness below the high school level."⁸ This situation led Brown to An Experimental Study of the Psychoneurotic Syndrome in Childhood, his doctoral dissertation at the Ohio State University in June 1933. The product of this study was offered the public in August 1934.⁹

Brown's Inventory was prepared with rigid adherence to certain definite steps. They involved: 1) a careful selection of 176 items found in the available clinical literature on the nervous child, 2) administration to a representative and widely distributed group of 1,663 children of both sexes, ranging in age from 9 to 14 years and in grades 4 to 9 inclusively in three major Ohio cities. Age, grade, intelligence, socio-economic status and nationality were considered in the distribution, 3) an accurate statistical analysis of items both by the Upper vs Lower Third method and the method of Overlapping Groups, 4) the determination of reliability by the method of split-halves, correlating odd versus even items on each of three unselected groups of one hundred children, 5) the determination of reliability on a highly selected group. In this latter case the questionnaire was administered verbally to 17 problem cases brought to the Bureau of Juvenile Research and the Alfred Willson Children's Center, both of Columbus, Ohio. Their average score rating

⁸ Percival M. Symonds, Diagnosing Personality and Conduct, New York, Appleton-Century, 1932, quoted by Fred Brown in his article on The Problem of Nervousness, p. 200.

⁹ Fred Brown, "A Psychoneurotic Inventory for Children Between Nine and Fourteen Years of Age" in The Journal of Applied Psychology, Vol. 18, No. 5, 1934, p. 566-577.

gave 40 atypical responses with a small average deviation, whereas the average scores obtained by thousands of non-problem children range between 14 and 19 responses.

This inventory Brown applied later to a study of the influence of race and socio-economic status on the emotional stability of children¹⁰, then to a study of the neuroticism of institution children¹¹, and again to an investigation of the effect of neuroticism upon the age-grade status of children¹².

Other investigators used the inventory and reported their results: Springler^{13,14}, made a comparative study of the responses of deaf and hearing children on the inventory; Koran¹⁵ compared developmental ages and Brown inventory scores of elementary school boys.

10 Fred Brown, "A Comparative Study of the Influence of Race and Locale upon Emotional Stability of Children", in The Pedagogical Seminary and Journal of Genetic Psychology, Vol. 49, No. 2, December 1936, p. 325-342.

11 ----- "Neuroticism of Institution versus Non-Institution Children" in The Journal of Applied Psychology, Vol. 21, No. 4, August 1937, p. 379-383.

12 ----- "An Experimental Study of the Effect of Neuroticism upon Age-grade Status of Children" in The Journal of Educational Psychology, Vol. 29, No. 2, February 1938, p. 107-113.

13 Norton Springer, "A Comparative Study of the Psychoneurotic Responses of Deaf and Hearing Children" in The Journal of Educational Psychology, Vol. 29, No. 6, September 1938, p. 459-466.

14 ----- and Sydney Roslow, "A Further Study of the Psychoneurotic Responses of Deaf and Hearing Children" in The Journal of Educational Psychology, Vol. 29, No. 8, November 1938, p. 590-596.

15 S. Koran, "A Study of Developmental Age, Brown Personality Inventory Scores, and Certain Traits in Elementary School Boys". M.A. Thesis, Pennsylvania State College, 1938, p. 52.

The need for a French psychoneurotic questionnaire was felt in French Canadian schools for two reasons very similar to those which prompted Brown to prepare his in Columbus, Ohio: the school can and should cooperate with the Psychological Clinic in the prevention of neuroticism in children, and the existing inventories, like the Bell-Ottawa and the Bernreuter-Ottawa, were not at all appropriate to school children of the ages 9 to 14. An original French questionnaire could have been prepared along the same lines which Brown had followed, yet several educators advised translating and modifying the Brown. Their reasons are not all obvious. They claim that bilingual centers prefer an instrument in both the English and the French languages; thus, children of uneven language development can choose the one or the other and the results will be comparable in the same class. They likely do not admit, although they are heavily influenced by the idea, that a foreign product is much better than a local one. Whatever their motives, they prevailed upon us to prepare a French version of the Personality Inventory for Children by Fred Brown. And this is a report of some of the work done on this project to date.

ITEM SELECTION

Brown's procedure for both item selection and item validation has been outlined above in the section on Psychoneurotic Questionnaires. The literature on the neurotic child was carefully analyzed. The fields of psychology, psychiatry, pediatrics, sociology, psycho-analysis and general medicine were covered in their practical studies preferably to their theoretical discussions. The background and the experience of the writer, as also the relative frequency of mention of a symptom guided Brown in the final selection of his 176 items for research and validation. It will be noted that in keeping with his psycho-social concept of nervousness a good number of "situational" items were included, particularly those centering around the child's home environment, his school relations and general social milieu. Here are gleanings from his list of the original 176 items:

Physical symptoms	30
Home situation	21
Temperament items	12
School situation	11
Social cooperation	11
Sleep disturbances	10
Nervous habits	10

Having administered these questions to his sample population, he proceeded to their statistical analysis by two methods proposed by Lentz, Hirshstein, and Finch, i.e. the method of Upper versus Lower Third, (designated as the U.L. method), and the method of Overlapping, (designated as the O.L. method). Ultimately 80 items were chosen for their differentiating strength, based upon a maximum overlap of 20% (median 16%; range 20% to 8%) and a median U.L. excess of 200 (range 165 to 300) with 57.5%

agreement between the two selective methods.¹⁶ This series of 80 items served as the text for our French version.

Our first translation was mimeographed and administered to Grades 5, 6, 7, 8 of Ecole Garneau, Ottawa, for a study of language difficulties. No statistical analysis was made of this first experimental copy since a good number of the items proved unintelligible to young minds. As is often the case, the adults who translated the questionnaire were more concerned with the niceties of the French language than with the message it should convey. This literary preoccupation has burdened every one of our translators. Several items had to be reworded using more familiar expressions and less literary and complicated phrases. In all, 23 items were reworded in the second experimental copy: 4, 5, 6, 7, 9, 14, 15, 24, 30, 35, 37, 38, 46, 47, 49, 53, 57, 58, 62, 68, 69, 76, 78. Samples of both copies are included in the Appendix; the modified items are indicated by a check mark.

The Second Experimental Copy was administered to a group of 72 boys and 72 girls (N: 144) grouped in four 9th Grades. These are bilingual children who presumably are equally developed in both the English and French languages since they have been exposed to both languages ever since their birth. To these children, both versions of the Brown questionnaire were administered in the following order:

16 Fred Brown, "A Psychoneurotic Inventory for Children Between Nine and Fourteen Years of Age" in The Journal of Applied Psychology, Vol. 18, No. 5, p. 69-71.

	Brown	Brown-Ottawa
Boys of 1A :	October 5	October 12
	1E : October 12	October 5
Girls of 9C :	October 13	October 20
	9B : October 20	October 13

This procedure was applied for a two-fold purpose: 1) to compare item validity values reported by Brown on his validation group with the results obtained on our validation group; 2) to compare responses given on both versions of the test, and consequently to reword those items which did not seem to convey the same idea and elicit a similar response each time.

Before analyzing the results obtained, it is well to note that one can expect a good amount of variability in the measures of item validity. When one considers that the measure of test similarity between two tests, or two forms of a test, or two parts of a test, in terms of the Pearson coefficient r , is never a perfect 1.0, but rather a fraction ranging on good tests, from .8 to .95, one cannot expect the individual items to show too great a similarity. As a rule, those items with greater validity will remain in their group, and those with lesser validity in theirs. But there is always some change from test to test. The population tested increases or reduces this tendency to variation in direct proportion to its size; a greater number diminishing the variation, and consequently improving the reliability of the results. On this count our sample of 144 is rather small, whereas Brown's sample of 1663 was much more adequate. Nevertheless, the validity values derived from a population, whether small or large, always carry specific reference to the group involved, and must

never be considered as possessing a certain validity value per se.

Our first comparison of item validity values is drawn on the original questionnaire itself between the results reported by Brown¹⁷ on his sample and those obtained on our Ninth Grade boys and girls. It can be read in detail in Table I where Brown's results are paired with ours on the Upper-Lower-Third Technique. The proportion between his results and ours stands at the ratio 11.5 to 1, since his N: 1663, and our N: 144, his Thirds: 554 and our Thirds: 48. An easy and rapid inspection of the parallels can be made using the proportion 10 to 1. His range of validities runs from 300 (Item 16) to 11 (Item 68); our range runs from 57 (Item 79) to 0 (Items 26 and 50). If the column of our results is multiplied by 11.5 to make the figures comparable, we find 69 items with a greater validity value, and 8 with a lesser validity value. Why do so many items have a greater validity value on our population? Are the items more significant to our population, or are our maladjusted children more acutely aware of their symptoms? Many factors would have to be considered before answering this problem with any degree of certainty. Meanwhile, from the point of view of the test maker these are very satisfactory results.

Two items obtained no validity value whatever: item 26 concerning Enuresis, and item 50 concerning Social Cooperation. In the French version four of the Upper Group will admit wetting their bed, whereas they had not in the original English text. This instance points out the great weakness

17 Fred Brown, J. of Appl. Psych., Vol. 18, p. 570-1.

TABLE I.- Comparative Item Validities of the Original Brown, Computed by the Upper and Lower Thirds Technique on Two Different Samples.

Item	Brown's ¹ U.L.	Our ² U.L.	Item	Brown's U.L.	Our U.L.
1	171	29	41	207	35
2	235	40	42	130	21
3	346	46	43	104	36
4	190	27	44	---	42
5	200	32	45	164	27
6	207	34	46	122	36
7	74	11	47	194	25
8	107	10	48	190	31
9	129	15	49	168	29
10	221	36	50	106	0
11	215	21	51	96	19
12	230	42	52	137	25
13	256	44	53	132	8
14	132	40	54	111	21
15	239	16	55	154	36
16	300	56	56	147	27
17	255	42	57	227	42
18	225	31	58	106	25
19	186	46	59	200	21
20	153	21	60	51	6
21	130	34	61	85	17
22	226	40	62	206	13
23	182	38	63	235	38
24	114	25	64	186	25
25	204	42	65	208	13
26	50	0	66	118	8
27	168	38	67	199	40
28	300	33	68	11	15
29	235	37	69	194	33
30	189	36	70	197	42
31	170	15	71	196	40
32	189	19	72	170	23
33	210	42	73	248	31
34	---	16	74	244	34
35	167	27	75	237	26
36	158	34	76	223	40
37	248	44	77	215	34
38	114	15	78	213	44
39	209	29	79	202	57
40	---	55	80	152	19

1 Derived from 1663 school children, Grades 4 to 9.

2 Derived from 144 school children, Grade 9, OULA, 1E, RC9B, 9C.

of all questionnaires: will the subject be frank in his answers? This factor is never to be forgotten, not only in our clinical use of the test, but also in our statistical studies of validity and reliability. Three of the eight lesser valid items, (Items 62, 65, 66) are concerned with school factors. Would this result favor the school environment? It is true that many of our children are happier at school than at home, but such a statement is unwarranted on the sole evidence of three test items.

TEST SIMILARITY

The comparisons drawn on Brown's original text between his validity values and our own validity values yield very satisfactory indices. Now, the results obtained by the very same population on both the English and the French versions of the questionnaire will be studied for their similarity. This is a problem met only in the construction of equivalent tests in two different languages. The closest approximation to this problem in the test construction literature is the preparation of two equivalent forms of the same test. Similarity is then measured by means of Pearson's reliability coefficient. To some extent it resembles the test-retest procedure as well as the parallel form technique.

Objection has been raised at one time or other against the use of the Pearson coefficient r to measure similarity in questionnaires of personality and adjustment. The gist of the argument is that the subject's situation can be so altered from one administration of the test to another as to render all comparison of results very weak. We believe this difficulty has been overstressed, particularly if very little time intervenes between both applications. At a week's distance, situational factors may change for one or two or even a few individuals in the group, but not for the group as a whole. In the inventory technique there is no question of practice effect, and very little retention of former answers. Most individuals tested at intervals of one week, when answering the test conscientiously, will strive to give the proper answer each time, and will be surprised at their inconsistencies when confronted with them.

Their most common interpretation of the difference, -- and the one which also appears very logical to the clinician, -- is that they interpreted and applied the question with a slight difference in meaning the second time. When this factor of "interpretation" plays in a series of questions, it will vary the answers about as many times in one direction as in another. Hence, it can truly be called a "chance factor" and not a constant factor. Under the circumstances the results obtained on a questionnaire vary only slightly from one test to another.

Considering the Pearson r a valid measure of resemblance, or equivalence, between the original Brown and the French translation, we applied it to two groups, one of boys (N: 66), and one of girls (N: 66), obtaining respectively the two following uncorrected coefficients: $.86 \pm .04$ and $.87 \pm .03$ (Sigma error of measurement). These results we consider very gratifying. Judging by past experience on similar tests, we can expect them to repeat themselves persistently between the values .8 to .95, and argue in favor of a very high resemblance between both versions of the questionnaire.

ITEM VALIDATION

The translation, as a whole, resembles the original text, but what degree of validity can each item of the translation claim? This is our next problem. Before applying one or another technique of item validation, we feel it necessary to discuss these techniques at some length.

Close scrutiny of the validity values derived by the Upper-Lower-Third Technique leads one to doubt its appropriateness in the study of this questionnaire. Consider that a high score is not desirable (clinically speaking), and that well-adjusted children should not accumulate YES answers; and consider, on the other hand, that a validity value of 300 on a Third of 554 can mean that 254 children in the well-adjusted group answered YES (300 being the difference between YES answers in both groups anywhere between the two extremes of 254 to 0, thus:

Upper Third (maladjusted) N:554	Lower Third (adjusted) N:554	Diff. U.-L.
254	0	300
554	254	300

To offset this grave difficulty, Brown used the Overlapping Technique of Lentz, Hirshstein and Finch. At this writing we are not yet in a position to evaluate this latter procedure. For our own work, we chose the so-called Kelley Technique because 1) it can be derived from results already obtained on Thirds, 2) it can be applied with ease and sufficient precision, 3) it permits the elimination of items accumulating too many YESSES, and 4) mostly because it assigns validity values independent of

the lesser or greater number of answers in both groups. The main idea of the Kelley technique sets the validity value of the item, not on the difference between the percentage proportions of the Upper and Lower groups giving typical responses to the item, but on the distance, in sigma units, between the ordinates which cut off these respective proportions from the area of the normal probability curve. The percentages must still be found, but they are transposed in terms of the ordinates cutting areas of a normal curve truncated at either end at a point 2.59σ from the Mean. This technique proposes to assign validity values which have no tendency to be influenced by the fact that an item receives more or less typical responses. In other words whether most children answer it, or very few answer it, does not affect its validity value. It is used by the Cooperative Test Service of the American Council on Education. Ben Wood, the Director, gives credit to Truman Kelley for its development; Long and Sandiford¹⁸ named it the Kelley Method in recognition of its origin.

At the Cooperative Test Service a neat graphic device was invented for its easy and rapid administration. This chart sets out the validities in such a manner that their comparative values are readily gauged by inspection. It will be used to illustrate the validity value of the items of our Third Experimental Copy. The percentages are converted into quarter-sigma units and laid off on the horizontal axis for the Lower group and

¹⁸ John A. Long, and Peter Sandiford, The Validation of Test Items, Bulletin No. 3 of the Dept. of Educational Research, Toronto, U. of Toronto Press, 1935, p. 36.

on the vertical axis for the Upper group. The items are plotted in the positions assigned them by their percentages. The diagonal line rising from the origin of the graph separates the items of positive validity above, and of negative validity below. The line of squares running diagonally collects the items of no validity. Validity can be counted off in terms of the number of squares up from the diagonal line. It must be admitted that the chart discriminates neither as accurately nor as minutely as does a table of validity values. This weakness is not very serious. Long and Sandiford write:

In the practical situation in which item-validities are carried out, the test-maker is not greatly concerned with minute exactnesses over the entire range of validity values obtained. He is interested in validation only in so far as it will enable him to select the best and discard the poorest from a large number of trial items. If he wants to select the best 100 from a set of 200 available, he is not concerned with the exact validity of Item 49 relative to each of the other 199; he is satisfied with information which will tell him whether Item 49 is among the best 100 to be selected or the poorest 100 to be discarded. Whether it is the 17th best item or the 68th best is a matter of little practical importance.¹⁹

We depart from the technique at one point, on the size of the end groups. The smaller the two end groups, the greater the validity coefficient, but also the greater the probable error of this measure. Hence, we meet the necessity of balancing the range of differences by the reliability of the range. According to Truman Kelley, this stage is reached when the Upper and Lower 27 per cents are taken into consideration. Using his technique with thirds, as we did, instead of 27 per cents, slightly lowers the range difference but increases correspondingly the reliability

¹⁹ Op. cit., p. 38.

of the range; moreover, using thirds instead of 27 per cents permits comparisons between our results and those reported by Brown in his writings.

Applying the Kelley Technique to the answers obtained on the original Brown and on the French translation from the same population of 144 Ninth Grade students, we derived the indices contained in Table II. Inspection of this Table reveals that our translation contains 46 items with greater validity values and 31 items with lesser validity values, and two (66,78) with equal validity values. Item 50 concerning Social cooperation obtained no validity whatever either in English or in French; no item obtained a negative value. No great discrepancies exist which would require special attention or correction.

Both versions contain items with greater validity values and items with smaller validity values. Brown included the latter for their clinical rather than their statistical values; we do not consider it the prerogative of test translators to begin a new item selection, unless, of course, one or another item would appear to be definitely invalid on our population.

TABLE II.— Item Validities of Both the Original Brown and Its Translation,
Derived by the Kelley Technique from 144 Copies, 1A, 1E, 9B, 9C.

Item	Validity Brown	Validity Br-Ott	Item	Validity Brown	Validity Br-Ott
1	1.31	1.03	41	.98	1.48
2	1.60	1.90	42	.86	1.55
3	2.04	1.48	43	1.74	2.34
4	1.11	.88	44	2.39	1.45
5	1.08	1.74	45	1.50	1.05
6	1.30	.84'	46	1.26	1.85
7	.60	.87	47	1.20	1.38
8	.87	1.64	48	1.36	1.61
9	.74	1.24	49	1.16	.87
10	.94	1.06	50	.0	.0'
11	.55	1.05	51	1.24	1.31
12	1.90	2.00	52	1.45	.86
13	1.46	.89	53	.20	1.12'
14	1.05	1.20	54	1.78	1.64
15	.49	.14	55	1.13	1.03
16	2.00	1.55	56	.80	1.03
17	1.13	1.25	57	1.41	1.13
18	.86	1.13	58	.66	.80
19	1.75	1.50	59	.74	.80
20	.94	.91	60	1.04	1.18
21	1.44	1.21	61	1.64	1.31
22	1.85	1.80	62	.54	.61'
23	1.80	1.90	63	1.31	1.05
24	1.44	2.09	64	.89	.93
25	1.50	1.70	65	.36	.07
26	.0	.84	66	.77	.77
27	1.23	1.18	67	1.85	1.61
28	.86	1.18	68	.74	.94
29	1.01	1.15	69	.86	.68
30	1.26	.88'	70	1.41	1.85
31	.87	1.64'	71	1.36	1.80
32	1.71	2.09	72	1.38	1.66
33	1.50	1.75	73	.84	.94
34	.83	1.31	74	1.13	.71
35	.84	.91'	75	.87	.78
36	1.30	1.46	76	1.60	1.31
37	1.55	2.00	77	1.21	.91
38	.74	1.01	78	1.38	1.38
39	.89	1.06	79	1.72	1.68
40	1.62	1.01	80	.50	1.26

' Items changed in Third Experimental Copy.

THIRD EXPERIMENTAL COPY

Experience with the Second Experimental Copy led to seven minor changes and to one major change in the Third Experimental Copy.

While administering the test it was felt that certain items were not worded with enough clarity, since they often provoked questions on the part of the subjects. On that account Items 6, 30, 31, 35, 53, 62, were reworded with slight changes. Item 50, "Vous accordez-vous bien avec vos camarades?" yielded no validity either on the original English or the French translation. It also gave trouble in the computation of results, being the only item where NO was the maladjusted answer. For those two reasons it was changed to "Vous querellez-vous souvent avec vos camarades?" (Validity became 1.08. Cf. Item 36c in Table IV).

So much for the minor changes; the major change was decided after serious consideration of two factors. On the one hand, correction of the copies led us to believe that some subjects in group administration did not take the task seriously: a series of NOES being marked by a long vertical line. To counteract such behavior it was decided to jumble the items together instead of leaving them in series, as in the original text. Upsetting the order of items has its drawback. It makes comparison of items with the original Brown a little more involved. To simplify the task of item study from one copy to another Table was drawn up in two sections, the first section permitting transfer from the original Brown to the newly revised Brown-Ottawa, and the second section offering corresponding numbers from the New Revised to the original text.

TABLE III.- Corresponding Numbers on the Original Brown and the Brown-Ottawa Revised, (Third Experimental Copy).

Brown into Brown-Ottawa Rev.				Brown-Ottawa Rev. into Brown			
Brown	Br-Ott	Brown	Br-Ott	Br-Ott	Brown	Br-Ott	Brown
1	38c	41	75c	1c	14	41c	4
2	8d	42	66a	2a	22	42a	26
3	25d	43	27a	3d	74	43d	73
4	41c	44	76a	4b	54	44d	8
5	14d	45	39a	5e	65	45a	25
6	26d	46	23a	6c	77	46c	28
7	53d	47	12b	7e	64	47d	75
8	44d	48	15b	8d	2	48b	60
9	32d	49	19b	9a	23	49a	33
10	60d	50	36c	10e	66	50d	55
11	62d	51	65b	11d	56	51b	59
12	40d	52	72b	12b	47	52a	34
13	38d	53	24b	13a	20	53d	7
14	1c	54	4b	14d	5	54b	61
15	34c	55	50d	15b	48	55a	27
16	28c	56	11d	16d	68	56d	79
17	79c	57	68b	17c	18	57b	58
18	17c	58	57b	18e	62	58d	13
19	35a	59	51b	19b	49	59a	35
20	13a	60	48b	20c	71	60d	10
21	29a	61	54b	21a	69	61a	30
22	2a	62	18e	22d	76	62d	11
23	9a	63	33e	23a	46	63c	39
24	67a	64	7e	24b	53	64d	72
25	45a	65	5e	25d	3	65b	51
26	42a	66	10e	26d	6	66a	42
27	55a	67	31a	27a	43	67c	24
28	46c	68	16d	28c	16	68b	57
29	71a	69	21a	29a	21	69a	40
30	61a	70	30d	30d	70	70d	78
31	74a	71	20c	31a	67	71a	29
32	77d	72	64d	32d	9	72b	52
33	49a	73	43d	33e	63	73d	80
34	52a	74	3d	34c	15	74a	31
35	59a	75	47d	35a	19	75c	41
36	37a	76	22d	36c	50	76a	44
37	78a	77	6c	37a	36	77d	32
38	80a	78	70d	38c	1	78a	37
39	63c	79	56d	39a	45	79c	17
40	69a	80	73d	40d	12	80a	38

On the other hand it was decided to classify the items into categories and to identify them by a conventional sign. Such identification proves very useful in clinical practice. Long experience with another such questionnaire, the Bell Adjustment Inventory, substantiates this point. Identification of items on the question blank is new with the Brown, but not the classification of items. Hence our procedure is not altogether an innovation. It was suggested to us by Brown's own "Categories for Use in Individual Cases" on page 4 of his Manual of Directions, and by his study on the influence of race and locale upon the emotional stability of children,²⁰ where he uses his classification for diagnostic purposes.

His classification was arbitrary of course, and not the result of experimental evidence. It was also rather embarrassing in the case of certain items. A few were even assigned to more than one category, witness Item 61 in Home Adjustment and in Anxiety, Item 7 in Physical Symptoms and in Anxiety, Items 55 and 56 in Home Adjustment and in Anxiety, Items 68, 73, 74 in Physical Symptoms and in Anxiety. Fifteen items were simply classified miscellaneous: Items 1, 4, 5, 8, 10, 19, 28, 50, 57, 67, 69, 72, 76, 77, 79. This did not seem satisfactory to us; we preferred to classify an item in only one category at a time, and to fit the miscellaneous items in one of the five categories. We differed from him on only one point: Item 24 (hysterical headache) appeared more like a symptom of irritability

²⁰ Fred Brown, "A Comparative Study of the Influence of Race and Locale upon Emotional Stability of Children" in The Journal of Genetic Psychology, Vol. 49, No. 2, December, 1936, p. 327.

and sensitiveness to us than as a mere physical symptom. Finally we assigned the letters A, B, C, D, E, to the different categories. Table IV gives a general idea of the code, the titles and the changes operated.

TABLE IV.— Identification and Classification of the Items of the Brown-Ottawa, Revised (Third Experimental Copy).

Code	Category	Brown's grouping	Changes ¹	Br-Ott. Rev.
A	Physical symptoms	27	-5 + 3	25
B	Home adjustment	13	-2 + 1	12
C	Sensitiveness or irritability	8	+ 6	14
D	Anxiety and insecurity	19	-1 + 6	24
E	School adjustment	5	-- + -	5
	Miscellaneous	15		0
	TOTAL	87		TOTAL 80

¹ The minus sign denotes items removed from a category, and the plus sign items added to it.

The Third Experimental Copy was ready for its try-out. It was administered to the same group of Ninth Grade boys and girls who had already been submitted to the original text and to our Second Experimental Copy. These had been given in October, as we have seen;²¹ our New Revised Copy was administered on December 14th. With so much time between administrations some variation was expected; yet the Pearson r obtained between the results on the Second and the Third Copies for a number of 120 was uncorrected $.87 \pm .02$ (Sigma measure of error).

²¹ Vide p. 13.

Validity values were derived by the Kelley Technique for each item of this Third Experimental Copy; they can be read in Table V and also in the scattergram of Figure 1. On this illustration one can quickly locate any item and derive a validity value in terms of the distance upwards from the diagonal. Discussion of these results brought about the changes to be incorporated into the Fourth Copy of the test. Seven items were to be reworded; they are easily to locate in Figure 1, since they have been circled. Items 1, 43, 56, 57, and 79 obtained too many YESSES from the Lower-Group of well-adjusted pupils. It was consequently decided to make the question slightly more diagnostic, thus:

Item 1c. Vous sentez-vous mal à l'aise lorsqu'on vous gronde?
 became: " " très " " " " " ?

Item 43d. Prenez-vous parfois du temps à vous endormir le soir?
 became: " " beaucoup de " " " " " ?

Item 56d. Y a-t-il des idées qui vous reviennent dans la tête . . .
 became: " " " " " " " " sans cesse " " . . .

Item 57b. Vos parents vous parlent-ils fort quelquefois?
 became: " " " "crient-ils par la tête?

Item 79c. Est-ce que c'est facile de vous faire de la peine?
 became: " " " très " " " " " " " ?

Item 61a which had obtained no validity value was simplified to read:

"Vous arrive-t-il parfois de n'être plus capable de sentir vos bras, vos doigts, ou vos jambes?"

Items 24b and 26d were reworded to resemble the English text more closely; both had proved very difficult to translate into a French text which would be properly understood by the children.

TABLE V.- Item Validities of the Third Experimental Copy of Brown-Ottawa,
Derived by the Kelley Technique from 144 Copies, 1A, 1E, 9B, 9C.

Item	Sigma U.T.	value - L.T.	Validity value	Item	Sigma U.T.	value - L.T.	Validity value
1c	4.34	3.47	.87'	41c	1.92	.54	1.38
2a	2.49	1.41	1.08	42a	1.04	.54	.50
3d	2.26	1.71	.57	43d	3.40	2.28	1.12'
4b	1.55	.0	1.55	44d	1.55	.54	1.01
5e	2.54	1.71	.83	45a	2.28	.54	1.74
6c	2.15	1.41	.74	46c	2.90	1.98	.92
7e	2.69	1.64	1.05	47d	1.98	.84	1.14
8d	2.34	1.41	.93	48b	.84	.0	.84
9a	2.15	.54	1.61	49a	2.69	1.04	1.65
10e	1.04	.0	1.04	50d	2.04	1.41	.63
11d	2.28	1.55	.73	51b	1.78	.54	1.24
12b	1.92	.0	1.92	52a	2.15	1.04	1.11
13a	2.04	1.04	1.00	53d	.84	1.18	-.34
14d	2.44	1.18	1.26	54b	1.18	.54	.64
15b	2.15	.54	1.61	55a	2.64	1.04	1.60
16d	1.71	.84	.87	56d	3.63	2.28	1.35'
17c	2.98	1.98	1.00	57b	3.03	2.59	.44'
18e	2.98	2.15	.83	58d	2.49	1.04	1.45
19b	2.20	1.55	.65	59a	3.40	1.85	1.55
20c	2.28	.54	1.74	60d	2.49	1.78	.71
21a	2.15	1.18	.97	61a	.84	.84	.0'
22d	2.09	.84	1.25	62d	3.40	1.98	1.42
23a	2.09	1.78	.31	63c	2.64	1.98	.66
24b	.84	.0	.84'	64d	2.09	1.18	.91
25d	2.44	1.04	1.40	65b	1.31	.0	1.31
26d	1.31	.0	1.31'	66a	1.85	1.41	.44
27a	2.44	.0	2.44	67c	1.71	.0	1.71
28c	2.69	1.04	1.65	68b	2.64	1.04	1.60
29a	1.41	1.18	.23	69a	2.84	1.31	1.53
30d	2.44	1.04	1.40	70d	2.79	1.55	1.24
31a	1.64	.54	1.10	71a	3.14	1.18	1.96
32d	1.98	.84	1.14	72b	1.55	.54	1.01
33e	2.59	1.18	1.21	73d	2.34	1.71	.63
34c	2.04	.84	1.20	74a	1.04	.0	1.04
35a	1.92	.54	1.38	75c	2.54	1.55	.99
36c	1.92	.84	1.08	76a	1.92	.84	1.08
37a	2.44	1.18	1.26	77d	2.04	1.54	1.50
38c	2.49	1.18	1.31	78a	1.98	.54	1.44
39a	2.15	1.31	.84	79c	3.26	2.44	.82
40d	2.49	1.04	1.45	80a	1.85	1.55	.30

' Items changed in Fourth Copy.

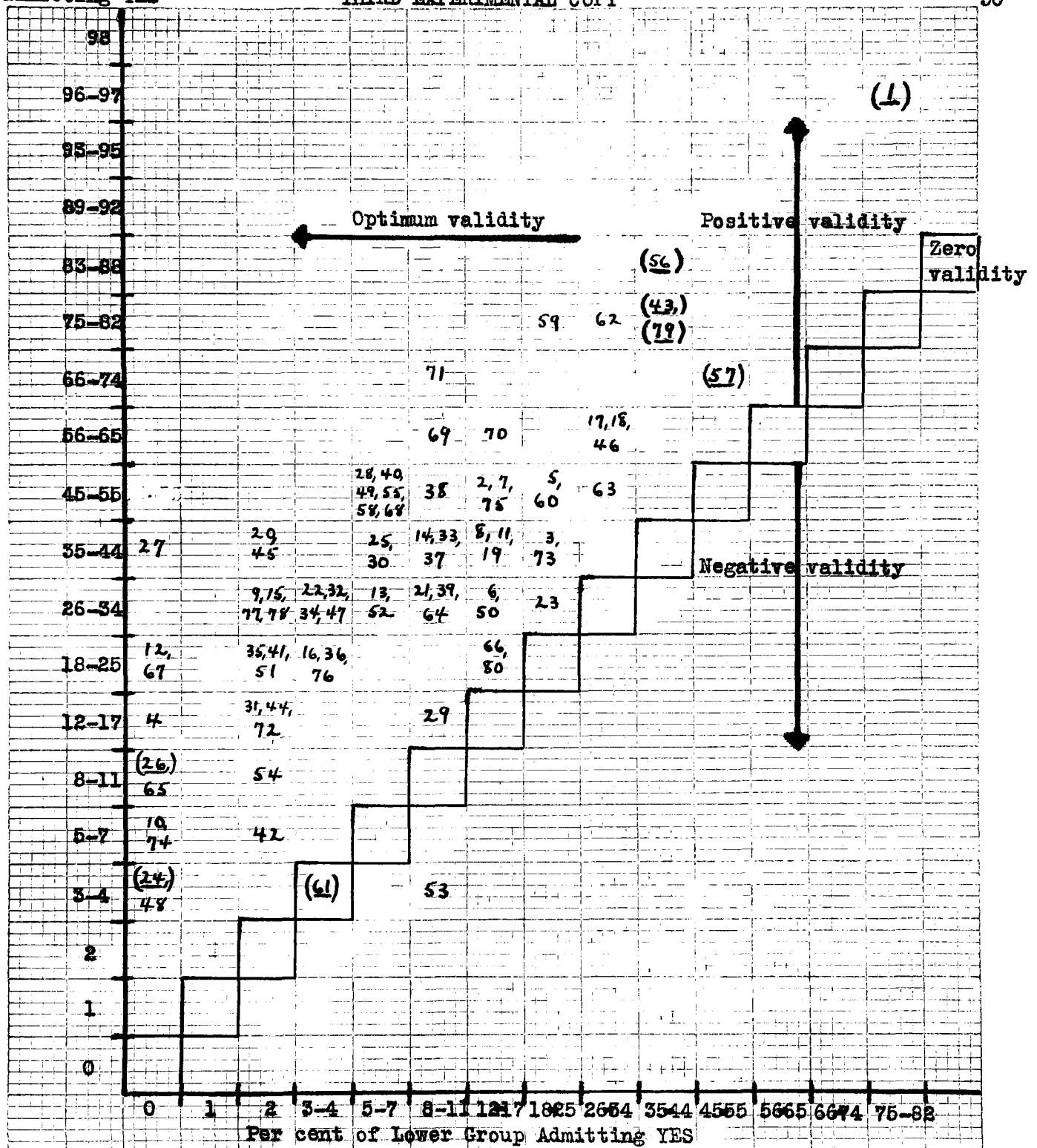


Figure 1. Item validities of the Third Experimental Copy of the Brown-Ottawa, derived by the Kelley Technique from 144 copies, in Grade 9. () Items changed in the Fourth Copy. Data of Table V.

Item 6. Do people expect too much from you?

Item 26d. (3rd Copy) Trouvez-vous qu'on vous en donne trop à
faire?

Item " . (4th Copy) Trouvez-vous que vos parents s'attendent
à beaucoup trop de vous?

Item 53. Have you been told at home that children should be seen
and not heard?

Item 24b. (3rd Copy) Vous empêche-t-on de jouer et de rire à la
maison?

Item " . (4th Copy) Vous a-t-on dit à la maison que les enfants
devaient se taire et écouter?

This last version had figured on our Second Experimental Copy, and had obtained validity values of .84 and 1.12 respectively. The Third version was no improvement, hence the text of the Second Copy was replaced in the Fourth.

The Fourth French version was printed on light green paper. A sample is included as Appendix 5. Plans have been drawn up to administer this copy to well over a thousand children in the grades 4 to 9 inclusively for a thorough analysis of the validity value of each item as it now stands. The Kelley Technique will be applied again for quick inspection of values. For certain technical reasons, we begin to believe that it is inadequate in neurotic questionnaires. The overlapping technique will be applied as an improvement. If this proves adequate, it will be definitely adopted for such validation studies.

RELIABILITY

Brown reported on the reliability of his questionnaire in several places.^{22,23,24,25} We quote from *The Journal of Applied Psychology*:

Since there was no objective criterion with which to test the reliability of our inventory, it was decided to use the method of "internal consistency" or the "split-half" method for finding the coefficient of correlation between two halves of a test which has been applied only once. This procedure yields the coefficient of reliability for the half test.

Three groups, composed of 100 each, were selected at random from the entire group in order to compute the reliability of the inventory. The correlation between odd versus even items was calculated for the eighty items selected by the U.L. and O.L. methods, the r for each group being calculated separately. In doing this, the Toops raw score formula for calculating the coefficient of correlation was used.

The reliability coefficients for the three discrete groups were as follows:

Grade IV	\underline{r} +.755
Grade VI	\underline{r} +.866
Grade VIII	\underline{r} +.803

In order to compute the reliabilities of the whole test for each group the Spearman-Brown prophecy formula was utilized:

This correction yielded the following reliabilities:

Grade IV	\underline{r} +.860 \pm .010
Grade VI	\underline{r} +.928 \pm .006
Grade VIII	\underline{r} +.890 \pm .008

The probable errors of our corrected r 's were obtained by the use of Edgerton's tables. The separate coefficients were averaged by the use of Fisher's Z formula and yielded a reliability coefficient of +.896 \pm .007 for the entire inventory.

22 Fred Brown, "Suggestions With Regard to Use and Interpretation of the Brown Personality Inventory" (Manual of Directions), N.Y., The Psychological Corporation, (no date), p. 3.

23 ----- Educational Method, Vol. 13, p. 256.

24 ----- J. of Applied Psychology, Vol. 18, p. 572-573.

25 ----- J. of Abn. and Social Psych., Vol. 31, p. 201-202.

Determining the reliability of a neurotic questionnaire presents a few technical difficulties. We read above that Brown chose the method of internal consistency, rather than the test-retest method, as he explains on page 202 of The Journal of Abnormal and Social Psychology:

We know, of course, that the test-retest method is applicable and has been frequently utilized; but while this method is entirely valid in establishing the worth of an intelligence test, its value in the present instance is questionable in view of the fact that neuroticism, in contradistinction to intelligence, is apparently not a constant quantity. There may be fluctuation between the various components of the syndrome, for one thing, and a change of environment or other conditions between the first and second application of the inventory may result in higher or lower scores which would tend to interfere with statistical coefficients.

We admit that neuroticism is apparently not a constant quantity. We are ready to admit that the fluctuation between the various components of the syndrome and the change of environment between the first and second applications can and do affect the scores of one, or another, or a few individuals in the group; but they do not change the results of the group as a whole, if the two administrations are not too distant, and if the group has not as a whole undergone a general change of status. This last condition would be met, if one applied the test just before examinations, then two weeks later, for instance.

Moreover, we have a technical argument against the odd versus even method: it all depends which items are odd, and which even. The splitting into halves technique has always suffered from this little difficulty: the coefficient is directly affected by the splitting. In the original test, items of Home Adjustment, or School Adjustment, or any other category ran in series most of the time; this often meant a series

of YESES in a row and consequently favored a high reliability coefficient in the computations. With the items reorganized so that there will be very few similar ones in series, it is to be expected that the "internal consistency" will obtain coefficients lower than .8. Although it could be done for the sake of argument, we have not calculated them.

We have reported above, under the title Test Similarity, coefficients obtained by the Test-retest method between the English and French texts. These coefficients are $.86 \pm .04$ and $.87 \pm .03$ uncorrected. While treating the Third Experimental Copy, we stated our Pearson r as $.86 \pm .02$ uncorrected. The same group of 120 students were submitted to the Second Copy in October and to the Third Copy in December. The two months distance seemed rather great, yet the results were very satisfactory. Moreover, these results were almost all individually controlled at the Guidance Centre, when these children were interviewed as a routine guidance procedure. The clinical application of those 120 copies has not been statistically analyzed. Yet here are a few interesting observations. Three boys substantially reduced their scores: 28 to 11, 36 to 23, 24 to 14. All other changes (gains or losses) were lower than 10. One boy who had given few YESES on the test was found in the interview to be definitely maladjusted. He had simply held back his complaints, as he was wont to do anyway, unless he met a very sympathetic and understanding counsellor.

This clinical control of our results we mention here because Brown himself stated that "the crucial test of a psychoneurotic inventory depends on its ability to function uniformly when administered to a select group."²⁶

26 Fred Brown, J. of Abn. and Social Psych., Vol. 31, p. 202.

NORMS

Norms are closely related to the population from which they are derived; hence a description of the population tested by the Brown-Ottawa is in order. To what extent should this population be analyzed and described? What factors must be more closely scrutinized? Brown himself did sufficient research on his questionnaire to guide us in our own work.

Paraphrasing his conclusions in The Journal of Applied Psychology, (Volume 18, p. 577), we find with our own experience the following interesting particulars.

The test is independent of age level, -- between the ages of 9 to 14 years for which it was intended. A few children of 8, and even of 7, if they are intelligent and possess sufficient vocabulary, can answer the questionnaire; children of 15 and 16 will also take it easily, although group application at these ages is liable to encounter a lack of seriousness and frankness, unless the administrator maintains a fair amount of discipline.

The test is equally applicable to both sexes. The difference between the mean neurotic scores of boys and girls, -- greater for the girls, in our sample, -- was not statistically significant.

Intelligence level does not influence neurotic scores; nor does neuroticism favor any particular age-grade standing, although previous investigators intimated that emotionality and intellectual efficiency were antagonistic.²⁷

27 Fred Brown, J. of Educ. Psych., Vol. 29, p. 107.

Children who make high scores show reliable differences when compared with normal children with regard to sleep and dreams, their home situation, physical symptoms and general social adaptation. School adjustment was not reliably different in our sample.

One factor requires particular attention: adjustment proved to be closely related to socio-economic level, but not to race or habitat, as Brown found in his study on these latter factors,²⁸ contrary to his first impression recorded earlier.²⁹ Thereupon he wrote:

It is not surprising that our results demonstrate a connection between socio-economic level and adjustment. When we consider the inferior food, parental intelligence, ignorance of child behavior and needs, economic insecurity, and general squalor of low class homes in comparison with those of higher standards the results become entirely consistent.³⁰

With these preliminaries it is easier to evaluate our own population. The 144 boys and girls upon which validation studies were made are in the Ninth Grade of two private schools. This fact eliminates many a child from poorer homes. It may have slightly affected our validity values. This has still to be seen. As we have said, plans have been drawn for a more thorough evaluation of items in the Fourth Copy.

The 800 and odd copies are a better sample of the urban population in classes 5 to 9 inclusively. A minority of the children tested belong to the high socio-economic status, residing mostly in the Sandy Hill section of Ottawa. The parents of these children constitute the profes-

28 Fred Brown, J. of Genetic Psychology, Vol. 49, p. 341.

29 ----- J. of Appl. Psych., Vol. 18, p. 577.

30 ----- J. of Genetic Psych., Vol. 49, p. 340.

sional, the semi-professional, and the merchant classes. A minority of the children belong to the low socio-economic status, residing mostly in the Basse-Ville of Ottawa. It is not an industrial section, but the lesser privileged section of the capital. Their parents are of the labor classes, many unskilled, and some semi-skilled workers. The majority of the children belong to the middle class, composed predominantly of clerical workers; there are also small merchants and skilled laborers. Hence our sample neither represents the low industrial classes, nor the rural classes. It springs from four schools in the following proportions:

- 300 boys and girls, Grade 9, O.U., High and middle status;
 - 200 boys, Grades 5, 6, 7, 8, G.O., High and middle status;
 - 250 girls, Grades 5, 6, 7, 8, R&L., Middle and low status.
- (A dozen copies were eliminated at random to obtain round numbers.)

These 800 copies pooled together furnished the decile norms tabulated in Table VI, where they are lined up parallel to Brown's tentative Norms and his suggested classifications.

TABLE VI.-- Decile Norms for the Brown Inventory

Decile	Our Norms	Brown's Norms	Brown's Classes
1	8	5	Excellent
2	12	8	
3	14	11	Good
4	17	14	
5	20	17	Average
6	23	20	Poor
7	26	24	
8	31	28	Very poor
9	39	35	
10	59 +	49 +	

Inspection of these results shows our norms to be slightly higher than Brown's at every decile. At this writing it is not possible to give an explanation of this phenomenon. Are the children tested less well adjusted, as a group, than were those in Brown's population? Are our children more apt to admit their troubles? Or do they simply believe that it will please the examiner if he finds more yeses. This last hypothesis can find an argument in a school system where authority is unquestioned, and the children all more or less develop subservient traits to please the Master.

Our norms were derived from the distribution of Table VII, illustrated in Figure 2. It is a positively skewed distribution, typical of answers obtained on such questionnaires, where the mode rises over the lower range, and the higher scores scatter out to a greater or lesser extent in the higher range.

Evidently, it behooves the test makers to gather more results from other French-Canadian localities in order to present the test users more representative norms. These tentative norms are already sufficient for practical and clinical purposes. According to Brown, a score of 25, or over, requires clinical attention; according to our norms, a score of 28 or over would require clinical attention. The difference is negligible in clinical usage.

TABLE VII.- Distributions, and Deciles, Obtained on the Brown-Ottawa by Children of Both Sexes in Twelve Different Classes of the Separate Schools of Ottawa, Ontario.

Inter- vals	Frequencies				Totals	Cum. f.	Deciles
	OU	RC	GO	ROLV			
	1A, 1E	9B, 9C	5, 6, 7, 8	5, 6, 7, 8			
	(boys)	(girls)	(boys)	(girls)			
57-59			1		1	800	
54-56	1		1	1	3	799	
51-53				4	4	796	
48-50	1		2	1	4	792	
45-47	1	1	7	3	12	788	
42-44	4	1	8	6	19	776	
39-41	5		8	14	27	757	D ₉ : 38.6
36-38	7	5	5	16	33	730	
33-35	9	6	10	8	33	697	
30-32	8	9	18	8	43	664	D ₈ : 30.8
27-29	16	10	16	16	58	621	
24-26	17	12	15	22	66	563	D ₇ : 26.3
21-23	20	14	21	27	82	497	D ₆ : 22.9
18-20	24	13	21	29	87	415	D ₅ : 20
15-17	20	22	12	30	84	328	D ₄ : 17.2
12-14	18	17	27	28	90	244	D ₃ : 14.4
9-11	23	16	13	16	68	154	D ₂ : 11.7
6-8	16	17	9	10	52	86	D ₁ : 8.2
3-5	7	6	4	10	27	34	
0-2	3	1	2	1	7	7	
N ^a :	200	150	200	250	800		

a To obtain round numbers a few copies were eliminated at random in each group.

NORMS

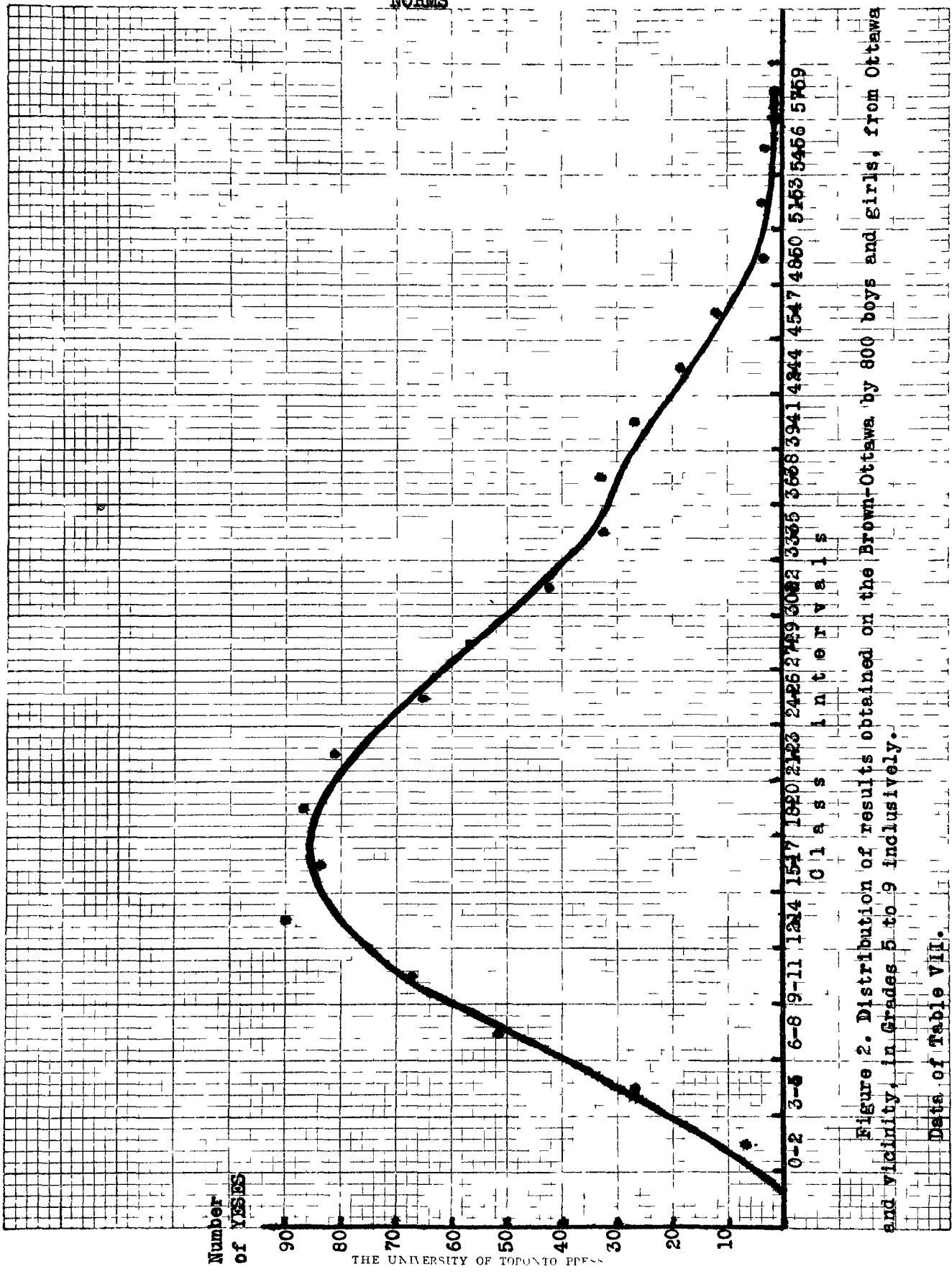


Figure 2. Distribution of results obtained on the Brown-Ottawa by 800 boys and girls, from Ottawa and vicinity, in Grades 5 to 9 inclusively.

Data of Table VII.

CONCLUSION

Fred Brown's concept of "neuroticism" was used as an introduction to his Personality Inventory for Children. This neurotic questionnaire prepared for subjects ranging from 9 to 14 years, was translated in French and administered to the population of four Ottawa schools for purposes of standardization.

This standardization followed five steps: 1) a detailed study of Brown's own test on our population, (Table I), 2) a comparative item study of both the original and the translation, (Table II), 3) an item study of the Third Experimental Copy, (Table V), 4) a study of reliability by the test-retest method, 5) the extraction of Tentative Norms from our school sample of 800 subjects.

Brown's item selection and our item translations were both studied for validity values and for similarity between the two versions. This similarity, measured by a Pearson r of .86 and .87, is reflected in the resemblances found between the validity values of the individual items.

Our item validation, using the Kelley technique, led to three experimental copies, the ultimate copy, being the Fourth. This last copy still has to be studied for its item validation on a greater and more representative sample than the one which served this preliminary study.

Testing has also been undertaken in different centers of the Province of Quebec to ascertain the adequacy of the Tentative Norms.

BIBLIOGRAPHY

Brown, Fred, "The Nature of Emotion and Its Relation to Anti-social Behavior" in The Journal of Abnormal and Social Psychology, Vol. 28, No. 4, January 1934, p. 446-458.

----- "A Psychoneurotic Inventory for Children Between Nine and Fourteen Years of Age" in The Journal of Applied Psychology, Vol. 18, No. 5, 1934, p. 566-577.

----- "The School as a Subsidiary of the Psychological Clinic in the Prevention of Neuroticism in Childhood" in Educational Method, Vol. 13, No. 5, February 1934, p. 254-258.

----- "Suggestions with Regard to Use and Interpretation of the Brown Personality Inventory" (Manual of Directions), N.Y., The Psychological Corporation, (1935), p. 7.

----- "The Problem of Nervousness and Its Objective Verification in Children" in The Journal of Abnormal and Social Psychology, Vol. 31, No. 2, July 1936, p. 194-207.

----- "A Comparative Study of the Influence of Race and Locale upon Emotional Stability of Children" in The Pedagogical Seminary and Journal of Genetic Psychology, Vol. 49, No. 2, December 1936, p. 325-342.

----- "Neuroticism of Institution versus Non-Institution Children" in The Journal of Applied Psychology, Vol. 21, No. 4, August 1937, p. 379-383.

----- "An Experimental Study of the Effect of Neuroticism upon Age-Grade Status of Children" in The Journal of Educational Psychology, Vol. 29, No. 2, February 1938, p. 107-113.

Long, John A. and Peter Sandiford, The Validation of Test Items, Bulletin No. 3 of the Dept. of Educational Research, Toronto, University of Toronto Press, 1935, p. 126.

Springer, Norton, "A Comparative Study of the Psychoneurotic Responses of Deaf and Hearing Children" in The Journal of Educational Psychology, Vol. 29, No. 6, September 1938, p. 459-466.

----- and Sydney Roslow, "A Further Study of the Psychoneurotic Responses of Deaf and Hearing Children" in The Journal of Educational Psychology, Vol. 29, No. 8, November 1938, p. 590-596.

APPENDIX I

Personality Inventory for Children

by

Fred Brown, Ph.D.

PERSONALITY INVENTORY FOR CHILDREN

By
Fred Brown, Ph.D.
Chief Psychologist, Child Study Department
Minneapolis Public Schools

Name (First name) (Last name) Age (Last birthday)

Date of Birth School Grade

Race or Nationality Boy or Girl City or Town

1. Are you always having bad luck? YES NO
2. Do you feel that people do not understand you? YES NO
3. Do you ever have the feeling that you are not like other children? YES NO
4. Does telling you to do something make you feel like doing just the opposite? YES NO
5. Is it hard for you to remember things? YES NO
6. Do people expect too much from you? YES NO
7. Do you stutter when you try to talk? YES NO
8. Do you ever stay out of games because you think you might lose if you play? YES NO
9. Do you ever have a strong wish to take something which does not belong to you? YES NO
10. Do you change your mind often before doing something? YES NO
11. Do you ever feel worried when there is nothing to do? YES NO
12. Do you always have the feeling that something bad is going to happen? YES NO
13. Do you ever wish that you were different than you are? YES NO
14. Does scolding make you feel badly? YES NO
15. Do people think you have a bad temper? YES NO
16. Are you bothered by some things which don't seem to bother other people? YES NO
17. Are your feelings easily hurt? YES NO
18. Do you get angry when people tease you? YES NO
19. Do you always feel nervous? YES NO
20. Do you have bad headaches once or twice a week? YES NO
21. Are your hands and feet usually cold? YES NO
22. Do your feet or hands "fall asleep" often? YES NO
23. Do you ever feel as if you were going to faint? YES NO
24. Do you usually get headaches when you are told to do something which is disagreeable to you? YES NO
25. Do you ever get sudden pains in your head? YES NO
26. Is your bed ever wet when you get up in the morning? YES NO
27. Is your nose stopped up very often? YES NO
28. Is it easy to make you angry? YES NO
29. Do you feel tired and worn-out when you get up in the morning? YES NO
30. Do your arms, fingers, or legs ever get so that you cannot feel anything with them? YES NO
31. Do you sometimes throw up after eating? YES NO
32. Do you usually feel gloomy? YES NO
33. Do you get tired easily? YES NO
34. Does the sight of food ever make you sick? YES NO
35. Do you ever have fits of coughing or sneezing? YES NO

- | | | |
|---|-----|----|
| 36. Do your arms or legs ever move without your wanting them to do so?..... | YES | NO |
| 37. Do you ever have pains which move from one part of your body to another?..... | YES | NO |
| 38. Do you have to go to the toilet a great deal?..... | YES | NO |
| 39. Do bright lights usually bother you?..... | YES | NO |
| 40. Do you get out of breath easily?..... | YES | NO |
| 41. Do loud sounds annoy you?..... | YES | NO |
| 42. Are you troubled much with toothaches?..... | YES | NO |
| 43. Do you always feel tired?..... | YES | NO |
| 44. Does your hand ever tremble so that you cannot write?..... | YES | NO |
| 45. Do you suffer from stomach pains often?..... | YES | NO |
| 46. Have you ever been unable to hear or see for a while?..... | YES | NO |
| 47. Do you ever feel like running away from home?..... | YES | NO |
| 48. Do your parents get angry with you often?..... | YES | NO |
| 49. Have you a brother or sister whom your parents seem to like better than they do you? | YES | NO |
| 50. Do you get along well with your playmates?..... | YES | NO |
| 51. Is your mother too strict with you?..... | YES | NO |
| 52. Does your father lose his temper very often?..... | YES | NO |
| 53. Have you been told at home that children should be seen and not heard?..... | YES | NO |
| 54. Do you feel that your parents are too hard on you?..... | YES | NO |
| 55. Have you ever dreamed that your father died?..... | YES | NO |
| 56. Have you ever dreamed that your mother died?..... | YES | NO |
| 57. Do you ever worry about money?..... | YES | NO |
| 58. Do your parents ever speak to you in a loud tone of voice?..... | YES | NO |
| 59. Are you bossed around at home?..... | YES | NO |
| 60. Have you ever run away from home?..... | YES | NO |
| 61. Do you ever feel that your parents are not your own?..... | YES | NO |
| 62. Do you think your grades are too low?..... | YES | NO |
| 63. Is it hard for you to talk in class when the teacher calls on you?..... | YES | NO |
| 64. Do you find it hard to pay attention in school?..... | YES | NO |
| 65. Do you make many mistakes in your school work?..... | YES | NO |
| 66. Is school work too hard for you?..... | YES | NO |
| 67. Do you often drop things you are holding?..... | YES | NO |
| 68. Does your heart sometimes beat so that you cannot sleep?..... | YES | NO |
| 69. Are you very particular about the things you eat?..... | YES | NO |
| 70. Do you usually have bad dreams at night?..... | YES | NO |
| 71. Do you usually feel excited?..... | YES | NO |
| 72. Do you ever feel ashamed of your dreams?..... | YES | NO |
| 73. Do you ever have a hard time falling asleep at night?..... | YES | NO |
| 74. Do you often wake up in the middle of the night?..... | YES | NO |
| 75. Have you ever dreamed that you were locked in a room and could not get out?..... | YES | NO |
| 76. Do you ever start thinking about yourself and forget where you are?..... | YES | NO |
| 77. Is it hard for you to calm down after being angry?..... | YES | NO |
| 78. Are you afraid sometimes that people do not believe what you tell them?..... | YES | NO |
| 79. Are there thoughts which keep coming into your mind even when you don't want to think of them?..... | YES | NO |
| 80. Do you ever dream that you are trying to run away from someone who is trying to harm you?..... | YES | NO |

APPENDIX II

The First Experimental Copy of
"L'inventaire de la personnalité Brown-Ottawa"

Nom Age
 (Prénom) (Nom de famille) (au dernier anniversaire)
 Date de naissance Ecole Grade
 Nationalité Garçon ou fille Ville

1. Etes-vous toujours malchanceux? OUI NON
 2. Vous semble-t-il qu'on ne vous comprend pas? OUI NON
 3. Vous semble-t-il quelquefois que vous n'êtes pas comme les autres enfants? OUI NON
 4. Lorsqu'on vous dit de faire quelque chose, avez-vous envie de faire le contraire? OUI NON
 5. Avez-vous de la difficulté à vous rappeler certaines choses? OUI NON

6. Est-ce qu'on exige beaucoup trop de vous? OUI NON
 7. Bégayez-vous quand vous venez pour parler? OUI NON
 8. Refusez-vous quelquefois de jouer parce que vous avez peur de perdre? OUI NON
 9. Avez-vous quelquefois un désir très fort de prendre des objets qui ne vous appartiennent pas? OUI NON
 10. Changez-vous souvent d'idée avant de faire quelque chose? OUI NON

11. Vous sentez-vous parfois en peine quand il n'y a rien à faire? OUI NON
 12. Avez-vous toujours la crainte qu'un malheur va vous arriver? OUI NON
 13. Souhaiteriez-vous parfois être fait autrement que vous ne l'êtes? OUI NON
 14. Vous sentez-vous mal lorsqu'on vous gronde? OUI NON
 15. Est-ce qu'on trouve que vous avez un mauvais caractère? OUI NON

16. Etes-vous embêté par des choses qui ne semblent pas embêter les autres? OUI NON
 17. Est-ce que c'est facile de vous faire de la peine? OUI NON
 18. Vous fâchez-vous quand on vous taquine? OUI NON
 19. Vous sentez-vous toujours nerveux? OUI NON
 20. Avez-vous de gros maux de tête une ou deux fois par semaine? OUI NON

21. Avez-vous d'ordinaire les mains et les pieds froids? OUI NON
 22. Avez-vous souvent les pieds ou les mains engourdis? OUI NON
 23. Vous sentez-vous quelquefois sur le point de perdre connaissance? OUI NON
 24. Avez-vous d'ordinaire mal à la tête lorsqu'on vous fait faire quelque chose qui vous déplaît? OUI NON
 25. Avez-vous parfois des douleurs subites dans la tête? OUI NON

26. Votre lit est-il parfois mouillé quand vous vous levez le matin? OUI NON
 27. Avez-vous souvent le nez bouché? OUI NON
 28. Est-il facile de vous faire fâcher? OUI NON
 29. Vous sentez-vous fatigué ou épuisé quand vous vous levez le matin? OUI NON
 30. Vous semble-t-il parfois que vous n'êtes plus capable de ne rien sentir avec vos bras, vos doigts ou vos jambes? OUI NON

31. Vous arrive-t-il quelquefois de restituer après les repas? OUI NON
 32. Vous sentez-vous habituellement triste? OUI NON
 33. Vous fatiguez-vous facilement? OUI NON
 34. Est-ce que parfois la vue de la nourriture vous rend malade? OUI NON
 35. Avez-vous parfois des crises de toux ou d'éternuement? OUI NON

36. Vos bras et vos jambes remuent-ils parfois malgré vous? OUI NON
37. Avez-vous parfois des douleurs qui courent d'une place à l'autre dans votre corps? OUI NON
38. Avez-vous très souvent besoin d'aller aux toilettes? OUI NON
39. D'ordinaire, les lumières fortes vous fatiguent-elles? OUI NON
40. Êtes-vous facilement essoufflé? OUI NON
41. Le tapage vous tombe-t-il sur les nerfs? OUI NON
42. Avez-vous souvent mal aux dents? OUI NON
43. Vous sentez-vous toujours fatigué? OUI NON
44. Votre main tremble-t-elle parfois au point de vous empêcher d'écrire? OUI NON
45. Avez-vous souvent mal au ventre? OUI NON
46. Vous est-il parfois arrivé de n'avoir pu voir clair ou de n'avoir pu entendre pendant quelques instants? OUI NON
47. Avez-vous quelquefois l'idée de vous sauver de chez vous? OUI NON
48. Vos parents se fâchent-ils souvent contre vous? OUI NON
49. Avez-vous un frère ou une sœur que vos parents semblent vous préférer? OUI NON
50. Vous accordez-vous bien avec vos camarades? OUI NON
51. Votre mère est-elle trop sévère pour vous? OUI NON
52. Votre père se met-il souvent en colère? OUI NON
53. Vous a-t-on dit à la maison qu'on pouvait voir les enfants mais qu'il ne fallait pas les entendre? OUI NON
54. Trouvez-vous que vos parents sont trop sévères pour vous? OUI NON
55. Avez-vous déjà rêvé que votre père était mort? OUI NON
56. Avez-vous déjà rêvé que votre mère était morte? OUI NON
57. Avez-vous parfois peur de manquer d'argent? OUI NON
58. Vos parents vous parlent-ils quelquefois trop fort? OUI NON
59. Vous faites-vous trop manger à la maison? OUI NON
60. Vous êtes-vous déjà sauvé de la maison? OUI NON
61. Vous semble-t-il parfois que vos parents ne sont pas vos vrais parents? OUI NON
62. Pensez-vous qu'on vous donne des notes trop faibles à l'école? OUI NON
63. Trouvez-vous cela difficile de parler en classe quand le professeur vous questionne? OUI NON
64. Trouvez-vous cela difficile d'être attentif en classe? OUI NON
65. Faites-vous bien des fautes dans vos devoirs? OUI NON
66. Les devoirs de classe sont-ils trop difficiles pour vous? OUI NON
67. Echappez-vous souvent ce que vous tenez? OUI NON
68. Votre cœur bat-il quelquefois assez pour vous empêcher de dormir? OUI NON
69. Êtes-vous très difficile pour le nourriture? OUI NON
70. Faites-vous ordinairement des rêves épouvantés? OUI NON
72. Avez-vous parfois honte de vos rêves? OUI NON
73. Prenez-vous parfois du temps à vous endormir le soir? OUI NON
74. Vous arrive-t-il souvent de vous réveiller au milieu de la nuit? OUI NON
75. Avez-vous déjà rêvé que vous étiez enfermé à clef dans une chambre et incapable d'en sortir? OUI NON
76. Commencez-vous parfois à penser à vous-même au point d'oublier où vous êtes? OUI NON
77. Prenez-vous du temps à vous calmer après une colère? OUI NON
78. Avez-vous pour parfois que les gens ne croient pas ce que vous leur dites? OUI NON
79. Y a-t-il des idées qui vous reviennent dans la tête même si vous ne voulez plus y penser? OUI NON
80. Rêvez-vous parfois que vous essayez de vous sauver de quelqu'un qui veut vous faire du mal? OUI NON

APPENDIX III

The Second Experimental Copy of
"L'inventaire de la personnalité Brown-Ottawa"

Que = 15

L'INVENTAIRE DE LA PERSONNALITE
BROWN-OTTAWA (revisé) (copie numéro 2)

Nom *David* (Prénom) *...* (Nom de famille) Age *...*
Date de naissance *...* Ecole *...* Grade *...*
Nationalité *Can.* Garçon ou fille *...* Ville *...*

- 1. Etes-vous toujours malchanceux? OUI ~~NON~~
- 2. Vous semble-t-il qu'on ne vous comprend pas? ~~OUI~~ NON
- 3. Vous semble-t-il quelquefois que vous n'êtes pas comme les autres enfants? OUI ~~NON~~
- 4. Lorsqu'on vous dit de faire quelque chose, êtes-vous porté à faire le contraire? OUI ~~NON~~
- 5. Avez-vous de la difficulté à vous rappeler les choses? ~~OUI~~ NON
- 6. Est-ce que les gens comptent trop sur vous? OUI ~~NON~~
- 7. Bégayez-vous quand vous voulez parler? OUI ~~NON~~
- 8. Refusez-vous quelquefois de jouer parce que vous avez peur de perdre? ~~OUI~~ NON
- 9. Avez-vous quelquefois un désir très fort de prendre un objet qui ne vous appartient pas? OUI ~~NON~~
- 10. Changez-vous souvent d'idée avant de faire quelque chose? OUI ~~NON~~
- 11. Vous sentez-vous parfois en peine quand il n'y a rien à faire? OUI ~~NON~~
- 12. Avez-vous toujours la crainte qu'un malheur va vous arriver? OUI ~~NON~~
- 13. Souhaiteriez-vous parfois être fait autrement que vous ne l'êtes? OUI ~~NON~~
- 14. Vous sentez-vous mal à l'aise lorsqu'on vous gronde? OUI ~~NON~~
- 15. Est-ce qu'on trouve que vous avez mauvais caractère? OUI ~~NON~~
- 16. Etes-vous embêté par des choses qui ne semblent pas embêter les autres? OUI ~~NON~~
- 17. Est-ce que c'est facile de vous faire de la peine? OUI ~~NON~~
- 18. Vous fâchez-vous quand on vous taquine? OUI ~~NON~~
- 19. Vous sentez-vous toujours nerveux? ~~OUI~~ NON
- 20. Avez-vous de gros maux de tête une ou deux fois par semaine? OUI ~~NON~~
- 21. Avez-vous d'ordinaire les mains et les pieds froids? ~~OUI~~ NON
- 22. Avez-vous souvent les pieds ou les mains engourdis? OUI ~~NON~~
- 23. Vous sentez-vous quelquefois sur le point de perdre connaissance? OUI ~~NON~~
- 24. Avez-vous d'ordinaire mal à la tête lorsqu'on vous dit de faire quelque chose qui vous déplaît? OUI ~~NON~~
- 25. Avez-vous parfois des douleurs subites dans la tête? OUI ~~NON~~
- 26. Votre lit est-il parfois mouillé quand vous vous levez le matin? OUI ~~NON~~
- 27. Avez-vous souvent le nez bouché? OUI ~~NON~~
- 28. Est-ce facile de vous faire fâcher? OUI ~~NON~~
- 29. Vous sentez-vous fatigué ou épuisé quand vous vous levez le matin? OUI ~~NON~~
- 30. Vous arrive-t-il parfois de n'être plus capable de sentir avec vos bras, vos doigts ou vos jambes? OUI ~~NON~~
- 31. Vous arrive-t-il quelquefois de restituer après les repas? OUI ~~NON~~
- 32. Vous sentez-vous habituellement triste? OUI ~~NON~~
- 33. Vous fatiguez-vous facilement? ~~OUI~~ NON
- 34. Est-ce que parfois la vue de la nourriture vous rend malade? OUI ~~NON~~
- 35. Avez-vous parfois des accès de toux ou d'éternuement? OUI ~~NON~~

35. Vos bras et vos jambes remuent-ils parfois malgré vous? OUI ~~NON~~
37. Avez-vous parfois des douleurs qui changent de place dans votre corps? . OUI ~~NON~~
38. Avez-vous souvent besoin d'aller aux toilettes? ~~OUI~~ NON
39. D'ordinaire, les lumières fortes vous fatiguent-elles? NON
40. Etes-vous facilement essoufflé? OUI ~~NON~~
41. Le tapage vous tombe-t-il sur les nerfs? OUI ~~NON~~
42. Avez-vous souvent mal aux dents? OUI ~~NON~~
43. Vous sentez-vous toujours fatigué? ~~OUI~~ NON
44. Votre main tremble-t-elle parfois au point de vous empêcher d'écrire? . OUI ~~NON~~
45. Avez-vous souvent mal au ventre? ~~OUI~~ NON
46. Vous est-il déjà arrivé d'avoir été incapable de voir ou d'entendre pendant quelques instants? . . OUI ~~NON~~
47. Avez-vous quelquefois le désir de vous sauver de chez vous? OUI ~~NON~~
48. Vos parents se fâchent-ils souvent contre vous? OUI ~~NON~~
49. Avez-vous un frère ou une soeur que vos parents semblent aimer mieux que vous? OUI ~~NON~~
50. Vous accordez-vous bien avec vos camarades? ~~OUI~~ NON
51. Votre mère est-elle trop sévère pour vous? OUI ~~NON~~
52. Votre père se met-il souvent en colère? OUI ~~NON~~
53. Vous a-t-on dit à la maison que les enfants devaient se taire et écouter? ~~OUI~~ NON
54. Trouvez-vous que vos parents sont trop sévères pour vous? OUI ~~NON~~
55. Avez-vous déjà rêvé que votre père était mort? OUI ~~NON~~
56. Avez-vous déjà rêvé que votre mère était morte? OUI ~~NON~~
57. Est-ce que l'argent vous cause parfois de l'inquiétude? OUI ~~NON~~
58. Vos parents vous parlent-ils fort quelquefois? OUI ~~NON~~
59. Vous faites-vous trop mener à la maison? OUI ~~NON~~
60. Vous êtes-vous déjà sauvé de la maison? OUI ~~NON~~
61. Vous semble-t-il parfois que vos parents ne sont pas vos vrais parents? OUI ~~NON~~
62. Pensez-vous que vos notes sont trop basses? ~~OUI~~ NON
63. Trouvez-vous cela difficile de parler en classe quand le professeur vous questionne? ~~OUI~~ NON
64. Trouvez-vous cela difficile d'être attentif en classe? OUI ~~NON~~
65. Faites-vous bien des fautes dans vos devoirs? OUI ~~NON~~
66. Les devoirs de classe sont-ils trop difficiles pour vous? OUI ~~NON~~
67. Echappez-vous souvent ce que vous tenez? OUI ~~NON~~
68. Votre coeur bat-il des fois de façon à vous empêcher de dormir? . . . OUI ~~NON~~
69. Etes-vous très difficile au sujet de la nourriture? OUI ~~NON~~
70. Faites-vous ordinairement des rêves épeurants? OUI ~~NON~~
71. Vous sentez-vous habituellement énervé? OUI ~~NON~~
72. Avez-vous parfois honte de vos rêves? OUI ~~NON~~
73. Prenez-vous parfois du temps à vous endormir le soir? ~~OUI~~ NON
74. Vous arrive-t-il souvent de vous réveiller au milieu de la nuit? . . . OUI ~~NON~~
75. Avez-vous déjà rêvé que vous étiez enfermé à clef dans une chambre
76. Vous arrive-t-il parfois de penser à vous-même au point d'oublier où vous êtes? OUI ~~NON~~
77. Prenez-vous du temps à vous calmer après une colère? OUI ~~NON~~
78. Craignez-vous parfois que les gens ne croient pas ce que vous leur dites? OUI ~~NON~~
79. Y a-t-il des idées qui vous reviennent dans la tête même si vous ne voulez plus y penser? OUI ~~NON~~
80. Rêvez-vous parfois que vous essayez de vous sauver de quelqu'un qui veut vous faire mal? OUI ~~NON~~

APPENDIX IV

The Third Experimental Copy of
"L'inventaire de la personnalité Brown-Ottawa"

Nom Age Date
(au dernier anniversaire)
Date de naissance Ecole Grade

- 1c Vous sentez-vous mal à l'aise lorsqu'on vous gronde? OUI NON
- 2a Avez-vous souvent les pieds ou les mains engourdis? OUI NON
- 3d Vous arrive-t-il souvent de vous réveiller au milieu de la nuit? OUI NON
- 4b Trouvez-vous que vos parents sont trop sévères pour vous? OUI NON
- 5c Faites-vous bien des fautes dans vos devoirs? OUI NON
- 6c Prenez-vous du temps à vous calmer après une colère? OUI NON
- 7e Trouvez-vous cela difficile d'être attentif en classe? OUI NON
- 8d Vous semble-t-il qu'on ne vous comprend pas? OUI NON
- 9a Vous sentez-vous quelquefois sur le point de perdre connaissance? OUI NON
- 10c Les devoirs de classe sont-ils trop difficiles pour vous? OUI NON
- 11d Avez-vous déjà rêvé que votre mère était morte? OUI NON
- 12b Avez-vous quelquefois le désir de vous sauver de chez vous? OUI NON
- 13a Avez-vous de gros maux de tête une ou deux fois par semaine? OUI NON
- 14i Avez-vous de la difficulté à vous rappeler les choses? OUI NON
- 15b Vos parents se fâchent-ils souvent contre vous? OUI NON
- 16d Votre coeur bat-il des fois de façon à vous empêcher de dormir? OUI NON
- 17c Vous fâchez-vous quand on vous taquine? OUI NON
- 18e Pensez-vous que vos notes sont trop basses à l'école? OUI NON
- 19b Avez-vous un frère ou une soeur que vos parents semblent aimer mieux que vous? OUI NON
- 20c Vous sentez-vous habituellement énervé? OUI NON
- 21a Etes-vous très difficile au sujet de la nourriture? OUI NON
- 22d Vous arrive-t-il parfois de penser à vous-même au point d'oublier où vous êtes? OUI NON
- 23a Vous est-il déjà arrivé d'avoir été incapable de voir ou d'entendre pendant quelques instants? OUI NON
- 24b Vous empêchent-on de jouer et de rire à la maison? OUI NON
- 25d Vous semble-t-il quelquefois que vous n'êtes pas comme les autres enfants? OUI NON
- 26d Trouvez-vous qu'on vous en donne trop à faire? OUI NON
- 27a Vous sentez-vous toujours fatigué? OUI NON
- 28c Etes-vous embêté par des choses qui ne semblent pas embêter les autres? OUI NON
- 29a Avez-vous d'ordinaire les mains et les pieds froids? OUI NON
- 30d Faites-vous ordinairement des rêves épouvantables? OUI NON
- 31a Echappez-vous souvent ce que vous tenez? OUI NON
- 32d Avez-vous quelquefois un désir très fort de prendre un objet qui ne vous appartient pas? OUI NON
- 33e Trouvez-vous cela difficile de parler en classe quand le professeur vous questionne? OUI NON
- 34c Est-ce qu'on trouve que vous avez mauvais caractère? OUI NON
- 35a Vous sentez-vous toujours nerveux? OUI NON
- 36c Vous querellez-vous souvent avec vos camarades? OUI NON
- 37a Vos bras et vos jambes remuent-ils parfois malgré vous? OUI NON
- 38c Etes-vous toujours malchanceux? OUI NON
- 39a Avez-vous souvent mal au ventre? OUI NON
- 40d Avez-vous toujours la crainte qu'un malheur va vous arriver? OUI NON

41c	Lorsqu'on vous dit de faire quelque chose, êtes-vous porté à faire le contraire?	OUI	NON
42a	Votre lit est-il parfois mouillé quand vous vous levez le matin?	OUI	NON
43d	Prenez-vous parfois du temps à vous endormir le soir?	OUI	NON
44d	Refusez-vous quelquefois de jouer parce que vous avez peur de perdre?	OUI	NON
45a	Avez-vous parfois des soulèvements subites dans la tête?	OUI	NON
45c	Est-ce facile de vous faire fâcher?	OUI	NON
47d	Avez-vous déjà rêvé que vous étiez enfermé à clef dans une chambre et incapable d'en sortir?	OUI	NON
48b	Vous êtes-vous déjà sauvé de la maison?	OUI	NON
49a	Vous fatiguez-vous facilement?	OUI	NON
50d	Avez-vous déjà rêvé que votre père était mort?	OUI	NON
51b	Vous faites-vous trop mener à la maison?	OUI	NON
52a	Est-ce que parfois la vue de la nourriture vous rend malade?	OUI	NON
53d	Bégayez-vous quand vous voulez parler?	OUI	NON
54b	Vous semble-t-il parfois que vos parents ne sont pas vos vrais parents?	OUI	NON
55a	Avez-vous souvent le nez bouché?	OUI	NON
56d	Y a-t-il des idées qui vous reviennent dans la tête même si vous ne voulez plus y penser?	OUI	NON
57b	Vos parents vous parlent-ils fort quelquefois?	OUI	NON
58d	Souhaiteriez-vous parfois être fait autrement que vous ne l'êtes?	OUI	NON
59a	Vous arrive-t-il parfois de vous mettre à tousser et à éternuer?	OUI	NON
50d	Changez-vous souvent d'idée avant de faire quelque chose?	OUI	NON
61a	Vous arrive-t-il parfois de croire que vous n'êtes plus capable de vous servir de vos bras, de vos doigts ou de vos jambes?	OUI	NON
62d	Vous sentez-vous parfois en peine quand il n'y a rien à faire?	OUI	NON
63c	D'ordinaire, les lumières fortes vous fatiguent-elles?	OUI	NON
64d	Avez-vous parfois honte de vos rêves?	OUI	NON
65b	Votre mère est-elle trop sévère pour vous?	OUI	NON
66a	Avez-vous souvent mal aux dents?	OUI	NON
67c	Avez-vous d'ordinaire mal à la tête lorsqu'on vous dit de faire quelque chose qui vous déplaît?	OUI	NON
68b	Est-ce que l'argent vous cause parfois de l'inquiétude?	OUI	NON
69a	Etes-vous facilement essoufflé?	OUI	NON
70d	Craignez-vous parfois que les gens ne croient pas ce que vous leur dites?	OUI	NON
71a	Vous sentez-vous fatigué ou épuisé quand vous vous levez le matin?	OUI	NON
72b	Votre père se met-il souvent en colère?	OUI	NON
73d	Rêvez-vous parfois que vous essayez de vous sauver de quelqu'un qui veut vous faire mal?	OUI	NON
74a	Vous arrive-t-il quelquefois de vomir après les repas?	OUI	NON
75c	Le tapage vous tombe-t-il sur les nerfs?	OUI	NON
76a	Votre main tremble-t-elle parfois au point de vous empêcher d'écrire?	OUI	NON
77d	Vous sentez-vous habituellement triste?	OUI	NON
78a	Avez-vous parfois des douleurs qui changent de place dans votre corps?	OUI	NON
79c	Est-ce que c'est facile de vous faire de la peine?	OUI	NON
80a	Avez-vous souvent besoin d'aller aux toilettes?	OUI	NON

APPENDIX V

The Fourth Experimental Copy of
"L'inventaire de la personnalité Brown-Ottawa"

L'INVENTAIRE DE LA PERSONNALITÉ BROWN - OTTAWA
(copie numéro 4)
Personality Inventory for Children, by Fred Brown.

Traduit et adapté sous la direction de R.-H. SHEVENELL, O.M.I.

La préparation de ce questionnaire a été facilitée par un don du Conseil canadien des Recherches en Éducation.

NOM	ÂGE (au dernier anniversaire)	DATE
DATE DE NAISSANCE	ÉCOLE	GRADE
1 ^o Vous sentez-vous très mal à l'aise lorsqu'on vous gronde?		OUI NON
2 ^a Avez-vous souvent les pieds ou les mains engourdis?		OUI NON
3 ^o Vous arrive-t-il souvent de vous réveiller au milieu de la nuit?		OUI NON
4 ^b Trouvez-vous que vos parents sont trop sévères pour vous?		OUI NON
5 ^a Faites-vous bien des fautes dans vos devoirs?		OUI NON
6 ^o Prenez-vous du temps à vous calmer après une colère?		OUI NON
7 ^a Trouvez-vous cela difficile d'être attentif en classe?		OUI NON
8 ^o Vous semble-t-il qu'on ne vous comprend pas?		OUI NON
9 ^a Vous sentez-vous quelquefois sur le point de perdre connaissance?		OUI NON
10 ^b Les devoirs de classe sont-ils trop difficiles pour vous?		OUI NON
11 ^o Avez-vous déjà rêvé que votre mère était morte?		OUI NON
12 ^b Avez-vous quelquefois le désir de vous sauver de chez vous?		OUI NON
13 ^a Avez-vous de gros maux de tête une ou deux fois par semaine?		OUI NON
14 ^o Avez-vous de la difficulté à vous rappeler les choses?		OUI NON
15 ^b Vos parents se fâchent-ils souvent contre vous?		OUI NON
16 ^o Votre coeur bat-il des fois de façon à vous empêcher de dormir?		OUI NON
17 ^o Vous fâchez-vous quand on vous taquine?		OUI NON
18 ^b Pensez-vous que vos notes sont trop basses à l'école?		OUI NON
19 ^b Avez-vous un frère ou une soeur que vos parents semblent aimer mieux que vous?		OUI NON

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Ce questionnaire est enregistré. Sa reproduction en tout ou en partie, soit au miméographe, soit à la gélatine, ou de toute autre façon, en vue de vente ou de distribution gratuite, est une violation des droits d'auteur.

20°	Vous sentez-vous habituellement énervé?	OUI	NON
21 ^A	Etes-vous très difficile au sujet de la nourriture?	OUI	NON
22 ^D	Vous arrive-t-il parfois de penser à vous-même au point d'oublier où vous êtes?	OUI	NON
23 ^A	Vous est-il déjà arrivé d'avoir été incapable de voir ou d'entendre pendant quelques instants?	OUI	NON
24 ^B	Vous a-t-on dit à la maison que les enfants devaient se taire et écouter?	OUI	NON
25 ^D	Vous semble-t-il quelquefois que vous n'êtes pas comme les autres enfants?	OUI	NON
26 ^D	Trouvez-vous que vos parents s'attendent à beaucoup trop de vous?	OUI	NON
27 ^A	Vous sentez-vous toujours fatigué?	OUI	NON
28°	Etes-vous embêté par des choses qui ne semblent pas embêter les autres?	OUI	NON
29 ^A	Avez-vous d'ordinaire les mains et les pieds froids?	OUI	NON
30 ^D	Faites-vous ordinairement des rêves épeurants?	OUI	NON
31 ^A	Echappez-vous souvent ce que vous tenez?	OUI	NON
32 ^D	Avez-vous quelquefois un désir très fort de prendre un objet qui ne vous appartient pas?	OUI	NON
33 ^B	Trouvez-vous cela difficile de parler en classe quand le professeur vous questionne?	OUI	NON
34°	Est-ce qu'on trouve que vous avez mauvais caractère?	OUI	NON
35 ^A	Vous sentez-vous toujours nerveux?	OUI	NON
36°	Vous querellez-vous souvent avec vos camarades?	OUI	NON
37 ^A	Vos bras et vos jambes remuent-ils parfois malgré vous?	OUI	NON
38°	Etes-vous toujours malchanceux?	OUI	NON
39 ^A	Avez-vous souvent mal au ventre?	OUI	NON
40 ^D	Avez-vous toujours la crainte qu'un malheur va vous arriver?	OUI	NON
41°	Lorsqu'on vous dit de faire quelque chose, êtes-vous porté à faire le contraire?	OUI	NON
42 ^A	Votre lit est-il parfois mouillé quand vous vous levez le matin?	OUI	NON
43 ^D	Prenez-vous parfois beaucoup de temps à vous endormir le soir?	OUI	NON
44 ^D	Refusez-vous quelquefois de jouer parce que vous avez peur de perdre?	OUI	NON
45 ^A	Avez-vous parfois des douleurs subites dans la tête?	OUI	NON
46°	Est-ce facile de vous faire fâcher?	OUI	NON
47 ^D	Avez-vous déjà rêvé que vous étiez enfermé à clef dans une chambre et incapable d'en sortir?	OUI	NON
48 ^B	Vous êtes-vous déjà sauvé de la maison?	OUI	NON
49 ^A	Vous fatiguez-vous facilement?	OUI	NON

50 ^D	Avez-vous déjà rêvé que votre père était mort?	OUI	NON
51 ^B	Vous faites-vous trop mener à la maison?	OUI	NON
52 ^A	Est-ce que parfois la vue de la nourriture vous rend malade?	OUI	NON
53 ^D	Bégayez-vous quand vous voulez parler? . . .	OUI	NON
54 ^B	Vous semble-t-il parfois que vos parents ne sont pas vos vrais parents?	OUI	NON
55 ^A	Avez-vous souvent le nez bouché? . . .	OUI	NON
56 ^D	Y a-t-il des idées qui vous reviennent sans cesse dans la tête même si vous ne voulez plus y penser?	OUI	NON
57 ^B	Vos parents vous "crient-ils par la tête"?	OUI	NON
58 ^D	Souhaiteriez-vous parfois être fait autrement que vous ne l'êtes?	OUI	NON
59 ^A	Vous arrive-t-il parfois de vous mettre à tousser et à éternuer?	OUI	NON
60 ^D	Changez-vous souvent d'idée avant de faire quelque chose?	OUI	NON
61 ^A	Vous arrive-t-il parfois de n'être plus capable de sentir vos bras, vos doigts ou vos jambes?	OUI	NON
62 ^D	Vous sentez-vous parfois en peine quand il n'y a rien à faire?	OUI	NON
63 ^O	D'ordinaire, les lumières fortes vous fatiguent-elles?	OUI	NON
64 ^D	Avez-vous parfois honte de vos rêves?	OUI	NON
65 ^B	Votre mère est-elle trop sévère pour vous?	OUI	NON
66 ^A	Avez-vous souvent mal aux dents?	OUI	NON
67 ^O	Avez-vous d'ordinaire mal à la tête lorsqu'on vous dit de faire quelque chose qui vous déplaît?	OUI	NON
68 ^B	Est-ce que l'argent vous cause parfois de l'inquiétude?	OUI	NON
69 ^A	Etes-vous facilement essoufflé?	OUI	NON
70 ^D	Craignez-vous parfois que les gens ne croient pas ce que vous leur dites?	OUI	NON
71 ^A	Vous sentez-vous fatigué ou épuisé quand vous vous levez le matin?	OUI	NON
72 ^B	Votre père se met-il souvent en colère?	OUI	NON
73 ^D	Rêvez-vous parfois que vous essayez de vous sauver de quelqu'un qui veut vous faire mal?	OUI	NON
74 ^A	Vous arrive-t-il quelquefois de vomir après les repas?	OUI	NON
75 ^O	Le tapage vous tombe-t-il sur les nerfs?	OUI	NON
76 ^A	Votre main tremble-t-elle parfois au point de vous empêcher d'écrire?	OUI	NON
77 ^D	Vous sentez-vous habituellement triste?	OUI	NON
78 ^A	Avez-vous parfois des douleurs qui changent de place dans votre corps?	OUI	NON
79 ^O	Est-ce que c'est très facile de vous faire de la peine?	OUI	NON
80 ^A	Avez-vous souvent besoin d'aller aux toilettes?	OUI	NON

Notes cliniques

	Facteurs	Appréciation	Recommandation
a)	2 49 9 52 13 55 21 59 23 61 27 66 29 69 31 71 35 74 37 76 39 78 42 80 45		
b)	4 51 12 54 15 57 19 65 24 68 48 72		
c)	1 38 6 41 17 46 20 63 28 67 34 75 36 79		
d)	3 44 8 47 11 50 14 53 16 56 22 58 25 60 26 62 30 64 32 70 40 73 43 77		
e)	5 18 7 33 10		

AN ABSTRACT OF DR. SHEVENELL'S REPORT ON

The Preparation of

"L'inventaire de la personnalité Brown-Ottawa."¹

Fred Brown's mental hygiene concept of neuroticism serves as a logical introduction to his Personality Inventory for Children. His psycho-social theory of the neurosis stresses situational factors with very little sympathy for Freudian contentions.

This concept he embodied in the questionnaire, which he prepared in 1933 and standardized on the school population of three Ohio cities. Our translation follows his item selection as closely as the French language permits.

The validity values of the items of Brown's own questionnaire were first studied on our population and compared to the results he obtained on his sample (Table I). Thereupon the item validities of the French translation were studied and compared to those obtained on the English original for a measure of test similarity (Table II). One general measure of test similarity is also the uncorrected r : $.86 \pm .04$.

Item validation of our Third Experimental Copy was derived by the "Kelley Technique" and reported in detail in Table V, and Figure 1. Plans have been drawn up for a still more thorough item validation of the Fourth French version.

1 Project undertaken by R.H. Shevenell, Director of the Institute of Psychology of the University of Ottawa, and favored by a grant-in-aid of the Canadian Council for Educational Research, to the amount of \$225., specifically destined to cover secretarial assistance.

The reliability of Brown's questionnaire was quoted, and our own reliability coefficients of $.86 \pm .02$ (uncorrected) were stated and discussed.

Tentative norms drawn from a population of 800 are proposed after a preliminary discussion of the factors influencing these data. The total distribution of our results, from which the norms were drawn are illustrated in Figure 2, -- a positively skewed curve, typical of results obtained on such questionnaires.

Testing is actually under way in different sections of the Province of Quebec to ascertain the adequacy of these tentative norms.