# NATIONAL DIFFERENCES IN "SENSE OF HUMOR": THREE EXPERIMENTAL AND STATISTICAL STUDIES

# H. J. EYSENCK

#### Psychological Department, Mill Hill Emergency Hospital

W. Temple is reputed to have been the first to suggest that "humor" is a quality peculiar to the English (29), and certainly it is difficult nowadays to find any nation which does not firmly believe that it has a monopoly of this precious commodity. Not everyone goes as far as Kadner (16), who ascribes differences in sense of humor to differences in racial constitution, but the belief is widely held that different nationalities have different types of so-called "sense of humor." These differences are even at times attributed to the typological characteristics of the various nations. Thus Egner divides the various European nations in accordance with a scheme of typology worked out by Jaensch, and maintains that the type of humor found in each of these nations is a function of their psychological type (4). While there is some evidence regarding the existence of typological differences in the appreciation of humor. these experimentally established differences bear no relation to the ambitious, all-embracing concepts advanced by the German school (7).

Experimental evidence on the problem is almost nonexistent. We have Kimmins's interesting but inconclusive experiment (20); we have such studies as those of Claparède (3) and Harrower (12) on the organization of higher mental processes, which throw some incidental light on the sense of humor of their French and American subjects; lastly, we have a number of studies on the genesis of the sense of humor in children of various nationalities—the work of Herzfeld and Prager (14), of Blatz *et al.* (2), of Enders (5), of Justin (15), and of Kimmins (19) might be mentioned here. Taking these studies all together, one is left with no strong impression of any well-defined differences; both the genesis and the nature

of the sense of humor of the subjects who were tested by these various investigators in America, England, Germany, Switzerland, Austria, and Canada evince similarities rather than differences.

It might be thought, however, that national differences are superimposed on the child's mind by social learning. This theory can be tested in several ways. In the first instance, we can ask subjects of varying nationality to arrange in order of funniness a number of jokes, cartoons, etc. selected in such a way as to provide a crucial test of the various theories proposed. If any differences should become apparent between the national groups, we might be justified in regarding them as due to social learning.

Another possible method would be the following. Assuming that cartoons appearing in the leading humorous papers of a country reflect to some extent the hypothetical sense of humor of that country, will it be possible for our subjects to guess the nationality of these cartoons better than chance, and if so, what are the grounds on which their guesses are based? Do their guesses show any evidence of stereotypes? To what extent do these stereotypes influence the opinions of the subjects?

A third method might be suggested which would consist in a statistical study of certain peculiarities of various national humorous papers, such as the existence in their pages of certain "types," the use of sexual themes, the use of class differences as bases for their jokes, and so forth.

In this paper, a small beginning has been made of such a study. In the first part, an investigation is reported into the ability of English subjects to judge the nationality of American, English, and German cartoons, and into their reasons for assigning any particular nationality to the various cartoons. In the second part, a statistical study of various "types" and various thematic unities in the pages of French, English, German, and American humorous papers is reported. In the third part, an experiment into the rankings of jokes by German, English, and American subjects is described. Because of the war, none of these studies could be carried out in sufficient detail to make the results more than suggestive; much material was lost through sinkings in crossing the Atlantic, humorous journals which were irreplaceable were lost when the British Museum was bombed, and so forth. In spite of the obvious shortcomings thus arising, the results may be of sufficient interest even in their incomplete form to merit publication.

# Part I

Stereotyped responses are defined by Bird as "perceptions or meaningful arrangements of ideas having their origin primarily in feelings and emotions rather than in some characteristics of the stimulating circumstances." "By implication it means that the individual himself is largely if not entirely unaware of the part played by preferences or aversions in the immediate process of thinking, or rationalizing, and acting. . . Originally . . . the term *stereotype* meant the picture in your head, or the emotionalized judgments which leap beyond observation to reach conclusions not satisfactory to logical and scientific analysis" (1, pp. 289 f.).

The work of Rice (27), Sherif (28), Farnsworth *et al.* (9, 10), Hartmann (13), Menefee (24), Katz and Braly (17), and many others has shown how easily judgments of preferences for works of art, for slogans, and for social policies can be changed by attaching a stereotyped label to the items concerned; how strongly stereotyped are our reactions to national groups, and to social groups. The present paper extends this work to so-called sense of humor and offers a rather novel method for attacking the question.

Seventy-five cartoons were collected from leading American, English, and German humorous papers, including Punch, Esquire, The New Yorker, Judge, Berliner Illustrierte, Münchener Illustrierte, Lilliput, Everybody, and Movie Humor. Unfortunately it was not possible to obtain a good sample of German cartoons because of the war. Consequently, choice was strictly limited to some thirty cartoons which were found in a few 1938-1939 copies of the two papers mentioned above; these are probably not of quite such a high general standard as the Fliegende Blätter or Simplicissimus. In evaluating the results, this circumstance should be borne in mind.

As regards the American and English journals, copies were bought of each of the journals listed above, and every cartoon found in them was included in rotation until 25 cartoons had been amassed. Twenty-five German cartoons, too, were selected by a chance method not involving conscious selection. The seventy-five cartoons were pasted into an album in chance order; all the captions were removed before pasting them in, and typewritten captions substituted. In the case of the German cartoons, the original caption was translated by the writer, and only the translation given. Since the caption forms an important part of the cartoon, the "funniness" of the German cartoons may have suffered somewhat because of the difficulties inherent in translation. Ten subjects were used in all, eight English and two Canadian. One of the Canadian subjects had a thorough knowledge of American and English humor, and a working knowledge of German humor; seven of the other subjects had a good knowledge of at least two different national types of humor, usually American and English. Two subjects had little knowledge of non-English humor, apart from such knowledge as is inevitably acquired through the films and the radio.

The subjects were told to rate each cartoon for funniness on a three-point scale: Very funny indeed (2 points), normally funny, not outstanding (1 point), and definitely poor (0 points). They were also required to indicate in each case whether they thought the cartoon came from an American, English, or German paper, and to describe precisely on what clues they based their opinion. Detailed notes were taken.

From the very beginning it became clear that judgments with regard to the nationality of the cartoons fell into two very sharply defined groups. The first group contained judgments based on *external characteristics* (to be called henceforth EXT-judgments), i.e., judgments based entirely on clues unrelated to the joke as such. An American uniform, the fact that a car was driven on the left side of the road, or a German policeman's helmet indentified the nationality of the joke without any reference to the type of humor employed. EXT-judgments often showed considerable ingenuity and specialized knowledge; in one cartoon a woman was shown knitting, and one subject pointed out that the way she was holding the needles and the wool was typically German. (Expert evidence supports this point: there are actually national differences in the manner of knitting.)

Opposed to this type of evidence we have what may be called internal evidence (to be called INT-judgments), i.e., evidence derived from the manner in which the cartoon was drawn, the type of humor employed, etc. Usually the subject, when questioned about the reason for his or her judgment, said: "I don't know—it just *looks* German (or American, or English)." This intuitive kind of judgment is typical of INT-judgments in general. The relative numbers of INT- and EXT-judgments may be of interest: out of 750 judgments, 199 (27%) were EXT, and 551 (73%) were INT. In other words, roughly one cartoon out of four was judged with respect to its nationality on external grounds. Tables 1 and 2 report in detail the results of INT- and EXTjudgments separately. The actual nationality of the cartoons is given on the left of the table; the guessed nationality on top. Thus for instance, in Table 1, 35 cartoons which were English were called English, while 14 cartoons which were English were called American, and 2 cartoons which were English were called German.

	GUESSED NATIONALITY					
Nationality of – Cartoon	English	American	German	Tota		
English	35	14	2	51		
American	19	71	9	99		
German	18	10	21	49		
TOTAL	72	95	32	199		

TABLE 1 Ext-Judgments

#### TABLE 2 Int-Judgments

	GUESSED NATIONALITY					
Nationality of Cartoon	English	American	German	Total		
English	82	75	42	199		
American	58	65	28	151		
German	84	66	51	201		
Тотац	224	206	121	551		

It will be seen from these tables that of 199 EXT-judgments, 127 (64%) were correct, while of 551 INT-judgments 198 were correct (36%). Altogether, out of 750 judgments 325 were correct (43%). By chance, 33.3 per cent of all judgments should be correct; thus while EXT-judgments are significantly better than chance, INT-judgments are almost exactly what one might have expected if no other factor but chance had operated.

As regards more detailed figures for the individual subjects taking part in the experiment, we find that with an average of 19.9 EXT-judgments, the highest number of EXT-judgments given by any one subject is 49, the lowest 10. The number of correct EXT-judgments averages 12.7, as opposed to a chance value of 6.6;

scores range from 28 to 6. The number of correct INT-judgments averages 19.8, as opposed to a "chance" value of 18.4; scores range from 33 to 13.

The largest number of guesses was American (301), followed by English (296), and German (153). Thus while the cartoons were thought to be American or English an almost equal number of times, they were thought to be German only about half as often. 76 per cent of "English" calls were based on INT-judgments; so were 68 per cent of "American" calls and 79 per cent of "German" calls. This difference is suggestive, but not statistically significant.

Tables 3 and 4 show the distribution of the judgments of likes and dislikes of the jokes. In Table 3 are set out the numbers of jokes of each nationality which received ratings of very good, good, and poor, respectively. In Table 4 are set out the connections between *guessed* nationality and rating; in other words, if a joke was English and was rated very good, but was thought to be American, this judgment would be entered under English, very good, in Table 3, and as American, very good, in Table 4.

TABLE	3
RATING	

Correct Nationality	Very Good	Good	Poor	Total	Average
English	57	146	47	250	1.04
American	54	125	71	250	.93
German	42	143	65	250	.91
Тотаl	153	414	183	750	.96

#### TABLE 4 RATING

Guessed Nationality	Very Good	Good	Poor	Total	Average
English	60	168	68	296	.97
American	66	178.	57	301	1.03
German,	27	68	58	153	.61
 Тотаl	153	414	183	750	.96

It will be seen that English cartoons were liked best, while the American and German cartoons were liked slightly less. The differences are not significant. It will also be seen that cartoons thought to be American were liked best; cartoons thought to be English were liked only slightly less; cartoons thought to be German were liked much less than either American or English ones. This difference is statistically significant. Reasons for this distinction will be discussed in the next section.

The comments of some of the subjects revealed a very strong stereotyped view with regard to the excellence of the humor of the nationalities concerned. They thought American humor was superior to any other; they thought German humor was very heavyhanded and in no way comparable to Anglo-Saxon humor. Representative comments follow: "That is too good to be German or English, that must be American." "That is very bad; must be German." "That is not clever enough to be American: probably German." "I like that; clever; must be American." Table 3 does not bear out the view of these subjects; there are only very small differences in liking between the cartoons of the various nationalities, and such differences as there are favor the English cartoons rather than the American. How powerfully this stereotype succeeded in influencing our subjects can be seen by comparing the results of Table 3 with those reported in Table 4; guite clearly there was a strong tendency to call a joke German because it was bad, and to call a joke American because it was good. This tendency, while verbal in some subjects and in some cases, was largely subconscious; frequently it served as a basis of judgment without being recognized as such. Consequently we may consider this a typical stereotype, as defined above.

A study of the EXT-judgments shows many other cases of stereotypical reactions. Cartoons were judged to be American because they contained: fast and powerful cars, gangsters, skyscrapers, modern furniture, smartly dressed women, iceboxes, cigars, complicated machinery, seminude women, cowboys and "sugar daddies." Cartoons were judged to be English because they contained : butlers, plumbers, colonial possessions and subject races, rowing scenes, colonels, church weddings, bomb shelters, ships, and umbrellas. Cartoons were judged to be German because they contained : fat women, snow-capped mountains, animals, professors, badly dressed girls, medals and uniforms, old-fashioned furniture, and food. These lists may appear as nightmare caricatures of the nations in question; I believe, however, that they correspond faithfully to the stereotyped ideas even educated people have with regard to nations (cf. Katz and Braly (17)).

### Part II

In the first part of this paper I tried to show that, when external marks of identification are removed, it is impossible to attribute the correct nationality to a cartoon with any better than chance success. During that study I noticed that many subjects, while not succeeding better than others in guessing the nationality of the cartoons, frequently succeeded in guessing the particular type of journal from which the cartoon was taken. "That is either *Razzle* or *Esquire*!" was a typical exclamation, suggesting that there is a particular type of humor associated with these journals, and absent, say, in the pages of *Punch*.

That there is some degree of thematic unity in subsequent issues of the same journal had previously been suggested by Moos (25), who divided humorous journals into two types, the *Tendenzwitzblatt* and the *Familienwitzblatt*. Similarly, T. H. Pear had shown that a large percentage of the jokes in *Punch* depend on social stratification, while jokes in *The New Yorker* did not depend on such stratification (26). This finding suggests that it might be possible to classify humorous journals, and to contrast their various types, by making a statistical study of the various thematic trends running through them.

Unfortunately the war made it impossible to carry this study as far as had been planned, because of the severe curtailment of library facilities. The findings here reported, however, may suggest new possibilities of approach to others with better facilities.

In order to test the view outlined above, a numerical count was made of the main *types* occurring in one hundred consecutive cartoons which appeared during 1938 in *Punch*, *Razzle*, and *The New Yorker*. A person was held to belong to one of the types set out below only if the joke centered around the fact of his belonging to that particular type; subsidiary figures are not included. Results are set down in Table 5. The eight categories into which all the types are divided are of course to some extent arbitrary; it is doubtful, however, if a different classification would have produced any different results.

This analysis suggests the following conclusions. Almost two thirds of the cartoons in *Razzle* refer to scenes connected with sex, drink, and violence, while the comparative percentages for *The New Yorker* are 26 per cent and for *Punch* 0 per cent.<sup>1</sup> On the other

<sup>1</sup> Experimental confirmation for the existence of a "type"-factor of this kind is given by H. J. Eysenck.

	<i>Razzle</i> (Per cent)	Punch (Per cent)	New Yorker (Per cent)
Seminude girls, gold diggers, shipwrecked girls, harem slaves, beautiful secretaries Sugar-daddies, salesmen, colonels in attempted	31	0	11
seduction	24	0	6
Drinking, violence, wrestling Country Squires, millionaires, upper classes, pre-	12	0	6
cocious rich youngsters	4	22	5
Bourgeoisie, middle classes generally Scientists, cranks, bluestockings, artists, com-	5	25	19
munists	1	11	5
Working classes, yokels, laborers	2	25	10
Unclassified	21	17	35

TABLE 5

hand, class stratification provides *Punch* with 72 per cent of its material, *The New Yorker* with 34 per cent, and *Razzle* with 11 per cent. These two categories are sufficient to account for the majority of cartoons in *Razzle* and *Punch*: they are less satisfactory for *The New Yorker*. (The split-halves reliability of these data is comparatively high; the percentages of the odd-numbered and even-numbered cartoons in the various categories are almost identical.)

An interesting feature, to which attention has been drawn by Flugel, is that the repression which all ideas of sex have suffered at the hands of Mr. Punch's powerful superego has resulted in a wonderful display of sex symbolism on the cover page of that journal. How far that symbolism is intentional, and how far it is due to unconscious factors, it is impossible to discover.

There are a variety of other features in connection with the cartoons published by the various leading humorous journals which may with profit be studied. Thus for instance it has been suggested by Eastman that American humor has caused captions to become short and "snappy," and that America has practically invented the one-line caption. It can easily be shown that this idea is entirely wrong; in 1860, 46 per cent of *Punch* cartoons had a one-line caption, while in 1927 College Humor published cartoons of which only 31 per cent had a one-line caption. (Both percentages are based on counts of 100 unselected cartoons.) Further data regarding captions are given below, in Table 6.

In one of her pioneer studies in the psychology of humor, Martin showed that size of cartoons is connected with their funniness so that the larger the cartoon, the funnier will it be judged (23). Size of cartoon, therefore, is an important factor, and below are set out the average sizes of the cartoons appearing in a variety of publications. (The length of the diagonal is taken as a measure of size.)

A third factor of some interest is the number of important figures appearing in the cartoon. The journals which cater for the "sexual" side of humor may be expected, for instance, to show a preponderance of cartoons containing two people, while such papers as *Punch* and *The New Yorker* may show a different mode. An analysis along these lines is offered in Table 6, below, of eight different journals (100 cartoons; chance selection).

Table 6 suggests the following conclusions. In recent years, there has been an increase in the number of cartoons having a oneline caption; at present Anglo-Saxon journals hardly ever print cartoons of the "he-she" type. As regards size of drawing, *Razzle* and *Esquire* have the advantage over their competitors, *Punch* being situated rather towards the lower end of the scale. This may easily lead to an overvaluation of the funniness of jokes in *Razzle* and *Esquire*, and to an undervaluation of the jokes in *Punch*.

<b>*</b> ,	Number of Lines in Caption		Average Size of Drawing		Number of Figu in Drawing		
Journal	1	2	3+		1	2	3+
Punch (1938).   College Humor (1927).   Esquire (1938).   Razzle (1938).   New Yorker (1938).   Lilliput (1938).   Rire (1915).   German assorted (1915).	99 100 96	4 54 0 1 0 2 60 30	2 15 0 0 2 8 8	6.7" 6.1" 9.1" 10.9" 7.2" 6.5" 6.7" 7.1"	2 10 18 2 4 8 4 2	26 82 51 60 28 60 48 58	72 8 31 38 68 32 48 40

TABLE 6

TABLE 7

	Punch, 1914	<i>Rire Rouge</i>	Low, 1940	Punch, 1941
	(Per cent)	(Per cent)	(Per cent)	(Per cent)
Aggressive—External Aggressive—Internal Propagandistic—External Propagandistic—Internal	22 8	57 15 8 20	47 28 12 13	50 8 18 24

As regards the number of figures which play a significant part in the cartoon, *Esquire*, *Razzle*, and *Lilliput* have a particularly high percentage of cartoons with one or two figures, while *Punch* and *The New Yorker* have a preponderance of cartoons with three or more figures. This result agrees well with our analysis of Table 1. Sexual cartoons obviously require no more than two persons, while cartoons depending more on social relations are apt to utilize a larger number of persons.

So far, we have looked at humor as a peacetime amusement. But humor also has its wartime uses. Lavendan pointed out that "le soldat francais rit, partout. C'est une de ses manières" (22). The same is true of the soldiers of all nations, and perhaps also of the civilians who have to bear their less glorious burdens as best they may. Humor may help them to abreact the tensions and repressions so frequent in war. These points have been well stated by the editors of *Le Rire Rouge*, in their first editorial:

"Le Rire ne sera pas Le Fou Rire, mais Le Rire Rouge. Aux heures angoissantes et tragiques, mais superbement glorieuses, que nous traversons, Le Rire, loin D'être inopportun, est au contraire nécessaire: telles verités ont besoin d'être dites; tels heroismes exaltés par les maîtres du dessin et de la satire. Quant á l'abject et grotesque Guillaume II, ne doit-il pas aussi être marqué au fer rouge de la carricature?" (Nov. 21, 1914.)

The two functions of the humorous journal in war, then, are to make propaganda in favor of the leaders of a state, of the army, and of its allies, and on the other hand to disparage and satirize the enemy and all who are in any way connected with him. This analysis was put forward in a more detailed manner by Krollpfeiffer in 1935 (21); dividing the cartoons published by the *Lustige Blätter* during the 1914-1918 World War into aggressive and propagandistic, he showed that aggressive cartoons may be directed against the enemy outside (hostile armies, enemy leaders, politicians and generals, inhuman enemy methods of waging war, the enemy press, etc.) and against the enemy inside the country (incapable leaders, pacifists, defeatists, black marketeers, etc.). Propaganda cartoons may also be concerned with outside forces (allies, neutrals, and nonbelligerents), or with forces inside the country (leaders, both civil and military, saving campaigns, recruiting, etc.).

He found that the relation of aggressive to propagandistic cartoons in the *Lustige Blätter* remained relatively constant from year to year. In 1914, the ratio was 2.3; in 1915, 5.1; in 1916, 2.5; in 1917, 4.0; and in 1918, 4.3. On the whole, 159 cartoons were aggressive and 48 propagandistic, a ratio of 3.3.

If we accept this fourfold division of cartoons into aggressiveexternal, aggressive-internal, propagandistic-internal, and propagandistic-external, we can compare various journals with regard to the number of cartoons falling into each of these categories. In Table 7, below, are given the result of a count made of the cartoons appearing in *Punch*, 1914-1918, in *Punch*, 1941, in *Le Rire Rouge*, 1914-1915, and of Low's cartoons appearing during 1940.

The figures show that Le Rire Rouge was far more aggressively minded in its treatment of the enemy armies, leaders, and peoples than was Punch; that Punch has become more aggressive, however, in the course of this war. Internally, Punch was readier to be aggressive in the last war than was Le Rire Rouge, but has become much less disposed to criticism now. Low, as might have been expected, is more critical than either Punch or Le Rire Rouge.

It may be of interest to compare the Aggressiveness/Propaganda ratio of these figures with the ratio of 3.3 given for the Lustige Blätter in the 1914-1918 period. The figure for Punch remains almost identical from the last war to this, being 1.5 and 1.4 respectively. Rire Rouge is almost twice as high, viz., 2.6, and Low approaches the German figure, his cartoons showing a ratio of 3.0. It may be concluded that neither the leading English nor the leading French humorous journal approaches the aggressiveness of the leading German publication in the last war.

An interesting development has occurred in the percentage of cartoons published by *Punch* which are unrelated to war, except in some quite accidental manner. While in the last war the number of such "nonwar" cartoons was almost exactly as large as that of direct war cartoons, it is now over four times as high. This seems to indicate that little propaganda is necessary internally, and that aggressiveness against the enemy does not need any further stimulation. Unfortunately, no corresponding German journals are available for study; it might be predicted that an opposite trend would be found (cf. in support, 11).

The data on which this study is based are too fragmentary to make it desirable to state any definite conclusions. The main purpose of this paper was to draw attention to a possible method of studying certain thematic unities in the realm of humor, and to indicate the type of result which might be expected from such an analysis. While in the realm of personality structure the question of the generality and persistence of traits is still open to question, I believe that such mythological personalities as Mr. Punch, Lord Razzle, and *The New Yorker* have very definite, general, and persistent personality traits, and that these can be studied by means of the technique suggested here. The personalities which emerge are quite definite. Mr. Punch is a strongly repressed, respectable Englishman, intensely conscious of the class structure of the society in which he lives. The New Yorker is rather urbane American, not averse to the pleasures of the flesh, and not unduly obsessed with questions of social class. Lord Razzle represents the entirely unrepressed individual, whose thoughts do not range beyond "wine, women, and song." In terms of the Freudian trilogy, Razzle represents the Id, Punch the Superego, and The New Yorker the Ego. It would be an interesting subject of research to see whether this similarity corresponds with preference judgments of the various personality types for the respective journals. Such data as have been presented elsewhere do not make this suggestion appear too fanciful (7).

These considerations would seem to throw some light on the problem of national differences in sense of humor. Those who argue in favor of the existence of these differences often point to such journals as *Punch* and *The New Yorker*, deducing from the fact that there are thematic unities marking of one of these journals from the other that such differences are *nationally conditioned*. They fail to see that two journals of the same nationality, such as *Punch* and *Razzle*, may diverge even more widely with regard to their thematic content, than two journals of different nationalities.

## Part III

In a previous paper, I have reported the analysis of the scores on five different tests of sense of humor of 50 English men and 50 English women chosen so as to represent a fairly representative cross-section of the population (8). These tests involved the ranking in order of preference respectively of 12 jokes, 12 cartoons, 12 limericks, 12 humorous verses, and 12 humorous similes or comparisons. The actual material, together with mean rankings and S.Ds, of the rankings are given in the appendix to that paper.

Having obtained a reasonably objective order of preference for this material from English subjects, it seemed that a comparison of these rankings with results obtained from different national groups might be of interest. Consequently, an effort was made to obtain rankings from German (refugee) subjects, and from American subjects.

The search for German subjects was governed by these considerations: (1) they should be able to understand the jokes linguistically, i.e., their lack of appreciation of a joke should not be due to any lack

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of knowledge of the language in which it was expressed. (2) They should be as far as possible uncontaminated with English culturehabits, i.e., they should have retained their German habits, read German papers, such as the wartime paper Zeitung published in London, and not be familiar to any extent with Punch. To some extent these requirements are antagonistic, of course, and it was difficult to find subjects who fulfilled them both. A total of 20 subjects was finally located. The 5 tests mentioned in the previous paper were given to these middle-aged, middle-class subjects, and their rankings averaged.

For the American subjects, two tests, the Limericks tests and the Jokes test, were stenciled on separate sheets, and sent to 75 friends and acquaintances in the United States and in Canada. These 75 subjects were on the average of a slightly higher educational and social level than the English group, but did not contain too many university graduates to make a comparison fruitful.

The method of analysis in each case followed this method. First, the average intercorrelation of the rankings in each test was established by means of Kelley's formula (18, p. 218). From this, the correlation of the average order with the "true" order for an infinite sample of the population under consideration was established by means of a formula given elsewhere (6). In comparing, say, the rankings by the German and the English subjects of the 12 jokes, we would find that the correlation of the average ranking of the English group would correlate .94 with the "true" English order, while the average ranking of the German group would correlate .73 with the "true" German order.

Now if the German "true order" and the English "true order" are identical, then the correlation between the rankings of the two experimental groups should be the product of these two correlations, i.e.,  $.94 \times .73 = .69$ . In actual fact, the correlation between the two orders is .68. A comparison between the first, or theoretical, value and the second, or empirical value, shows to what extent the theory which is being tested, i.e., that the true orders of the German and the English groups are identical, holds true. In this case, the correspondence is so close that this identity may be regarded as established.

In Table 8 are given the actual and the theoretical correlations between the average rankings of the five tests used by the German and the English groups. It will be seen that the actual correlations are slightly smaller than the theoretical ones, averaging .72 as op-

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posed to .77; this difference is too small to be considered significant. We should conclude from this that on the whole this experiment does not furnish us with any evidence of drastically different ways of appreciating the humor contained in the 60 specimens of humorous art used as between the English and the German groups. Also given in this table are the numbers of items found amusing on the average in each of the tests; the English subjects found an average of 4.2 items amusing, while the Germans found an average of 4.4 items amusing.

	Corr	ELATIONS	FOUND AM	USING	
	Actual	Theoretical	Germans	English	
Jokes. Pictures. Limericks. Verses. Comparisons.	.68 .72 .68 .73 .75	72   .77   3.0     58   .83   5.1     73   .74   4.6     75   .82   4.6	4.0 5.4 4.0 3.6 4.2		
Average	.72	.77	4.4	4.2	
	Actual	Theoretical	Americans	English	
Jokes Limericks	.52 .77	.84 .92	5.1 5.5	4.0 4.0	
Average	.64	.88	5.3	4.0	

TABLE 8

A comparison of the results obtained from the English and the American subjects is also given in Table 8. Both for the jokes and for the limericks the actual correlations are smaller than the theoretical ones, and the theory that both "true orders" are identical does not give a very good fit. It should be noted, however, that in each case only one or two items are displaced, thus causing the low value of the actual correlation as compared with the theoretical correlation. An inspection of these items does not disclose any particular reason for the observed discrepancy.<sup>2</sup> It seems probable

\* The item on which the English and the Americans differed most was the following:

Prison visitor: How long are you here for?

Convict: Thirty years. Visitor: Ah well, here's another day nearly gone. This item was liked much better by the English than by the Americans. The item with the next biggest difference between the two nations is the following, on which the Americans expressed a preference.

The speaker, who had arrived in a crabby frame of mind, looked around and beckoned the chairman.

"I would like to have a glass of water on my table, please," he said. "To

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that the observed difference may be due, not to the presence of national differences, but to differences in educational and social status between the two groups. This indefinite finding suggests that it is necessary to exercise great care in accurately equating the groups to be compared for various possible causes of differences; age, intelligence, education, social class are only a few of those which spring to mind immediately.

The finding that the Americans found a larger number of jokes and limericks amusing than the English is statistically significant; while it is in line with popular expectation, this result by itself is too isolated to carry much conviction.

In summary of this third part we may say that no suggestive differences were found between the rankings of the items in the five tests between the English and the German subjects, nor in the number of items found amusing by each. Between the rankings of the English and the American subjects differences were found which are difficult to explain; although possibly they are due to differences in nationality, it would appear at least equally plausible to relate them to differences in educational and social status. The results suggest that Americans are readier to acknowledge that they were "amused" than are the English or the German subjects; possibly this difference is more than just an indication of differing "levels of aspirations."

## SUMMARY AND CONCLUSIONS

The various studies on the existence of national differences in "sense of humor" reported in this paper all serve to emphasize the point that the agreement found between different nationals is far more striking than are the *differences*. In fact, no indisputably national differences were discovered in the appreciation of humor,

drink?" was the chairman's idiotic question. "Oh, no," was the sarcastic retort; "when I've been speaking half an hour I do a high dive."

On the Limericks, the English showed a greate, amount of preference for:

There was a young girl of Asturias,

Whose temper was frantic and furious. She used to throw eggs

At her grandmother's legs-

A habit unpleasant, but curious.

The Americans showed more preference for:

There was a young man of Laconia, Whose mother-in-law had pneumonia; He hoped for the worst, And after March first They buried her 'neath a begonia.

in judgments of the origin of humorous items, or in the analysis of humorous papers from diverse countries.

This negative finding suggests that perhaps studies of this kind are premature, and that we should rather attempt to find out first how and to what extent the appreciation of humor is determined by intelligence, by education, by social class; how it varies with age or with temperamental changes. Until the determiners of humor appreciation are known, the difficulties in securing two groups really equal in all respects except in nationality would appear insurmountable.

Even then, however, it may perhaps be suggested, national differences are quite likely to appear less important than they are commonly assumed to be. As usual, small differences are apt to strike the observers far more than considerable agreement, and to be magnified out of all proportion to their actual importance. If the results of the present studies prove anything, they prove that quite probably that is what has happened in the field of national differences in "sense of humor."

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