

INFLUENCE OF EYSENCK'S THEORIES UPON AMERICAN PSYCHOLOGY

HELIO CARPINTERO

Univ. Complutense. Madrid

FRANCISCO TORTOSA

Univ. Valencia

PILAR SANCHIS

Univ. Valencia

SUMMARY

The purpose of the present study was to seek out Eysenck's influence on North American psychology through a bibliometric approach and content analysis. Quantitative methods were used and the results are discussed. This article analyzes the most important Eysenck's works and the principal controversies.

INTRODUCTION

Modern science has proved to be the result of small groups of people, influencing and spreading their discoveries all over the world, through the channels of scientific communication.

In psychology, one of the most influential scientists of our days is, without any doubt, professor Hans Eysenck, now in his seventies, author of more than seventy books and several hundred articles, chapters of books and other kinds of documents. He has been not only an enormously prolific researcher in most of the fields of psychological theory but also a controversial, provocative and stimulating writer, always prepared to fight against those unscientific ideas frequently spreading among layman. Well-known debates on race, nature against nurture, Freudian theories, psychotherapeutic effects, have occupied a large part of his work.

Some biographical data would not be entirely out of place here.

Hans J. Eysenck was born in Berlin (Germany) in 1916. When he was only eighteen, he fled Germany, then under the rising Nazi power, and went to France, where he received training in French literature (Dijon University), and to England, as a student of English literature at the university of Exeter, graduating in psychology (University of London, 1938), and getting his Ph.D. in 1940, with a thesis under the direction of Sir Cyril Burt.

He became the psychologist in charge of research at "Mill Hill Emergency Hospital" (1942-46), changing to "Maudsley Hospital" in 1946, soon becoming director of its Psychological department. He was appointed for the psychology chair at the London University, where he took charge of the direction of the department of psychology of the Institute of Psychiatry, where he became emmeritus professor in 1965.

During these years, Eysenck wrote hundreds of papers, and dozens of books, founding journals (Behavior Research and Therapy, Personality and Individual Differences), organizing courses, and seminars, and all these enterprises were guided by his deep and firm belief in the power of scientific method to bring about new ways of approaching the knowledge of the psychological mechanisms of human behavior.

In defence of the scientific point of view, Eysenck maintained many public controversies, some of them receiving great publicity out of the academic world. His ideas were presented to the public not only in its strictest habit but also by well conceived literary divulgation.

He has been one of the most famous names of European psychology of our days.

EYSENCK AND THE U.S. WORLD.

Eysenck first went to the U.S. in 1949, as he received a Rockefeller fellowship that enabled him to spend a year in two universities (Pennsylvania and California), and visiting many of the research centers of the country.

He had accepted the invitation of Sir Aubrey Lewis, Professor of Psychiatry at the university of London, to organize «The profession of clinical psychology in Great Britain». As Eysenck wrote, «I decided to go off to the United States to see what was being done there, and I was lucky enough to receive the offer of a visiting professorship at the University of Pennsylvania. I took this up in 1949-1950 and, with a travel grant from

the Rockefeller Foundation, had the opportunity of traveling through Canada, to the West Coast, and other parts». (Eysenck,1980, 162-3).

Shortly, it seems that, during that visit, he was impressed by the great power that Freudian theories had reached among the American clinical psychologists, and as a result, he wrote in 1952 his famous paper on «The effects of psychotherapy: an evaluation» that appeared in the *American Journal of Consulting Psychology*; in it he opened the controversy on the meaning of psychoanalytic therapies, maintaining its valueless and epistemological inconsistencies. (Gibson,1981,86)

But perhaps it is better to cite directly at his own words:

«In the United States ... for the most part, I looked at clinical psychology and, to tell the truth, I did not like what I found. There was emphasis on subservience to psychiatry and to medical models; there was insistence on diagnostic testing, mainly using projective techniques; and there was psychotherapy. And he adds: I could detect no scientific evidence in favour of any of these, and I missed what to me seemed particularly important: the application of psychological knowledge and principles to the problems of abnormal psychology» (Eysenck,1980,164)

Perhaps it could be said that the basic ideas of his intellectual placement in psychology appeared to him wholly clarified after his visit to the U.S.

Since then, Eysenck maintained an effective presence in the American arena through his continuous publications. He edited the *Manual of one of his best known tests (the Eysenck Personality Inventory)* both in San Diego and in London (1964), and in 1967 he published in the U.S. one of his most well-known books, «*The Biological Basis of Personality*» (with the publisher Charles Thomas, at Springfield Ill.).

He was awarded with the Distinguished Scientist Award of APA Division 12 (Clinical psychology) in 1988, at the Atlanta Convention.

Now, let us turn to a more analytic and quantitative study of his impact on American psychology.

EYSENCK'S PLACE ACCORDING TO THE SOCIAL SCIENCE CITATION INDEX

Citation frequency counting is one of the most widely acknowledged ways to assess the impact of one author upon the scientific community. A few data based on citation analysis will appear in what follows. Here we will taken as an «American» source of data every author publishing any

kind of primary documents in journals, books or data sources belonging to an American institution or agency.

A first view may be gained from a study of the one hundred most cited authors in SSCI published by Garfield in 1980 (Table 1). According to data from his Social Sciences Citation Index, between the years 1969 and 1977, Eysenck appeared at the head of the distribution with 5370 citations, only after Freud and Piaget.

TABLE 1.—MOST-CITED PSYCHOLOGISTS AT SSCI (1969-1977)

Name	Total	Average
Freud (1856-1939)	12319	1369
Piaget (1889-1980)	7572	841
Eysenck (1916-)	5370	597
Bandura (1925-)	5050	561
Cattell (1905-)	4282	476
Skinner (1904-1990)	3672	408

It may be seen that Eysenck's impact has been, at least in the 1970's, an overwhelming one, and, as the SSCI data base mainly covers English periodical literature, it implies an impressive presence of this author in the American specialized psychological world.

In any case it may be not forgotten that the average author in SSCI receives three citations per year while Eysenck's average is about seven hundred citations per year, and eminent authors are receiving about one hundred references each year (Cfr. Tortosa y cols., 1989).

(It has also been shown by Endler and Colls (Endler et al. 1978) that in a specific study of departments of psychology in Britain, Eysenck was the most cited psychologist, according to recent literature covered by the SSCI).

THE EVOLUTION OF EYSENCK'S IMPACT (SSCI 1966-1988 DATA)

The temporal evolution of Eysenck's impact, as measured through the number of citations in SSCI, shows for Dr. Eysenck's works a line rising moderately along the years (Fig. 1). Such a result could be partly explained by the total growth experienced by the SSCI in the same period (Fig. 2). While Eysenck's citations would have gone from 577 in 1966 to 704 in 1988, the SSCI would have gone from 647.380 registered citations in 1966 to 1.479.459: Eysenck's growth rate is 1,22 as compared to SSCI's growth 2,28 (Fig. 2). This stabilized volume of citations to Eysenck's works could be seen as an effect of two complementary tendencies: a) a slow decline of the citation rate to his old documents, and b) a growing tendency to cite the latest publications of one author that seems to be completely alive.

FIG. 1.—DEVELOPMENT OF CITATIONS (S.S.C.I.)

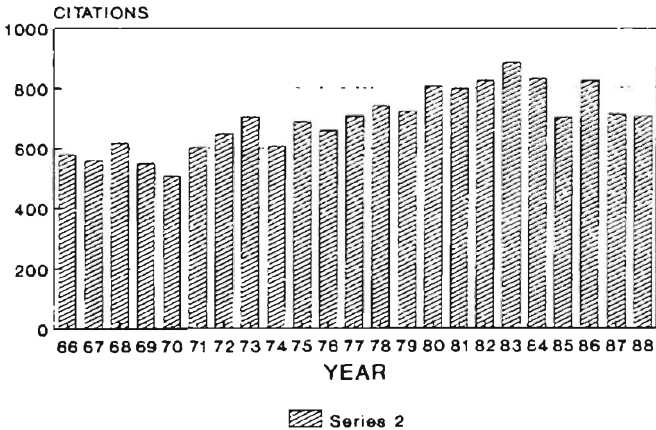
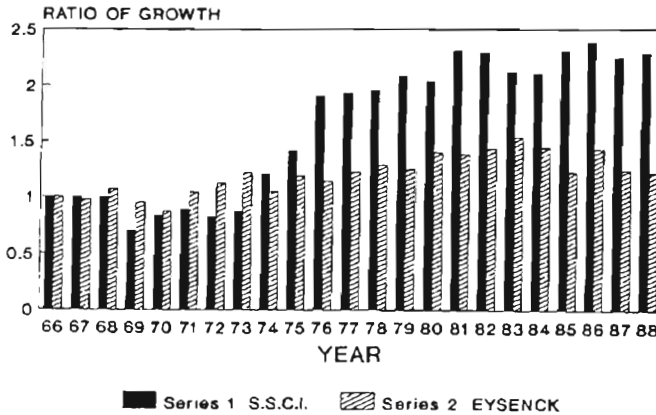


FIG. 2.—GRWTH OF CITATIONS S.S.C.I. - EYSENCK (1966-1988)



EYSENCK'S IMPACT ON DIFFERENT SCIENTIFIC FIELDS.

Eysenck's impact is here defined by citations of his works in documents referred by SSCI. The scientific fields have also been taken from the SSCI classification of journals according to their content. Journals that most frequently cited Eysenck's works are the following ones (Table 2).

A fact to be noted here is the well balanced proportion of English and American journals entering in the list. It may be seen that at the head of the distribution is placed a journal founded and edited by Eysenck himself, and covering the field in which he has situated most of his work, the study of personality and individual differences; the two USA journals that follow are dedicated to experimental/general topics in psychology, and as they normally include a large number of articles each year (*Psychol.Rep.* includes an average of 400 articles, and *Percep.Mot.Skills*, around 380), they correlatively produce a large volume of citations.

When these journals are classified according to their specialties, the main areas covered are the following ones: Clinical psychology, Personality, Social psychology and General/Experimental psychology. This distribution might be looked at as an adequate indicator of the large field of interests that stimulated Eysenck's work through his life.

TABLE 2.—JOURNALS THAT MOST FREQUENTLY CITED EYSENCK'S WORKS

JOURNAL	CITATIONS	COUNTRY
Personality and Individual Differences	1328	UK
Psychological Reports,	483	USA
Perceptual and Motor Skills	440	USA
British J. Psychiatry	346	UK
Behavior Research and Therapy	299	UK
British J. Social and Clinical Psychology	292	UK
Journal of Personality and Social Psychology	276	USA
British Journal of Psychology	249	UK
Psychological Bulletin	186	USA
British Journal of Social Psychology	185	UK
Journal of Consulting & Clinical Psychology	179	USA
Journal of Research on Personality	175	USA
Journal of Abnormal Psychology	168	USA
Journal of Psychosomatic	165	UK
Journal of Clinical Psychology	162	USA
British Journal of Educational Psychology	152	UK

WHO ARE CITING EYSENCK?

There are a great number of authors citing Eysenck's works, according to the SSCI data.

A large part of them are transient authors, that have mentioned once some Eysenck 's work. On the other hand, there are some people consistently referring themselves to Eysenck's theories and ideas. Nor surprisingly, Eysenck himself and his wife and collaborator, Dr. Sybil Eysenck are placed at the top of the list (See Table 3 , from which Eysenck's self references have been excluded).

Most of them are former Eysenck disciples and collaborators, well acquainted with his ideas and thoughts. One of them, Dr. Gibson, is the author of a biographical presentation of his master's contributions to psychology.

It is also noteworthy that the name of the other great theorist of personality factorial approach, Dr. Cattell, is also included among this group of ten people most frequently citing Eysenck. We will soon come to this point in what follows.

TABLE 3.—PRINCIPAL AUTHORS CITING EYSENCK'S

AUTHOR	QUOT.	COUNTRY	WORK
EYSENCK, S.	179	U. K.	E. P. Q.
FARLEY, F.	85	E. U.	M. M. P. I.
FURNHAM, A.	82	U. K.	E. P. Q.
MOHAN, V.	64	INDIA	DIMENSIONS OF PERSONALITY
MOHAN, J.	57	INDIA	M. M. P. I.
CATTELL, R. B.	55	E. U.	THE STRUCTURE HUMAN PERS.
RAY, J. J.	54	AUSTR	PSYCHOLOGY OF POLITICS
KLIN, P.	53	U. K.	E. P. I.
KOLARKOWA, O.	53	CHE	THE STRUCTURE HUMAN PERS.
GIBSON, H. B.	47	U. K.	E. P. I.

WORKS OF GREAT IMPACT

Eysenck's most cited works in American journals may be seen in Table 4. In more than half of the journals (8 from 14), the **Manual of E.P.I.** (1964) appears in the first place, and far enough, two well-known books are placed: *The Biological Basis of Personality* (1967) and the *Handbook of Abnormal Psychology* (1960a). Three works are placed at the head of the distribution. It is noteworthy that here, as in many other cases in empirical sciences, papers including research instruments are normally highly cited works, as empirical reports include them in their bibliographies.

The other two works are important theoretical contributions, the former one offering a general account of Eysenck's views on personality, and the latter being one of the basic works appeared in recent times in clinical psychology.

TABLE 4.—EYSENCK'S MOST CITED WORKS IN AMERICAN

JOURNAL	WORKS (CODE)			
PSYCHOL. REP.	20	39	11	26
PERC. MOT. SK.	20	26	11	39
J. PERS. SOC.	20	26	39	27
PSYCHOL. B.	26	1	12	134
J. CONS. CLIN.	20	11	26	12
J. RES. PERS.	26	20	27	53
J. ABN. PSYC.	12	20	26	21
J. CLIN. PSYC.	20	12	11	39
J. SOC. PSYCH.	5	39	20	27
J. PSYCHOL.	20	3	1	12
J. PERS. ASSE.	20	11	28	27
PSYCHOL. MED.	20	39	11	26
BEHAV. BRAIN	26	59	676	12
BEHAV. THER.	21	20	14	12

CODE	TITLE
20	MANUAL, EYSENCK PERSONALITY INVENTORY (with Eysenck, S.) (1964)
26	THE BIOLOGICAL BASIS OF PERSONALITY (1967)
12	(ED.) HANDBOOK OF ABNORMAL PSYCHOLOGY (1960a)
39	MANUAL, THE EYSENCK PERSONALITY QUESTIONNAIRE (with Eysenck, S.) (1975)
11	MANUAL OF THE MAUDSLEY PERSONALITY INVENTORY (1959)
27	PERSONALITY STRUCTURE AND MEASUREMENT (with Eysenck, S.) (1969)
1	DIMENSIONS OF PERSONALITY (1947)
21	CAUSES AND CURES OF NEUROSIS (with Rachman, S.) (1965)
5	THE PSYCHOLOGY OF POLITICS (1954)
53	(ED.) A MODEL OF PERSONALITY (1981)
3	THE STRUCTURE OF HUMAN PERSONALITY (1970)
28	READINGS IN EXTRAVERSION/INTROVERSION (1971a)
59	(ED) A MODEL FOR INTELLIGENCE (1982)
14	(ED) BEHAVIOUR THERAPY AND THE NEUROSES (1960b)
676	THE CONDITIONING MODEL OF NEUROSIS Behav. Brain Sci., 1979, 2, 155-199
134	THE EFFECTS OF PSYCHOTHERAPY: An Evaluation. J. Consult. Psychol., 1952, 16, 319-324

A QUALITATIVE APPROACH TO EYSENCK'S IMPACT

The quantitative indexes employed here do not allow discrimination between acceptance and rejection of theories by the scientific community. This is a significant limitation in our case as Eysenck has frequently departed from normally accepted opinions and rised controversies in academic circles.

Let us now turn to a more qualitative analysis of the American reception and attitudes related to Eysenck's points of view.

We will concentrate on a few well-known controversial questions, that have originated broad discussions and given great visibility to Eysenck's ideas among American psychologists.

a) "The Effects of Psychotherapy" (1952)

Eysenck published in 1952 a paper on "The Effects of Psychotherapy", a true masterpiece that has evoked a large number of citations in the past decades. Originally published in the *Journal of Consulting Psychology*, it has also been frequently included in readings books, thus giving it a complementary visibility in the scientific community.

The paper was conceived as a presentation of the assessed effects of various psychotherapeutic treatments. In this comparison the psychoanalytic one appeared offering very dubious gains, while its effects could be considered not better than those only due to spontaneous recovery. According to Eysenck, data show that roughly two thirds of a group of neurotic patients will recover or have considerable improvement after a two-year period, whether or not they have received psychotherapy. Such results were considered as putting the true results to question of such a specific therapy. (See critiques of Eysenck's study, e.g., Rosenzweig, 1954).

The paper was seen as a tremendous blow against psychoanalytic therapies.

Although Eysenck has rightly pointed out the fact that other people - such as Denker, Hebb, Landis, Salter, Wilder, Zubin - were also producing similar arguments about the question, it is true that, as Kazdin says, "the most influential critical evaluation of psychotherapy appeared in Hans J. Eysenck's article (Kazdin, 1978, 32-33). "The initial review, and its periodic revision over the next several years, brought the effectiveness of psychotherapy into sharp focus. The impact was remarkable in stimulating rebuttals, critiques, and further treatment evaluations" (Kazdin, 1993).

In a revision article, Erwin has pointed out to various critical voices raised against Eysenck's evaluation of spontaneous recovery among neurotics as well as against some interpretations offered by him in the article. In Erwin's words,

«Psychoanalytic oriented therapy includes several nonspecific elements, such as sympathetic listening and the giving of reassurance, that could easily account for the modest positive changes reported in well-designed studies on psychotherapy», and non standard psychoanalysis would be placed in a better position to answer to Eysenck's critics (Erwin, 1980, 442).

Eysenck has maintained his own views till now. In his autobiographical story, he also includes some harsh remarks to a rather eclectic presentation offered by Smith, Glass and Miller, as eclecticism is an attitude that never pleased Eysenck at all.

b) The study of general social attitudes.

Among other intellectual results of the Second World War produced in psychology a study carried out by Eysenck in 1944, on social-political attitudes it could be included. In it, he dealt with complex relationship mediating personality and political grouping, and he was partly inspired by some previous work done by the English professor J.C. Flugel and by American psychoanalyst Pryn Hopkins, both interested in the study of social attitudes.

In his study, Eysenck affirmed that all social attitudes were deeply correlated among themselves, and its structure could be represented by means of two main factors, that he called radicalism-conservatism (R) and tough-mindedness— tender-mindedness (T). People at the conservative end would display ethnocentrism and nationalistic attitudes, while people at the radical pole would appear as prone to pacifism, world government and to the redistribution of wealth; tough-minded people would place individuals as existing for the benefit of the nation, while tender-minded ones would be more influenced by religious, and ethical standards.

The hot spot of the theory without a doubt was the placement assigned in it to fascism and communism, both appearing together at the tough-minded end, while liberals were placed at the other end of the factor. Such proximity between fascism and communism was not easily accepted by either group, and a large controversy began to spread among people deeply engaged in politics.

In 1954 Eysenck published «The Psychology of Politics. Among the intellectual criticism this work had to face, those of R. Christie (1956) and Milton Rokeach and C. Handley (1956) are worth mentioning here. Many misprints and bibliographical errors were denounced, and voices were raised in maintaining the supposedly different ethical standards of those two political attitudes. It should be noted that in the early 1950's the U.S. was suffering from the McCarthysm phenomenon, and many groups proved to be very sensitive towards any suspicious attitude related with political beliefs. As Ray says, when Eysenck's book appeared, the «Zeitgeist» had changed, and while fascism appeared as a monster that had fallen, Russian communism was seen, specially by intellectual groups as an idealistic system to be taken at face value (Ray, 1986, 158). Similar opposition also rose in Europe, where angry left-wing young people perpetrated physical violence to the author of the book at a lecture in the London School of Economics. Some pictures of these reproachable scenes were taken and went all around the world.

c) The question on intelligence.

We will not enter here in the middle of Eysenck's complex ideas on intelligence, but we will limit ourselves to the well-known controversy on intelligence heredability, strongly supported by Eysenck in many works, among them in his *Race, Intelligence and Education* (1971b) written in support of the Jensen's thesis as presented in the *Harvard Educational Review* (1969). Eysenck's book sparked very furious critiques and was replied to Sandra Scarr (1981).

Jensen, as Eysenck has pointed out, «emphasized the role of genetic factors in intelligence, and mentioned briefly the possibility that black-white differences in I.Q. (usually around 15 points) might in part be due to genetic causes» (Eysenck, 1990, 215).

Eysenck has also evoked the persecution Jensen suffered as a result of his article when reviewers «made him out a racist and a fascist» (Eysenck, 1990, 215).

In passing, it should be noted that Eysenck's theory of intelligence could be represented as an objective, quantitative, analytical and biologically conceived one, in line with previous work done by Galton, Spearman and Burt. Two main opposers should be mentioned here: Leo J. Kamin (Eysenck & Kamin, 1981) and Stephen Gould (Gould, 1981). Both have raised many doubts about the figures and the arguments which hereditarian ideas had been based by Eysenck, and strongly

supported the opposite view, that is, intelligence measures are not fair but largely determined by social factors. This is an open question as recent debates have shown, and it is brought here in order to give the flavour of some arguments Eysenck raised with some of his works in past years.

d) Eysenck' ideas on psychosomatic medicine.

Some of the most debatable questions dealt by Eysenck are related to psychosomatic issues.

Early in his life, (in the 1950's), he became acquainted with the effects of smoking upon health, a question he studied from the point of view of the personality theory. Extroverts, according to his ideas, would smoke in order to obtain some extra cortical arousal that put an end to boredom produced by low stimulation conditions. (Eysenck, 1960)

Some years later, he became interested in cardiovascular and cancer studies, and personality correlates of these and other physical illnesses. Clearly related to this point is the Rosenman-Friedman (1974) findings about type A personality associated to coronary heart disease, one of the central topics in psychosomatics in the past decades.

«Looking at the evidence, I detected many weaknesses both methodological and statistical and I found that leading statisticians and other experts who had looked into the question were quite scathing about the quality of the research. Men like R. Fischer, probably the most famous statistician of the century, J. Berkson and J. Yerushalmy, also expert statisticians, and P.R.J. Burch, a medical physicist whose book on *The Biology of Cancer* has become rightly famous, K.A. Brownlee and many others might be mentioned here; and when I wrote my book on *Smoking, Health and Personality* in 1965 I was largely following the footsteps in coming to the conclusion that the evidence was not sufficient to prove that smoking caused cancer or coronary heart disease, or even lung cancer. This conclusion was attacked furiously in the medical as well as the popular press and it was suggested that I was encouraging smoking denying that it had evil consequences, and was acting irresponsibly» (Eysenck, 1990, 170).

But that was not enough for him. Developing some previous work carried out with a Dr. David Kissen in the 1950's, Dr. Eysenck has worked in recent years along lines stressing the interrelationship between psychological personality and some strong physical illnesses. The same question had been explored in a parallel manner by a Yugoslavian-born

physicist Dr. Ronald Grossarth-Maticek, emigrated to Heidelberg (Germany) with whom Eysenck had collaborated until recently.

As a result of their studies, they proposed a typology that includes the following types:

«Type 1, the cancer-prone type, is characterized by a lack of autonomy, lack of emotional expressiveness, the repression of anxiety and anger, and reactions of hopelessness and helplessness in the face of interpersonal stress. Type 2, the coronary heart disease prone type, is characterized by strong feelings of anger, aggression and hostility when faced with interpersonal difficulties and problems. Type 3, is not very well understood; persons of that type seem to alternate between reactions typical of type 1 and type 2, and being thus in the middle rather than at either extreme may be protected from disease. Type 4, last but not least, is the normal, autonomous type, capable of expressing emotions and coping with stress more or less successfully» (Grossarth-Maticek 1986, 1987 and Grossarth-Maticek, Eysenck and Frentzel-Beyme, 1986).

Such types, as well as the methodological basis of research have been contested from many angles of the medical and psychological scenes. (See critiques of Eysenck's study, e.g., Amelang, 1991). Notwithstanding, Eysenck has forcefully maintained his positions to the present day, and the debatable sides of the question are appearing just now.

e) Eysenck and Cattell

A final point should not be silenced here related to the controversial proximity that has linked the two great figures of R.B. Cattell and Hans Eysenck. Both are normally included in textbooks and review articles as two giants of the trait-personality theory, explored through factor analysis methodology. Cattell, a British-born American psychologist, and Eysenck, a German-born and English researcher, have been involved for years in an investigation program that included factor analysis as the main tool for personality research. They have produced a *prima facie* similar picture of human personality, while at the same time they disagree with each other about their results.

As it has been pointed out, one of the main differences is the number of factors which both authors arrive at. The cause probably lies in methodological basis, as Cattell has maintained oblique axes while Eysenck preferred orthogonal solutions in order to obtain their factors. Cattell arrived at 16 primary factors, and 2 second-order ones, as against the well known 3 dimensions propugated by Eysenck (psychoticism,

neuroticism and extraversion) . Eysenck , commenting Cattell's theory, wrote:

«Cattell's system is the oldest [of the three systems, Cattell's, Eysenck's and Norman's ones] and he deserves much credit for his pioneering efforts in constructing a 'personality system' ... but, as it stands, Cattell's system will not do; there are too many criticisms, too many failures to replicate, too many psychometric faults to continue to use the system (Eysenck, 1972) « (Eysenck, 1990, 777)

This apparently is an endless quarrel between members belonging to the same family, sometimes a bit angry , sometimes more cordial and cooperative. Discussions will probably never come to an end, but we may look at it as a sign of vitality of both the men and their theories.

CONCLUSIONS.

All quantitative data show that Eysenck's impact as measured through the number of citations evoked by his works is a very important one. He is placed among the most frequently cited authors in psychology, and the volume of references he is receiving shows no sign of decline through the years.

A large part of his impact upon American psychology has taken place through its specialized journals, and among the authors that frequently cited Eysenck's works there can be found some American researchers ; there are also well-known American scholars among his most bitter critics.

The great visibility reached by Eysenck's contributions in the American scene seems largely due to the generalized use of some of the tools he created for personality assessment tasks. The main fields in which his influence became more visible are Clinical psychology, personality and psychotherapy. Eysenck's impact on American psychology seems a rather complex one, as significant and important controversies have been raised, through the years, around some of his works.

Broadbent once wrote that «nobody can claim to be an expert on his thought because the necessary amount of reading would take several years of work with no time left over to earn a living» (Broadbent,1981,1). We agree but in the end, it has to be acknowledged that Hans Eysenck seems to be one of the few very influential authors acting upon the American scene, his works here always dealt with true psychological problems, and have approached them through scientific lines that proved

to be both controversial and influential deserving an in depth study of all their psychological insights.

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