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The Junior Eysenck Personality Questionnaire

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ABSTRACT

This article outlines the history and development of the Junior Eysenck Personality Questionnaire (JEPQ) by Professor Hans J. Eysenck and Dr. Sybil B.G. Eysenck, which culminated in sampling tens of thousands of children and adolescents across many countries, aided by psychologists in each country. The cross-cultural analysis methodology is then briefly described, along with the contents of a data-archive now made freely available for download by those who might wish to utilise this body of data for their own research activities. This archive complements that made available previously for the adult EPQ data, published in this same journal (Eysenck, S.B.G. & Barrett, 2013).

1. Introduction

Spanning long and most-productive careers that contributed greatly to psychological science and beyond, Professor Hans J. Eysenck and Dr. Sybil B.G. Eysenck developed the theoretical framework and contributed to the empirical foundations supporting the dimensional structure of personality defined by three 'super factors': extraversion, neuroticism, and psychoticism (PEN). This important contribution to the study of personality and individual differences was complimented with a series of scales that underwent modifications to both their theoretical structure and item content and further, were expanded for use in a number of countries and also across a wide age range.

A great number of published research studies have been conducted on the initial two and then three factor structure. Some studies included the lie scale as a fourth factor although its purpose was to assess dissimulation. In the process of developing these scales and supporting their psychometric foundations, the Eysencks coordinated, participated in, and were the catalyst for many published studies that have yielded a large volume of data supporting the PEN model and factor structure of the various Eysenck Scales. These studies have also provided significant archival data that has been previously described in some published work including several articles published in *Personality and Individual Differences* (Barrett, Petrides, Eysenck, & Eysenck, 1998; Bowden, Saklofske, Van de Vijver, Sudarshan, & Eysenck, 2016; Eysenck & Barrett, 2013) and is now accessible to researchers.

The purpose of including this brief article in the 40th Anniversary of *Personality and Individual Differences*, the journal also founded by Professor Eysenck, is twofold. It is an opportunity for Sybil Eysenck to briefly describe the evolution of the Eysenck personality scales, which she was very much involved with, and then to provide a brief description of the available data for the child/adolescent version of the Eysenck Personality Questionnaire (JEPQ) that we make available to interested personality researchers.

2. Overview of the EPQ/JEPQ (written by Sybil Eysenck)

It is probably of interest to consider how the PEN (psychoticism, extraversion and neuroticism) evolved. It all began when my late husband H.J. Eysenck was tasked to predict how much the returning soldiers from the Second World War had been psychologically affected by their experiences. This he attempted to do with various questions compiled in the Maudsley Personality Inventory in 1959. At that point, I came in and it seemed a bit complicated, so I reworded and simplified the items and added some others which resulted initially in the Eysenck Personality Inventory (Eysenck, 1964) and subsequently the Eysenck Personality Questionnaire, (Eysenck & Eysenck, 1975).

There was then a whole sequence of inventories to try out each question and see how factorially they formed a unified factor for each of the personality scales. Some of these were published in interim form and some were just used to guide us to obtain a better and more valid questionnaire. This we settled on as the final version in 1975 and it was known as the Eysenck Personality Questionnaire. This was standardised using 500 men and 500 women from various sources e.g. universities, factories etc.

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Probably the trickiest part of the work was to standardise the psychoticism scale which was extremely problematic. It meant getting psychotic patients and psychopaths to cooperate, a contradiction in terms. Most refused to answer our inventory and those who did were possibly motivated to mislead us. However, we were finally convinced that we had a valid psychoticism scale and so in 1975 the Manual of the Eysenck Personality Questionnaire was published.

Finally, we repeated everything for a Junior version of the Personality Questionnaire, getting permission to enter schools where 500 boys and 500 girls completed the JEPQ which we thus standardised similarly.

3. The analysis methodology[1]

We now turn to the JEPQ and the statistical processes underlying its development and the data we make available to researchers. We welcome the use of these data and look forward to hearing of any analyses and publications that may result.

Usually a 97-item JEPQ was used to acquire data in many countries, in which the optimal 81-item UK JEPQ was embedded. The extra items were potentially there to augment the others in case not all the 81-items in the published UK version of JEPQ 'worked' in another country, especially those that were outside of the English-speaking countries.

Pearson correlations (mostly as phi coefficients) were computed between all item responses, separately for male and female data. Each correlation matrix was submitted to a Principal Components Analysis (PCA). Four component factors were extracted from each analysis and rotated using an oblique Promax rotation. In later years, a Direct Oblimin rotation replaced Promax.

Following the component analyses and rotations, the male and female factor pattern matrices for a specific country were compared to their respective male and female UK reference- sample counterparts (these 97-item UK datasets had been analyzed using exactly the same procedure as described above). The comparison was made using an orthogonal procrustes solution published by Kaiser, Hunka, and Bianchini (1971). This procedure transformed each matrix (the target and comparison matrix) to an orthogonalized form prior to rotating the orthogonalized comparison matrix to the orthogonalized UK target matrix, utilizing a least-squares criterion to establish the optimal fit between the two matrices. The procedure reported the 'target-comparison' fit as a series of congruence coefficients between each respective component factor from both matrices. The procedure also reported the average congruence computed across all 97 items, where each target item vector was compared to its counterpart in the comparison matrix.

Given the factor comparison analyses were adjudged satisfactory, the final stage of analyses was conducted. Selected 'non-trivial-loading' items from the factor patterns were submitted to two further PCA analyses (males and females separately) which now included all items in a country dataset. This provided the location of the new items and their loadings onto the established factors, and the optimal items used to construct the country-specific score-key.

In some cases, not all of the 81-JEPQ items loaded substantively on each of the four keyed factors within a country. So, in order to enable a comparison of mean scores between the UK and a country's dataset (males, females, and now total sample), an 'in-common' score key was constructed and used to score the country datasets and re-score the UK dataset accordingly. Then a series of *t*-tests were undertaken between the respective scale means for each scored dataset (males, females, and total sample). Finally, the specific country score-key was constructed, the country-specific data scored, and the descriptive statistics reported for males, females, and the total sample dataset.

4. The archive specifics

1. The archive made available in the file links below consists of 26 countries' data, including the UK. consisting of male and female samples within the same data file
2. Every file contains a Case ID, Age (in years), and gender variable (male/female)
3. All available score keys (22 including the UK version) for a selection of countries are available in the "Score keys" subdirectory
4. The 81-item published JEPQ is included in the "Questionnaires" subdirectory, along with the 97-item JEPQ with the 81-items of the published JEPQ questionnaire marked accordingly.
5. A list of all files and scorekeys is available in a Word and pdf format document within the "Scorekeys" subdirectory:

Appendix A. Supplementary data

The 1.7 Mb zipped archive is available as supplemental material from: https://doi.org/10.1016/j.paid.2020.109974.

References

Barrett, P. T., Petrides, K. V., Eysenck, S. B. G., & Eysenck, H. J. (1998). The Eysenck Personality Questionnaire: An examination of the factorial similarity of P, E, N, and L across 34 countries. *Personality and Individual Differences, 25*(5), 805–819.

Bowden, S. C., Saklofske, D. H., Van de Vijver, F. J. R., Sudarshan, N. J., & Eysenck, S. B. G. (2016). Cross-cultural measurement invariance of the Eysenck Personality Questionnaire across 33 countries. *Personality and Individual Differences, 103*, 53–60.

Eysenck, H. J. (1964). *Manual of the Eysenck personality inventory*. London: Univ. of London Press.

Eysenck, H. J., & Eysenck, S. B. G. (1975). *Manual of the Eysenck Personality Questionnaire (adult and junior)*. London: Hodder & Stoughton.

Eysenck, S. B. G., & Barrett, P. (2013). Re-introduction to cross-cultural studies of the EPQ. *Personality and Individual Differences, 54*(4), 485–489.

Kaiser, H. F., Hunka, S., & Bianchini, J. C. (1971). Relating factors between studies based upon different individuals. *Multivariate Behavioral Research, 6*(4), 409–422.

[1] Initially, Owen White was the psychometrician who first worked with the Eysencks on establishing a coherent cross-cultural analysis procedure and the computer programming. Paul Barrett joined the team in 1983, and over the following years gently extended the Eysenck/White's pioneering efforts as new technologies and problems were encountered.