# Bayesian Unsupervised Clustering Method For Uncovering Latent Personality Types

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4/24/2021

## Contents



## 1 Introduction

The Big Five personality traits, also known as the five-factor model (FFM) and the OCEAN model, is a taxonomy, or grouping, for personality traits. When factor analysis (a statistical technique) is applied to personality survey data, some words used to describe aspects of personality are often applied to the same person. For example, someone described as conscientious is more likely to be described as "always prepared" rather than "messy". This theory is based therefore on the association between words but not on neuropsychological experiments. This theory uses descriptors of common language and therefore suggests five broad dimensions commonly used to describe the human personality and psyche.

This is introduction. This is the test for citation. [1] This is the test for citing figure (See Figure 1)

A few paragraphs which (i) motivate problem importance & relevance (supported by any pertinent literature), (ii) describe project goals and how such goals address the problem, (iii) a high-level roadmap of the proposed Bayesian modeling framework, and (iv) other relevant information for the reader. See project rubric for details.

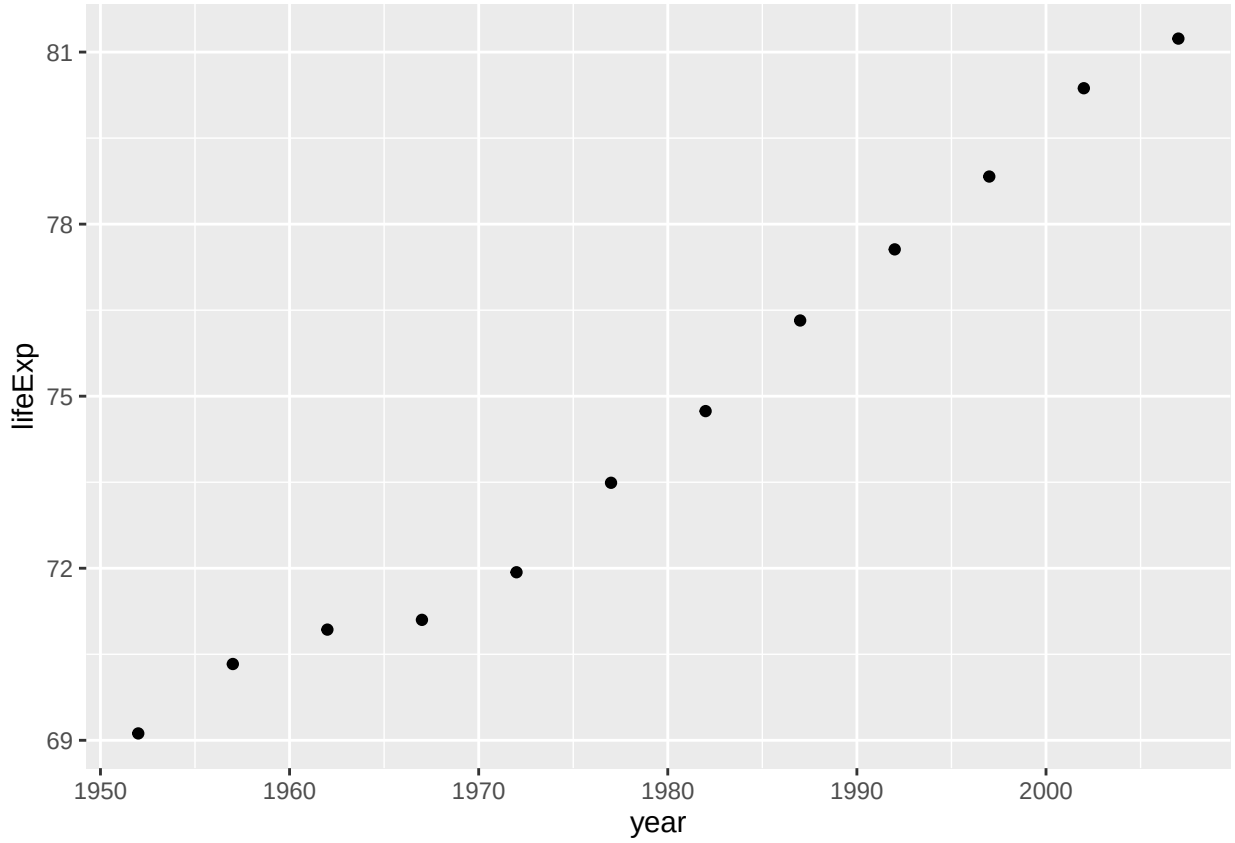


Figure 1: Life expectancy from 1952 - 2007 for Australia. Life expentancy increases steadily except from 1962 to 1969. We can safely say that our life expectancy is higher than it has ever been!

## 2 Data

A couple of paragraphs describing the data to be used. You may wish to discuss: (i) data sources – where are you getting the data? (ii) data description – what data / variables will be used for modeling? (iii) data type – ordinal discrete, nominal discrete, continuous, etc., and (iv) data scraping / wrangling – how to extract and clean data for modeling? See project rubric for details

## 3 Model

$$f(k) = \binom{n}{k} p^k (1-p)^{n-k}$$

$$f\left(k\right) = \binom{n}{k} p^k \left(1-p\right)^{n-k} \tag{1}$$

: Discussion & justification of the proposed Bayesian model framework (prior and sampling model). This discussion should elicit prior information on the problem, the data sources available, and relevant project goals. Any "downstream" uses of the model (e.g., for prediction, optimization, ranking) should be discussed in detail here. See project rubric for details.

This is test for referencing equation. See equation (1)

## 4 Results

Posterior analyses from the fitted Bayesian model, and a translation of such findings into meaningful & understandable conclusions for the target audience (e.g., engineers, business managers, policy-makers, etc). See project rubric for details.

## 5 Conclusion

A summary of key findings and potential impacts of your project.

## Appendix

## References

[1] S. Anderson, S. Anderson, and R. Anderson, *Exhumation by debris flows in the 2013 colorado front range storm*. 2015, pp. 31, 94.