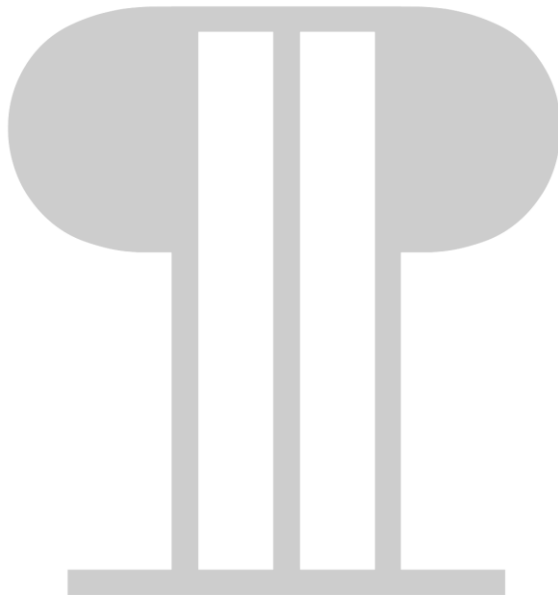


A Comparison of ~~TAT and NEO-FFI~~ Personality Tests: ~~TAT and NEO-FFI~~

**Commented [CE1]:** Please add all the relevant details to this title page, including your name, the subject name and date of submission. If you are required to submit an abstract, it should be presented on a separate page before the body of your paper, in one unindented paragraph.

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A Comparison of ~~TAT and NEO-FFI~~ Personality Tests: TAT and NEO-FFI

— Personality tests have long been used in psychology ~~in order~~ to determine particular traits in individuals and to assigning personality types ~~for the purpose of~~ predicting their behaviour and temperament ~~of those individuals~~. ~~There are two main types of personality tests that may be administered, the projective test and the structured test, with many individual tests that fall under either of the two categories.~~ This paper ~~will definediscusses the two main types of the~~ personality tests ~~projective and structured~~ and ~~examines~~ their differences. ~~Specifically, based on a comparison of~~ compare and contrast the relative merits and demerits of the ~~t~~Thematic ~~a~~Apperception ~~t~~Test (TAT) and the Neo ~~E~~Five-Factor Inventory (NEO-FFI), ~~using positive and negative factors, as well as validity and reliability, this paper aims to determine which test is more~~ which will lead to the recommendation of useful, valid and reliable ~~a test based on these merits.~~

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### Defining Personality Tests

— Personality tests were designed to test and determine the stable and relatively permanent traits that are used to predict behaviour and temperament within an individual (Kernberg, 2016; Wiggins, 1968). ~~Personality can be~~ is measured in varying ways, ~~and the~~ individual tests ~~are made with~~ are scored independent ~~scoring and as such, each test~~ ly and may focus on particular aspects of personality (Okada & Oltmanns, 2009).

**Commented [CE4]:** For a particular kind of research? Please check these changes and revise this sentence further.

**Commented [CE5]:** I have set all your paragraphs as the style 'APA Paragraph'. In order to ensure consistency, please apply this style to all the other paragraphs that you will add to this paper.

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Personality tests have undergone many changes since their introduction and have evolved to provide a wide array of tests that are designed for particular applications dependent on desired outcomes (Okada & Oltmanns, 2009). ~~There are two main types of personality tests under which many individual tests can be categorised: Personality tests generally fall into one of two categories, projective or an~~ and ~~objective or structured~~ test.

**Commented [CE7]:** I recommend that you provide a specific date or timeframe here. When were they first introduced?

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Projective tests make use of ambiguous stimuli, such as words or images, in order to elicit a response from the individual, ~~which~~. The response is then analysed for unconscious expression, which is believed to reveal hidden emotions and internal traits and conflicts. ~~The~~ Rorschach Inkblot test, TAT, word association tests, and sentence completion tests are examples of projective personality tests (Meyer & Kurtz, 2006).

Structured tests are designed ~~in order~~ to reduce ambiguity, and require the individual to choose a best-fit response from a list of answers provided. ~~These~~ answers are then measured and a personality type is assigned based on the score from the answers. ~~The~~ Minnesota Multiphasic Personality Inventory (MMPI), the California Psychological Inventory (CPI), and the NEO-FFI are examples of structured personality tests (Meyer & Kurtz, 2006).

### TAT

— During a TAT, the testee is shown an ambiguous stimulus, a set of pictures of people either on their own or with others, and is asked to ~~respond to the picture by~~ ~~create~~ ~~ing~~ a story ~~of~~ ~~about~~ what is happening in the picture. Testees are given little guidance and have few constraints imposed on them during this process. It is thought that ~~in~~ ~~creating~~ ~~through~~ the story the testee will project elements of their personality through internal explored activity (Meyer & Kurtz, 2006; Serfass & Sherman, 2013).

The TAT works on the basis that differences in perception are associated with personality and can indicate traits such as positive or negative outlooks on life (Serfass & Sherman, 2013). ~~While~~ the TAT seems to be the preferred projective test ~~with~~in clinical use, ~~there is debate regarding the~~ ~~its~~ validity ~~of the test~~ ~~has been debated~~ (Alvarado, 1994). ~~The scoring system for the TAT is~~ ~~It has~~ a time-consuming and complex ~~process~~ ~~scoring~~ ~~system~~, and the tester must be aware of social and cultural differences that may present themselves. ~~As such~~ ~~Therefore~~, the TAT is generally used in conjunction with other

methods.—A clinician who already has ~~access to a history of information regarding the~~ client's ~~history~~ and is able to understand that ~~particular~~ client's emotional responses would ~~be~~ more likely ~~to~~ use this test.—~~As such~~ ~~Thus~~, the validity of the test would depend on the clinician's ability to interpret these responses (Alvarado, 1994).

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—~~As stated previously~~, ~~T~~he scoring system for the TAT is lengthy and complex ~~because t~~—The tester must record ~~detailsthings~~ such as time between ~~the testee~~ being shown the picture and ~~their~~ response ~~of the testee~~; if the response is hysteric, depressive; or excited; how often the testee used personal pronouns; and if the testee was confident or uncertain in their answers.—~~All of these~~ responses are ~~then~~ compared to normative answers for the cards in order to check for normal or abnormal responses (Haward, 1964).—~~One of the reasons that~~ TAT findings are often debated ~~is that~~ ~~because~~ the TAT is considered to compare observable behaviours between two groups and ~~therefore~~ is ~~therefore~~ unable to reliably predict behaviour (Alvarado, 1994).—~~However~~, Serfass and Sherman (2013) ~~believe argued~~ that ~~the~~ distinct perceptions in social situations ~~are recurring~~ within ~~the~~ individuals and are therefore a stable trait ~~and able to~~ ~~that can~~ be related to personality constructs.

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—Additional debate regarding the TAT findings is that ~~there is little reliability of~~ test-retest scores ~~when they are recorded~~ ~~tend to be~~ ~~inconsistent~~.—It has been suggested that this is ~~due to~~ ~~because~~ one of the few instructions given prior to the test, which is to 'be creative' (Lundy, 1985).—The very nature of the test means that it is unlikely that a client will respond with the same answers given on a previous test; ~~indeed~~, Serfass and Sherman (2013) found ~~in their study~~ that participants ~~in their study~~ ~~reliably~~ rated the same stimuli differently.

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### NEO-FFI

—~~By~~ ~~In~~ contrast to the projective TAT test, the NEO-FFI is a structured test based on the ~~f~~Five-~~f~~Factor ~~m~~Model (FFM) and uses a five-~~point~~ Likert scale to measure responses, with answers ranging from 'very like me' to 'not at all like me' (McCrae & Costa

~~Jnr~~, 2004).—The NEO-FFI is the most commonly used structured personality test across different ages and cultures within psychology (Spence, Owen~~s~~, & Goodyer, 2012).—In the FFM, The traits of Conscientiousness, Openness to experience (Openness), Agreeableness, Neuroticism, and Extraversion are measured using a set of 60 questions, 12 questions for each trait, that-which indicate markers that respond to markers of the same traits (McCrae & Costa~~Jnr~~, 2004; Watson, Deary & Austin, 2007). Generally, these traits have a normal distribution within the five categories, yet-but show how one or more traits are-can be more dominant in an individual. When the traits show an abnormal distribution, it can be an indicator of a problem or personality deviance (Spence et al., 2012; Watson et al., 2007).

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In 2000, Egan, Deary and Austin conducted a study of the five factors in British norms and found that the factors of Neuroticism, Agreeableness, and Conscientiousness appeared to be more reliable predictors of personality than Openness and Extraversion.—In a review of the FFM, McCrae and Costa ~~Jnr~~ (2004) also found that the Neuroticism, Agreeableness, and Conscientiousness factors were still reliable predictors, yet-but the factors of Openness and Extraversion had a lower prediction indicator than previous studies.

Although the NEO-FFI test was designed in a way to remove the ambiguity involved with the scoring (Watson et al., 2007), one criticism has been made on the basis that one assumption of these tests is that the tester assumes that each of the questions holds the same meaning for each of the testees.—If a question asks about how often a behaviour is enacted, how the testee's definition of 'often' will determine how they answer the question (Meehl, 2000).—While for many questions this will not be a problem, if there is too much ambiguity within the individual questions of the test, the test becomes a less powerful predictor of personality (Meyer & Kurtz, 2006; Okada & Oltmanns, 2009).

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—Another criticism of the Neo-FFI is the ability to 'fake' the answers (Basu, 2014; Topping & O'Gorman, 1997).—As the test provides the answers to choose from,

depending on the situation and what the test is to be used for, an individual may decide to select answers based on what they believe the marker or tester wants to see or what may give a favourable or distorted impression (Basu, 2014; Converse et al., 2008).

— However, these negative attributes do not make the NEO-FFI

~~ineffectual/ineffective.~~ Steps have been taken to minimise these factors, thereby ruling out their negative influence on the validity and reliability of the test. ~~It is~~ these challenges and reviews ~~that have~~ enabled this test to evolve and maintain relevancy in changing scientific procedures, ~~as~~. ~~Addressing those negative factors of the test has resulted in~~ more reliable tests ~~due to have resulted from~~ the awareness of and correction of ~~for~~ invalidating factors (Converse et al., 2008; ~~Costa & McCrae & Jnr~~ Costa, 2004).

### Conclusion

— Personality tests have changed both in content and applicability since their

~~introduction.~~ Both ~~types of projective and structured~~ personality tests have their merit and application within psychology, and it has been shown that both ~~tests~~ have ~~both~~ negative and positive attributes ~~of both the test and the outcomes of the test.~~ Projective tests such as the TAT rely on ambiguous stimuli in order to elicit a response, ~~these responses are, which is~~ generally rated positive or negative. ~~It and is are~~ then open to interpretation and dependant on the tester to decide the outcome. ~~Whereas Conversely,~~ a structured test such as the NEO-FFI is designed to remove ~~this~~ ambiguity ~~and~~. ~~W~~with its narrow range of prepared responses and predesignated scores, ~~it~~ is able to produce the same or similar scores each time, ~~therefore~~ ~~thereby~~ producing both reliability and validity.

Overall, ~~it is the~~ structured personality tests ~~that has~~ been shown to be the most reliable, ~~generalizable,~~ and insightful of the two ~~types of tests~~ ~~types,~~ and ~~due to~~

~~this~~ ~~Therefore,~~ it is the structured test that would be recommended for ~~use.~~

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## References

Alvarado, N. (1994). Empirical validity of the Thematic Apperception Test. *Journal of Personality Assessment*, 63, 59–79.

[https://doi.org/10.1207/s15327752jpa6301\\_5](https://doi.org/10.1207/s15327752jpa6301_5) doi:10.1207/s15327752jpa6301\_5

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Basu, J. (2014). Psychologists' ambivalence toward ambiguity: Relocating the projective test debate for multiple interpretative hypotheses. *SIS Journal of Projective Psychology & Mental Health*, 21, 25–36. Retrieved from:

<http://www.academia.edu/abstract/http://web.a.ebseohost.com.ezproxy.lib.swin.edu.au/host/detail/detail?vid=6&sid=93e26b2a-d2be-43e1-bd5f-609dd8aa37a7%40sessionmgr4010&hid=4101&bdata=JnNpdGU9ZWVhvc3QtGjZS-ZzY29wZT1zaXRi#AN=94196705&db=a9h>

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Converse, P. D., Oswald, F. L., Imus, A., Hedricks, C., Roy, R., & Butera, H. (2008).

Comparing personality test formats and warnings: Effects on criterion-related validity and test-taker reactions. *International Journal of Selection & Assessment*, 16, 155–169. <https://doi.org/10.1111/j.1468-2389.2008.00420.x> doi:10.1111/j.1468-2389.2008.00420.x

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Egan, V., Deary, I., & Austin, E. (2000). The NEO-FFI: Emerging British norms and an item-level analysis suggest N, A and C are more reliable than O and E. *Personality and Individual Differences*, 29, 907–920. [https://doi.org/10.1016/S0191-8869\(99\)00242-1](https://doi.org/10.1016/S0191-8869(99)00242-1)

doi:10.1016/S0191-8869(99)00242-1

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Haward, L. (1964). Thematic apperception analysis as a forensic technique. *Journal of the Forensic Science Society*, 4, 209–216. [https://doi.org/10.1016/S0015-7368\(64\)70201-0](https://doi.org/10.1016/S0015-7368(64)70201-0) doi:10.1016/S0015-7368(64)70201-0.

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Kernberg, O. F. (2016). What is personality? *Journal of Personality Disorders*, 30, 145–156. doi:10.1521/pedi.2106.30.2.145 <https://doi.org/10.1521/pedi.2106.30.2.145>

- Lundy, A. (1985). The reliability of the Thematic Apperception Test. *Journal of Personality Assessment*, 49, 141–145.  
[https://doi.org/10.1207/s15327752jpa4902\\_6](https://doi.org/10.1207/s15327752jpa4902_6) doi: 10.1207/s15327752jpa4902\_6
- McCrae, R., & Paul T. Costa, P. T., Jr., A contemplated revision of the NEO Five-Factor Inventory. *Personality and Individual Differences*, Volume 36, Issue(-3), February 2004, Pages 587–596. ISSN 0191-8869, [http://dx.doi.org/10.1016/S0191-8869\(03\)00118-1](http://dx.doi.org/10.1016/S0191-8869(03)00118-1) [https://doi.org/10.1016/S0191-8869\(03\)00118-1](https://doi.org/10.1016/S0191-8869(03)00118-1)
- Meehl, P. E. (2000). The dynamics of "structured" personality tests. *Journal of Clinical Psychology*, 56(3), 367–373
- Meyer, G., & Kurtz, J. (2006). Advancing personality assessment terminology: Time to retire 'objective' and 'projective' as personality test descriptors. *Journal of Personality Assessment*, 87, 223–225. [https://doi.org/10.1207/s15327752jpa8703\\_01](https://doi.org/10.1207/s15327752jpa8703_01) doi: 10.1207/s15327752jpa8703\_01
- Okada, M., & Oltmanns, T. F. (2009). Comparison of three self-report measures of personality pathology. *Journal of Psychopathology & Behavioral Assessment*, 31, 358–367. <https://doi.org/10.1007/s10862-009-9130-8> doi: 10.1007/s10862-009-9130-8
- Serfass, D. G., & Sherman, R. A. (2013). Personality and perceptions of situations from the Thematic Apperception Test. *Journal of Research in Personality*, 47, 708–718. <https://doi.org/10.1016/j.jrp.2013.06.007> doi: 10.1016/j.jrp.2013.06.007
- Spence, R., Owens, M., & Goodyer, I. (2012). Item response theory and validity of the NEO-FFI in adolescents. *Personality and Individual Differences*, 53, 801–807. <https://doi.org/10.1016/j.paid.2012.06.002> doi: 10.1016/j.paid.2012.06.002

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Topping, G., & O'Gorman, J. (1997). Effects of faking set on validity of the NEO-FFI.

*Personality and Individual Differences*, 23, 117–124. [https://doi.org/10.1016/S0191-8869\(97\)00006-8](https://doi.org/10.1016/S0191-8869(97)00006-8)

Watson, R., Deary, I., & Austin, E. (2007). Are personality trait items reliably more or less 'difficult'? Mokken scaling of the NEO-FFI. *Personality and Individual Differences*, 43, 1460–1469.

<https://doi.org/10.1016/j.paid.2007.04.023>

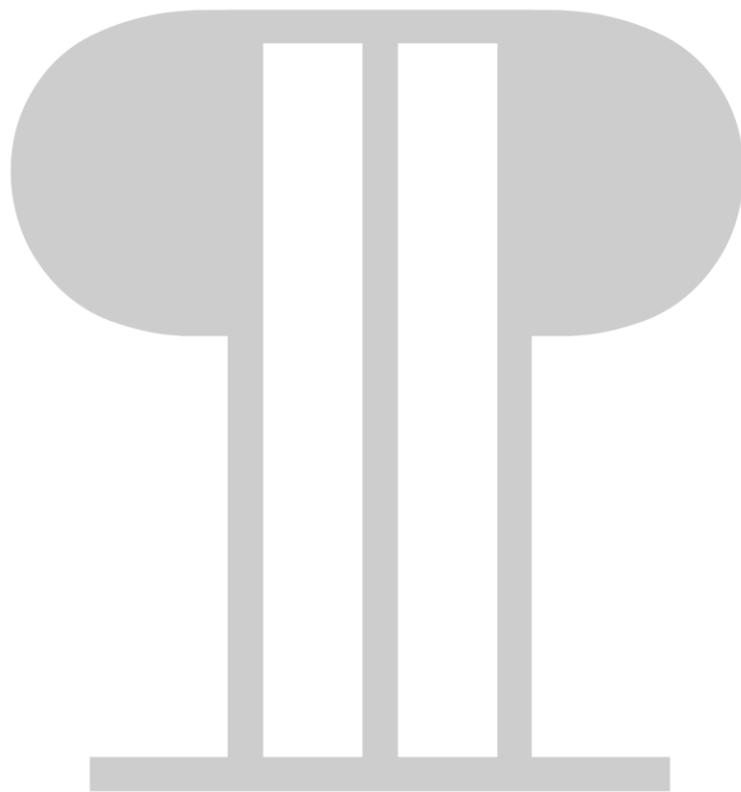
Wiggins, J. S. (1968). Personality structure. *Annual Review of Psychology*, 19, 293–350. doi:

[10.1146/annurev.psych.43.1.473](https://doi.org/10.1146/annurev.psych.43.1.473)

<https://doi.org/10.1146/annurev.ps.19.020168.001453>

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A Comparison of Personality Tests: TAT and NEO-FFI



### A Comparison of Personality Tests: TAT and NEO-FFI

Personality tests have long been used in psychology to determine particular traits in individuals and to assign personality types to predict their behaviour and temperament. This paper discusses the two main types of personality tests—projective and structured—and examines their differences. Specifically, based on a comparison of the relative merits and demerits of the thematic apperception test (TAT) and the Neo Five-Factor Inventory (NEO-FFI), this paper aims to determine which test is more useful, valid and reliable.

#### **Defining Personality Tests**

Personality tests were designed to test and determine the stable and relatively permanent traits that are used to predict behaviour and temperament within an individual (Kernberg, 2016; Wiggins, 1968). Personality can be measured in varying ways, and individual tests are scored independently and may focus on particular aspects of personality (Okada & Oltmanns, 2009).

Personality tests have undergone many changes since their introduction and have evolved to provide a wide array of tests that are designed for particular applications dependent on desired outcomes (Okada & Oltmanns, 2009). There are two main types of personality tests under which many individual tests can be categorised: projective and structured.

Projective tests make use of ambiguous stimuli, such as words or images, in order to elicit a response from the individual. The response is then analysed for unconscious expression, which is believed to reveal hidden emotions and internal traits and conflicts. The Rorschach Inkblot test, TAT, word association tests and sentence completion tests are examples of projective personality tests (Meyer & Kurtz, 2006).

Structured tests are designed to reduce ambiguity, and require the individual to choose a best-fit response from a list of answers provided. These answers are then measured and a

personality type is assigned based on the score from the answers. The Minnesota Multiphasic Personality Inventory (MMPI), the California Psychological Inventory (CPI) and the NEO-FFI are examples of structured personality tests (Meyer & Kurtz, 2006).

### TAT

During a TAT, the testee is shown an ambiguous stimulus, a set of pictures of people either on their own or with others, and is asked to create a story about what is happening in the picture. Testees are given little guidance and have few constraints imposed on them during this process. It is thought that in creating the story the testee will project elements of their personality through internal explored activity (Meyer & Kurtz, 2006; Serfass & Sherman, 2013).

The TAT works on the basis that differences in perception are associated with personality and can indicate traits such as positive or negative outlooks on life (Serfass & Shermann, 2013). While the TAT seems to be the preferred projective test in clinical use, its validity has been debated (Alvarado, 1994). It has a time-consuming, complex scoring system, and the tester must be aware of social and cultural differences that may present themselves. Therefore, the TAT is generally used in conjunction with other methods. A clinician who already has access to a client's history and is able to understand that client's emotional responses would be more likely to use this test. Thus, the validity of the test would depend on the clinician's ability to interpret these responses (Alvarado, 1994).

The scoring system for the TAT is lengthy and complex because the tester must record details such as time between the testee being shown the picture and their response; if the response is hysteric, depressive or excited; how often the testee used personal pronouns; and if the testee was confident or uncertain in their answers. All responses are compared to normative answers for the cards in order to check for normal or abnormal responses (Haward, 1964). TAT findings are often debated because the TAT is considered to compare observable

behaviours between two groups and is therefore unable to reliably predict behaviour (Alvarado, 1994). However, Serfass and Sherman (2013) argued that distinct perceptions in social situations recur within individuals and are therefore a stable trait that can be related to personality constructs.

Additional debate regarding the TAT findings is that test-retest scores tend to be inconsistent. It has been suggested that this is because one of the few instructions given prior to the test, which is to 'be creative' (Lundy, 1985). The very nature of the test means that it is unlikely that a client will respond with the same answers given on a previous test; indeed, Serfass and Sherman (2013) found that participants in their study reliably rated the same stimuli differently.

### **NEO-FFI**

In contrast to the projective TAT test, the NEO-FFI is a structured test based on the five-factor model (FFM) and uses a five-point Likert scale to measure responses, with answers ranging from 'very like me' to 'not at all like me' (McCrae & Costa, 2004). The NEO-FFI is the most commonly used structured personality test across different ages and cultures within psychology (Spence, Owens & Goodyer, 2012). In the FFM, the traits of Conscientiousness, Openness to experience (Openness), Agreeableness, Neuroticism and Extraversion are measured using a set of 60 questions, 12 questions for each trait, which indicate markers that respond to markers of the same traits (McCrae & Costa, 2004; Watson, Deary & Austin, 2007). Generally, these traits have a normal distribution within the five categories, but one or more traits can be more dominant in an individual. When the traits show an abnormal distribution, it can be an indicator of a problem or personality deviance (Spence et al., 2012; Watson et al., 2007).

In 2000, Egan, Deary and Austin conducted a study of the five factors in British norms and found that Neuroticism, Agreeableness and Conscientiousness appeared to be

more reliable predictors of personality than Openness and Extraversion. In a review of the FFM, McCrae and Costa (2004) also found that the Neuroticism, Agreeableness and Conscientiousness factors were still reliable predictors, but the factors of Openness and Extraversion had a lower prediction indicator than previous studies.

Although the NEO-FFI test was designed in a way to remove the ambiguity involved with the scoring (Watson et al., 2007), one criticism is that the tester assumes that each of the questions holds the same meaning for each of the testees. If a question asks how often a behaviour is enacted, the testee's definition of 'often' will determine how they answer the question (Meehl, 2000). While for many questions this will not be a problem, if there is too much ambiguity within the individual questions of the test, the test becomes a less powerful predictor of personality (Meyer & Kurtz, 2006; Okada & Oltmanns, 2009).

Another criticism of the Neo-FFI is the ability to 'fake' the answers (Basu, 2014; Topping & O'Gorman, 1997). As the test provides the answers to choose from, depending on the situation and what the test is to be used for, an individual may decide to select answers based on what they believe the marker or tester wants to see or what may give a favourable or distorted impression (Basu, 2014; Converse et al., 2008).

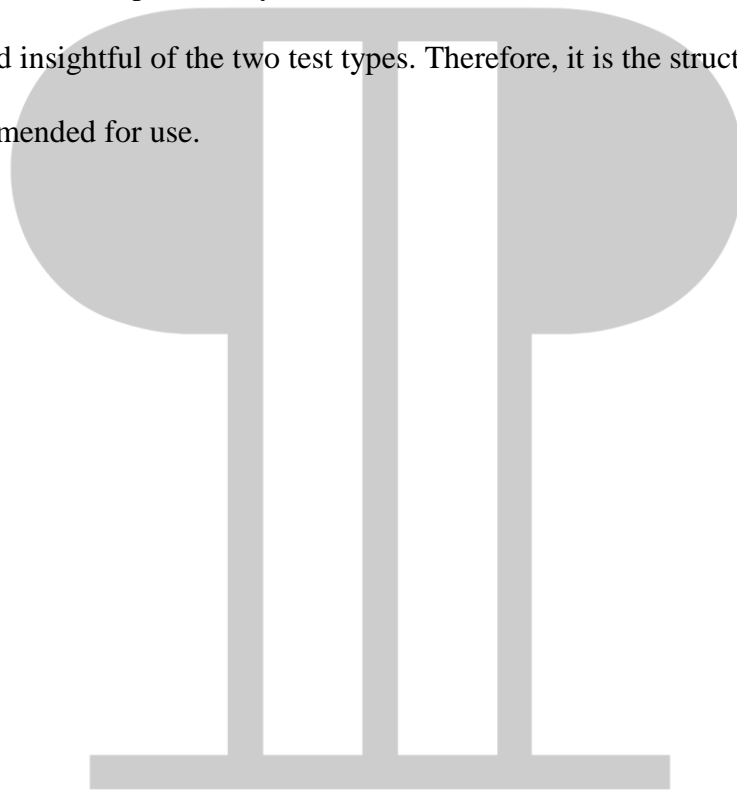
However, these negative attributes do not make the NEO-FFI ineffective. Steps have been taken to minimise these factors, thereby ruling out their negative influence on the validity and reliability of the test. These challenges and reviews have enabled this test to evolve and maintain relevancy in changing scientific procedures, as more reliable tests have resulted from the awareness and correction of invalidating factors (Converse et al., 2008; McCrae & Costa, 2004).

### **Conclusion**

Personality tests have changed both in content and applicability since their introduction. Both projective and structured personality tests have their merit and application

within psychology, and it has been shown that both tests have negative and positive attributes and outcomes. Projective tests such as the TAT rely on ambiguous stimuli in order to elicit a response, which is generally rated positive or negative. It is then open to interpretation and dependant on the tester to decide the outcome. Conversely, a structured test such as the NEO-FFI is designed to remove this ambiguity. With its narrow range of prepared responses and predesignated scores, it is able to produce the same or similar scores each time, thereby producing both reliability and validity.

Overall, structured personality tests have been shown to be the most reliable, generalisable and insightful of the two test types. Therefore, it is the structured test that would be recommended for use.



## References

- Alvarado, N. (1994). Empirical validity of the thematic apperception test. *Journal of Personality Assessment*, 63, 59–79. [https://doi.org/10.1207/s15327752jpa6301\\_5](https://doi.org/10.1207/s15327752jpa6301_5)
- Basu, J. (2014). Psychologists' ambivalence toward ambiguity: Relocating the projective test debate for multiple interpretative hypotheses. *SIS Journal of Projective Psychology & Mental Health*, 21, 25–36. Retrieved from <http://www.academia.edu/about>
- Converse, P. D., Oswald, F. L., Imus, A., Hedricks, C., Roy, R. & Butera, H. (2008). Comparing personality test formats and warnings: Effects on criterion-related validity and test-taker reactions. *International Journal of Selection & Assessment*, 16, 155–169. <https://doi.org/10.1111/j.1468-2389.2008.00420.x>
- Egan, V., Deary, I. & Austin, E. (2000). The NEO-FFI: Emerging British norms and an item-level analysis suggest N, A and C are more reliable than O and E. *Personality and Individual Differences*, 29, 907–920. [https://doi.org/10.1016/s0191-8869\(99\)00242-1](https://doi.org/10.1016/s0191-8869(99)00242-1)
- Haward, L. (1964). Thematic apperception analysis as a forensic technique. *Journal of the Forensic Science Society*, 4, 209–216. [https://doi.org/10.1016/s0015-7368\(64\)70201-0](https://doi.org/10.1016/s0015-7368(64)70201-0)
- Kernberg, O. F. (2016). What is personality? *Journal of Personality Disorders*, 30, 145–156. <https://doi.org/10.1521/pedi.2106.30.2.145>
- Lundy, A. (1985). The reliability of the thematic apperception test. *Journal of Personality Assessment*, 49, 141–145. [https://doi.org/10.1207/s15327752jpa4902\\_6](https://doi.org/10.1207/s15327752jpa4902_6)
- McCrae, R. & Costa, P. T., Jr. A contemplated revision of the NEO Five-Factor Inventory. *Personality and Individual Differences*, 36(3), 2004, 587–596. [https://doi.org/10.1016/s0191-8869\(03\)00118-1](https://doi.org/10.1016/s0191-8869(03)00118-1)
- Meehl, P. E. (2000). The dynamics of 'structured' personality tests. *Journal of Clinical Psychology*, 56(3), 367–373



- Meyer, G. & Kurtz, J. (2006). Advancing personality assessment terminology: Time to retire 'objective' and 'projective' as personality test descriptors. *Journal of Personality Assessment*, 87, 223–225. [https://doi.org/10.1207/s15327752jpa8703\\_01](https://doi.org/10.1207/s15327752jpa8703_01)
- Okada, M. & Oltmanns, T. F. (2009). Comparison of three self-report measures of personality pathology. *Journal of Psychopathology & Behavioral Assessment*, 31, 358–367. <https://doi.org/10.1007/s10862-009-9130-8>
- Serfass, D. G. & Sherman, R. A. (2013). Personality and perceptions of situations from the thematic apperception test. *Journal of Research in Personality*, 47, 708–718. <https://doi.org/10.1016/j.jrp.2013.06.007>
- Spence, R., Owens, M. & Goodyer, I. (2012). Item response theory and validity of the NEO-FFI in adolescents. *Personality and Individual Differences*, 53, 801–807. <https://doi.org/10.1016/j.paid.2012.06.002>
- Topping, G. & O’Gorman, J. (1997). Effects of faking set on validity of the NEO-FFI. *Personality and Individual Differences*, 23, 117–124. [https://doi.org/10.1016/s0191-8869\(97\)00006-8](https://doi.org/10.1016/s0191-8869(97)00006-8)
- Watson, R., Deary, I. & Austin, E. (2007). Are personality trait items reliably more or less 'difficult'? Mokken scaling of the NEO-FFI. *Personality and Individual Differences*, 43, 1460–1469. <https://doi.org/10.1016/j.paid.2007.04.023>
- Wiggins, J. S. (1968). Personality structure. *Annual Review of Psychology*, 19, 293–350. <https://doi.org/10.1146/annurev.ps.19.020168.001453>