Trait Theory of Personality

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OVERVIEW & PURPOSE

This two-day lesson addresses the trait theory of personality, engaging students in activities intended to make concepts more understandable and memorable. Interleaving is utilized to help students review and apply prior knowledge of research methods as it is foundational to psychology.

NATIONAL STANDARDS FOR HIGH SCHOOL PSYCHOLOGY CURRICULA

Standard Area: Personality

Content Standard 1: Perspectives on personality
Performance standards:
-1.2 Evaluate trait theories
Content Standard 2: Assessment of personality
Performance standards:
-2.1 Differentiate personality assessment techniques
-2.2 Discuss the reliability and validity of personality assessment techniques

Standard Area: Research Methods, Measurement, and Statistics

Content Standard 1: Development of psychology as an empirical science
Performance standards:
-1.1 Define psychology as a discipline and identify its goals as a science
Content Standard 3: Basic concepts of data analysis
Performance standards:
-3.4 Interpret graphical representations of data as used in both quantitative and qualitative methods

PRIOR KNOWLEDGE

1. Covered as the last theory of personality, students will have learned about the psychoanalytic, humanistic, and social-cognitive theories of personality.
2. Students will have covered research methods, including the topics of correlation, scatterplots, replication, reliability, and validity.

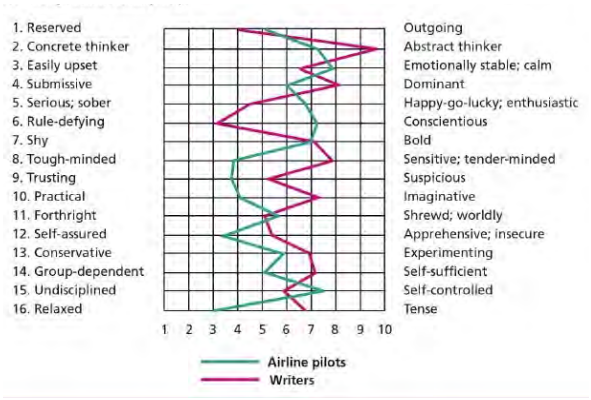
DAY ONE

- **Historical Roots**
  - Introduce the history of personality classification starting with Hippocrates and the four humors. Students tend to be vocal in finding his ideas equally fascinating and ridiculous, allowing discussion of the value of the scientific method and validity in testing, fostering critical thinking as we look at other theories.
- **Trait Theorists**
  - Allport's Trait Theory: After introducing the concepts, students come up with their cardinal, central, and secondary traits to help make the terms more relevant and memorable. If they had to describe themselves (or even a character with whom they are familiar) using just those three things, what would give a stranger a good understanding of who they are? Students can sometimes find this a bit personal, so I have them share out in small groups of their choosing. We reflect as a class as to how accurate the three types of traits are in describing one's personality.
  - Factor Analysis: I find talking about Allport's reduction of 18,000 personalities down to 200 as a good transition into talking about factor analysis as a statistical tool to see how data clump. Talking about how one can go from thousands of traits to a couple hundred can help students grasp this idea which can be confusing, and they only need to understand it conceptually. I like using this example from Marta Soto:
    - "Factor Analysis is a mathematical procedure that reduces a set of interrelations among variables to a smaller set of variables. For example, a sociology survey might start with six factors of wealth (income, education, occupation, home value, parks in neighborhood, and crime in neighborhood) and, using statistical correlations, reduce them to just two factors: individual socioeconomic status and neighborhood socioeconomic status."

    On a personality test, a person with high levels of anxiety might likely answer that they overthink things they've said in the past, have a hard time relaxing, regularly overreact, and not go out of their way to introduce themselves to new people at a party. While each individual aspect of worried, tense, emotionally reactive, and nervous tell us specific aspects about someone, all fall under the category of anxious, which can still give an overall understanding of that trait within an individual (16pf.com). Correlating and reducing these traits down to a more manageable number provides less variability in the number of personality traits and therefore more reliability, revisiting the concepts of reliability and validity.

  - Cattell's 16PF: Students analyze a graph (next page) from the Myers text involving airline pilots and writers on the sixteen personality factors of Raymond Cattell. In the same small groups as before, they are asked to reflect on the following questions:
    - Why might being high or low in these traits make sense for each career?

- How might the nature-nurture controversy weigh in on this?



  - Eysenck's Two Dimensions: As we did with Allport's three traits, have students place themselves or their chosen character on the spectrum of two dimensions of introversion versus extroversion as well as emotionality versus stability. Ask them to reflect on the strengths and limitations of the number of categories as well as a spectrum when it comes to personality.

- **Personality Profile activity**
  - I tell students throughout our course, I have been jotting down things I've noticed about them from their behaviors, interactions with others, and overall how they operate within the course. I use a Google Form in which they have to type in their email address to give the illusion of personalization (can also be printed on a sheet of paper with their name on it) when in reality, everyone gets the same personality profile as listed below:

    > You have a great need for other people to like and admire you.
    > You have a great deal of unused capacity, which you have not turned to your advantage.
    > Disciplined and self-controlled outside, you tend to be worrisome and insecure inside.
    > You prefer a certain amount of change and variety and become dissatisfied when hemmed in by restrictions and limitations.
    > You pride yourself as an independent thinker and do not accept others' statements without satisfactory proof.
    > You have a tendency to be critical of yourself.
    > At times you have serious doubts as to whether you have made the right decision or done the right thing.
    > At times you are extroverted, sociable, while at other times you are introverted, wary, reserved.
    > While you have some personality weaknesses, you are generally able to compensate for them.

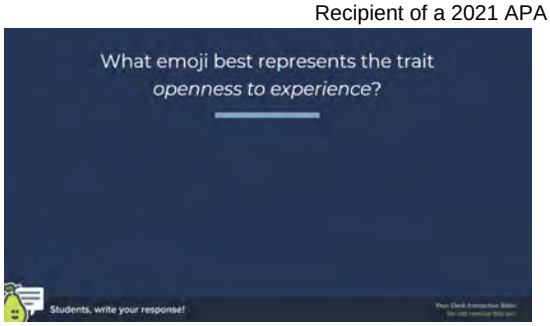
    It's important to stress to students to keep these from others seeing as they are personal. I then ask for students to stand up and mentally consider to what extent I was accurate

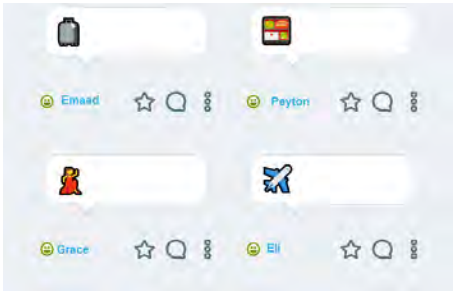
in describing their personality. I ask them to have a seat when I get to the percentage of accuracy and usually start at 50%, working my way up by 10% each time. I make a note of when most students tend to sit down. There are usually a couple of students who believe the profile is 90-100% accurate. I make sure to debrief students, letting them know they all received an identical personality profile. They tend to be verbally astonished and I ask them why this described so many of them fairly well, giving us a good transition into talking about the Barnum effect. I adapted this activity from my APSI with Kent Korek.

- **Myers-Briggs Type Inventory**
    - As a personality test most if not all of my students are familiar with, I show this linked video to students to preface the Myers-Briggs, following it up with a discussion to clear up any misconceptions, including its limitations regarding the Barnum (Forer) effect and low test-retest reliability, asking students to reflect on what that means about its lack of validity.
- **Personality Assessment**
    - To end the class, students take a short version of both the Myers-Briggs as well as the Big Five to use for class discussion the following day.

DAY TWO

- **Personality Assessment Discussion**
    - Taking about ten minutes, students evaluate the validity of their results from the Myers-Briggs, noticing the Barnum effect in their description. Depending on class size, I might ask them to find any others with the same 4-letter personality type and spend a few minutes finding some differences to show the limitations of summing people up in only 16 personality types. Students are then asked to take a look at their results from the Big Five and note any similarities or differences, reflecting on which one they think was more accurate in its description of their personality.
- **Big Five Emojis activity**
    - This is an activity I learned from Steve Jones. While we discuss the Big Five traits and how those qualities can be seen in individuals, students can use Pear Deck (a technological tool that allows for student engagement during presentations) to add an emoji they believe best represents each of the Big Five traits. This is done one trait at a time, allowing me to reveal students' contributions as we go and reflect as a class on why the emojis are a good representation of each trait. Alternatively, students could contribute to a Padlet or a discussion board instead. This activity makes each trait personal and serves as a quick memory aid.

- 



- **Evaluation of Current Trait Assessments**
  - Big Five: Discuss the relevance of the Big Five across cultures, asking students to consider what this says about the validity of the assessment.
  - Minnesota Multiphasic Personality Inventory: Trait theory goes beyond just describing individuals as it can be used for a clinical assessment of personality disorders. In helping students understand how it uses empirical derivation, I like using this example from the TOPSS Personality unit plan:
    - "Example: The MMPI was created this way—this is why some of the items on the MMPI (e.g., "Do you prefer baths to showers?") seem to have nothing to do with what the MMPI is measuring (personality disorders). The items predict who has a personality disorder or not, and even if we can't understand why they do, they are included in the test because they work."
  - Social desirability bias: In highlighting the strengths and limitations of trait assessments and comparing them to other theories, I have students reflect if they tended to alter their answers to be more favorable on either the Myers-Briggs or the Big Five as a personal example of the social desirability bias.
- **Studies on the Big Five**
  - This wrap-up activity serves as a real-life application of the Big Five traits, taking recent research from the "In Brief" section in The Monitor on Psychology. I first learned of incorporating these quick hits of research from Amy Ramponi. As students read about particular traits associated with behaviors, they are asked to defend their choice of trait, reflect on prior knowledge of correlation and replication, and discern appropriate graphs based on whether a trait is high or low.
    - Included in this are extension activities from Greater Good in Action for students to use if interested in well-being activities correlated to certain Big Five traits such as agreeableness and forgiveness, extraversion and gratitude, as well as openness to experience and inspiration. If having students complete this on paper, make sure to make these links accessible in another format.

Studies on the Big Five

Read the contained studies and answer the corresponding questions involving research on the Big Five personality traits. Using the effective learning technique of interleaving, some questions will refer back to content and graph analysis from Scientific Foundations of Psychology.

In the two studies below, identify the missing Big Five trait [in red] correlated with the behavior.

Study habits

Homework may do more than help students master a subject: It could also train them to have higher levels of **[TRAIT]**, suggests a study in the *Journal of Research in Personality*. Researchers followed 2,760 students in Germany for three years, beginning in the fifth grade. They surveyed the children and their parents once a year, asking about homework habits as well as measures of **[TRAIT]**. In general, **[TRAIT]** tends to dip temporarily in early adolescence, but the researchers found that students who invested more time and effort into their homework between the fifth and eighth grades also demonstrated more **[TRAIT]** in other areas as well, such as neatness.

What Big Five trait would you expect to be associated with this behavior? Why?

Who Hoards?

Fear, not selfishness, appeared to drive the hoarding of toilet paper during the early stages of the COVID-19 pandemic, according to research in *PLOS ONE*. Researchers recruited 996 adults from Germany, the United States, and 20 other countries to complete an online personality inventory from March 23 to 29. The inventory tapped six personality domains: emotionality, conscientiousness, honesty-humility, extraversion, agreeableness, and openness to experience. Participants also reported on their quarantine behaviors, perceptions of COVID-19 as a threat, and how often they shopped for toilet paper. The results indicate that people who felt more threatened by COVID-19 stockpiled more toilet paper. In addition, higher **[TRAIT]** was associated with a greater perceived threat of COVID-19, thereby indirectly increasing stockpiling behavior. Higher degrees of conscientiousness were also associated with greater toilet paper stockpiling.

It was already mentioned that conscientiousness was one of the traits associated with toilet paper hoarding. What other Big Five trait would you expect to be associated with this behavior? Why?

Replication success

Previous research linking the Big Five personality traits to various life outcomes held up under scrutiny in a replication project published in *Psychological Science*. In the new study, researchers asked about 6,000 online participants to complete a 60-item personality measure and take a survey on topics including their careers, relationships, criminal behavior, and other characteristics. Seventy-eight associations between personality traits and life outcomes reported in earlier literature were examined, such as the association between emotional stability and mental health and between conscientiousness and risk of substance abuse. The researchers found that 87% of the previously reported personality-outcome associations replicated, though the effect sizes were smaller in most cases.

Interleaving:

What is replication and why is it important to psychological science?

Would you expect a positive or negative correlation between emotional stability and mental health? Why? Include an example of what this type of correlation looks like on a scatter plot.

Would you expect a positive or negative correlation between conscientiousness and substance abuse? Why? Include an example of what this type of correlation looks like on a scatter plot.

This same study also found associations between personality traits and some positive psychological characteristics which can be valuable in improving overall well-being. Within the pairings below, explain why a positive association between the traits and the characteristics seems plausible. Optional activities are linked for personal interest.

Agreeableness and forgiveness-

Extraversion and gratitude-

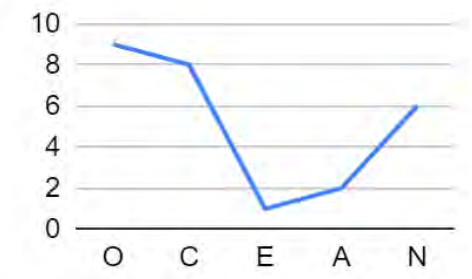
Open-mindedness and inspiration-

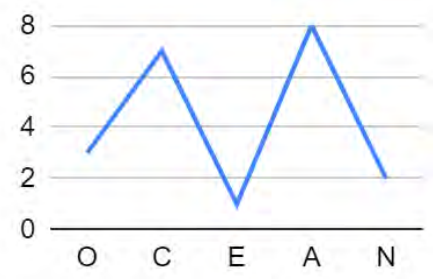
Challenge Question

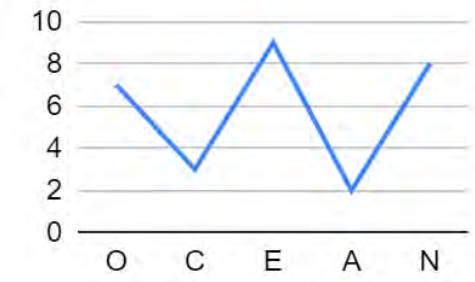
Based on the behavior and whether the trait was higher or lower, identify the appropriate graph for the "big spenders" group as well as the "super savers." Write the group name under the graph. The wording here specifically uses synonyms of the Big Five traits to help you discern qualities within the traits.

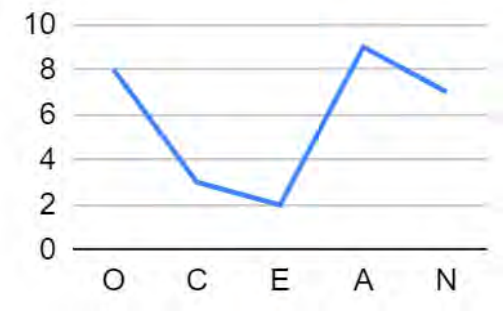
Big Spenders, Super Savers

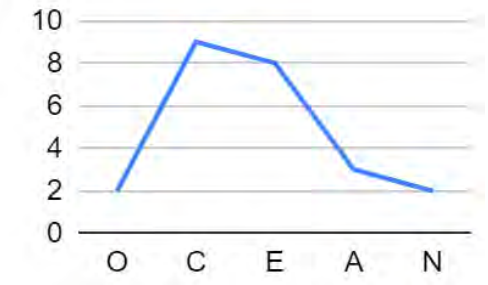
Personality characteristics can have a powerful influence on how quickly people spend their retirement savings, suggests a study in *Psychology and Aging*. Drawing from an ongoing survey of people aged 50 and older in the United States, researchers paired psychological data collected in 2012 and 2014 from 3,678 participants with information about the amounts of money the participants withdrew from their retirement accounts. The researchers found that participants who were more willing to try new things, outgoing, and less emotionally stable spent at a higher rate (big spenders) while those who were more self-disciplined and cooperative spent retirement savings at a lower rate (super savers). These results held after controlling for demographic characteristics and other factors such as levels of debt and desire to leave an inheritance.





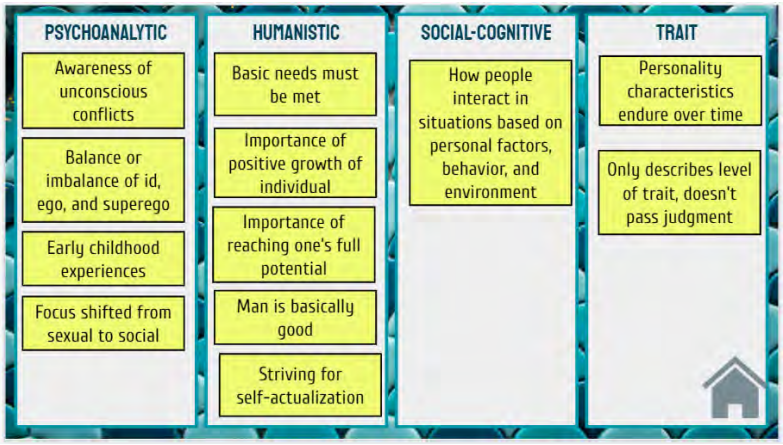






ASSESSMENT

As an informal assessment or check for understanding since this is the last lesson of content in the unit, students will be able to complete a Personality Theories Drag & Drop which allows them to differentiate between terms and people, what determines one's personality, testing methods, and criticisms as found in Myers' Psychology for the AP Course, 3rd edition. Students make a copy of the Slides and can drag the items in the gray space of the slide to the corresponding personality theory. Answers are located on the following slide for prompt feedback. I first learned of this type of activity involving manipulatives from Joce Buckentin. https://docs.google.com/presentation/d/1E_ghs6JUzwBmqiSOToMzmJfD-UmX2pUNmQqESxu0mNo/copy?usp=sharing



EXTENSION ACTIVITY

If students are interested in learning more about the improper use of invalid measures of personality as well as how the Barnum effect influences Chinese culture, they are encouraged to listen to this Hidden Brain podcast: https://www.npr.org/2019/04/12/712876949/what-can-a-personality-test-tell-us-about-who-we-are.

REFERENCES

16pf® Cattell Comprehensive Personality Interpretation. (n.d.). 16pf®. Retrieved February 4, 2021, from https://www.16pf.com/wp-content/uploads/Cattell-Comprehensive-Personality-Interpretation-Ima-Leeder.pdf.

American Psychological Association. (2020, April). In brief. *Monitor on Psychology*, *51*(3). http://www.apa.org/monitor/2020/04/inbrief.

Awe Video. (n.d.). Greater Good in Action. Retrieved November 8, 2020, from https://ggia.berkeley.edu/practice/awe_video.

Eight Essentials When Forgiving. (n.d.). Greater Good in Action. Retrieved November 8, 2020, from https://ggia.berkeley.edu/practice/eight_essentials_when_forgiving.

Myers, D. G., & DeWall, N. C. (2020). *Updated Myers' Psychology for AP®* (Third ed.). Worth Publishers.

Palmer, C. (2020, October). In brief. *Monitor on Psychology*, *51*(7). http://www.apa.org/monitor/2020/10/inbrief.

Soto, C. J. (2019). How Replicable Are Links Between Personality Traits and Consequential Life Outcomes? The Life Outcomes of Personality Replication Project. *Psychological Science*, *30*(5), 711–727. https://doi.org/10.1177/0956797619831612.

Soto, M. (2017, April 10). *APA PsycTests – Reliability, Validity & Factor Analysis – APA Publishing Blog*. APA Publishing Blog. https://blog.apapubs.org/2017/04/10/psyctests-reliability-validity-factor-analysis/.

Stromberg, J., & Caswell, E. (2015, October 8). *Why the Myers-Briggs test is totally meaningless*. Vox. https://www.vox.com/2014/7/15/5881947/myers-briggs-personality-test-meaningless?fbclid=IwAR03rDUNxaKDWuga2v7CVOaB6jp9hYTuCHS0zl1pTsjOxaRh8nu8nEBprFM.

Three Good Things. (n.d.). Greater Good in Action. Retrieved November 8, 2020, from https://ggia.berkeley.edu/practice/three-good-things.

Vazire, S. (2014, December). A Six-Day Unit Lesson Plan for High School Psychology Teachers. TOPSS- Unit Lesson Plans (Personality). Retrieved from https://www.apa.org/ed/precollege/topss/lessons.

Vedantam, S. (Host). (2019, April 15). *What Can A Personality Test Tell Us About Who We Are?* [Audio podcast]. Retrieved from https://www.npr.org/2019/04/12/712876949/what-can-a-personality-test-tell-us-about-who-we-are.

Winerman, L. (2018, January). In brief: January 2018. *Monitor on Psychology*, *49*(1). http://www.apa.org/monitor/2018/01/inbrief.

Winerman, L. (2019, July). In brief. *Monitor on Psychology*, *50*(7). http://www.apa.org/monitor/2019/07-08/inbrief.