10.5: Hans Eysenck's Dimensions of Personality

Hans Eysenck offered a theory of personality that was much more concise than that of Cattell, suggesting that there were only three major factors. He also emphasized the importance of a hereditary basis for personality and intelligence, and he applied his research to some important everyday life circumstances. Accordingly, he was a very popular and widely acknowledged researcher. In 1997, he was identified as the most widely cited living person, second only to Sigmund Freud and Karl Marx amongst the most cited individuals of all time (Jensen, 1997). In addition, he was honored with not one, but two *Festschriften*, the first on his sixty-fifth birthday (Lynn, 1981), and the second in honor of his eightieth birthday (Nyborg, 1997).

Eysenck was born in Berlin, Germany, in 1916. His parents divorced when he was 2, and he was raised by his grandmother, seeing his parents only once or twice a year. He was a star athlete, including being a nationally ranked tennis player. He left Germany to escape the Nazis in 1934, and spent a brief period of time studying literature and history in France and England. His grandmother, however, died in a concentration camp around 1941 or 1942. He eventually began studying psychology at University College in London, under the renowned Cyril Burt. He earned his Ph.D. in 1940, and during World War II he worked as a research psychologist using factor analysis to study personality. After the war he became a psychologist at Maudsley Hospital, where he became friends with Philip Vernon (who completed his Ph.D. with Allport; see, e.g., Allport & Vernon, 1933), then helped to form a psychiatry institute at the hospital and affiliated with the University of London. He spent the rest of his career there, though he spent some time as a visiting professor in the United States (Eysenck, 1982, 1997). Eysenck received numerous awards during his career, including a *Distinguished Scientist Award* from the American Psychological Association. He died in 1997.

The Structure of Personality

According to Eysenck, the sixteen primary personality factors identified by Cattell in the 16-PF test were unreliable and could not be replicated. Eysenck chose instead to focus on higher order factor analysis, and he identified three
“superfactors:” extraversion, neuroticism, and psychoticism (Eysenck, 1982). According to Eysenck, higher order factors are similar to types, and they represent combinations of primary personality traits. Thus, he considered the sixteen factors that Cattell included in the 16-PF as primary factors, whereas extraversion, neuroticism, and psychoticism were second-order factors (or types). Actually, even the primary factors are comprised of lower level responses that result in a hierarchical model of personality: specific responses, habitual responses, traits (or factors), and finally, types (or superfactors). Similarly, g, or general intelligence, is a higher order factor than its component intelligences (e.g., verbal, numerical, memory, visuo-spatial, and reasoning). Thus, Eysenck’s theory does not contradict that of Cattell, but rather looks at a higher level of personality structure (Eysenck, 1952, 1967, 1970).

An extravert is commonly described as an outgoing, expressive person, but the technical definition described by Eysenck is more complex. Extraversion is a combination of sociability, impulsiveness, frivolity, general activity, and overt sexuality. The complex nature of each higher order factor may lead to some of the differences in personality theory. According to Eysenck, the impulsiveness associated with extraversion is most likely hereditary (a temperamental trait), whereas the sociability aspect of extraversion is more likely to be influenced by one’s environment. Thus, perhaps, it is not surprising that Eysenck finds support for hereditary influences on personality whereas others, like Cattell, find support for environmental influences. Depending on how one designs their questions and experiments, the component traits within a higher order factor can support different perspectives (Eysenck, 1982).

Neuroticism refers to one’s emotional stability, or lack thereof. It incorporates mood swings, poor emotional adjustment, feelings of inferiority, a lack of social responsibility, a lack of persistence, issues of trust vs. suspiciousness, social shyness, hypochondria, and the lack of relaxed composure. Neuroticism raises the intensity of emotional reactions. Since it is a function of the reactivity of the autonomic nervous system, it is an inherited characteristic. Individuals who measure high in neuroticism are more likely to suffer from neuroses, but high neuroticism is not necessarily less desirable than low levels of neuroticism. For example, aesthetic appreciation and creativity can benefit from an individual being highly emotional. On the clearly negative side, high levels of neuroticism have routinely been found in criminals, perhaps because whenever an individual has antisocial tendencies, a high level of neuroticism enhances their fear/anxiety responses and functions as a powerful, albeit dysfunctional, drive (Eysenck, 1977, 1982; Kendrick, 1981). Cattell also studied neuroticism, and his findings were very similar to those of Eysenck (Cattell & Scheier, 1961).

Psychoticism was added to Eysenck’s theory well after identifying extraversion and neuroticism, and it is the least clearly defined or heritable of the three superfactors. It incorporates traits of dominance-leadership, dominance-submission, sensation seeking, and the lack of a superego. Children who score high on a measure of psychoticism tend to have behavior problems and learning difficulties, they become loners, skip school, commit crimes, and are generally disliked by teachers and peers. Whether as children or as adults, they do not typically benefit from traditional psychotherapies or counseling, as there tends to be a paranoid, suspicious barrier. There is some evidence, however, for successful treatment with intensive behavioral techniques. Interestingly, whether or not these children become criminals as adults seems to depend on how they score on the other two superfactors. High neuroticism seems to be the factor which makes juvenile delinquency a habit that persists into a life of crime (S. Eysenck, 1997).

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In contrast to Cattell’s sixteen primary factors, Eysenck proposed just three superfactors. Can a reasonable evaluation of personality be conducted along just three dimensions? If not, do you think these are still the three most essential dimensions?
Eysenck believed strongly in the inheritance of personality and intelligence. If it is true that genetics plays a major role in personality, then evolution should provide us with an interesting test: do other primate species demonstrate the same superfactors that we see in humans? Eysenck examined this question in conjunction with Harry Harlow. After conducting factor analysis on the social behavior of rhesus monkeys, they found three clear behavior factors: affectionate, fearful, and hostile social behavior. These factors match well with the human factors of extraversion, neuroticism, and psychoticism, respectively. Of course, there were marked differences between animals, but those differences were characteristic and reliable for each monkey. Thus, it would appear that the biological basis for personality superfactors can be confirmed in comparative psychological studies (Chamove, Eysenck, & Harlow, 1972).

Reviews of Eysenck’s overall contribution to the field of behavior genetics have, however, been the subject of debate. Whereas some praise Eysenck for identifying the significant role that genetic determinants play in personality factors (see Martin & Jardine, 1986), others argue that Eysenck’s own data provide evidence that he overstated the significance of genetics (see Loehlin, 1986). Indeed, Loehlin suggests that the data in Eysenck’s own publications can be interpreted to suggest that genetics account for about half of the variance in personality factors, which leaves the other half subject to the environment. Still, Loehlin acknowledges Eysenck’s primary role in bringing these issues into the realm of science, and he commends Eysenck for providing his data openly, so that others, like Loehlin, might be able to evaluate and debate those results (Loehlin, 1986). Eysenck, for his part, acknowledged the points made by Loehlin, and expressed hope that continued research in the future would help to better clarify the role of genetics in determining behavior, intelligence, and personality (Eysenck, 1986).

Although Eysenck’s approach to personality focused on group differences and genetics, he was not without concern for the individual and her or his daily life. He also challenged the way in which psychologists are pursuing their discipline, and the effect it has on the public’s view of psychology. In 1972, he published *Psychology is About People*, which included jokes about psychology and psychiatry, as well as topics as diverse as sex, socialism, education, pornography, and behaviorism (Eysenck, 1972). In *Uses and Abuses of Psychology* he challenged the stereotypes associated with views on national character, and urged the learning of facts about other cultures (numerous other topics are covered as well; Eysenck, 1953). In *Sense and Nonsense in Psychology* he examined such things as hypnosis, lie detectors, telepathy, interpreting dreams, and politics:

If it be true that there are more things in heaven and earth than are dreamed of in our philosophy, it is surely equally true that things are dreamed of in our philosophy which do not appear in heaven or on earth. Among these figments of the
imagination appear such varied objects as the philosopher’s stone, which was supposed to transmute base metals into gold, the Oedipus complex, which was supposed to transmute a normal person into a gibbering neurotic…and the Jungian archetypes, which are supposed to haunt our modern minds with mystical reminders of the inherited wisdom, or otherwise, of our race. (pg. 71; Eysenck, 1957)

Eysenck wrote extensively about sex and personality, and the role that violence and the media may play in distorting sexuality (e.g., Eysenck, 1976; Eysenck & Nias, 1978). He also wrote about the relationship between personality and criminal behavior (e.g., Eysenck, 1964; Eysenck & Gudjonsson, 1989), and the role that personality and stress play in the lives of people who smoke cigarettes (Eysenck, 1991). Like Cattell, Jensen, and others, Eysenck was very much caught up in the controversy over racial differences in intelligence testing (see, e.g., Eysenck, 1973a,b, 1995; Eysenck & Kamin, 1981; Pearson, 1991). Eysenck, however, offered something for the average person, two books on how to measure your own I.Q. (Eysenck, 1962, 1966). Late in his career, Eysenck offered an interesting reflection on his decision to focus most of his career on differences between people, as opposed to the uniqueness of each person:

Gordon Allport and I did not always see eye to eye on theoretical matters. I remember very well him telling me that he thought every psychologist should write his autobiography at the end of his life, to see the unities that emerged in his conduct over a lengthy period of time. This idiographic point of view contrasted very much with my own nomothetic one, and at the time I paid little attention to it. Now, half a life-time later, I can see what he was driving at, and can also see the possible importance of such consistencies of behaviour in one’s own life. (pg. 375; Eysenck, 1986)

discussion question \(\PageIndex{2}\))

Eysenck wrote two books that challenged the field of psychology: *Uses and Abuses of Psychology* and *Sense and Nonsense* in Psychology. What advantages do you think it has for the field when someone of Eysenck’s stature questions the scientific validity of certain areas of study or certain procedures?