Systematic Review of Personality Taxonomies in Natural Languages through Diverse Samples and Methodologies

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Present study focuses on identified personality dimensions in natural languages/cultures across the different samples and methodologies. It is attempted to review and discuss findings from various studies. Fundamental approach of personality taxonomy assumes that all individual differences are to be studied from natural language context. Historical review from personality psychology suggests that Cattell (1943) took the initiative to provide scientific taxonomy of personality from Allport and Odbert's (1936) contribution. Then, other researchers came forward and studied the structure of personality from various languages such as English, Dutch, Hindi, Japanese, Chinese, German, Maa and Supira (African cultures), Vietnam, Greek, French, Filipino, Polish, and Spanish. Big Five factors as Surgency, Agreeableness, Conscientiousness, Emotional Stability, and Intellect are taxonomized in most of the studies from pool of personality descriptors/ adjectives using by diverse data sets and methodologies. Although, studies have also focus on culture specific factors. Therefore, number of factors and nature vary across the many demographic measures. Costa and McCrae's (1985) Five Factor Model is considered more comprehensive which is emerged through questionnaire method. These five factors are Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness (N, E, O, A, C). Studies reveal the only extraction of first three factors and remaining two are not confirmed in many cultures. Triguna (Rajas, Tamas, and Satavic) and Tridosha (Vata, Pitta, and Kapha) models are also studied from Indian literature. Hence, present study discussed and summarized the taxonomies of personality which are reported in vast literature review.

Keywords: Lexical Method, Personality Taxonomy, Natural Language

Assessment and classification of personality traits was emerged in late 19th century with the contribution of Sir Francis Galton (1884). He emphasized that "the character which shapes our conduct is a definite and durable 'something', and therefore……………it is reasonable to attempt to measure it" (p.179). Moreover, he also advocated that individual differences are encoded in natural languages. Same idea was used in the beginning of 20th century by some personality psychologists such as Klages (1926), Baumgarten (1933), and Allport and Odbert (1936). Initial taxonomy was provided by Allport and Odbert (1936) which included almost 18,000 personality adjectives and classified in four categories. However, the comprehensive list was considered too overwhelming for research purposes and description of an individual.

Therefore, only category of personality traits, a subset of 4,500 terms was factored by Cattell (1943, 1945a, 1945b) and extracted 16 primary personality traits which became very popular.

Scientific Orientation towards Personality Taxonomy

After scientific efforts of Cattell, many personality psychologists came forward and started to explore suitable and rigorous taxonomies of personality in different natural languages across the cultures and nations. Most of the studies based on adjectives or questionnaires support the emergence of broad five dimensions. Although, findings from various studies vary because of cultural influences, number of descriptors used and methodologies. Hence, present study is endeavored to systematically review and discuss

various studies which are conducted in different languages.

Cattell's effort was extended by other researchers, they used relatively short list of adjectives and discovered the broad five dimensions of personality. Fiske (1949) took 22 variables of 36 (used by Cattell) and identified five factors from different data sets (self-ratings, peer ratings, ratings by psychological staff members). Same set of variables was used by Tupes and Christal (1961) on eight diverse samples and found the same structure of personality factors. These five factors are characterized in terms of Extraversion or Surgency, Agreeableness, Conscientiousness, Emotional Stability and Intellect or Openness. Independent set of personality descriptors (475) was studied by Goldberg (1990) in one study, in which 131 set of "tight synonym" were rated by participants (self and peer ratings). Results confirmed the five broad factors. In his second study, 435 trait adjectives were used to confirm similar structure of personality taxonomy. In this line, Goldberg (1990, 1992) conducted a series of studies to retain the robust list of TDA (Trait Descriptive Adjectives) in English language which assessed the five factors and included 10 bipolar adjective scales. Trapnell and Wiggins (1990) completed 20 years program to develop set of adjectives in view of interpersonal circumflex. They identified additional two broad dimensions i.e. Dominance and Nurturance which correlated with Extroversion and Agreeableness respectively.

Personality taxonomy is studied in Dutch language under one project by Raad and his colleagues (1988, 1998). They compared the structural relationship of Dutch language based factors with English language based factors by selecting the different samples. Findings from different analyses, revealed the replication of five factors similar to English Big Five. Although, factor fifth focused on unconventionality and rebelliousness instead of intellect and imagination. Another project in personality lexicon was conducted in German language which was more comprehensive and became the taxonomic efforts in other languages as well (Ostendorf and John, 1990). Researchers encouraged themselves to explore the diverse influences on personality taxonomies.

Big Five Factor: A Comprehensive Model

In 1976, Costa and McCrae extended the work of Cattellian model after doing the cluster analyses of 16 PF and identified three broad factors i.e. Neuroticism, Extraversion, and Openness to Experience. They also indexed these three factors in NEO Personality Questionnaire (1985). Costa and McCrae found that their three factors had resemble with three of Big Five factors (extraverted through adjectives) but remaining two i.e. Agreeableness and Conscientiousness were not included the trait system as well. Therefore, they revised the NEO Personality Inventory after adding the six factors for each of the factors which are indexed in 240 item NEO Personality Inventory (1992). NEO-PI-R is considered lengthy (preferably useful for diagnosis as compare to research purpose), hence, short version is also developed which included 60 items (NEO-FFI, Costa and McCrae, 1992). The FFM is adapted/translated across the almost 30 countries in 50 languages and most of the studies provide the emergence of first three factors strongly and remaining two slightly poor.

Personality Taxonomies in Recent Studies

Recently, personality taxonomies have been identified in various languages. Inavova and colleagues in 2021, nine to one factor solutions ware carried out on 627 personality terms selected from Lithuanian language. They found the HEXACO model is more fit rather Big Five. Iwai and colleagues (2020) concluded a research in Japanese language and developed two sub-dictionaries which are considered reliable and valid instrument to assess personality structure.

In East and West African cultures, different factor structures were obtained with regard to different cultural setup. From one sample, five factor solution was explained in terms of Virtue/Moral-Character, Debilitation/Vulnerability, Boldness/Surgency, Hubris/Pride, and Timidity. Data from another sample was subjected for ten factor solution and only two factors were remained unchanged. From the same country, another study supported the six factor structure, which are based on implicit approach applied in 11 cultural languages (Meiring et. al., 2017). These six factors are indexed in terms of Social-

Relational Positive, Social-Relational Negative, Neuroticism, Extraversion, Conscientiousness, and Openness to Experience.

In Chinese language, seven factors were found which were most suitable, initially, study was started with 3,159 personality related terms identified from 65,000 entries (Zhou et al., 2009). Seven factorial structure was emerged as Extraversion, Conscientiousness/Diligence, Unselfishness, Negative Valence, Emotional Volatility, Intellect/Positive Valence, and Dependency/Fragility. In 2015, Zhu and associates identified the personality taxonomy from famous Chinese novel named "A Dream of Red Mansions". Finally, 493 personality terms were used and accounted for different factor solutions. They claimed that five factor solution was suited. These five factors are Wicked, Intelligent, Amiable, Conscientious and Frank. Pool of Chinese personality terms was also translated in English language and satisfactory Cronbach alpha coefficients were obtained in samples of men and women.

Data from Vietnam culture revealed the contradictory findings, only One, Two and Three factor solutions were showed the replicability with more comprehensive factorial structure (Mai, 2014). Remaining factors were found culture specific. Savcier (2009) reviewed the results from seven languages (English, Chinese, Filipino, Greek, Hebrew, Spanish and Turkish) and found the culture specific factors when compared with Big Five. Taxonomy from Greek culture was studied by Savicier and colleagues (2005) initially considering the pool of 1,50,000 words from dictionary and from different samples, they extracted that six factors which are Negative-Valence/Honesty, Agreeableness/Positive Affect, Power/Heroism, Introversion/Melancholia, Even Temper, and Conscientiousness.

Six factor solution was found adequate in French language of 338 adjectives and also 12-18 terms loaded on each of the factor (Boies et al., 2001). Six factors are named as Extraversion, Agreeableness, Conscientiousness, Emotional Stability, Imagination/Intellect, and Honesty. Structure of personality is investigated in Filipino language to compare with Big Five and Big Seven, results supported the convergence of Filipian seven factors only with Big Five, two additional factors were culture specific and moderately correlated with Neuroticism (Church et al., 1998). Blas and Forzi (1998) studied the personality taxonomy in Italian culture on data sets of self and other ratings and also compared with Big Five. Findings supported that only four factors match across all data sets. Replication of Big Five model was confirmed in Polish culture, 4900 personality terms were identified from Concise Polish Dictionary and of which 290 adjectives finalized for data collection.

Personality Structure in Indian Tradition

Researcher have also studied personality structure in Indian context by taking different ancient texts and dictionaries which explain the Indian ideologies and philosophies. Srivastava and Singh (2020) reviewed the personality from Ayurvedic perspective and mentioned three desires i.e. Pranaisana, Dhanaisana and Parlokaisana which means ideal health, wealth in all areas, and happiness respectively. Quantitatively personality structure was studied by Singh and colleagues (2013) from Hindi language lexicon. They identified personality terms from five famous novels such as Nadi Ke Dweep, Ve Din, Maila Anchal, Godan, and Chaak. Another pool of personality was selected from the surveys. From different data sets (self and peer ratings) six factorial structure was found suitable of which first three are named as Rajsic, Tamsic, and Satvic, last three are remained unnamed. Existing taxonomy found somewhat different in view of Western taxonomies.

In 2017 (Singh and Raad) compared the Indian Triguna model of personality with Big Five Model, they used 35 Hindi personality terms of 2,750 pool of terms. Markers of Triguna shared variance with Big Five. Researchers also tried to infer personality characteristics from "Shrimad Bhagwad Gita-A Indian Holy Book" through quantitative way (Das & Chanda, 2017; Srivastava, 2016; Wolf, 1999). Shilpa and Murthy (2011) studied the personality in view of three doshas (three faulty system of body) i.e. Vata, Pitta, and Kapha which are explained in Indian Ayurveda System.

Conclusion

Debate regarding number of personality factors or inclusive taxonomy is still alive. Although various studies have been conducted in many language contexts. Findings reveal the emergence of some similar dimensions across the diversity. Extroversion, Neuroticism, and Openness to Experience/Intellect are found in almost every culture. This means universality of Big Five Model may not be accepted particularly in those studies where emic traits (culture specific behaviors) are not considered to be a part of study. Bock (2000) opined much within-culture variability.

Moreover, entire selection of Allport and Odbert's list (1936) was not included. Only one category was used to become the taxonomy of personality. Evaluative terms such as mood related behaviors were excluded. Thus, recently, researchers have started to pay attention on etic and emic both approaches to investigate the personality structure. In present research, summary of previous studies may helpful to provide new directions in the domain of personality description and assessment.

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