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IMPACT OF GEOGRAPHICAL FACTORS ON HUMAN PERSONALITY AND BEHAVIOUR

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ABSTRACT

It has long been assumed that the geographical surroundings in which people reside has an impact on how people live, from the resources they have access to, to how they move through the world. Researches in past decades show that the neighbourhoods, cities and states in which people live are associated with different psychological outcomes. The psychological characteristics, including personality traits and behaviour are seen as large outcomes. Specifically there is a growing evidence that personality traits are geographically clustered in particular areas and the prevalence of certain traits is related to a number of consequential outcomes. Personality traits are assumed to be distributed geographically since ancient times. Geographical analyses of personality, effectively connects the historical, economic, political and social factors to psychological phenomena. Thus, a geographical perspective connects with the understanding of the thoughts, feelings and behaviours of individuals to the histories, values and actions of the populations. Expanding the focus of psychology on individuals and environments by promoting a broad conceptualization of the environment based on multiple levels of geographical analysis, becomes important. Researches are now getting focussed on spatial topography of personality traits, the mechanisms that shape and maintain their spatial

arrangement and how the spatial arrangement of traits relate to macrolevel phenomena. Since personality is both, described and derived in many ways, so, considering personality as an outcome of geographical impact needs a careful analysis. Three basic aspects are important in describing an individuals personality – motives, self-view and world-view. Collective personality is a complex phenomenon to describe and can be handled well, statistically. Links between location of residents and their personality characteristics that lead to different social behaviours or cluster in certain areas, is a growing research area. Every location is supposed to house psychologically diverse residents. The psychological characteristics common in particular area, are respectively linked to important political, economic and health indicators. The psychological characteristics of individuals interact with features of the local environment to impact personality and well- being. Thus, studying the impact of person- environment association reveal much valuable information about the thinking, feeling and behavior of individuals based on geographical variations.

Key words : Geographical, Personality, Spatial, Topography, Location, Cluster

Geographical factors, as location, climate and culture, have the potential to influence human behavior and psychological processes. Researchers seek to understand, how the environment interacts with individual and collective, psychological well- being, shaping various aspects of cognition, emotion and social behavior. The connection between geographical factors and mental aspects, personality and behavior of humans, needs to be explored. Why the personality traits, life satisfaction and social behavior exhibit variations or tend to cluster in specific geographical areas, needs investigation. This may lead to understand the intricate interplay between location and human psychology. It has been observed that geographical location exert a profound influence on human behavior through a complex interplay of environmental, cultural and socio-economic factors. Thy physical characteristic of a location, such as, climate, terrain and natural resources, shape human activities and lifestyle choices. Cultural norms and social practices prevalent in specific regions impact human behaviour, influencing social interactions, communications styles and value systems. Ultimately, geographical locations serve as a background that moulds and guide human behavior. This reflects the intricate relationship between individuals and their surroundings. A compelling link found between geographical

location and individual personality traits is indicative of the fact that where you live can shape, who you are. Studying the intricate relationship between the surroundings and psychological makeup of individuals reveals insights into human mind and consequent behaviour. The geographical variations, as, regions, states, countries, cultures and localities, influence the personality, behavior, attitude and mental health or well being of individuals. Analysing these geographical variations, leads to the mapping of spatial organization of psychological phenomena and to understand the mechanisms behind their arrangement. Different geographic locations possess unique social, political, economic and climatic features that can mould individual's characteristics, physical attributes and social identities. Thus, the environment in which humans reside, plays a vital role in shaping their mindset and behavior. The personality traits of individuals also vary across different regions. Geographical locations are not the sole determinant of personality, rather there exists a complex interplay between genetic factors, environmental influences, and geographical aspects. Roughly half of an individual's behavioral makeup is attributed to genetics, while the other half is influenced by external factors, including geographical surroundings.

The geographical surroundings goes a long way towards determining how people express their personality traits through behavior. Understanding how different geographical factors shape people's personalities is key to help people live better and happier lives. The spatial organization of psychological phenomena is an emerging area of research which focuses on how the individual characteristics, social entities and physical features of the environment contribute to the organization of psychological phenomena. Multiple level analysis indicates that social influence, ecological influence and selective migration are key mechanisms that contribute to the spatial clustering of psychological characteristics. *Social influence* is related to traditions, customs, lifestyles and daily practices in a locality that can directly put an impact on societal norms. These societal aspects can affect people's attitudes and behaviors. *Ecological influence*, is related to the features of physical environment that affects people's thoughts, feelings and behaviors. Soil, water supply, climate, terrain, plants and animals and infrastructure are physical aspects which come together to influence the personalities of people. *Selective migration* occurs when people carefully choose where to move to. They might consider many factors. such as,

climate, friends and family, jobs and their security, when making such decision. Thus, lives are lived out in neighbourhoods, cities and states and the physical and social features of these places can affect the behaviors, thoughts and emotions experienced. (Rentfrow, 2013). Researches are getting oriented in understanding the psychological phenomena based on their spatial distribution and their interactions with macro- level features of the environment (Rentfrow, 2013; Rentfrow and Jokela, 2016).It has long been believed that personality traits vary by geographical locations. (Berry et.al, 2000). Where one lives, reveals what one is like. Such belief refer partly to stereotypes of national character (Peabody, 1999) and may reflect ethnic or cultural judgements. Partly such belief refer to broader geographical trends. Studies show that, emotionality, a psychological trait is widely held to be more strongly expresssed in the South than in the North, both, within cultures (Pennebaker, et. al, 1996) and across culture(Linssen & Hagendoorn, 1994). The differences between Eastern and Western psychological aspects are well documented (Markus & Kitayama, 1991). Western people are often perceived as being more outgoing, independent and competitive (Zhang, et.al, 1999).

Perceived personality differences are not found to be veridical because on an average such perceptions are thought to be based on stereotypes which are common across a wide range of countries. Personality similarities seen among people in close geographical proximity, if they exist, might have several reasons. Shared culture, shared genes and shared physical environment are all reasonable causes. People of a given culture also tend to constitute a single gene pool and they share many features linked to physical environment, as, climate, food and diet. Cultures having geographical proximity (as China and Korea) also often share both genetic ancestory (Cavalli- Sforza, et. al, 1994) and, through cultural borrowing, customs and beliefs that might influence their personality development. Research suggests that uneven geographical distributions impact mental health, happiness, attitudes and identity of individuals.

It has been observed that people tend to congregate in environments that best suit their personality. Introverts may seek home in the woods or mountains while, extroverts may move to big cities. Pollution, an environmental factor, was found to be linked with criminal behavior which is likely to be higher in urban areas (Lu, et. al., 2018). Neighbourhood factors play an important role in the rates of smoking and drinking (Moon, 2009). It has been observed that the

residing area of people has an effect on their health and well being. Rural health was found to be strongly influenced by geographical locations and topography (Reid, 2019). In this regard, poor access to health care systems is a noticeable factor. Rentfrow, et. al (2013) studied a large population in USA and found that similar psychological profiles among individuals tend to cluster geographically. It is difficult to know whether people with similar traits move towards each other, or once together, they develop these traits. Rentfrow, et. al., (2015) studied personality variations in Great Britain, using the Big Five Factor Trait Model- extroversion, agreeableness, conscientiousness, neuroticism and openness. They found that agreeableness was higher in parts of Scotland, the North, South West and East of England. Extraversion was concentrated in London, South and South East England, Yorkshire, Manchester and pockets of Scotland. High levels of conscientiousness were found in south of England, Midlands and parts of Highlands in Scotland. There was clustering of neuroticism in Wales and parts of Midlands. Rentfrow, et. al(2009) found that in USA, residents of states with high levels of well being were wealthier, better educated, more tolerant and emotionally stable in comparison to states with low levels of well being. The cause and effects needs further detailed exploration.

When cultures are divided as individualistic and collectivist, behaviors change in response to cultural expectations. Rates of bribes was found to be higher in collectivist culture (Mazar & Aggarwal, 2011). Cultures are also differentiated into tight and loose. Tight cultures are more likely to be autocratic and have stricter laws. Cultural tightness is negatively correlated with happiness (Harrington & Gelfand, 2014). Similar findings have been reported from China (Chua, et.al. 2019). Different geographical locations can impact mental health in various ways. Urban areas with pollution and noise can contribute to elevated stress levels and attention issues, while rural and remote regions may face challenges of social isolation. It has been observed that selective migration, where individuals or groups move to specific locations based on personal characteristics or preferences, can shape the composition of populations within certain areas and influence psychological patterns and well being. The ecological features of a location, as, climate and natural resources, can also impact mental health outcomes. Moreover, the social context of a geographical location, extreme weather conditions and homesickness are other factors that can affect mental health in different geographic locations. Regions with limited

social support network, may experience higher rates of loneliness and depression. Areas with economic challenges can impact job satisfaction and lead to conditions like chronic stress and burnout. Research on cultural differences across nations has shown that geographical clustering can have a significant impact on the development of psychological processes (Smith, et. al., 2006). Research incorporating the impact of geographical factors on human personality and behavior, resulted in uncovering many crucial correlates of personality traits (Schmitt, et. al. 2007), cultural values (Schwartz, 2008), and subjective well being (Diener, et. al, 1995) across nations. In the backdrop of studies looking at the spatial distribution of psychological phenomena at different levels of geographical analysis, the influence of geographical perspective in understanding how psychological processes interact with macro environmental characteristics got highlighted (Rentfrow, 2013; Rentfrow et. al, 2015; Rentfrow and Jokela, 2016)

Causes of Geographical Differences in Psychological Phenomena

The causes and the processes by which the psychological characteristics of humans become spatially clustered have been explained by three mechanisms- selective migration, ecological influence, social influence.

During selective migration, people migrate to satisfy and reinforce their basic psychological needs (Rentfrow, 2010). Hence, despite having new residents who came from places with different personalities, the geographical distribution of personality remains consistent because of genetic drift and reinforcement by the personalities of immigrants who identify themselves with their place of residence (Hofstede and McCrae, 2004; Rentfrow, et. al, 2015)

Ecological influence is concerned with the impact of natural and built environments on human psychological processes and behaviors (Oishi and Graham, 2010, Oishi, 2014; Rentfrow and Jokela, 2016). The ecological perspective is important in explaining causes of psychological differences. It has been observed that people in areas with higher prevalence of infectious diseases, adapt collectivist coping strategies, such as, in group assortative sociality, out-group avoidance, and less dispersal or over shorter distances to manage external environmental threats (Fincher & Thornhill, 2008). Thus, the prevalence of infectious diseases was found to be positively correlated with collectivism in the environment. Temperature is a crucial

environmental factor that is associated with individuals' habitual behavioural patterns. Several models have been proposed to understand aggression and climate differences. A model, CLASH (Climate, Aggression, and Self control In Humans), has been proposed in this direction to explain differences within and between countries in aggression and violence in terms of differences in climate (Van Lange, et. al., 2017). The model specifies that lower temperatures and especially larger degrees of seasonal variation in climate, make individuals and groups to adopt a slower life, a greater focus on future vs present and a stronger focus on self control. Such regional temperature induced difference in individuals and collective activities may also impact fundamental dimensions of personality in general. A recent study based on large data from China and United States, revealed that individuals who grew up in regions with more clement temperatures scored higher on personality factors related to socialization and stability (agreeableness, conscientiousness and emotional stability) and personal growth and plasticity (extraversion and openness to experience) as compared to individuals who grew up in regions with less clement temperatures (Wei, et. al. 2017). Climato–economic explanations of culture propose that, inhabitants in poorer resource environment with more demanding winters or summers, become more collectivist, because they adopt risk avoidance strategy and make security their priority. Thus they control harsh environmental challenges through collectivist control and seclusion. It has been reported that greater environmental threats and a greater scarcity of resources, promote cultural tightness (Triandis, 2018). Geographic differences in the strength of collectivist orientations at the provincial level have been explained by the interactive impact of climato-economic hardships within China (Van de Vliert, et. al., 2013). Air pollution may impact criminal activity and unethical behavior. An analysis of a nine year panel of 9,366 cities in United States , found that air pollution predicted six major categories of crime (Lu, et.al., 2018). A national survey of a balanced panel of 25,486 individual respondents over the age of 10 in 2010 and 2014, revealed that exposure to air pollution impedes cognitive performance. (Zhang, et. al., 2018). Thus, air pollution may impair cognitive control and lead to higher levels of aggression. *Social influence* looks at how the thoughts and feelings of individuals are influenced by their behavior in environments in which they live (Rentfrow, et. al. 2008; Rentfrow and Jokela, 2016). The behaviours and attitudes of individuals are affected by social norms, shaped by the traditions, customs, lifestyles and common practices in the environment in

which they live (Rentfrow, 2010), thereby contributing to geographical differences in psychological phenomena.

Numerous studies have identified uneven geographical distribution in personality, individualism vs collectivism, cultural tightness vs looseness, subjective well being and other psychological phenomena, across nations and across regions within nations. Geographical differences in personality is a widely studied phenomenon. All studies conducted from this perspective are unanimously indicative of significant personality differences across various nations and regions or states, within nations. Currently, geographical differences in personality, individualism vs collectivism and cultural tightness vs looseness are found to be strongly associated with the macro level geographic indicators.

Conclusion

The impact of geographic factos, such as, regions, countries, states, cultures and localities on the personality and behavior of humans, is widely confirmed in numerous researches. Analysing such variations leads to mapping of spatial organization of psychological phenomena and understand the mechanism behind their arrangement. A compelling link between geographical location and individual personality traits has been uncovered by different researches. Such researches could explore the intricate relationship between our surroundings and our psychological makeup, revealing intriguing insights into human mind. Different geographic locations possess unique social, political, economic and climatic features that can mould individuals' personality characteristics, physical attributes and social identities. A fresh perspective on understanding ourselves and the world around us comes forward by researches done in this area. A clear understanding is achieved about how our personalities, human virtues, happiness, well being, political ideologies and personal concerns are shaped by our surrounding. This knowledge provide valuable insights into the diverse ways in which our surroundings influence, who we are. Thus, from the bustling urban environment to the serene rural landscapes, the environment in which we reside, plays a vital role in shaping our mindset and behaviour.

Implications, Limitations and Future Directions

The implications of studying geographical impact on psychological phenomena, extend beyond individual understanding, as they offer a new lens through which we can explore cultural differences and similarities. By examining personality traits across borders, researches can unveil the intricate tapestry of human behaviour, shedding light on how geographical factors contribute to these differences.

Researches summarized in this area put forth a noticeable point that, the constructs utilized to study group differences at the national and regional levels, were originally developed to describe individual differences, as, Big-Five personality traits. Thus, attributes that can differentiate individuals, may not be the best ones to capture differences at a group level. Similarly national characteristics may not be meaningful individual- difference constructs. Therefore, the group differences revealed in geographical analysis, need a cautious interpretation. Moreover, it is essential to note that research findings do not apply universally and that individual differences persist within each geographic location.

There is much room for development of geographical analysis in psychology. Multi- level analysis, identifying causality at macro level and incorporating big-data techniques deeper, are the most promising directions for future research in this area. Developing constructs and measurement scales that are according to group-difference research at different levels to link features and dimensions of macro-environments, is much needed. Multi- levels of geographical analysis not only provide novel findings, they may also introduce novel insights to theorizing and research in psychological science.

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