NATURE CONNECTEDNESS ITS LONG LASTING EFFECT ON MENTAL WELL-BEING AND PRO ENVIRONMENTAL BEHAVIOUR

"Nature never did betray, the heart that loved her “ William Wordsworth

Abstract: The study is design to assess the impact of Nature connectedness and its effect on mental well-being and pro Environmental Behaviour. Nature connectedness is defined as the extent to which individual include nature as part of their identity, it includes an understanding of nature and everything it is made up of. This study reveals how nature connectedness impacts our well-being by promoting mindfulness and fostering feeling of gratitude which ultimately makes them to practise pro-environmental behaviour.

Keywords: NATURE-CONNECTEDNESS, WELL-BEING, MINFULNESS, PRO-ENVIRONMENTAL BEHAVIOUR.

INTRODUCTION

O.E Wilson’s biophilia hypothesis suggest that people’s psychological health is associated with their relationship to nature. Nature connectedness is the extent to which an individual includes nature as part of their identity; it includes an understanding of nature and everything it’s made up of. Characteristics of nature connectedness is similar to those of a personality trait nature connectedness is stable over time and across various situation. Schultz describes three component that make up nature of connectedness a construct cognitive,affective and behaviour component , these 3 components make up nature connectedness and are required for a healthy relationship with nature so they may be more inclined to care about nature and protect the environment. Research has found that nature at a trait level, provide many benefits such as well-being another way to define nature connectedness in simpler manner as love of nature also referred to as love of nature also referred to as emotional affinity towards nature. Evolutionary psychology more generally suggest that modern environments are not optimally suited to minds that evolved in more natural environments (Barlow et al., 1992; Buss 2000.) The gap in nature exposure between our early evolutionary environments and modern life is clear, and appears to be growing. For instance, children are spending less time playing in natural environments compared to previous generations (Clements, 2004; Louv, 2005; England Marketing, 2009). It can be defined as how much a person believes they are the same as nature (more specifically a person’s connectivity with nature) or it can be thought of as simply feeling emotionally invested in nature even though humans derive many benefits from nature, our modern lifestyle have created a disconnection from natural environment where we spend significantly more time indoor. Some researchers estimate that humans spend up to 90% of their lives indoor. This disconnection from nature as a result, we are less responsibility to protect this environment.

Biophilia hypothesis suggest the same – it is human’s innate need to affiliate with other life such as plants and animals. This essentially means that humans have a desire to be near nature. This inbuilt desire may be the result of spending the majority of our evolutionary history closely connected to nature. Biophilia is genetic through connection to nature throughout history would have had access to food and fresh water. The construct of nature connectedness is also related to a branch of psychology called Ecopsychology. There is direct relationship between nature connectedness on well-being as it is related to subjective well-being and other indicators of positive functioning such as solving a problem in one’s life subjective well-being is defined as feeling pleasant emotions or having pleasant experience to assess well-being, participants complete measure of how they feel positive emotions and how they are satisfied with their lives. This means that individual who are highly connected to nature also restore higher psychological well-being (i.e. greater acceptance of self and social well-being socially integrated, emotional well-being. Nature connectedness also foster psychological restoration nature has the potential to generate fascination to people it is able to captivate so that the demand for involuntary attention of the person is lowered and restoration can be performed which includes feeling of being away as an escape from a certain environment or situation, extension, referring to the connection properties beyond personality traits, a greater connection to nature is also associated with more pro-environmental behaviour and attitude, a greater willingness to engage in sustainable actions and increased concern about the negative impact of human behaviour on the environment (Mayer and Frantz, 2004; Leary et al., 2008; Nesbit et al., 2009; Tam, 2013a)

KAPLAN suggested that Motivating ecological behaviour by increasing the connection to the natural environment may be more effective than establishing laws and rules that people have to follow. Although nature relatedness is a stable individual trait, it can change based on ones exposure to nature spending time in nature and feeling connectedness to nature can motivate environmentally friendly behaviour. Individual higher in nature connectedness tend to be more Extraverted, agreeable and open (Nesbit et al., 2009, Tam, 2013a) Exposure to nature can have humanizing effects fostering greater authenticity and connectedness and in turn other versus self-orientations that enhances valuing of and generosity towards others.

(STEPHEN JAY 2000) suggests that we cannot win this battle to save species and environmental bond between ourselves and nature as well for we will not fight to save what we do not love. Trait of nature connectedness is related to perspective taking,
biospheres attitude, environmentalism, concern for nature and mindfulness. On a broader scale, for the first time in human history more of the world’s population live in urban instead of rural areas (United Nations population division 2002). This physical disconnection from the environments in which we evolved might have a detrimental effect on our emotional well being as exposure to nature is associated with increased happiness (Berman et. al , 2008; 2012;ayers et al., 2009; Nesbit and Zelenski, 2011; Mackerron and Mourato, 2013; White et al., 2013).

DESIGN - an online Google forms were created to collect the data on the three scales and offline survey was also conducted using convenience sampling method measuring Nature connectedness score, well-being score and another score assessing pro environmental behaviour.

Hypothesis - nature connectedness, leads to better well-being and which ultimately leads to fostering of pro environmental behaviour.

Participant- 200 respondent 100 male and 100 female respondents took part in the study age range between 20-30

TOOLS –
- NATURE CONNECTEDNESS SCALE
- Psychological well-being scale
- General ecological behaviour instrument

Procedure-
100 male and 100 females respondents were randomly selected for the research study whose age ranged between 20-30 , three validated scales were used for the study the first scale was CONNECTEDNESS TO NATURE SCALE developed by MAYER F.S and FRANTZ C.M (2004).its internal validity is high (0.84) and its test retest reliability r=0.79. second scale used was RYFFS PSYCHOLOGICAL WELL-BEING SCALE (18 items ) which covers 6 domains of well-being which are the autonomy subscale, the environmental mastery subscale items, the personal growth subscale, the positive relation subscale and the purpose in life subscale’s items. The scales whose internal consistency ranges from .88 to .81 suggesting that responses to the questionnaire remain fairly consistent over time. The third scale used was ecological behaviour scale, which is 32 items scale with high internal consistency and high test–retest reliability. These scales were administered to respondents in a lab setting.

RESULTS
The result of this study suggests that there is high positive correlation between CNC score and well-being, the CNC score is also positively correlated to PRO-environmental behaviour score. The correlation coefficient for CNC score and well-being came out to be 0.698 which is significant at 0.01 level of significance, the correlation coefficient for CNC score and pro-environmental behaviour also came r=0.734 which is also significant at 0.01 level of significance. The regression analysis result indicated that the CNC score is good predictor of pro-environmental behaviour and well-being as well the result of the following study are summarized below in the form of table and graph and scatter plot. These results clearly indicate that high CNC score can prove to be a valid predictor of one’s pro environmental behaviour in simple words connectedness to nature makes a person feel responsible for protection of nature and thus indulges in activities that doesn’t hurts environment. Well-being is another dimension and the results clearly suggest that the more a person is connected to nature the more he or she is at ease with himself/herself. As we already know nature promotes physical and mental well-being, these results are indicating the same so here we can clearly reject our null hypothesis and accept our alternative hypothesis that connectedness to nature promotes well-being and fosters pro-environmental behaviour in individuals.

Tables 1a showing correlation coefficient between CNC score and Well-being

<table>
<thead>
<tr>
<th>Correlations</th>
<th>CNC SCORE</th>
<th>WELL-BEING SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.698**</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>100</td>
</tr>
<tr>
<td>WELL-BEING SCORE</td>
<td>Pearson Correlation</td>
<td>.698**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>100</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Table 1b showing correlation between CNC score and pro-environmental behaviour

### Correlations

<table>
<thead>
<tr>
<th></th>
<th>CNC SCORE</th>
<th>PRO-ENVIRONMENTAL BEHAVIOUR SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNC SCORE</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>100</td>
</tr>
<tr>
<td>PRO-ENVIRONMENTAL BEHAVIOUR SCORE</td>
<td>Pearson Correlation</td>
<td>.734***</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>100</td>
</tr>
</tbody>
</table>

*** Correlation is significant at the 0.01 level (2-tailed).

Table 2 showing regression analysis report

### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.698*</td>
<td>.487</td>
<td>.482</td>
<td>18.026</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CNC SCORE

Graphs showing scatter-plot for high CNC score as predictor of high level of well-being and high level of pro-environmental behaviour.
Discussion

The study is design to assess the impact of Nature connectedness and its effect on mental well being and pro Environmental Behaviour. Nature connectedness is defined as the extent to which individual include nature as part of their identity, it includes an understanding of nature and everything it is made up of. This study reveals how nature connectedness impacts our well-being by promoting mindfulness and fostering feeling of gratitude which ultimately makes them to practise pro-environmental behaviour. Our study was designed to measure the long lasting effect of nature-connectedness. As biophilia hypothesis suggest that humans have an innate tendency to affiliate with other life such as plants and animals. This essentially means human have a desire to be near nature as nature has several beneficial implications for human be it in the form of helping restore our physical health by using herbs and plants for medicinal purpose or psychological

Well-being contact with nature serve as an adaptive function namely psychological restoration. Nature has potential to generate fascination to people, its able to captivate so that the demand for involuntary attention of the demand is lowered and the restoration can be performed. Exposure to nature can have humanizing effects fostering greater authenticity and connectedness. Motivating ecological behaviour by increasing the connection to the natural environment may be effective than establishing laws and rules that people have to follow. There are antecedents in the literature that have identified several benefits of connectedness to nature, including well-being (Mayer and Frantz, 2004; Nisbet and Zelenski, 2013; Zylstra et al., 2014; Olivos and Clayton, 2017), health (Nisbet and Zelenski, 2013), happiness (Nisbet and Zelenski, 2013; Zylstra et al., 2014), and a satisfying and meaningful life (Zylstra et al., 2014). Furthermore, Olivos and Clayton (2017) remark that connections with the natural environment can also have an indirect effect on well-being through pro-environmental behaviour; on this matter, several studies expound that behaviors with a low environmental impact are related to happiness or satisfaction. Several investigations reveal significant relationships between connectedness to nature and pro-ecological behaviours among the adult population (Olivos et al., 2013; Geng et al., 2015; Bruni et al., 2017). On the other hand, some researchers suggest that connectedness to nature is also related to pro-social behaviours. Garcia et al. (2016) explain that people with a strong sense of connectedness to nature carry out a greater number of pro-ecological, frugal, fair, and altruistic behaviours, which altogether compose SB. Corral (2011) define SB as a series of actions aimed at the preservation of natural resources considering the integrity of plant and animal species, as well as the individual and social well-being of present and future generations. So the results of this study suggest that there is a strong positive correlation between nature connectedness and well-being. And there is strong positive correlation between the nature connectedness score and pro-environmental behaviour score, which indicate that the how much a person is connected to a nature will predict their pro-environmental behaviour. Therefore government should encourage such programme which promotes conservation and help them to revile their bond with the nature as its very common thing with human that they can go beyond limits only for those things that they love. Limitations of this study is that the A common aspect of co relational studies is that the direction of effect and causality remains unclear. Furthermore, a lack of representativeness of the study population could have resulted in bias.

Conclusion-This review has shown that nature connectedness is associated with well-being and pro-environmental behaviour, the correlation came out to be significantly positive These results signal the important role NC may play in contributing to positive psychological functioning and highlight the possibility that different aspects of well-being may relate to nature-connectedness to varying extents. Multiple pathways—perhaps mediated by a range of emotions and elicited by different aspects of nature—may be involved in the relationship between nature connectedness, well-being and pro-environmental behaviour.

Reference-

5. Munoz, F.; Bogner, F.; Clement, P.; De Carvalho, G.S. Teachers’ conceptions of nature and environment in 16 countries. J. Environ. Psychol. 2009, 29, 407–413. [CrossRef]


