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Letter to the Editor

The Slant of the Forehead and Impulsiveness

La Inclinación de la Frente y la Impulsividad

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Dear Editor-in-Chief,

It certainly seems that there is a scientific consensus on impulsivity that suggests that it is a multidimensional psychological construct, particularly relevant in personality studies and in psychiatry. With these theories, various conceptualizations have emerged creating certain etiological controversy. In this sense, description of the personality has been a direct consequence of the historical context and available technology. It is therefore surprising that in the full scientific revolution on facial biometrics, there is scarce literature that objectively relates craniofacial structure to aspects of personality, specifically impulsivity. Thus, it is of interest to share these preliminary findings on the correlation between self-reported impulsivity and slant of the forehead craniofacial structure. Furthermore, to the best of our knowledge, there are only three scientific studies that positively relate the above. First, two anthropometric reference points were used to measure the angle of the backward slope of the forehead in the three studies to be mentioned: the trichion and the glabella (Farkas, 1994). A positive correlation was found with all three psychometric scores (Guerrero *et al*., 2016). In a second study (N=131) impulsivity was assessed using the Barratt Impulsiveness Scale (BIS-11), Impulsive Behavior Scale (UPPS-P) and Zuckerman Sensation Seeking Scale (SSS-V). The results showed a positive correlation in 14 of the 15 impulsivity factors analyzed (Guerrero-Apolo *et al*., 2018a).Finally, in a third study (N= 48) participants completed the BIS-11 test, and in addition the volume of the cerebral cortex was explored. The backward slant of the forehead also correlated positively with the three subscales of impulsivity and the total test score (Guerrero-Apolo *et al*., 2018b). In conclusion, based on the findings presented, it can be hypothesized that a higher backward slant of the forehead is associated with higher self-reported impulsivity scores in healthy adults. However, despite the evidence presented, it is important to note that the generalization of these results should be taken with caution, as the influence of genetic and environmental interactions on the analyzed impulsivity variable, which have not been controlled, must be taken into consideration. On the other hand, it should be noted that impulsivity is present in both clinical and healthy subjects (Patton, 1995) so we do not know the variability of backward forehead slant in the clinical subjects. This limitation could be of significant interest to investigate, as well as other craniofacial variables that may have influenced these results and have not been controlled. In summary, it is considered that an innovative area of research could be opened in the clinical setting and that, combined with current instruments could provide support in the prevention, assessment and intervention on the manifestation of this psychological construct both in clinical and healthy contexts.

Sincerely yours,

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