Morphological associations betwen the Angle classes

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ABSTRACT

The association between the Angle classification and craniofacial form has been analysed with the aid of multiple linear regression analysis in a sample of 170 children, before orthodontic treatment had started. It was found that part of the differences between Class II, Class I, and Class III was accounted for by systematical variation in a coherent set of midface and cranial base dimensions. These variations were in harmony with each other: the cranial base angle Ba-S-N closed and the legs S-N and S-Ba shortened systematically from Class II, over Class I, to Class III. The juvenile mandible notably was not systematically different. Because the cranial base provides the framework for the maxilla to be built upon, it is concluded that in juveniles the midface above anything else creates the characteristic difference between the three Angle classes, not the mandible. The Angle classification of malocclusion, therefore, represents three arbitrary markers on a morphological continuum.