attempt has been made to study the reorientation of particles in these specimens, either during shear or at failure. The parallel De seeks with his own experience with shear box tests (with constraints and complex stress configurations), where he has tried to study the shear discontinuities and the microstructural patterns (Foster and De, 1971), is thus not relevant to our study.

We are satisfied that a degree of parallel orientation exists in the different specimens and have tried to explain the observed macroscopic deformations and failure patterns observed in terms of the preferred orientation of particles within the specimens.

We are also well aware of the necessity of studying microstructure to explain the macroscopic behaviour of clays and interesting results have been obtained at the Indian Institute of Technology, Madras in this connection (Sankaran and Rao, 1973a, b).

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Some deviations from isotropy in a lightly over-consolidated clay

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Author's reply to R. Bhaskaran

Bhaskaran's interest in and contributions to the subject of anisotropy, as outlined in his discussion, are most welcome. Such efforts are providing background for investigation of the more complex problems of anisotropic response of natural soils.

In his discussion, Bhaskaran questions the necessity of doing isotropic reconsolidation tests on both vertical and horizontal specimens. Apart from the practical requirement of ascertaining that the observations are not being unduly influenced by end restraint, the behaviour of an orientated particulate material under radially symmetric stress conditions may well differ from that expected of an elastic cross-anisotropic material. If the specimen retains a right circular shape the radial and circumferential strains will, from continuity, be equal. The method of analyses adopted in the Paper was chosen because measured deviations from a right circular shape were not noted. The fabric of kaolin after one-dimensional consolidation appears to be composed of packets of preferentially aligned particles dispersed in a random matrix. The observed data appear to be consistent with the possible behaviour of such a system. It appears that this problem requires further experimental evaluation by combining the results of true triaxial tests with the standard triaxial ones, and by also correlating macroscopic and microscopic observations.