

time so favourable to the application of the relations of quantity, that the resulting sciences have all the certainty of abstract truths themselves. But when the knowledge we possess of objects is wholly sensible, and in no way commensurate, or only very imperfectly so, with their quantity, here it is that uncertainty begins; for though we may be able to trace the apparent *cause* and *effect* of a particular phenomenon; the most minute and careful observation and experiment, often give us but little insight into the connexion between the two, and generally fail us altogether. The origin of this failure is to be sought for, in the limited extent of our faculties; and particularly, in our complete ignorance of the nature of that mysterious communication, which we maintain with the external world, through the medium of sensation. In two of the senses indeed, *seeing* and *hearing*, we are able to trace the intermediate train of phenomena, between the external object producing the sensation, and the sensation itself, and even to form some idea of the remote cause of the sensation; but in the other two senses, *tasting* and *smelling*, the whole is involved in mystery from beginning to end.

Thus, when a bell is struck, philosophers have satisfactorily demonstrated that a vibratory motion, excited in the bell, and depending upon its elasticity, is communicated to the air in contact