In spite of the ongoing globalisation in many fields, the ethics of radiation protection has long been discussed almost exclusively in terms of “Western” moral philosophy concepts such as utilitarianism or deontology. A cross-cultural discourse in this field is only beginning. Beauchamp and Childress in their “Principles of Biomedical Ethics” have suggested that there exists a “common morality” which is “not relative to cultures or individuals, because it transcends both”. They propose four cross-culturally valid principles for decision making in medicine: respect for autonomy, non-maleficence, beneficence, and justice. A similar approach is being developed by the ICRP Task Group 94 on “Ethics of Radiological Protection”. Here, the core values are: human dignity, beneficence/non-maleficence, prudence and justice. Other values could be added, such as consideration for the interests of society as a whole or the interests of future generations, or procedural values such as transparency and accountability; there will be a brief discussion on how they relate to the basic four. The main question to be addressed here, however, is whether the proposed core values are indeed part of a “common morality”. This, it will be argued, cannot be decided by a global opinion poll, but has to be based on an analysis of the written and oral traditions which have provided ethical orientation throughout history and are still considered seminal by a majority of people. It turns out that there are indeed many commonalities across cultures and the concept of globally shared core values for the radiological protection system is not hopelessly idealistic.