Alpha-beta T cell antigen receptors (abTCRs) recognise peptides, lipids and small molecule metabolites presented by MHC, CD1 and MR1 molecules, respectively. While there is considerable variation in the modes of recognition of abTCRs towards their Ag presenting molecules, they nevertheless invariably bind ‘end-to-end’ – presumably due to signaling constraints. While gamma-delta (gd) TCRs can recognise a more diverse range of ligands, they can also recognise MHC-I like molecules. However, the constraints of gdTCR docking modalities upon MHC-I like molecules appears to be completely different to that of abTCRs. These observations shall be discussed.