impact galaxies in the densest environments (Chapter 5). Similarly, the effects of mergers are much more apparent in galaxies in dense environments (e.g. centrals; see Section 5.3.1) and will often drown out the more subtle effects of slower quenching mechanisms which occurred before the merger.

I believe that it is the correct use of the morphological parameterisation that has allowed for all of these conclusions to be drawn. The evolution of a galaxy is continuous in nature from the most disc dominated to the most bulge dominated system. This nature is reflected by the continuous parameters which are used to describe this structure. This includes bulge-to-total ratios, Sérsic index (Sérsic, 1968), Gini coefficient (Abraham et al., 2003; Lotz et al., 2004), asymmetry (Conselice et al., 2000) and concentration index (Morgan, 1958). A problem arises however, when studies discretise these values by mapping them to the typical distinct Hubble classifications of morphology; either the data is mapped to T-types (Shimasaku et al., 2001; Brinchmann et al., 2004; Nair & Abraham, 2010a; Barro et al., 2015) or merely split bimodally into late and early types, e.g. with either Sérsic index, $n \leq 2.5$ (Ravindranath et al., 2004; Kelvin et al., 2012; Vika et al., 2015) or GZ vote fraction, $p_d \geq 0.8$ (Schawinski et al., 2014) to identify discs. This discretisation no longer reflects our uncertainty in the morphological classification due to the image resolution. With increasing redshift, galaxy structures can be washed out by the PSF of the image. This means that either large amounts of data must be discarded or the morphological bins made noisier by this uncertainty. By using the GZ vote fractions as weights in this study, this enabled me to retain all of the galaxies in my samples therefore utilising as much information as possible from across a galaxy population. This has allowed me to reveal the subtler effects of morphology and infer the broad range of quenching rates seen across the colour magnitude diagram. Treating the morphological classifications in this way, I was also able to reproduce the major differences between the populations seen in Schawinski et al. (2014) when a threshold on the GZ vote fractions was used.

Just as the morphology of galaxies is continuous in nature from disc to bulge dominated, so too are the quenching mechanisms which can cause this change. The impact of mergers on the morphology and SFR of a galaxy depends on the mass ratio, a continuous variable from micro mergers (Carlin et al., 2016) through to major mergers. The strength of morphological quenching mechanisms can be measured on a continuum of stellar mass and stellar mass surface density of a galaxy; similarly the impact of environmentally driven quenching mechanisms increases with increasing halo mass. All of these processes, depending on a galaxy's environment, are likely