connected if the other is, and vice versa.

But from (1.2.37) we have

$$\mu = (\gamma - 1)^2/4 - (1/4).$$

Evidentally, μ is unchanged under the substitution $\gamma - 1 \leftrightarrow 1 - \gamma$, which amounts to

$$\boxed{\begin{aligned} \mathrm{Re}\,\gamma - 1 &\leftrightarrow 1 - \mathrm{Re}\,\gamma \\ \mathrm{Im}\,\gamma &\leftrightarrow -\mathrm{Im}\,\gamma \end{aligned}} \quad (a)$$

Thus, in both cases the dynamic aperture in the w plane is the same. In particular, both will be connected or disconnected. Therefore they will both be connected or disconnected in the z plane. Therefore the Mandelbrot set is invariant under the symmetry (a). Next take the complex conjugate of both sides of (1.2.15) to get

$$z_{n+1}^{*} = \gamma^{*} z_n^{*} (1 - z_n^{*}).$$