"Major revision required.

C01: This paper needs reworking: the novelty aspect beyond overlaying the Lexis surfaces with CFS isolines is not obvious, so this aspect would need strengthening.

I'll chime in to try to clarify:

The novelty aspect could be addressed by adding a section in the introduction that explains in more details how your visualisation is superior to other existing ways of visualising that kind of data.

C02: In Figures 1-3, the grid lines seem too dense and distracting from the message; likewise, in Figure 4 there seem to be too many tick points.

The legibility of Figures 1-4 could be improved by adding a new figure 1 that shows just one or two Lattice Plots and uses direct labelling and perhaps a concrete example to guide the reader. East and West Germany would make a nice case study to explain what the plots show and why they are superior to other existing visualisations of the same data type.

C04: I admit that I currently struggle to read the figures; especially the contour lines are hard to read, also due to the fact that the labels (for solid, dashed,...) are hidden in the notes below the plots. Perhaps you could adjust the colour scheme of the surface to use fewer colours and then use colour to distinguish the contour lines.

Response: We have attempted to address both C01, C02 and C04, by providing a much clearer introduction to the approach using West and East Germany as examples. In addition to illustrating the construction of the method, aiding interpretability, they also highlight, through inline annotations, a number of substantive features identified within Germany demographic data when both age-specific fertility rates, and cumulative cohort fertility milestones, are presented in the same visualisation. Given the word limit we have not attempted to provide a summary comparison with existing visualisation approaches, but hope through this detailed introduction to the approach, illustrating its substantive value through the German examples, the overall novelty and benefits of the approach are now much clearer.

The specific sequence of new illustrations is as follows:

The first subfigure demonstrates the intuition behind the contour lines by presenting cumulative cohort fertility schedules for two birth cohorts in West Germany: 1935 and 1938, alongside both cohorts’ age-specific fertility schedules. This subfigure shows how the respective contour lines at whichever ages intersect Through a series of subfigures, we: first illustrate the intuition behind the construction of the cumulative cohort fertility schedules and contour lines, by showing the corresponding schedules and contour lines

C03: The equation objects within the text need improving, and all the visualisations need to be double-checked from the point of view of being colour blindness/CVD-friendly."

C05 We (the guest editors) agree that optimising the figures for colour blind readers is a valid point, but we also realise that this may not always be achievable. The most common type of colour blindness is the red/green weakness, meaning people cannot distinguish red from green. Hence, it's a good starting point not to use red and green together in the same figure. Please check if you could adjust (without too much extra work) the colour scheme accordingly.

More details on "How to Optimize Charts For Color Blind Readers Using Color Blind Friendly Palettes" can be found here: <https://venngage.com/blog/color-blind-friendly-palette/>