

Supplementary Materials 2

Journal of Pharmacokinetics and Pharmacodynamics

Title: Performance of Longitudinal Item Response Theory Models in Shortened Assessments

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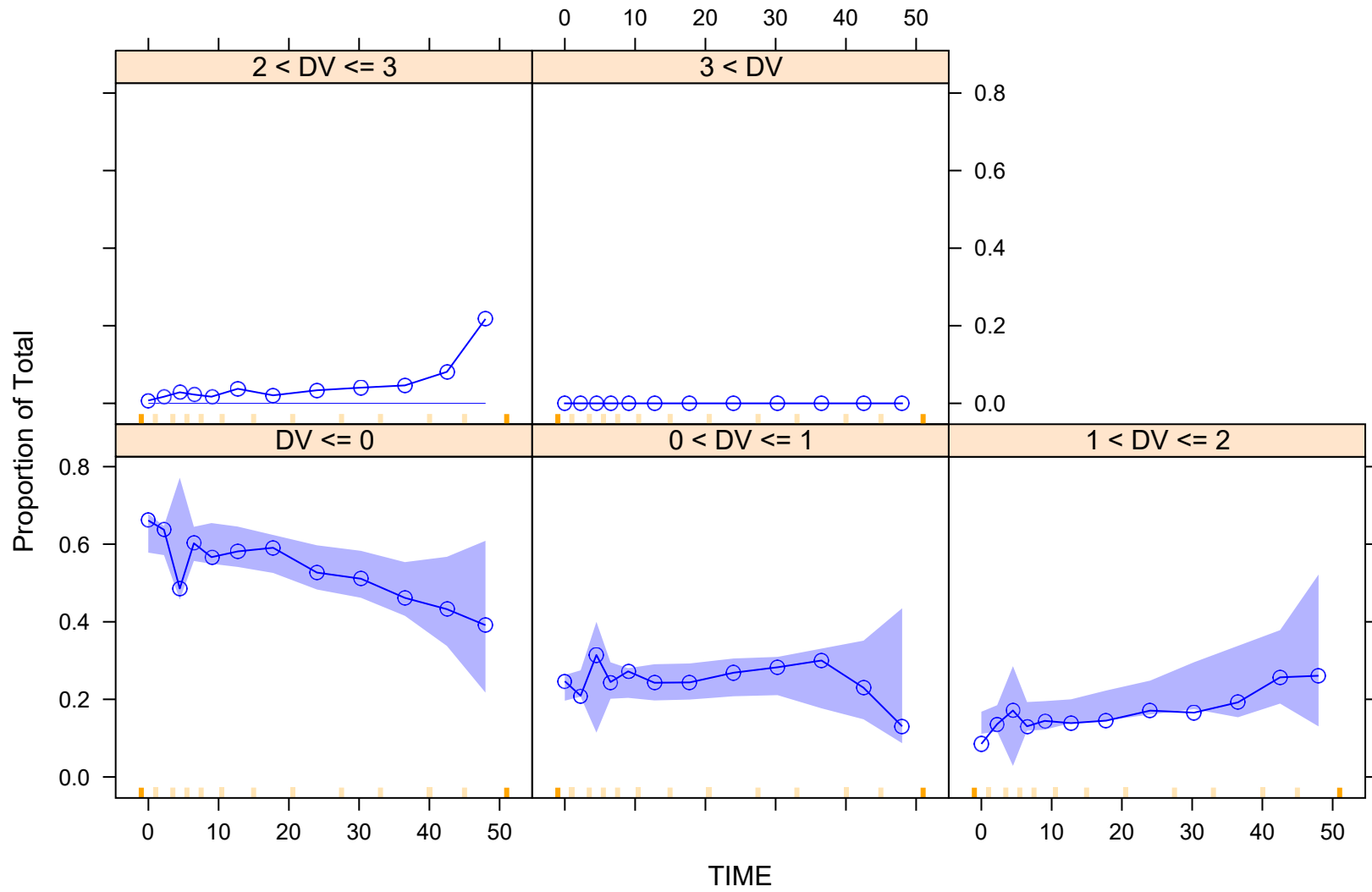
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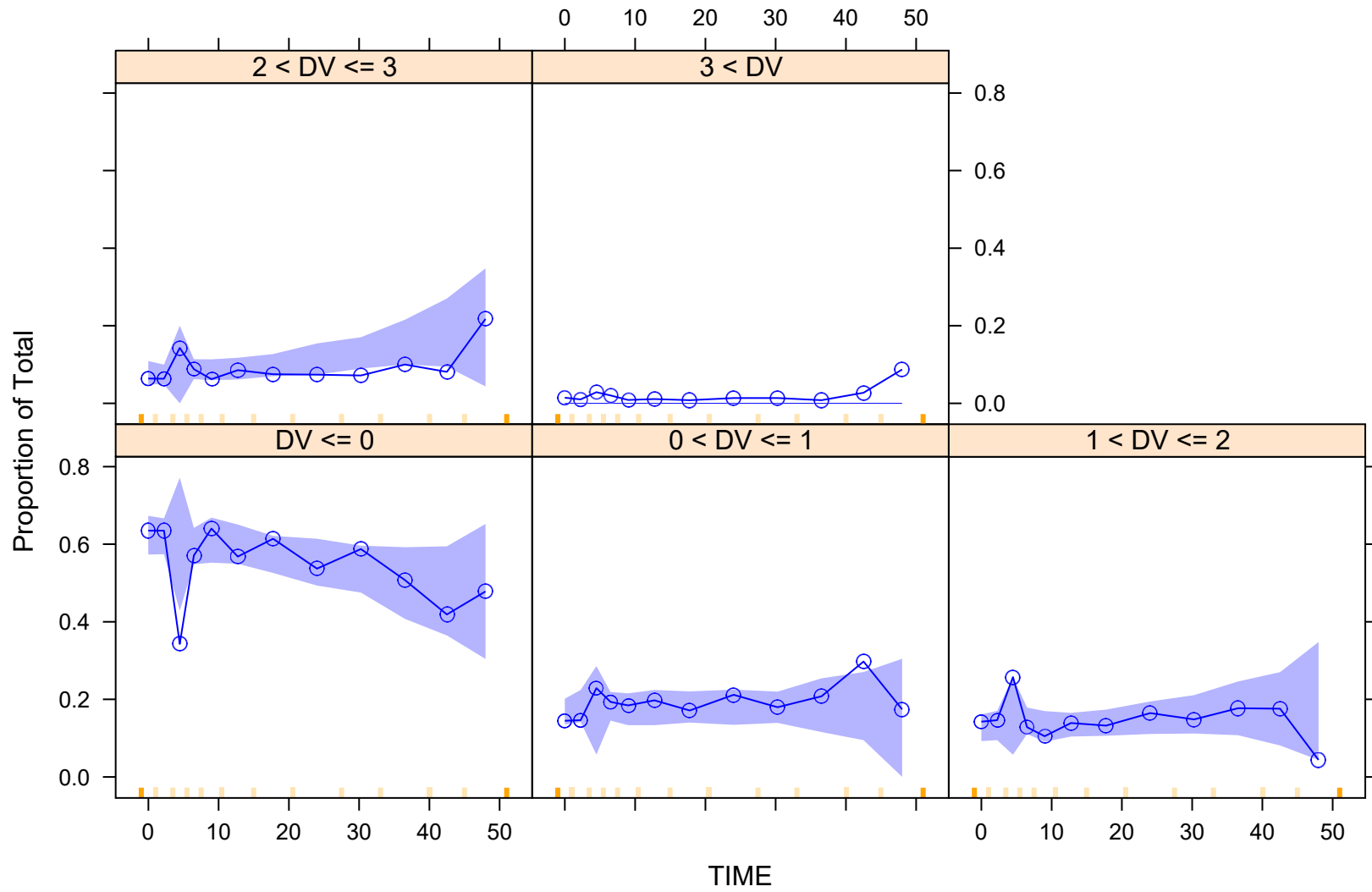
This appendix contains diagnostic plots (i.e. Categorical VPC and ICC) evaluating the performance of the 100% information scenario from a unidimensional IRT model using simultaneous approach.

Figure S1. Categorical Visual predictive checks (VPCs) describing the time-courses of each score for the MDS- UPDR motor item. Median (blue solid line) of the observed data is compared to the 95% prediction interval (gray shaded area) for the simulated data

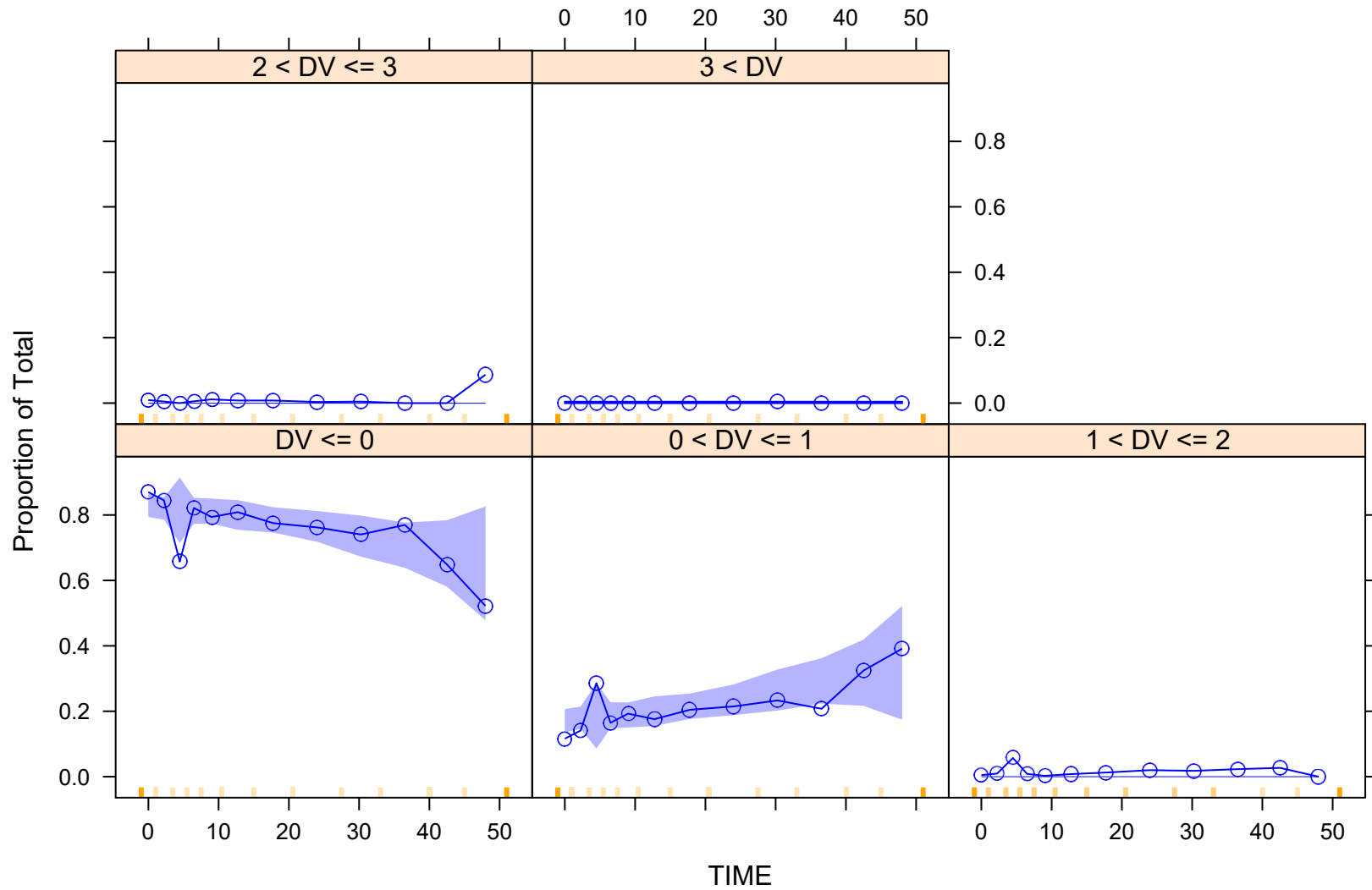
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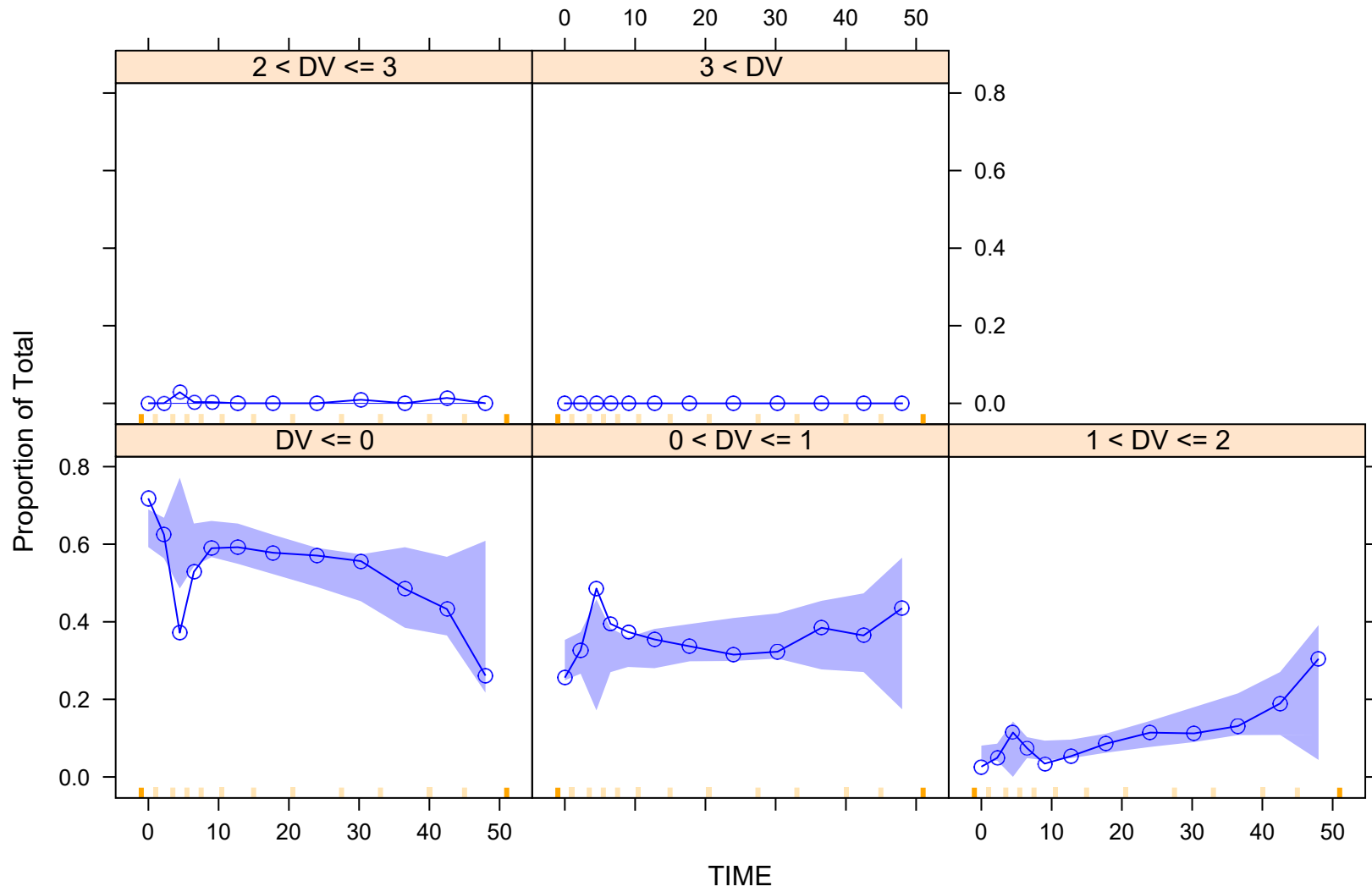
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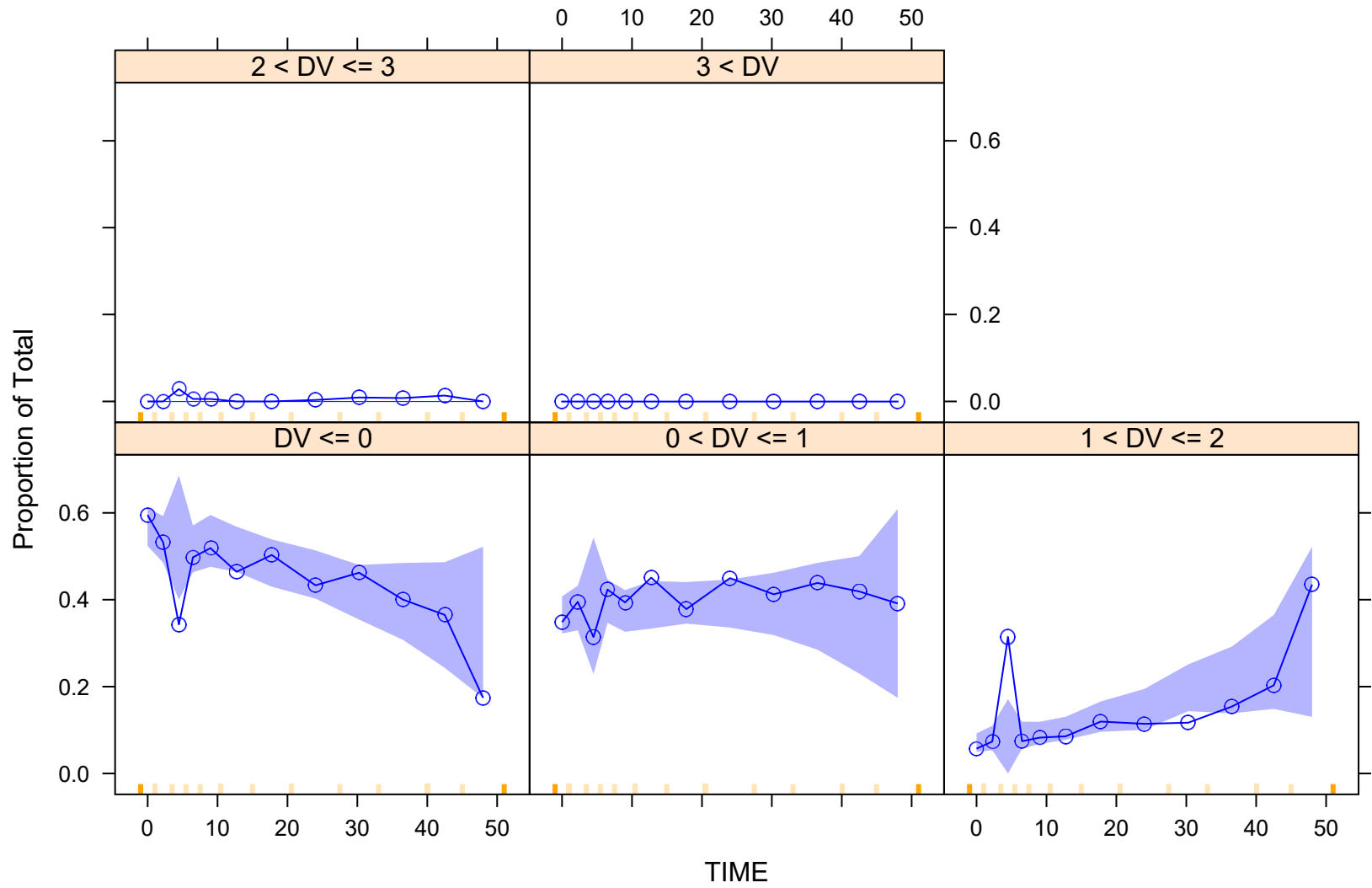
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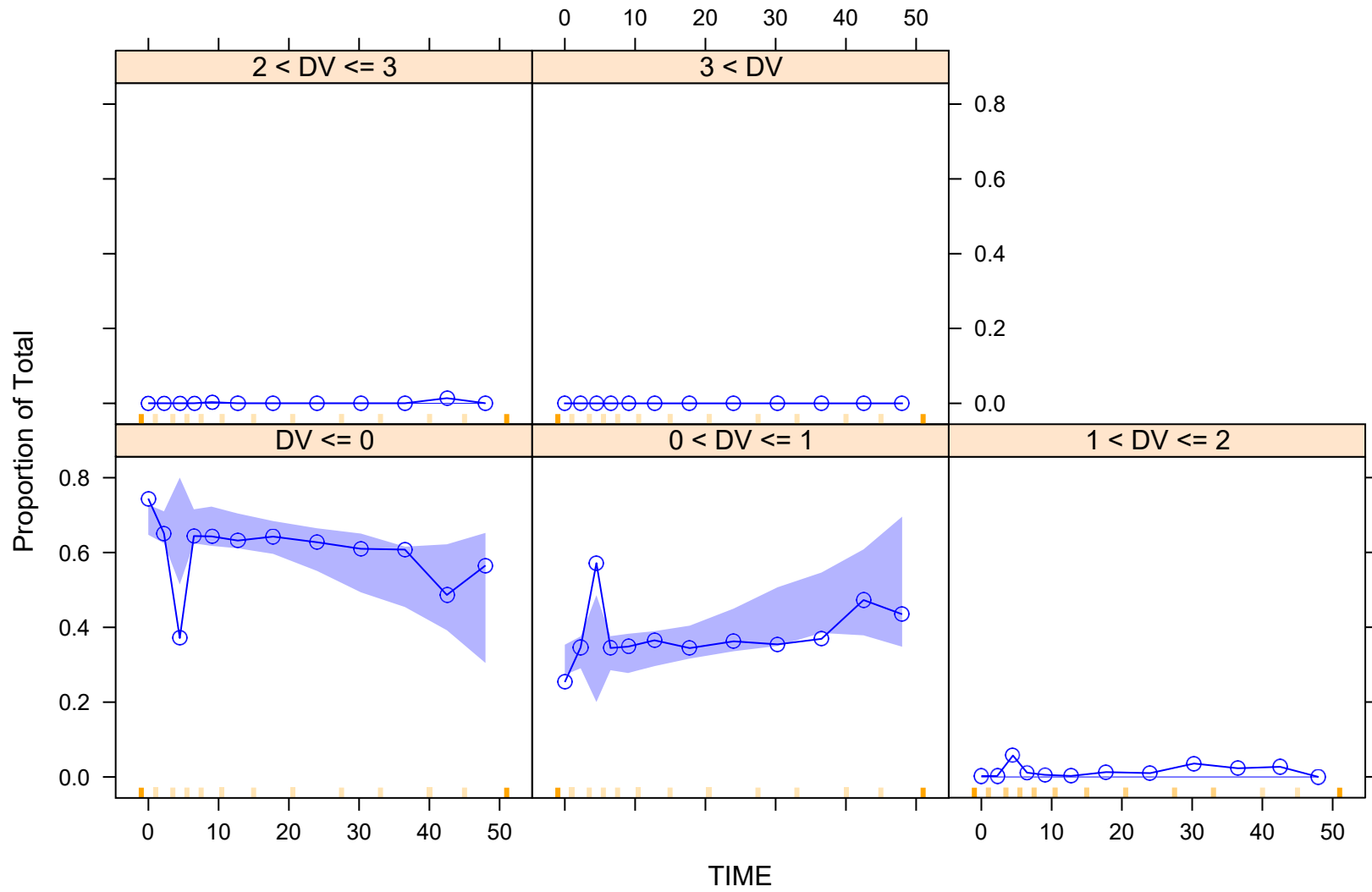
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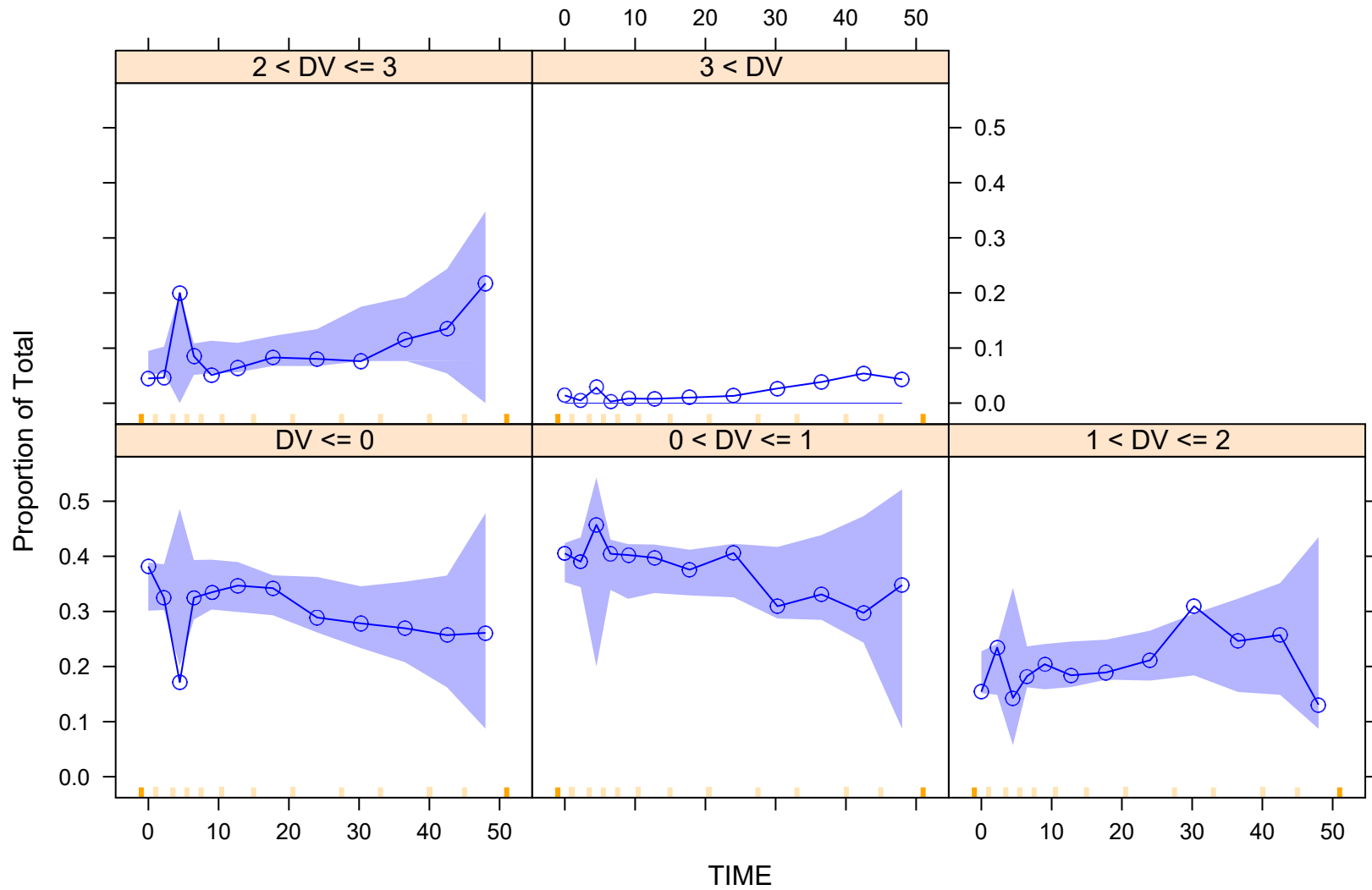
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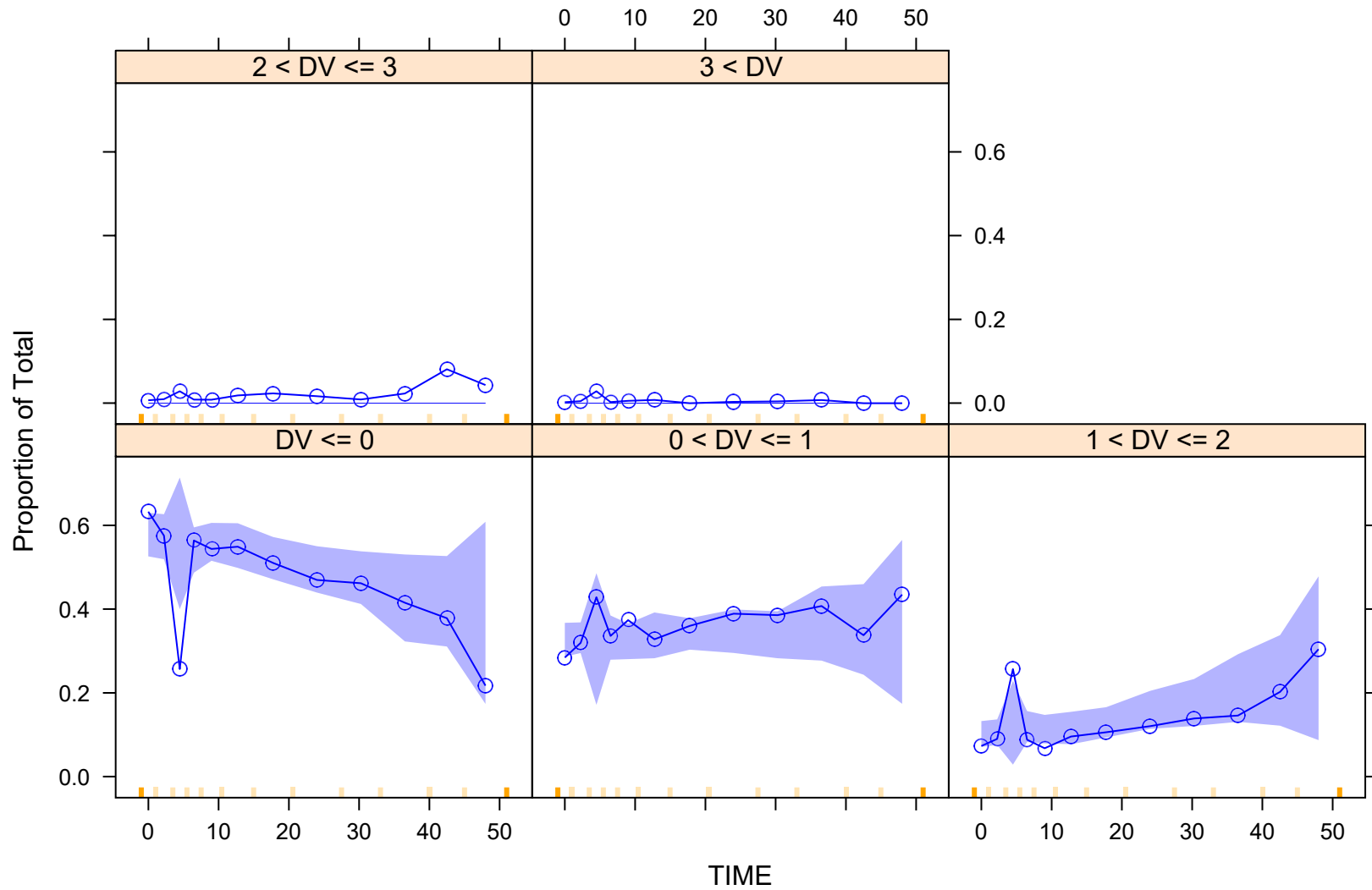
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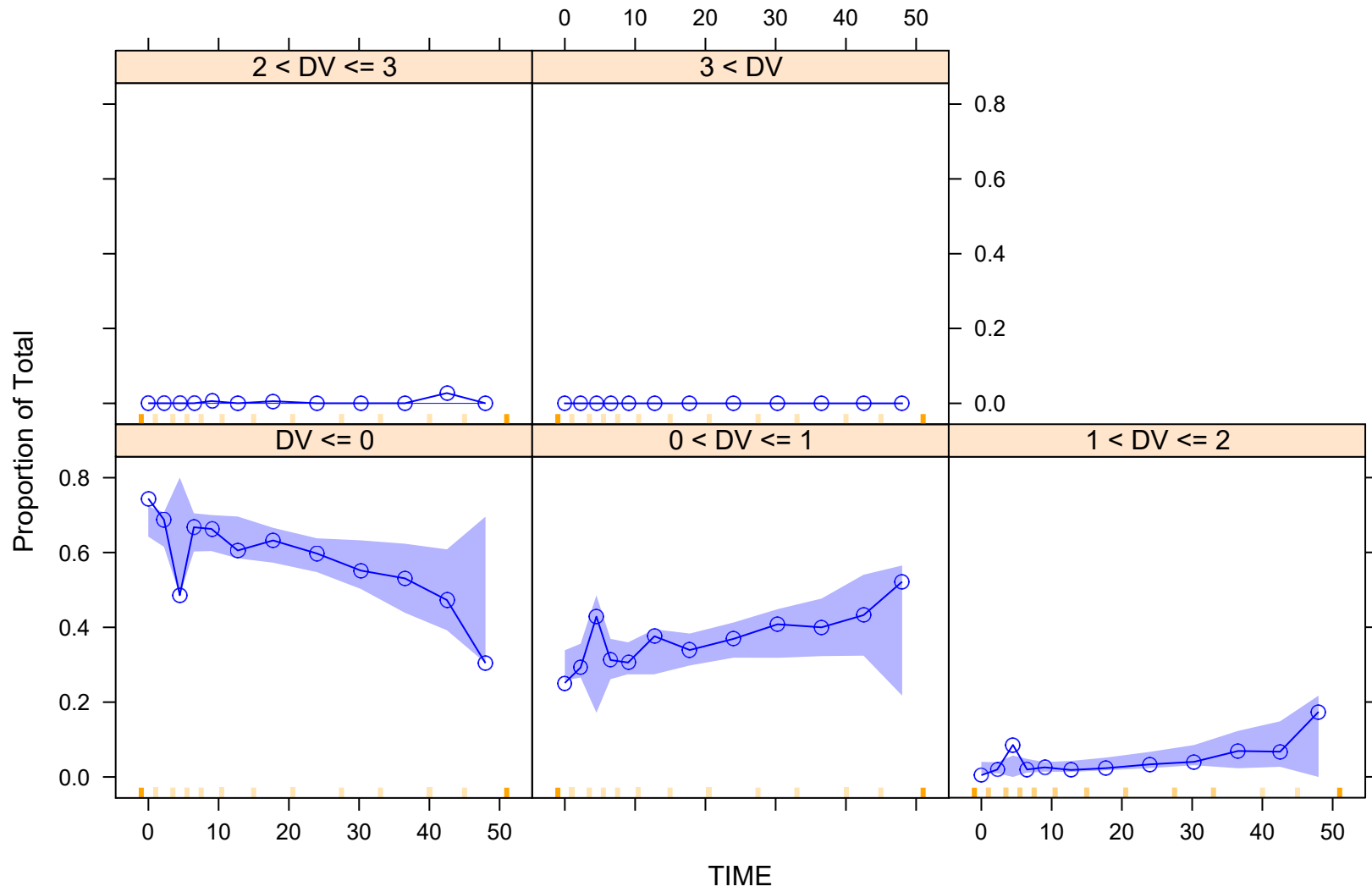
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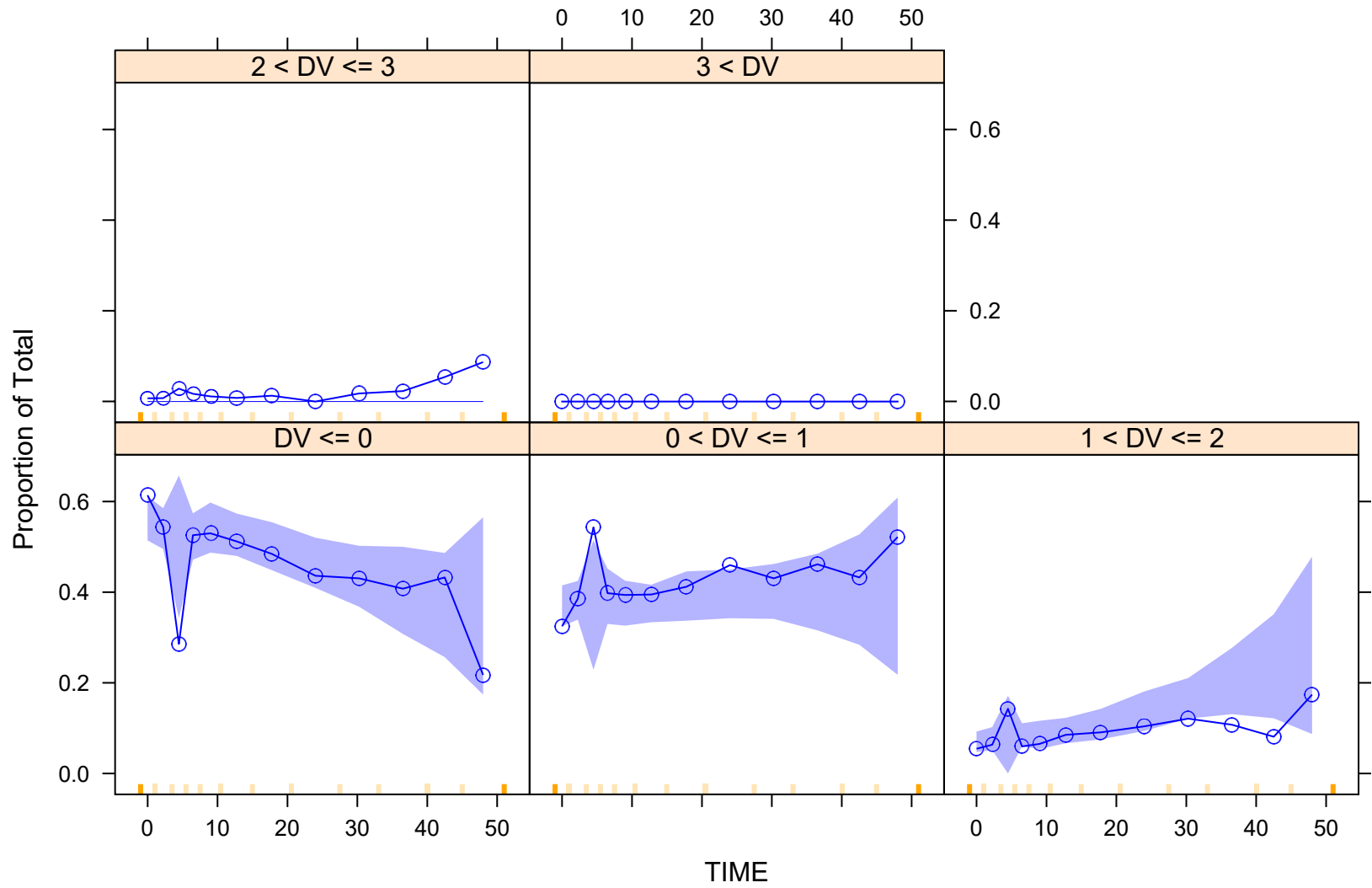
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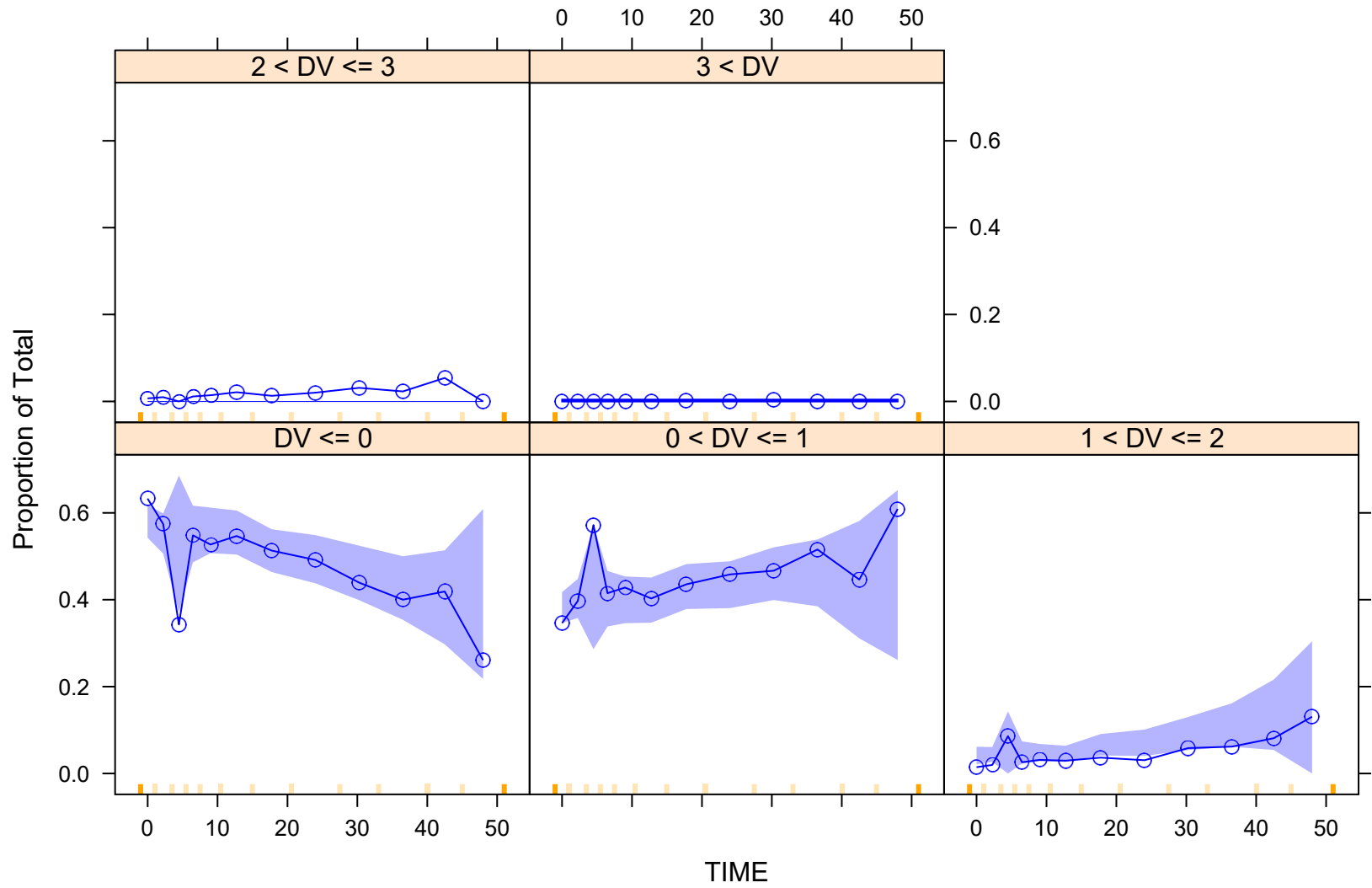
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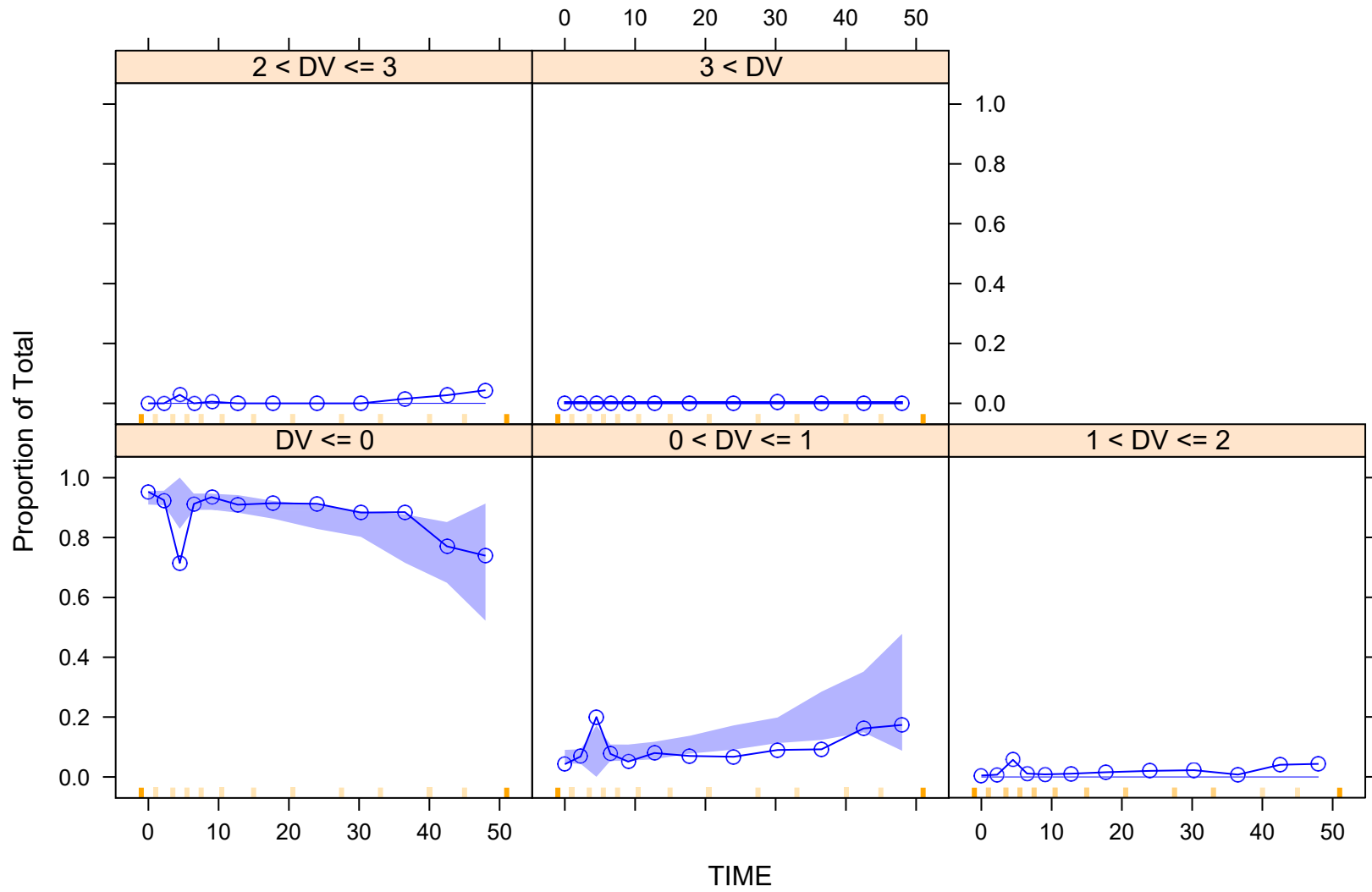
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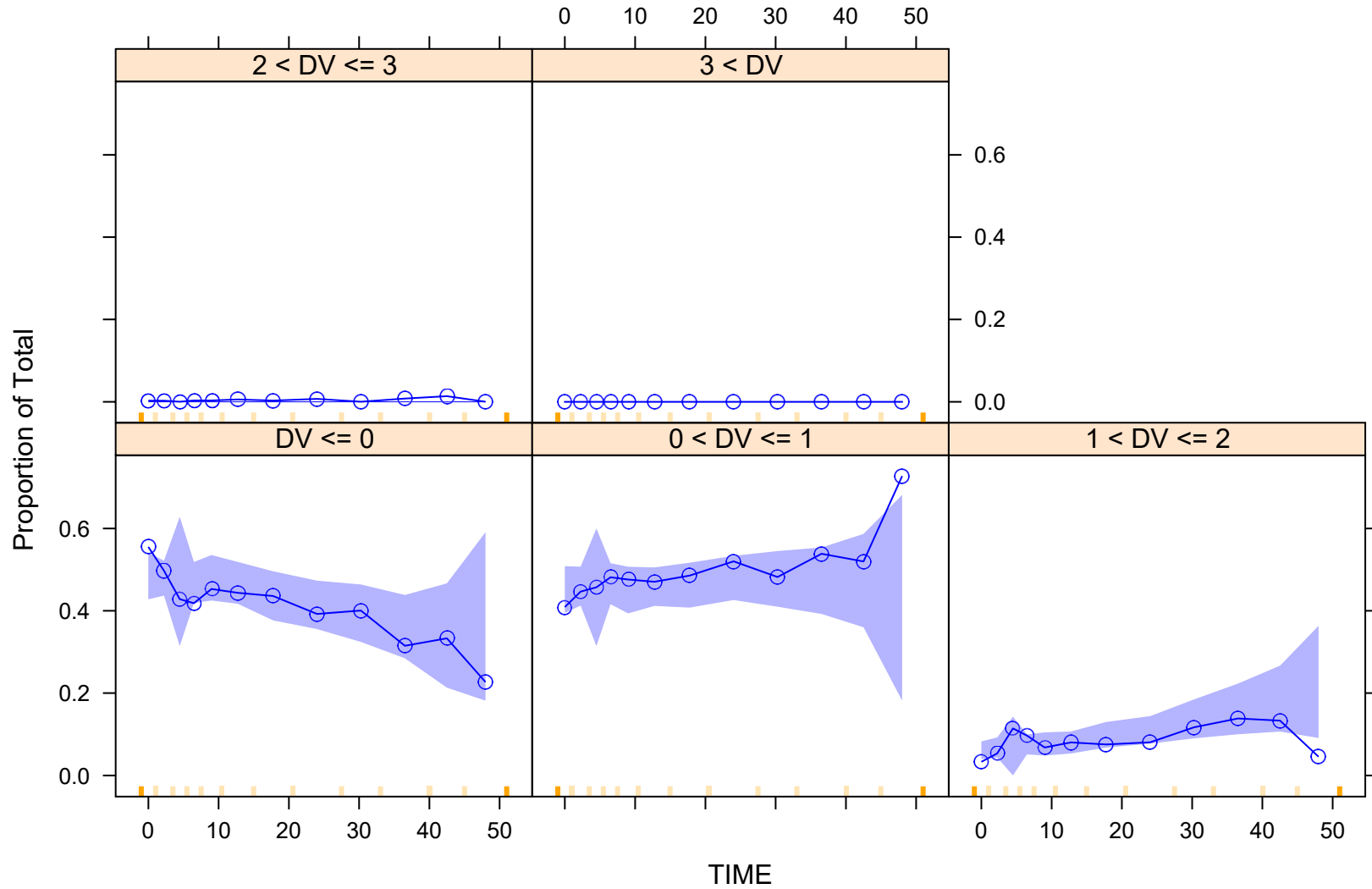
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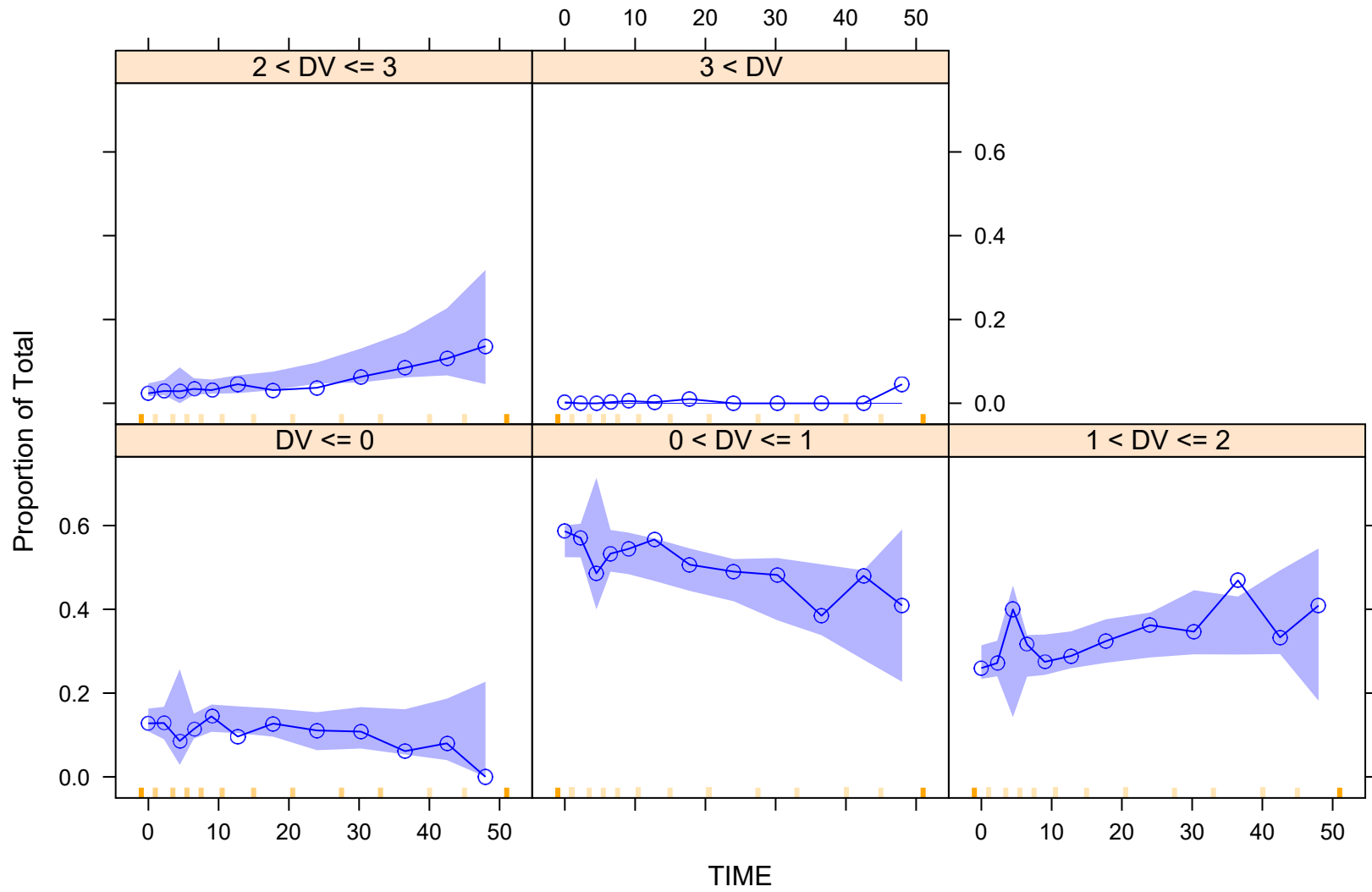
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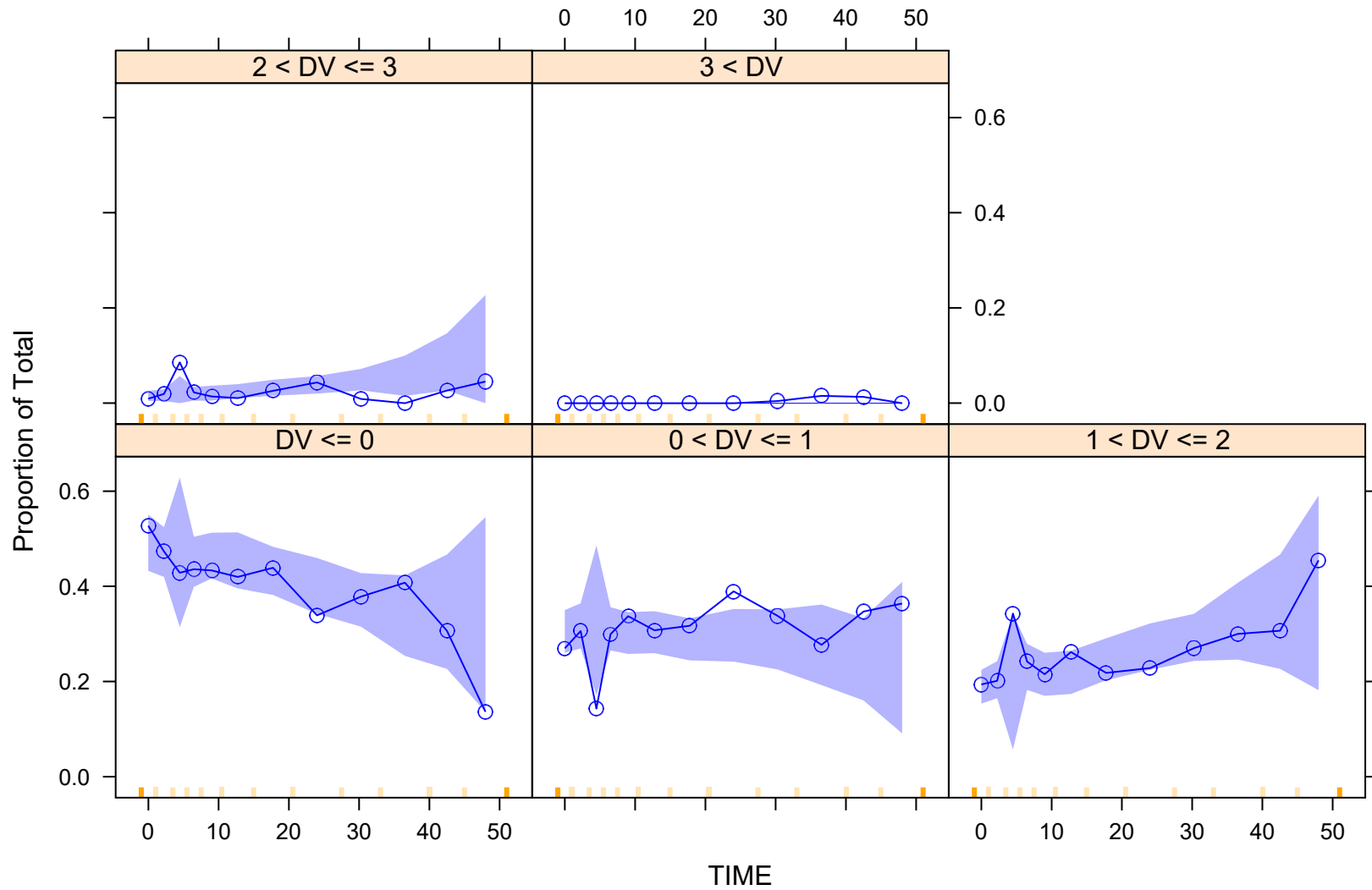
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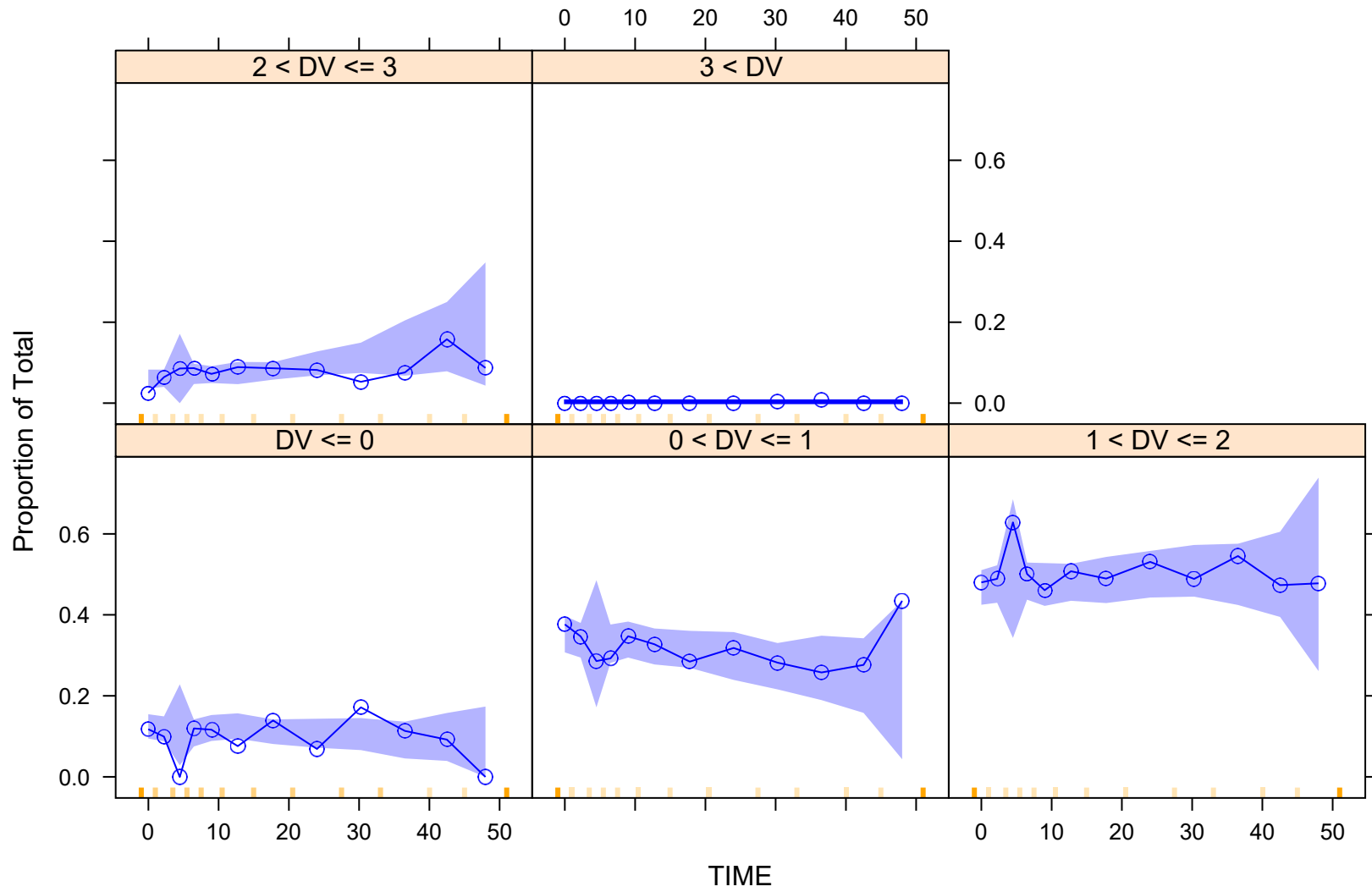
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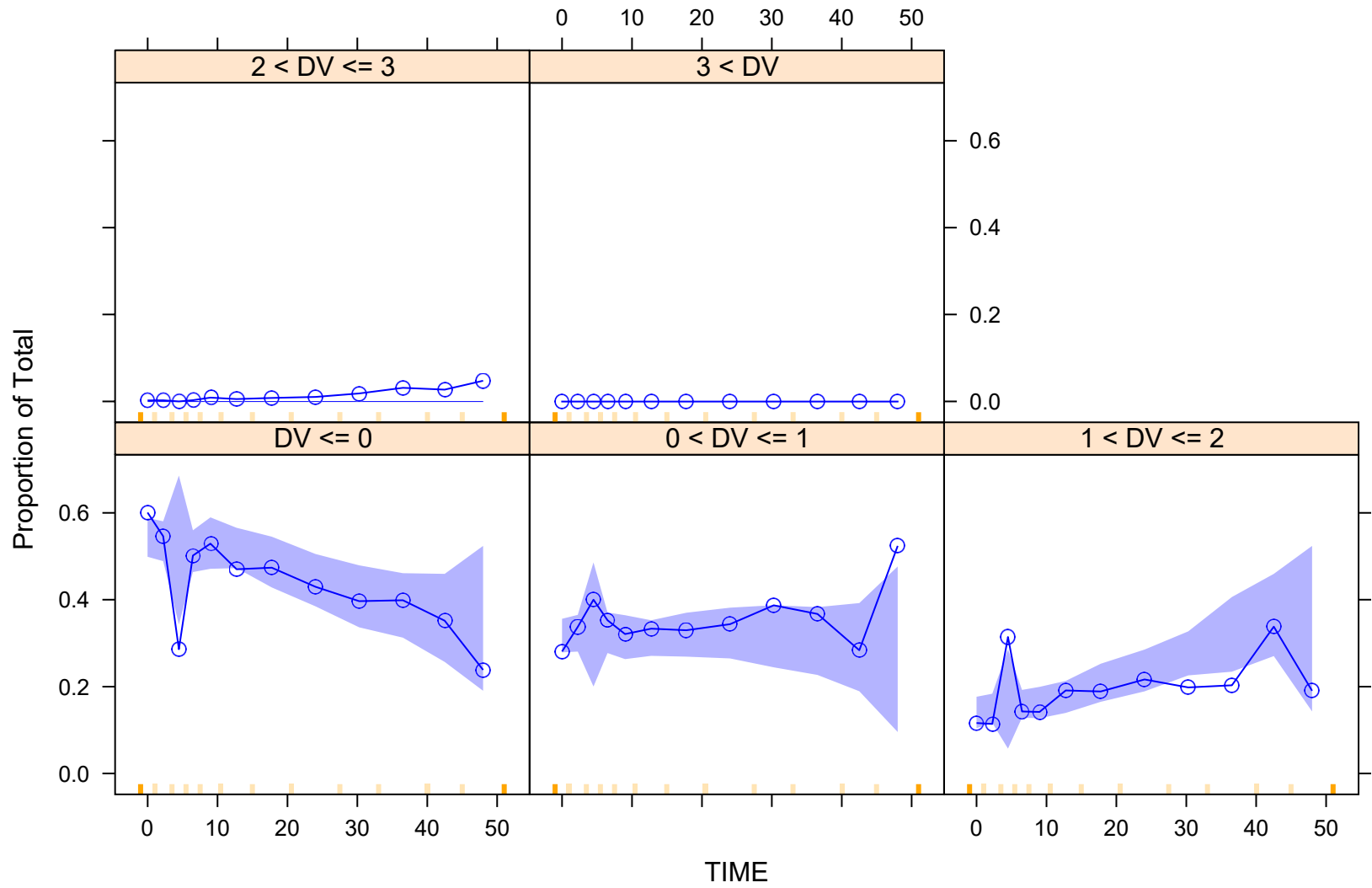
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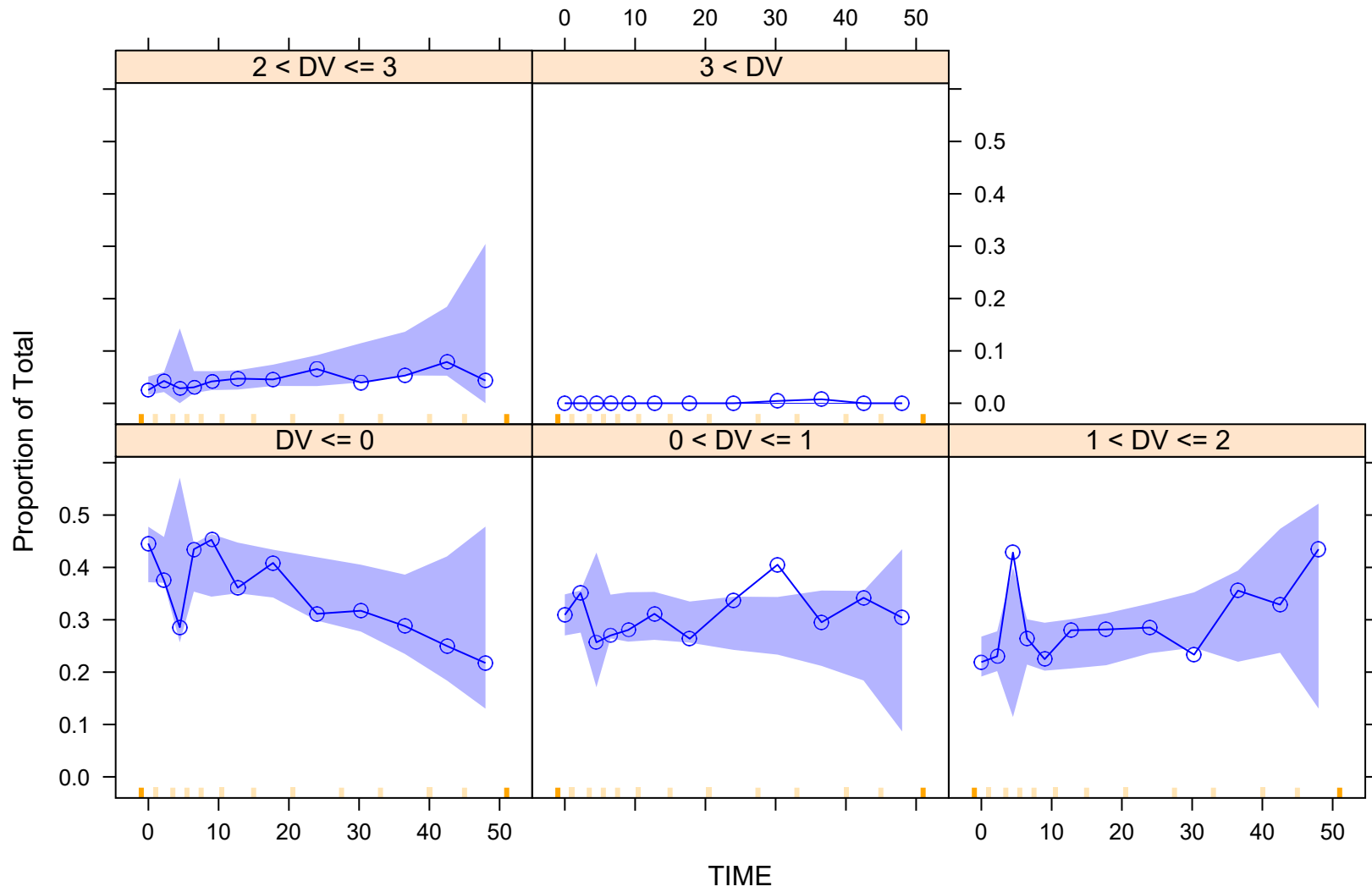
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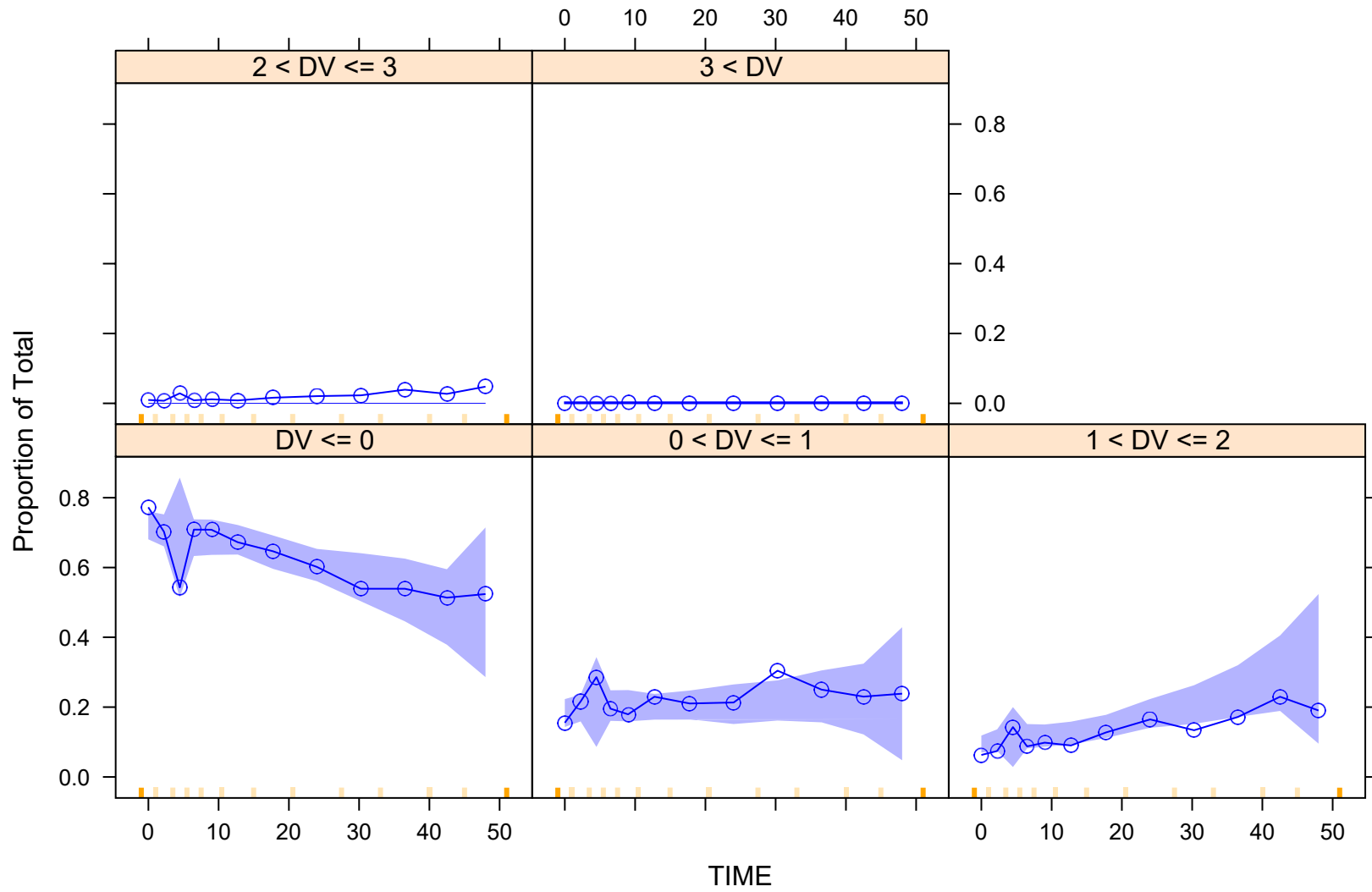
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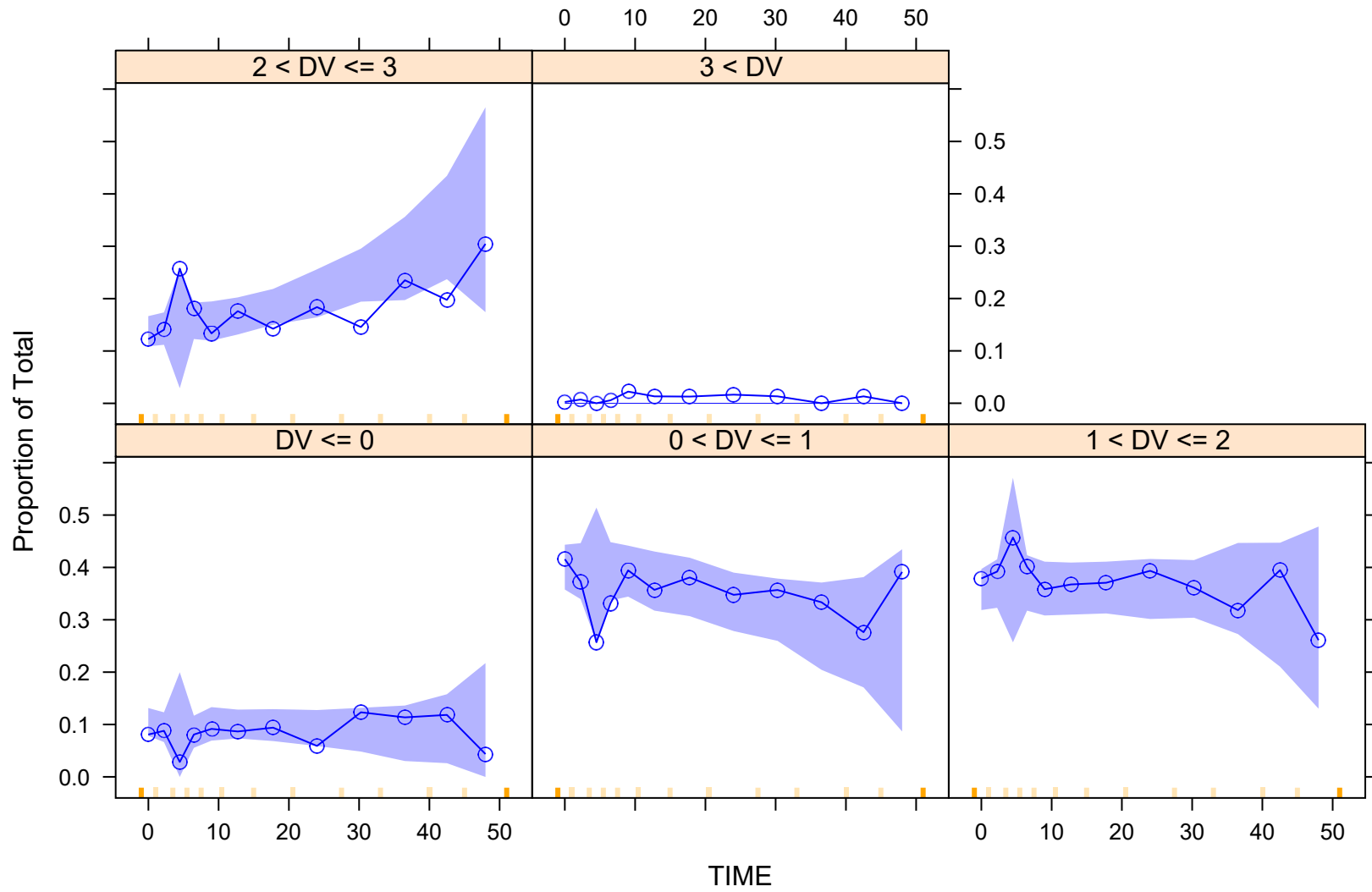
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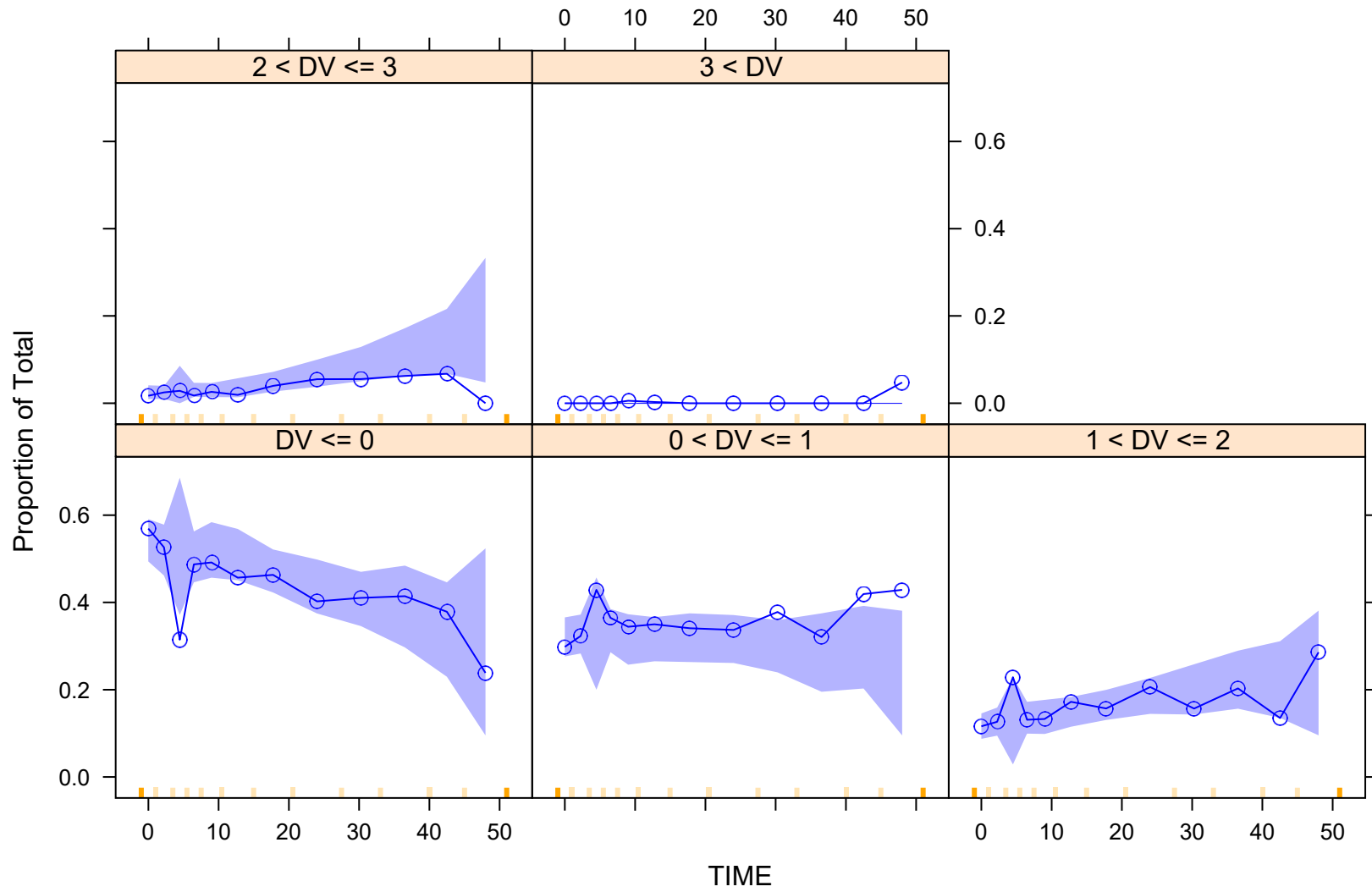
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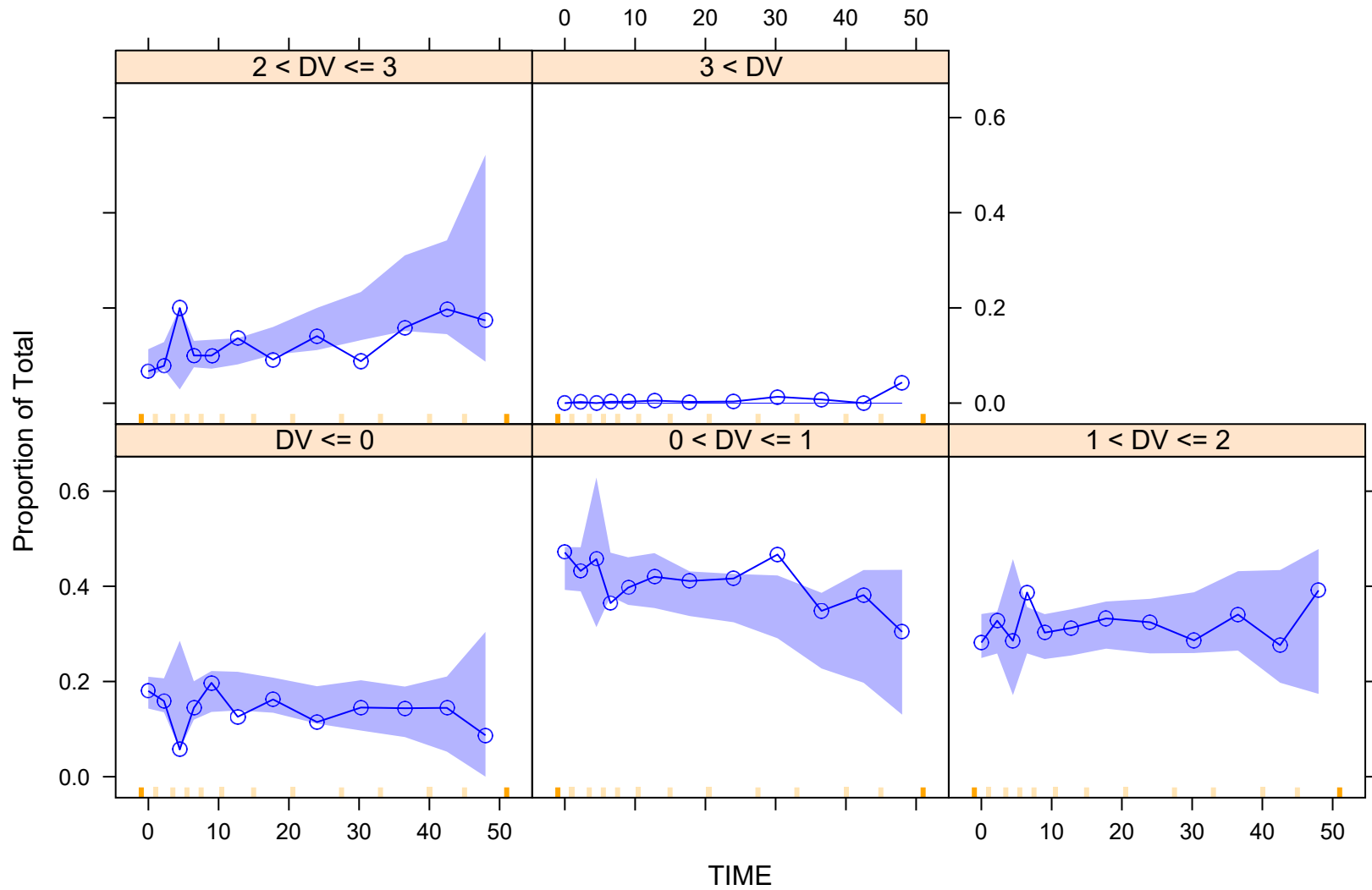
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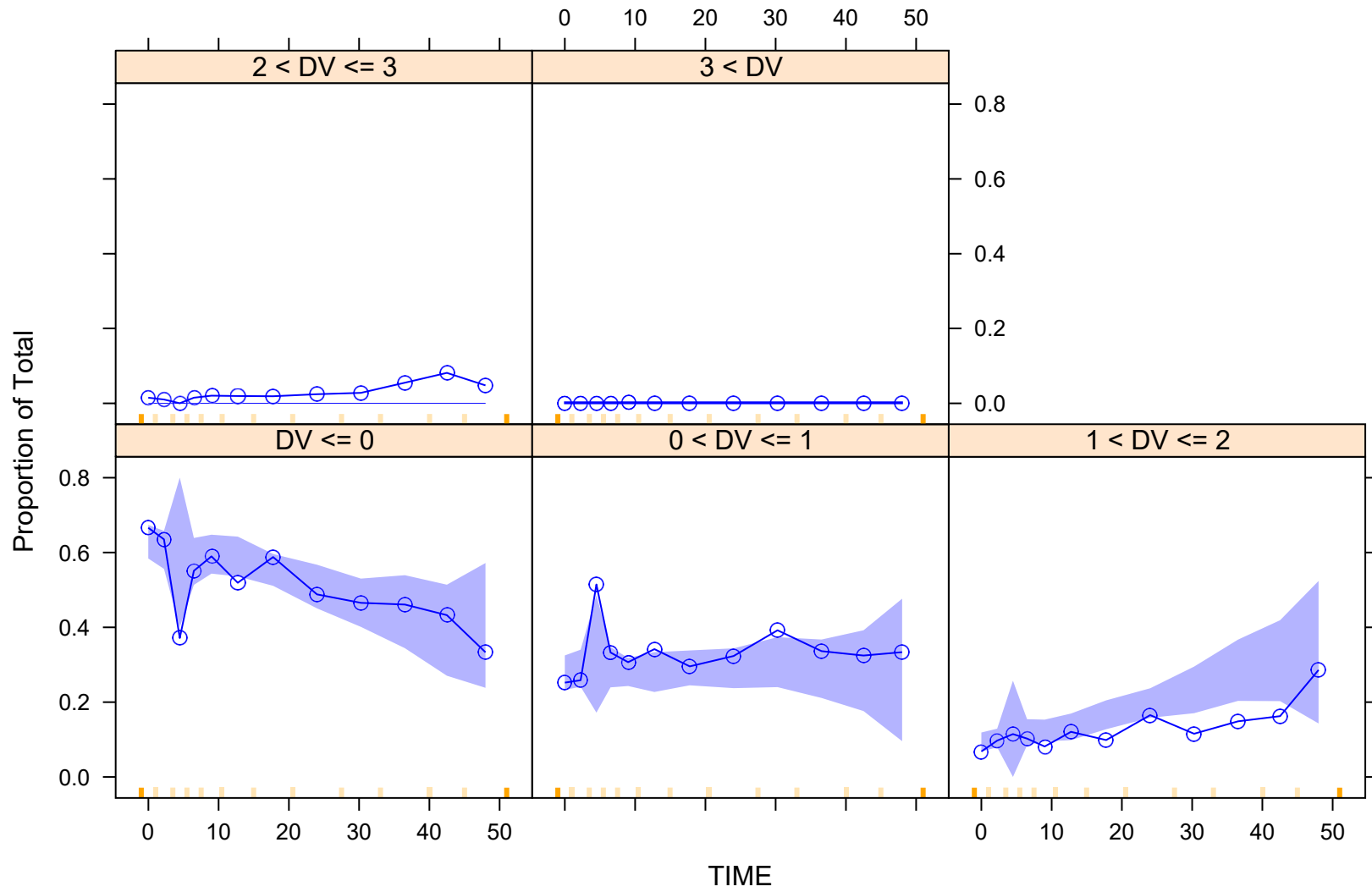
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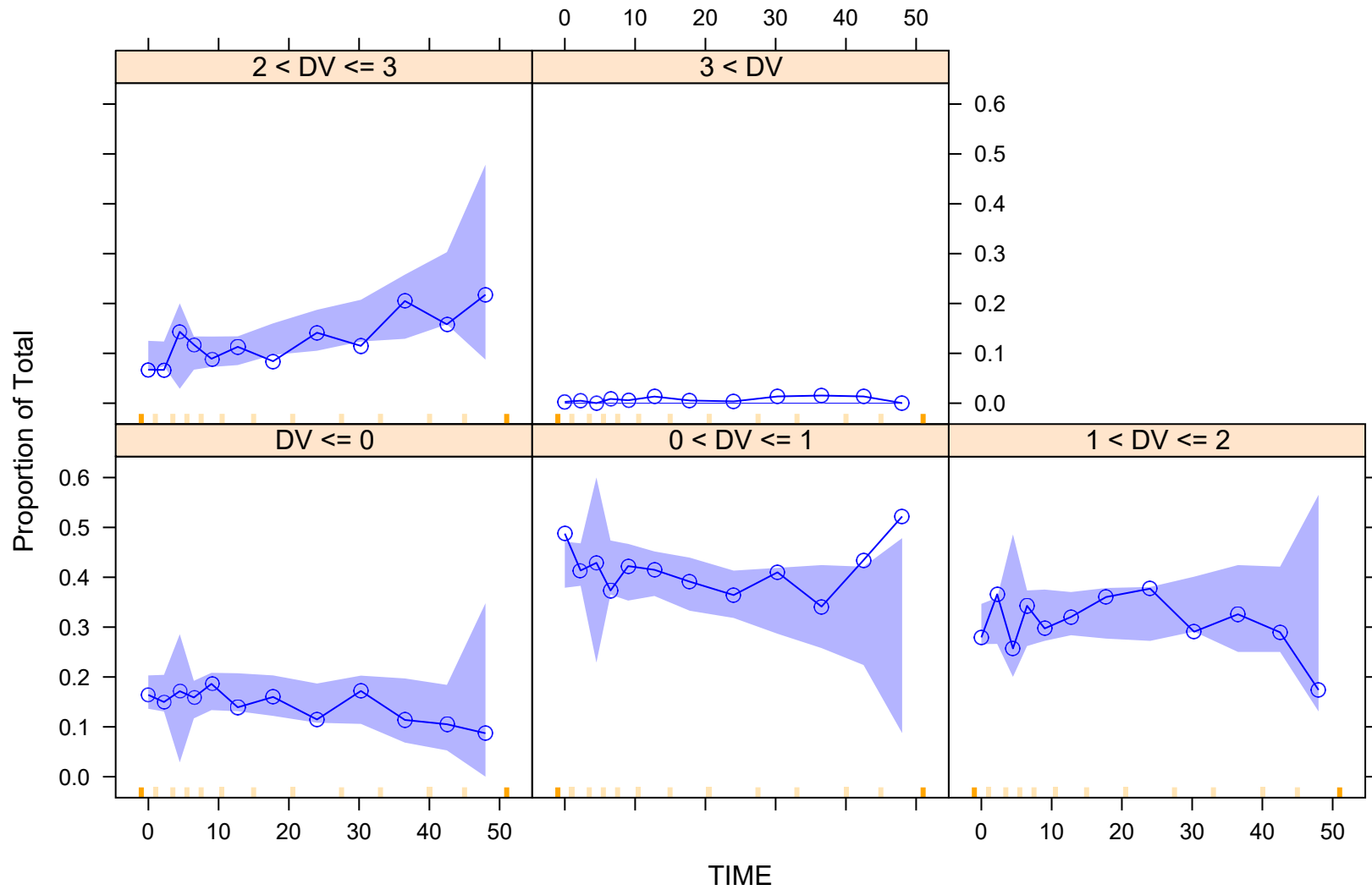
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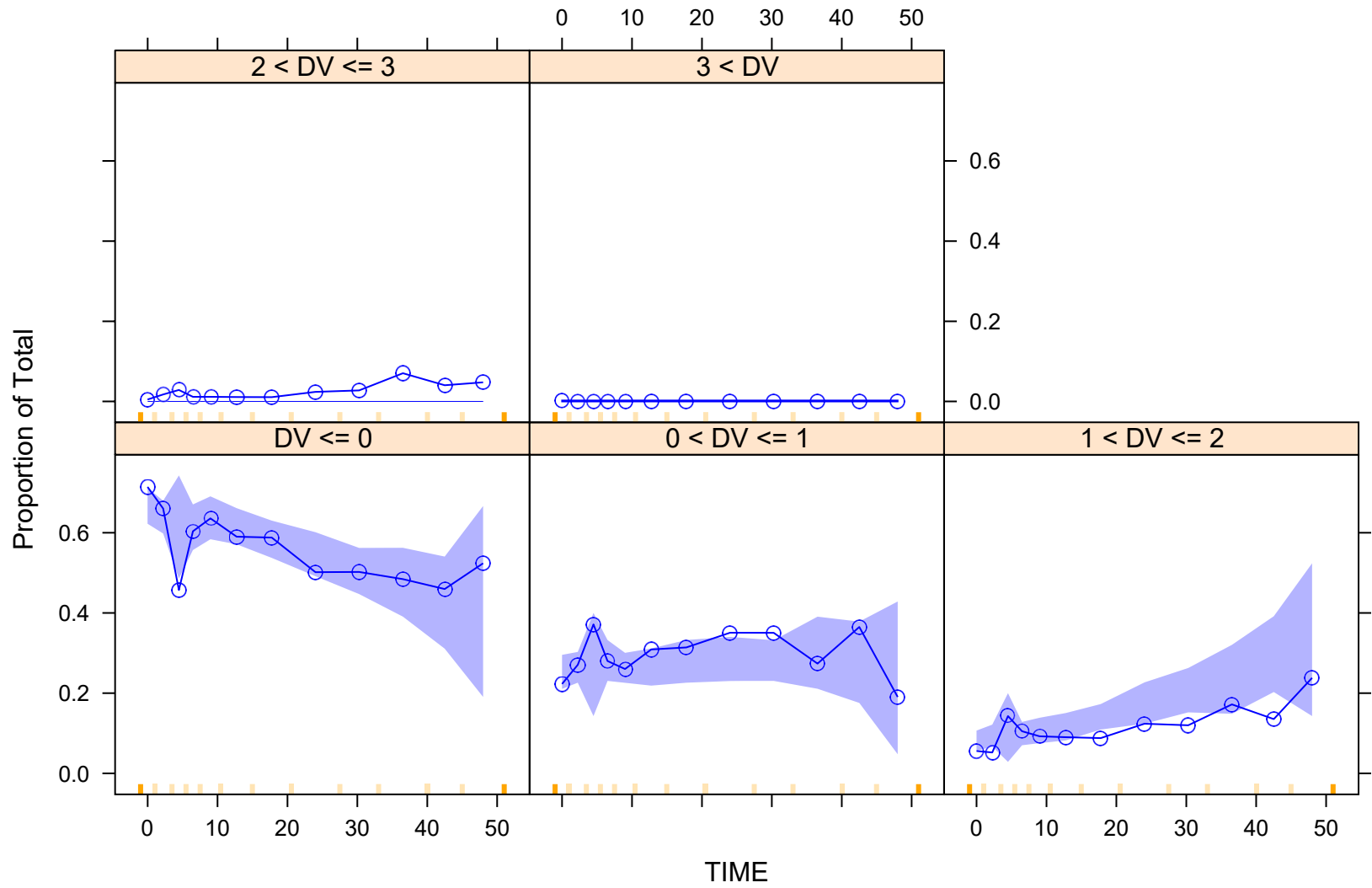
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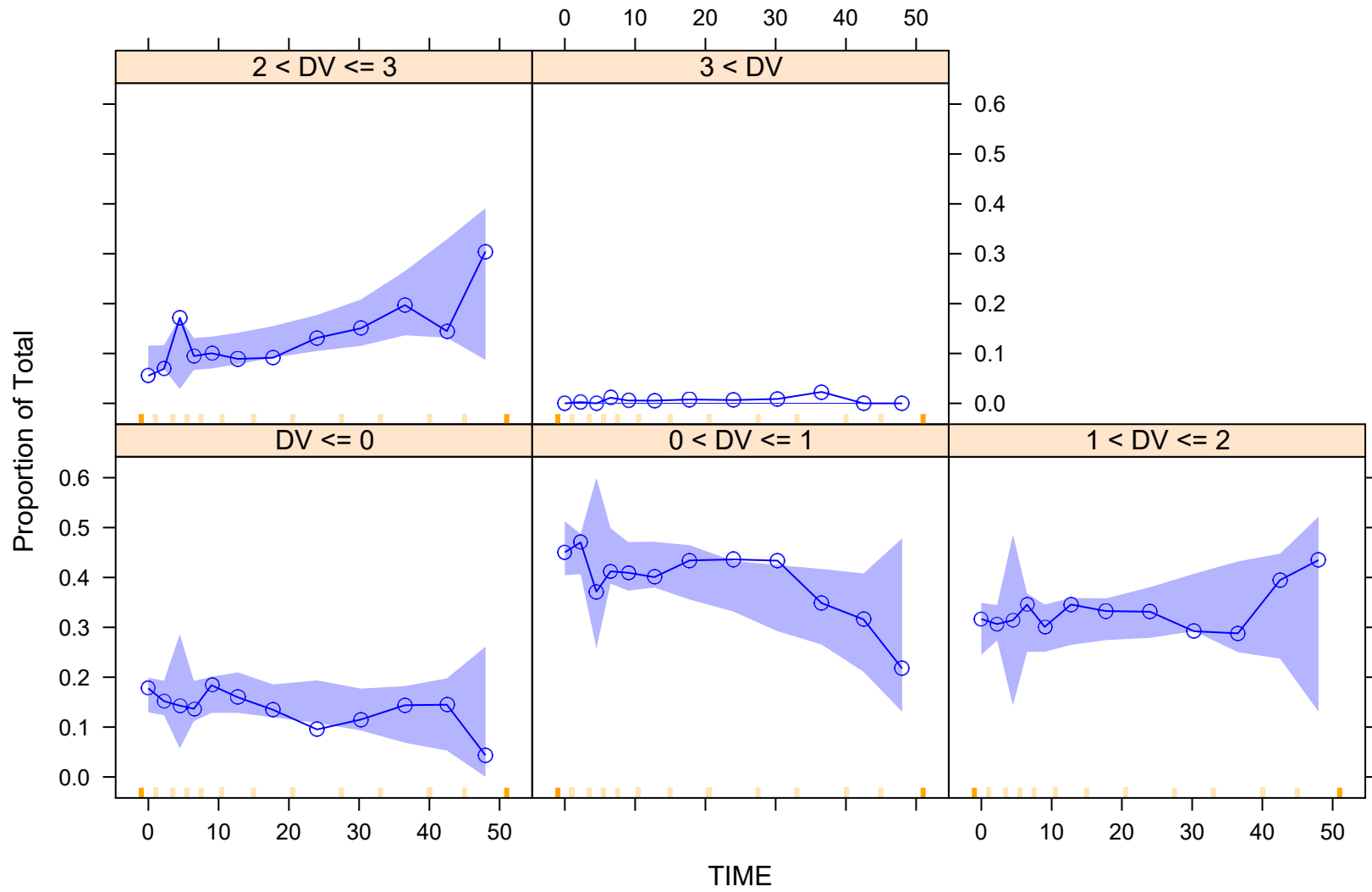
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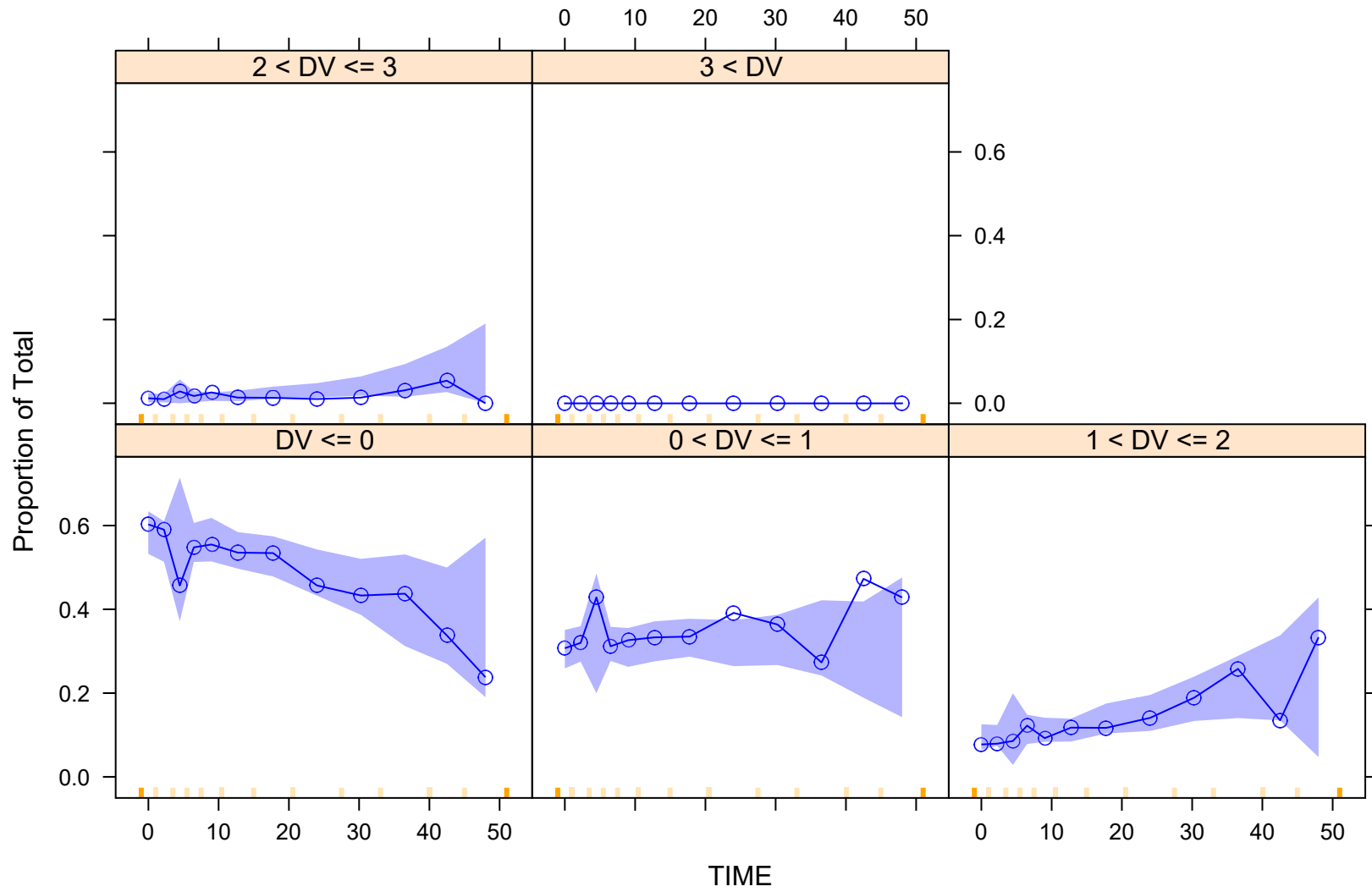
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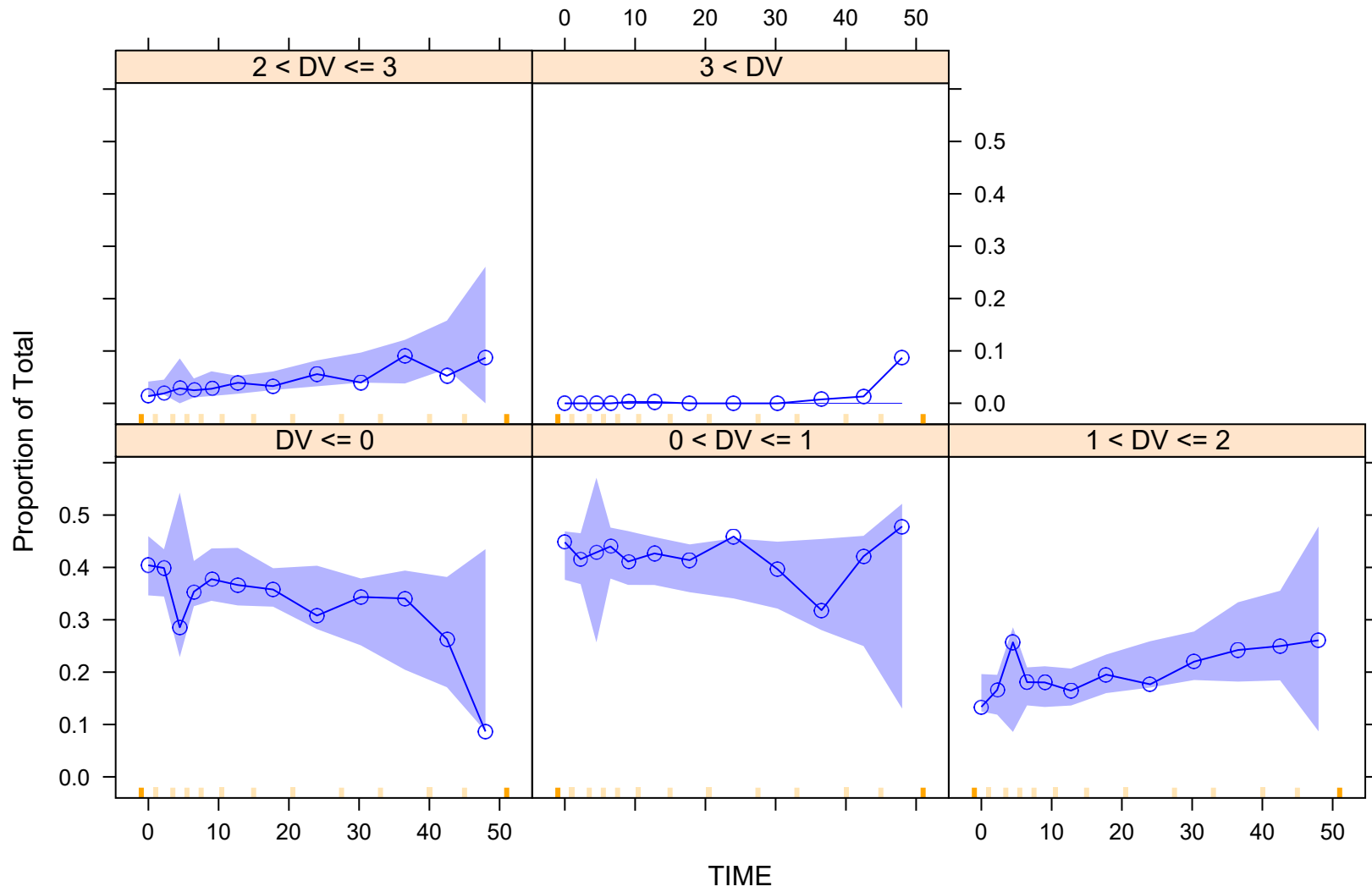
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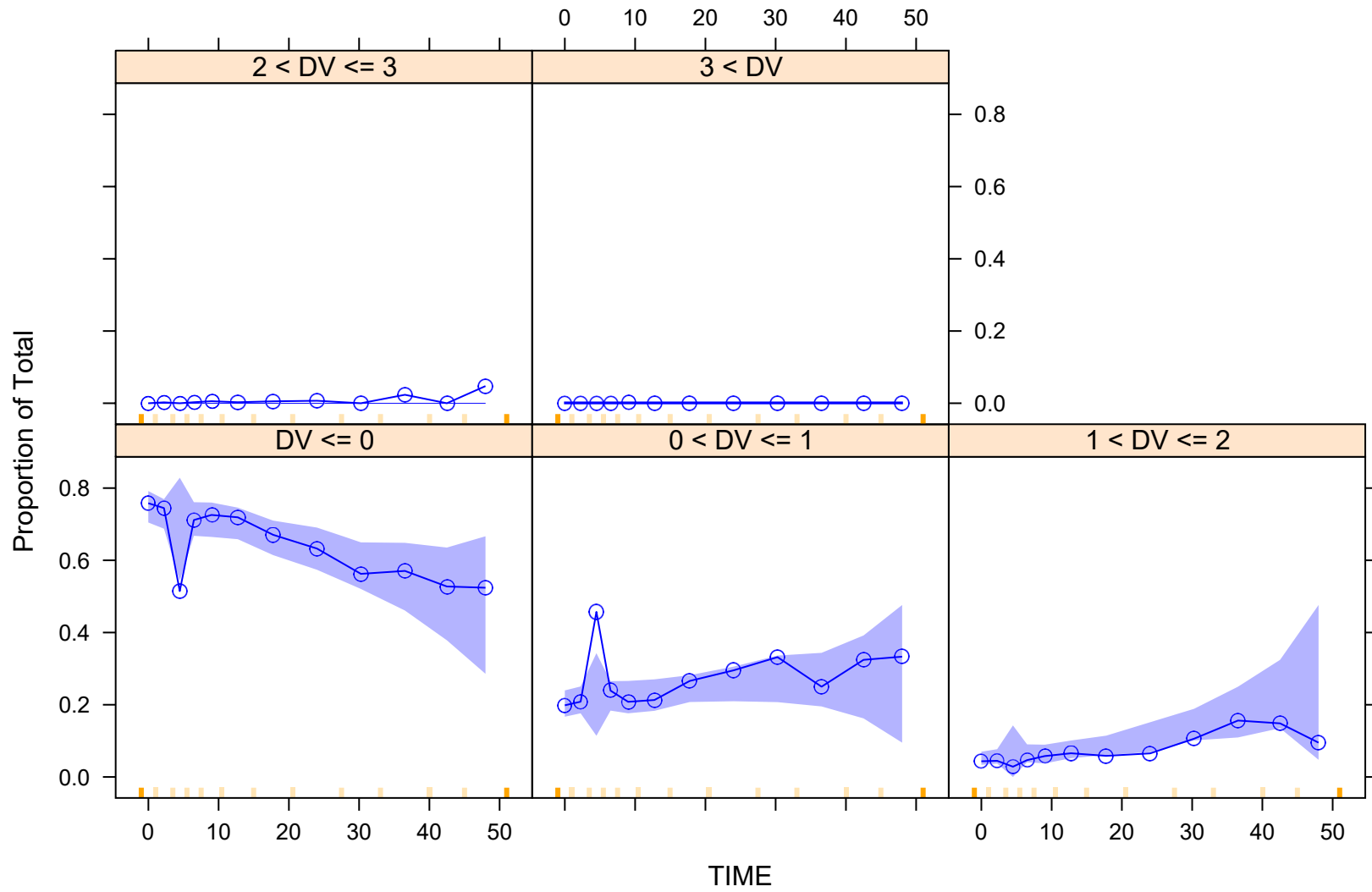
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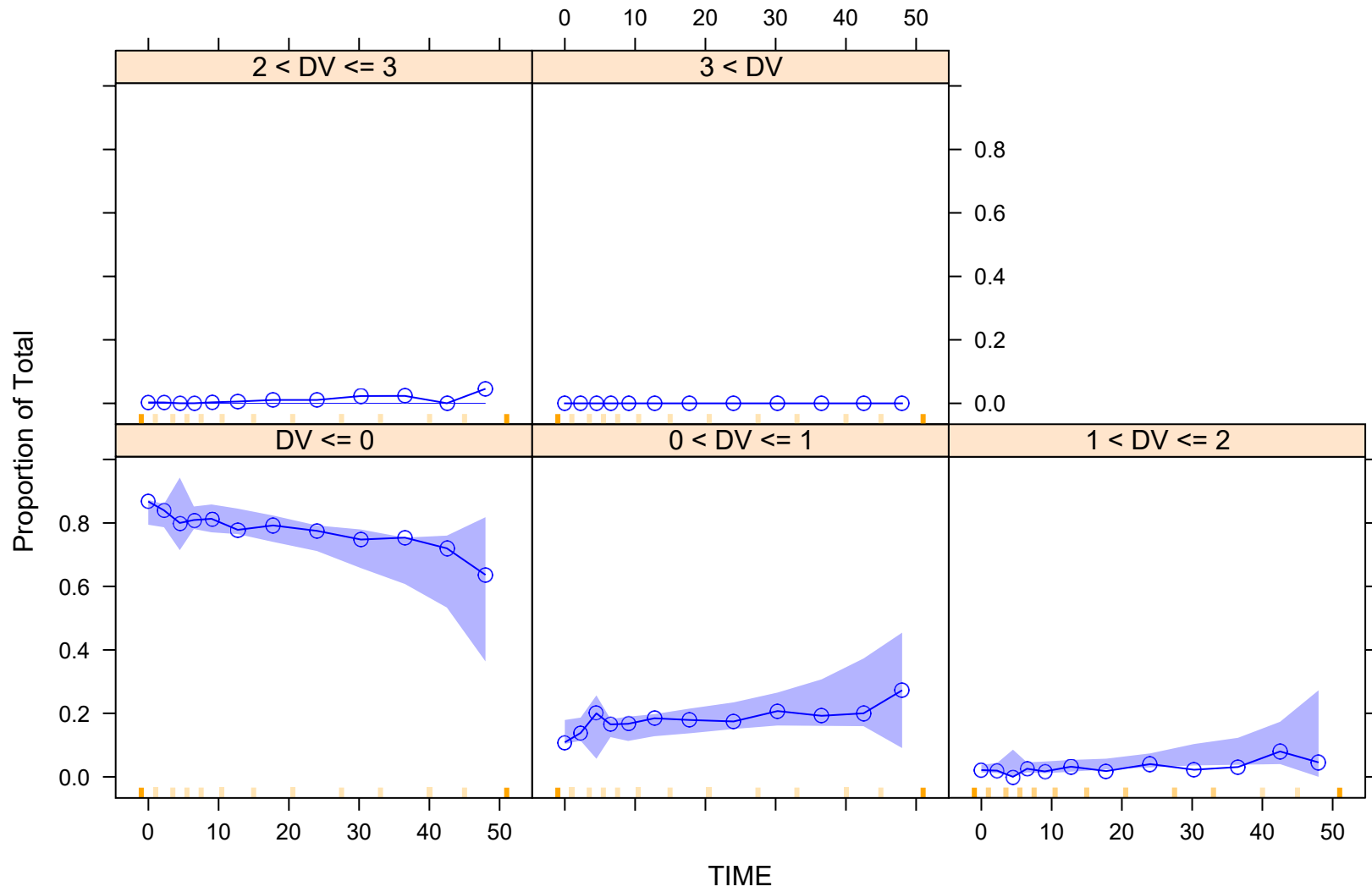
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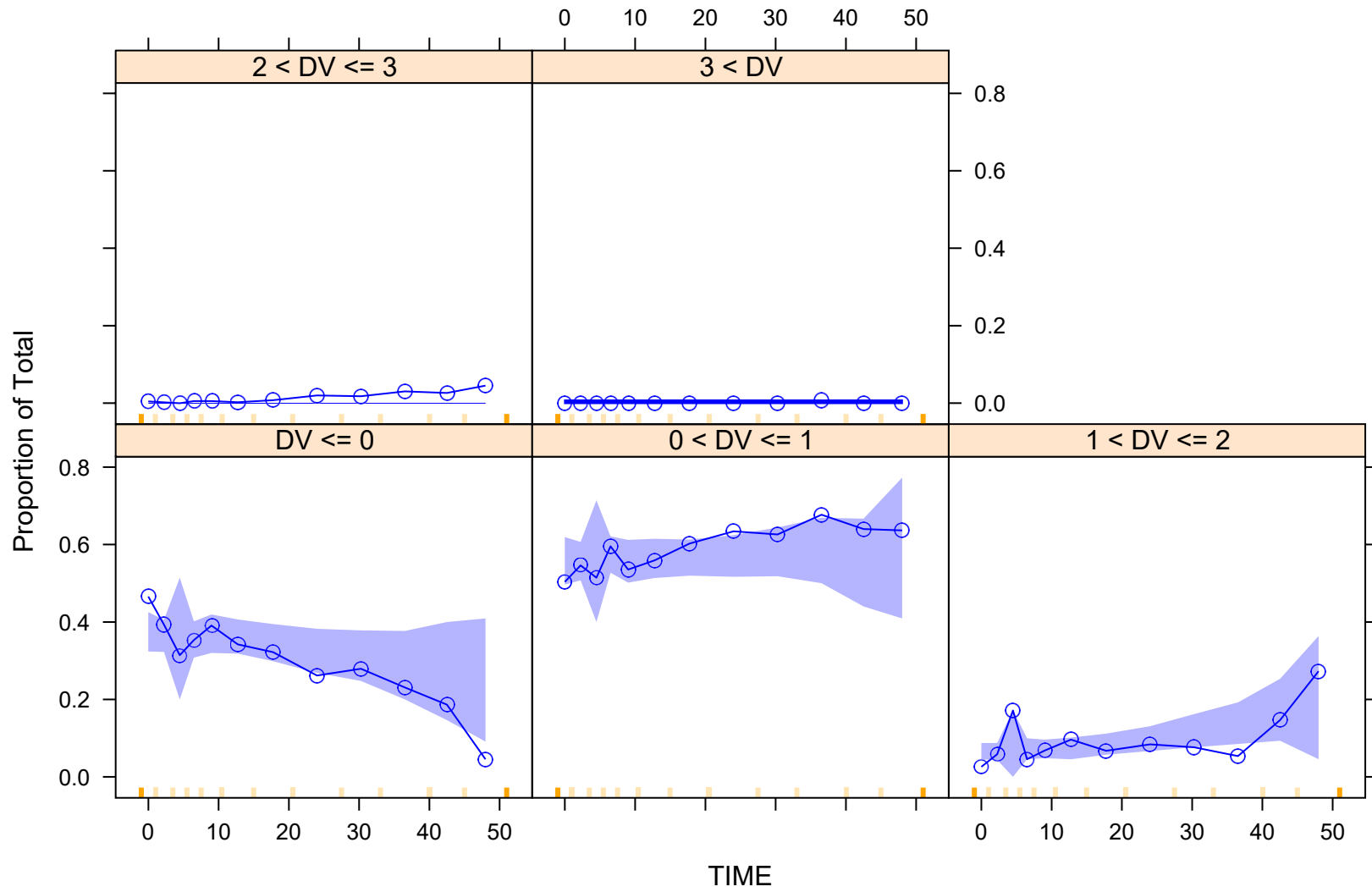
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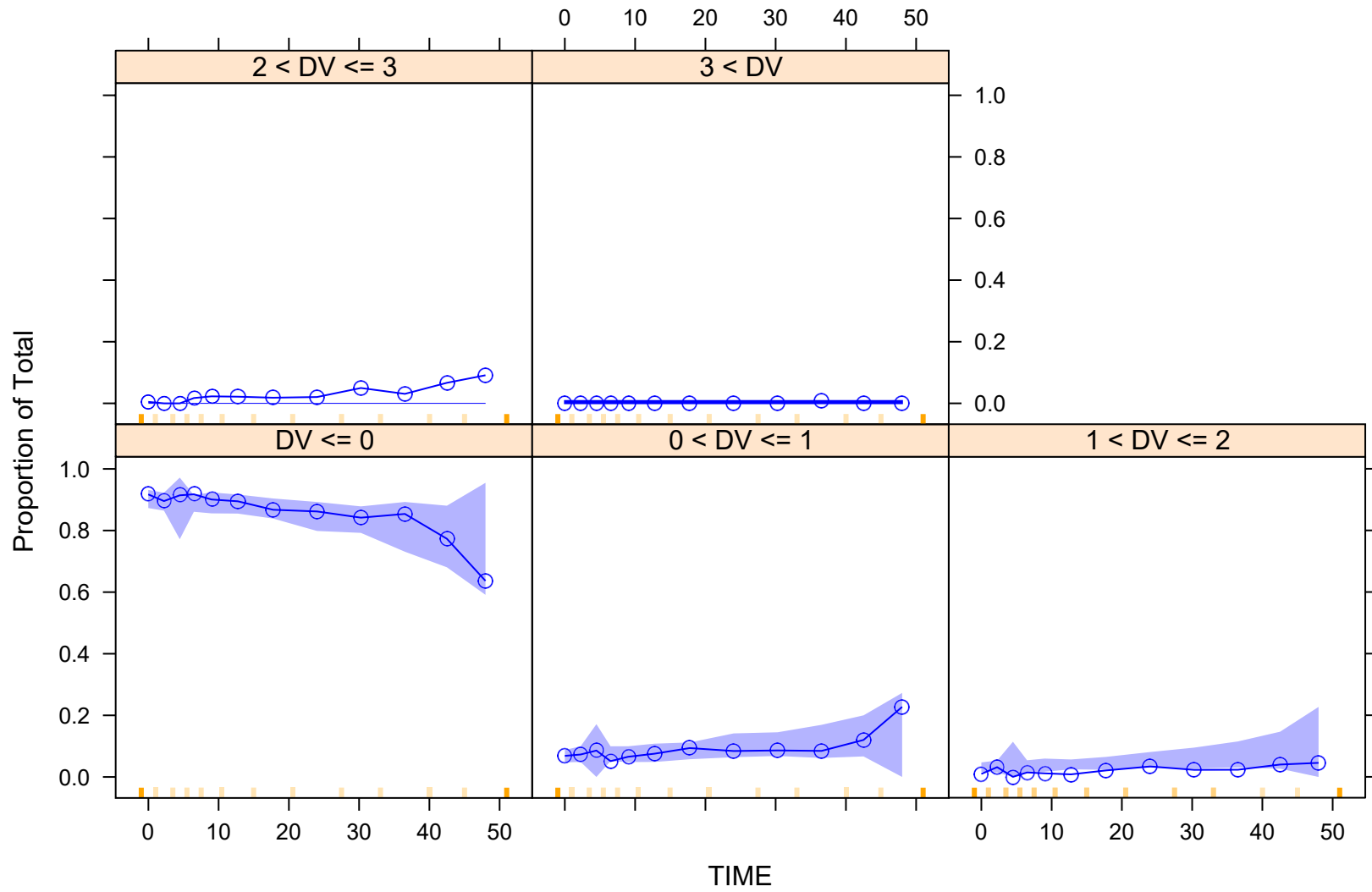
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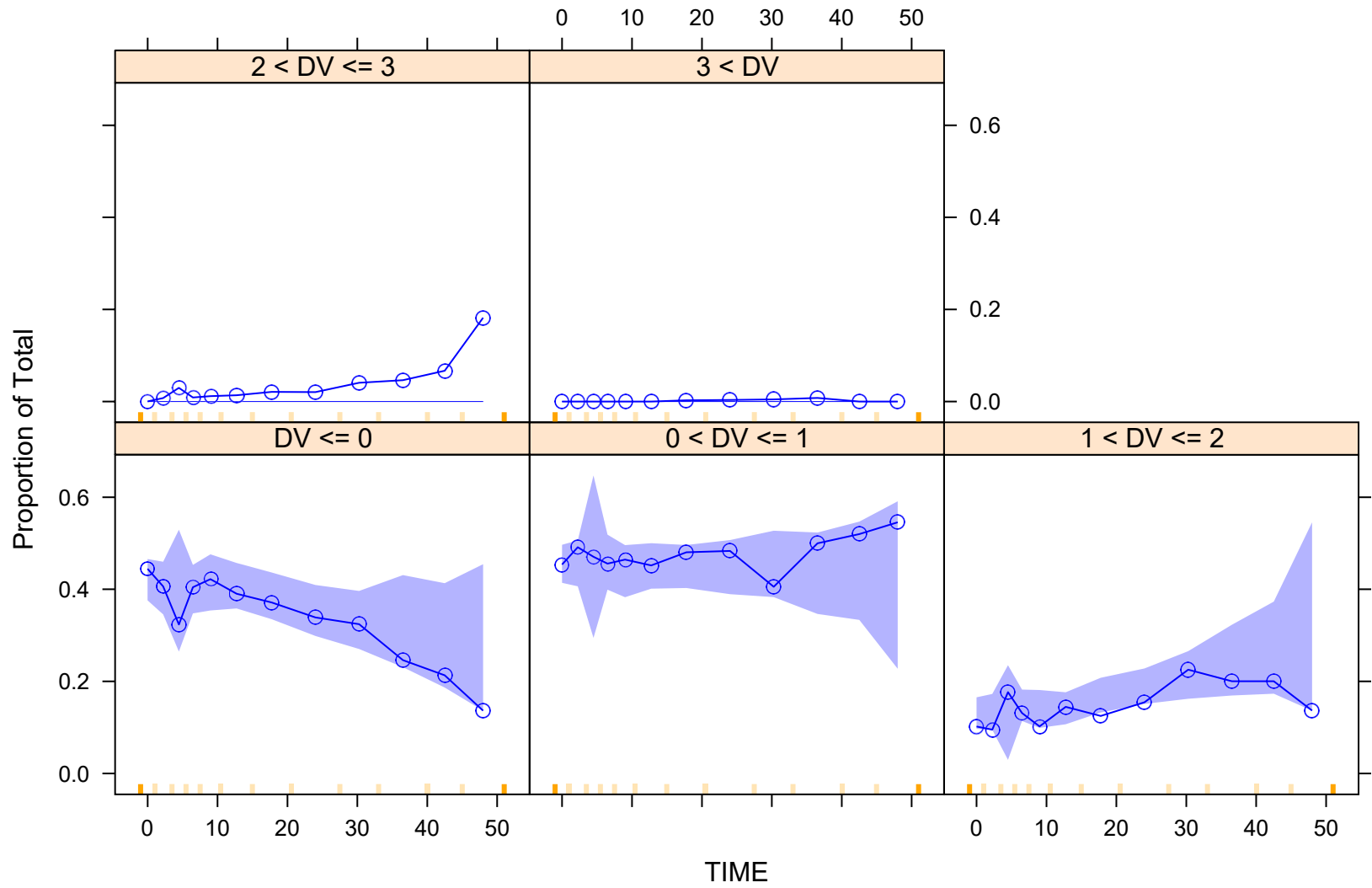
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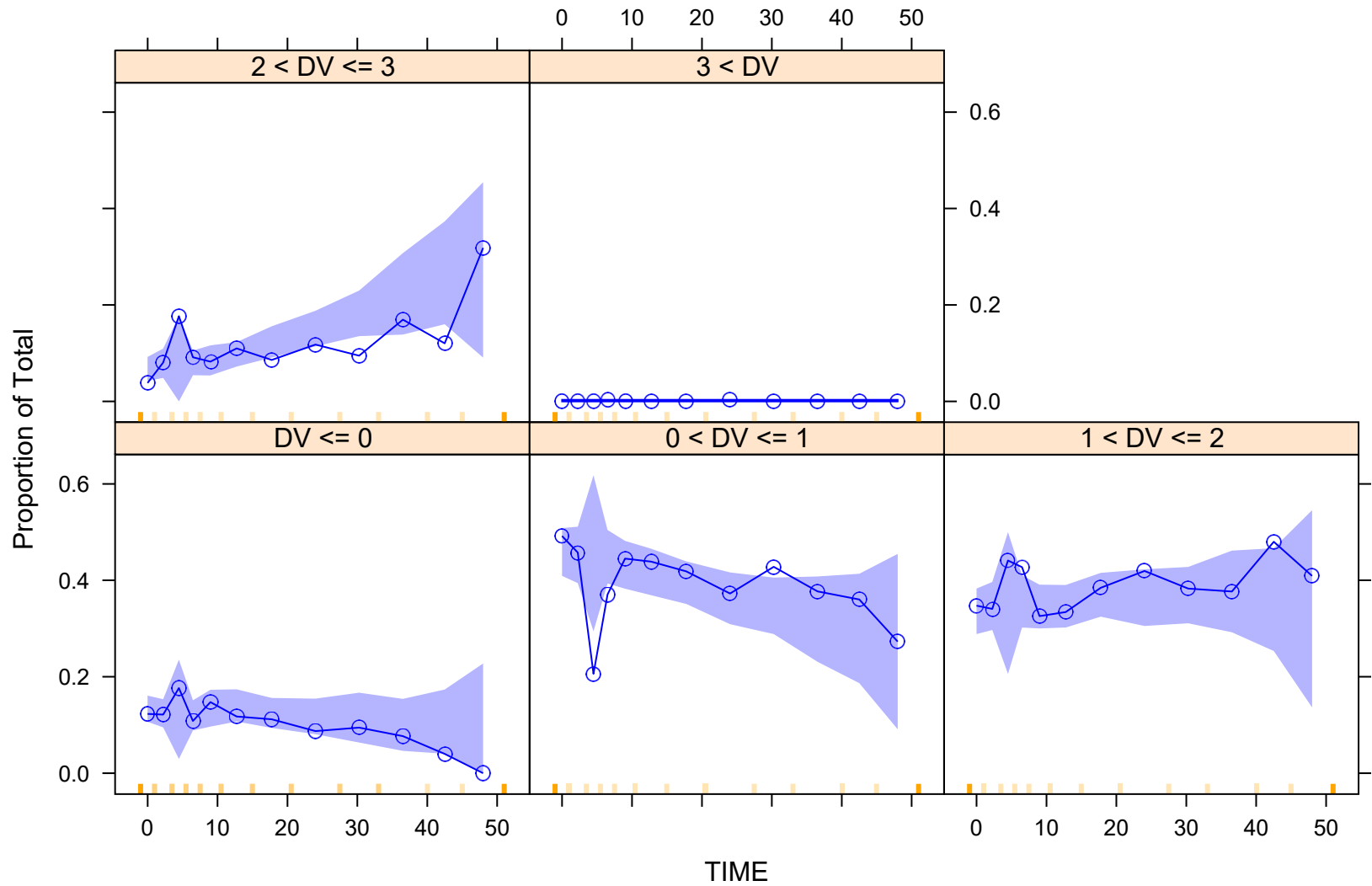


Figure S2 . Item Characteristic Curves (ICC) for all motor score items in the 100% (all items) scenario. Black dots indicate the observed scores. Panel with “1” (left most column) shows values with scores 0 and ≥ 1 ; panel with “2” (second column from left) shows values with scores 1 and ≥ 2 ; panel with “3” (third column from left) shows values with scores 2 and ≥ 3 ; and panel with “4” (right most column) shows values with scores 3 and ≥ 4 . The ICC curves from the IRT model fit (dark red line) is compared to the fit of a generalized additive model (GAM) with cross-validated cubic spline as a smoothing function (blue line and the associated 95% confidence interval is shown in grey)

