

Title: Evaluation of the link between the Guttman errors and response shift at the individual level

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Caption:

This online resource provides the results obtained with the change in the number of Guttman errors over time within all the scenarios considered (means among patients with/without RS and corresponding AUROCs). The change in the number of Guttman errors over time is denoted I . Results are given for uniform recalibration and then for non-uniform recalibration.

Uniform recalibration (UR)

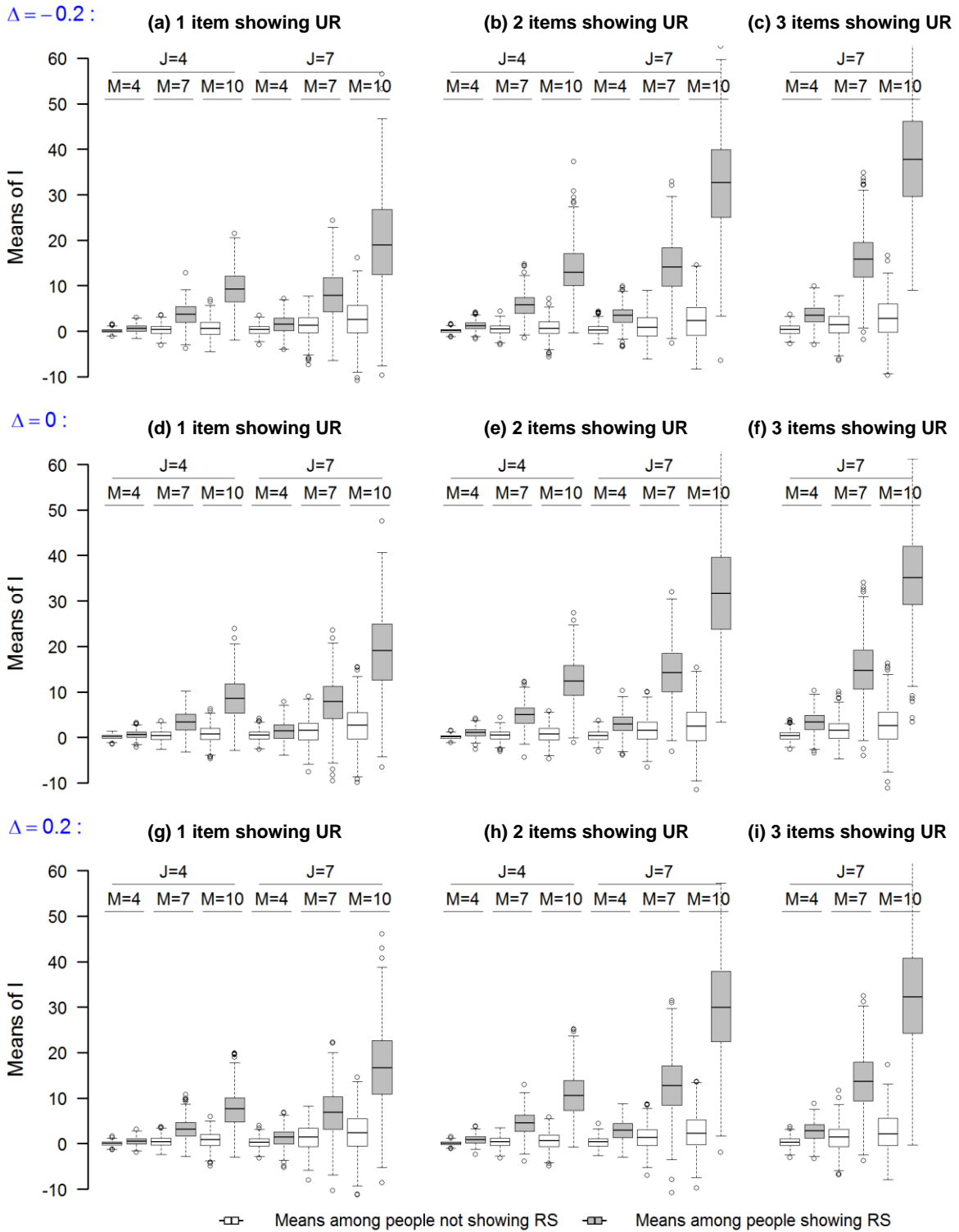


Fig. 1 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

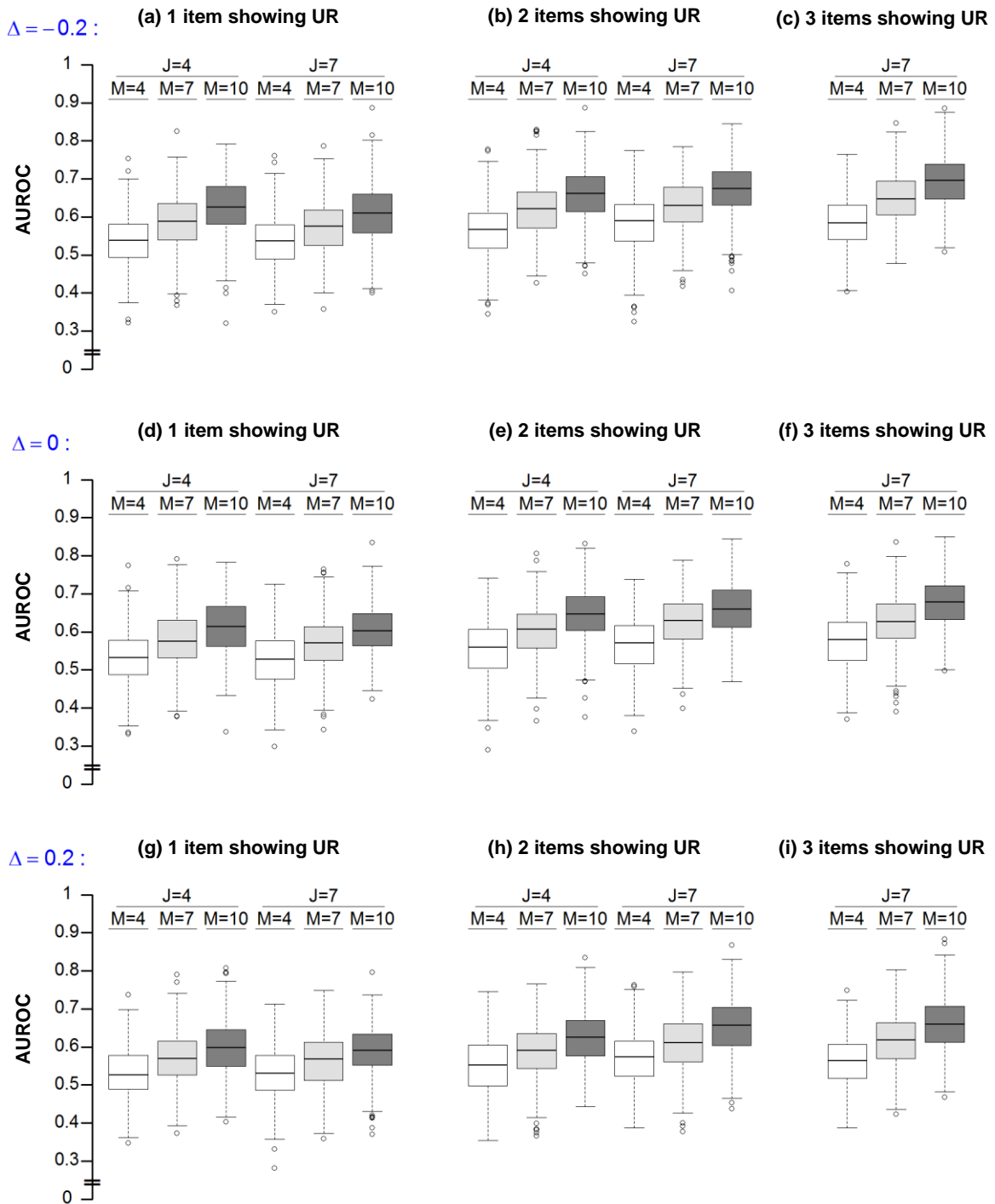


Fig. 2 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

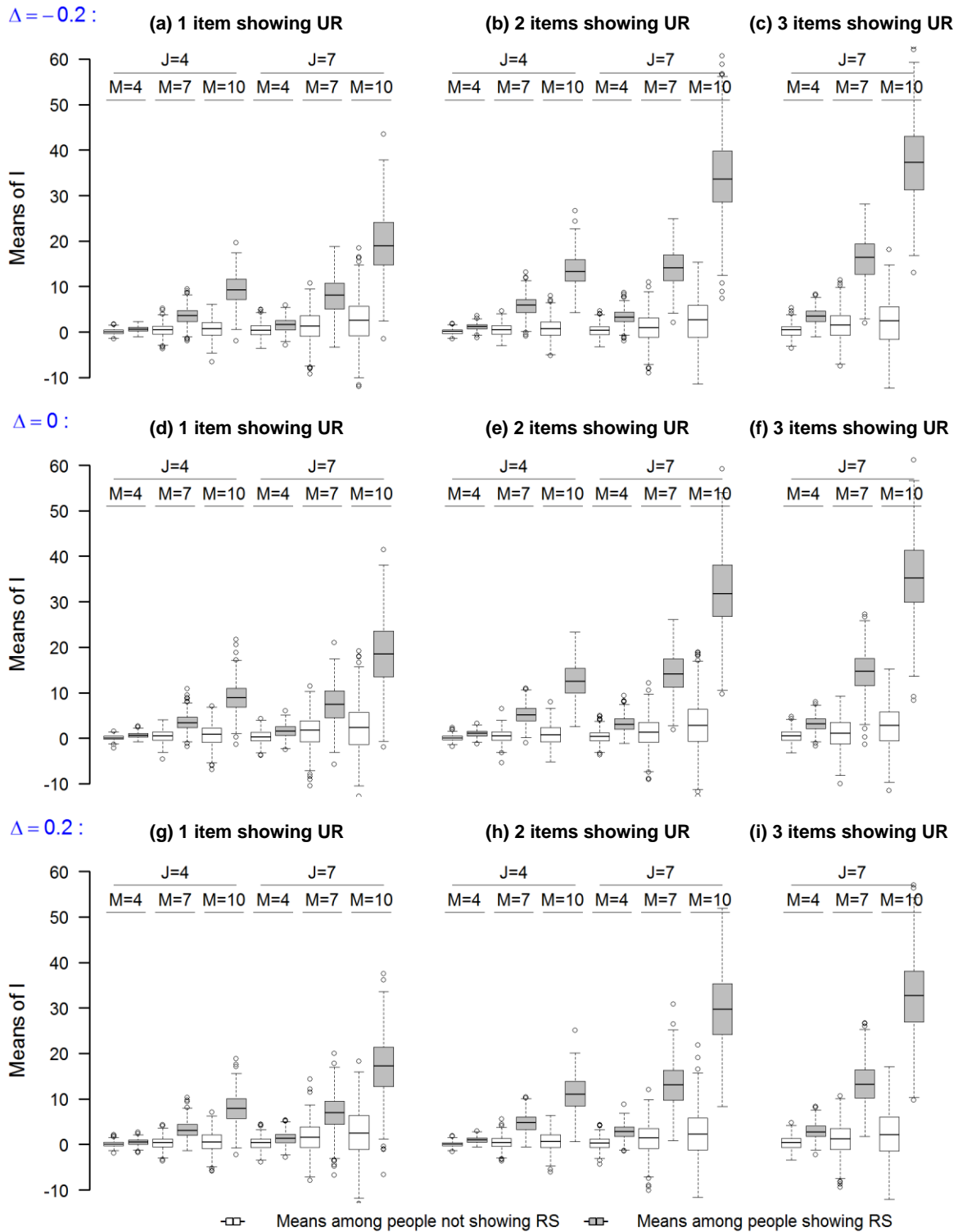


Fig. 3 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

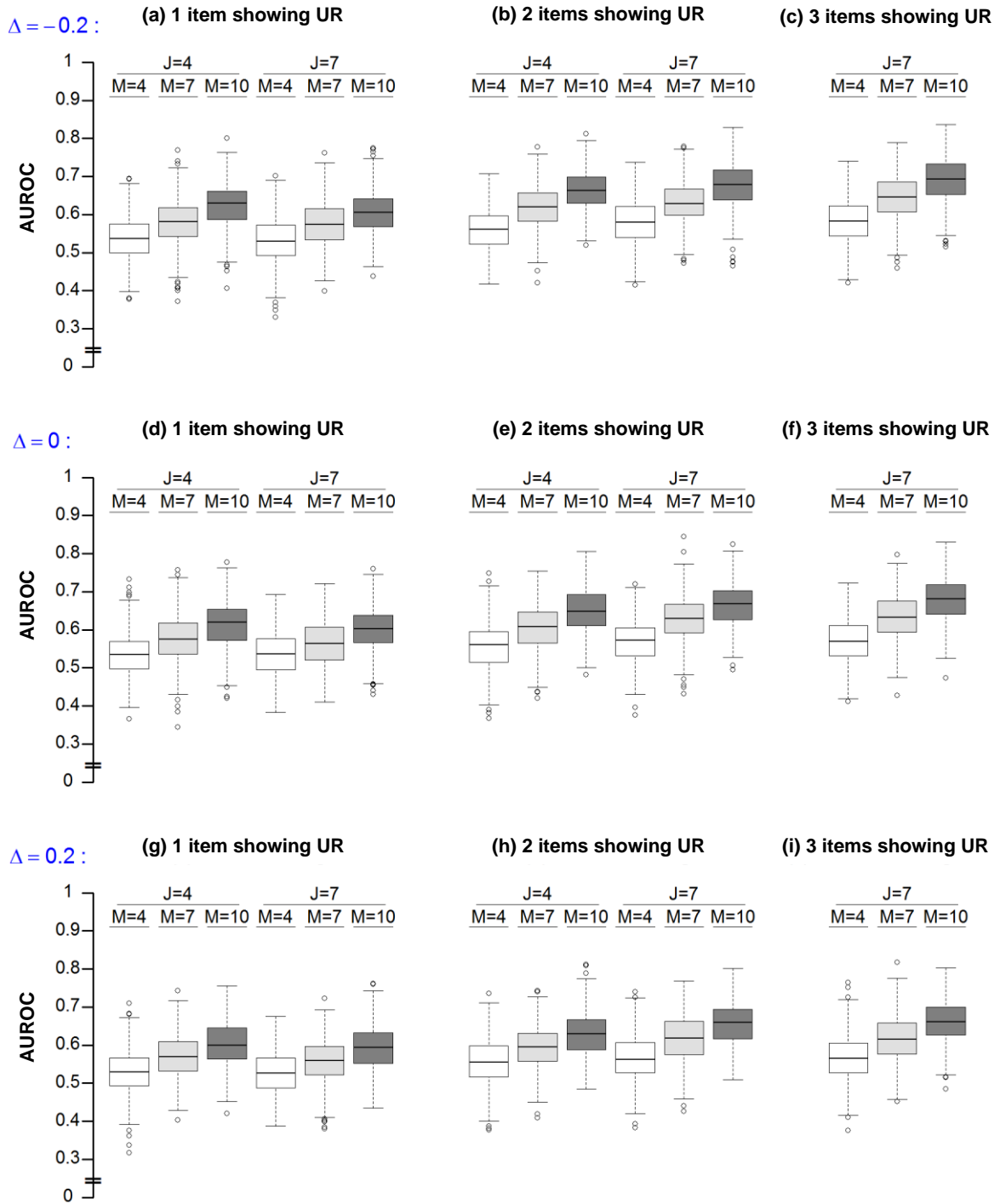


Fig. 4 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

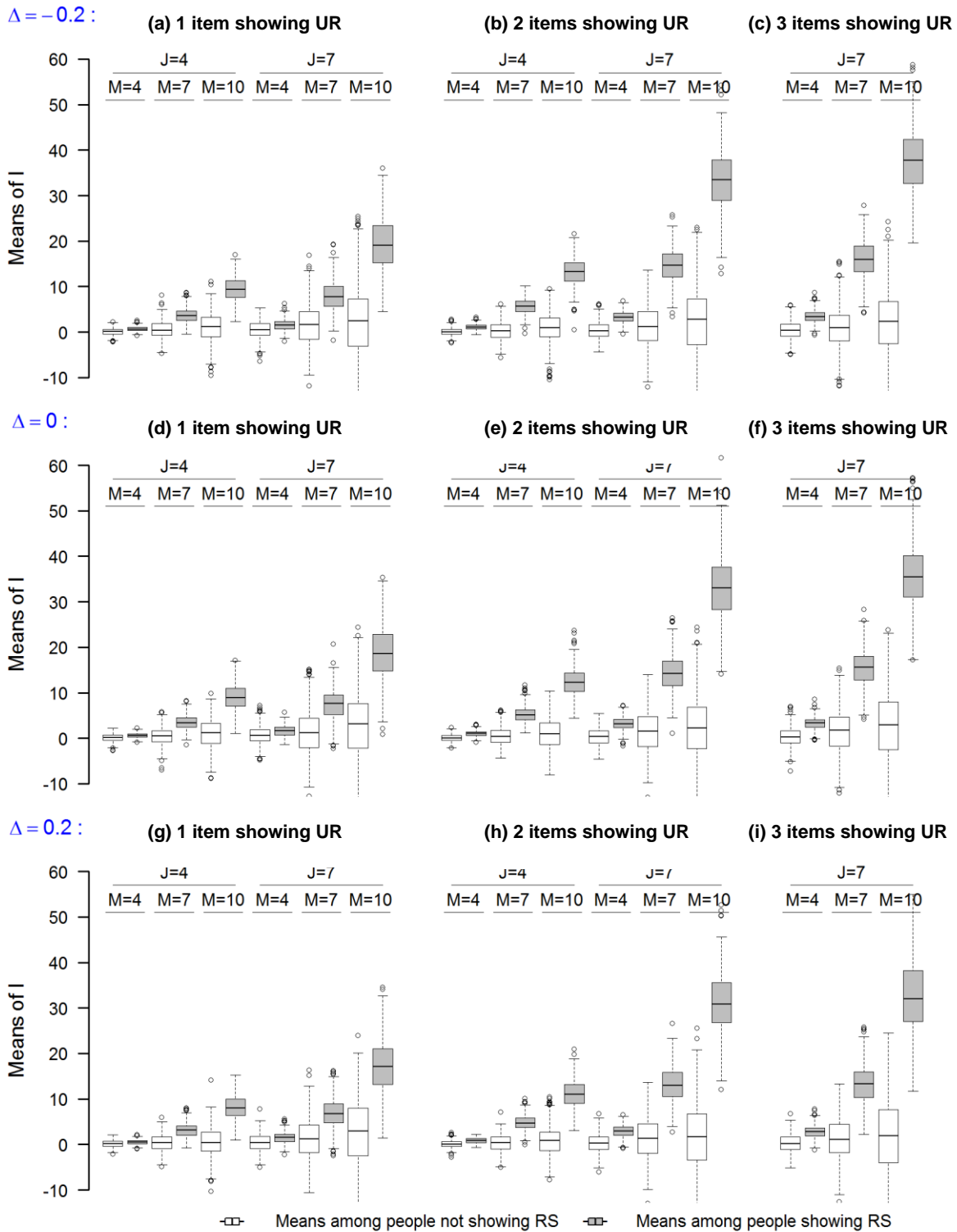


Fig. 5 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

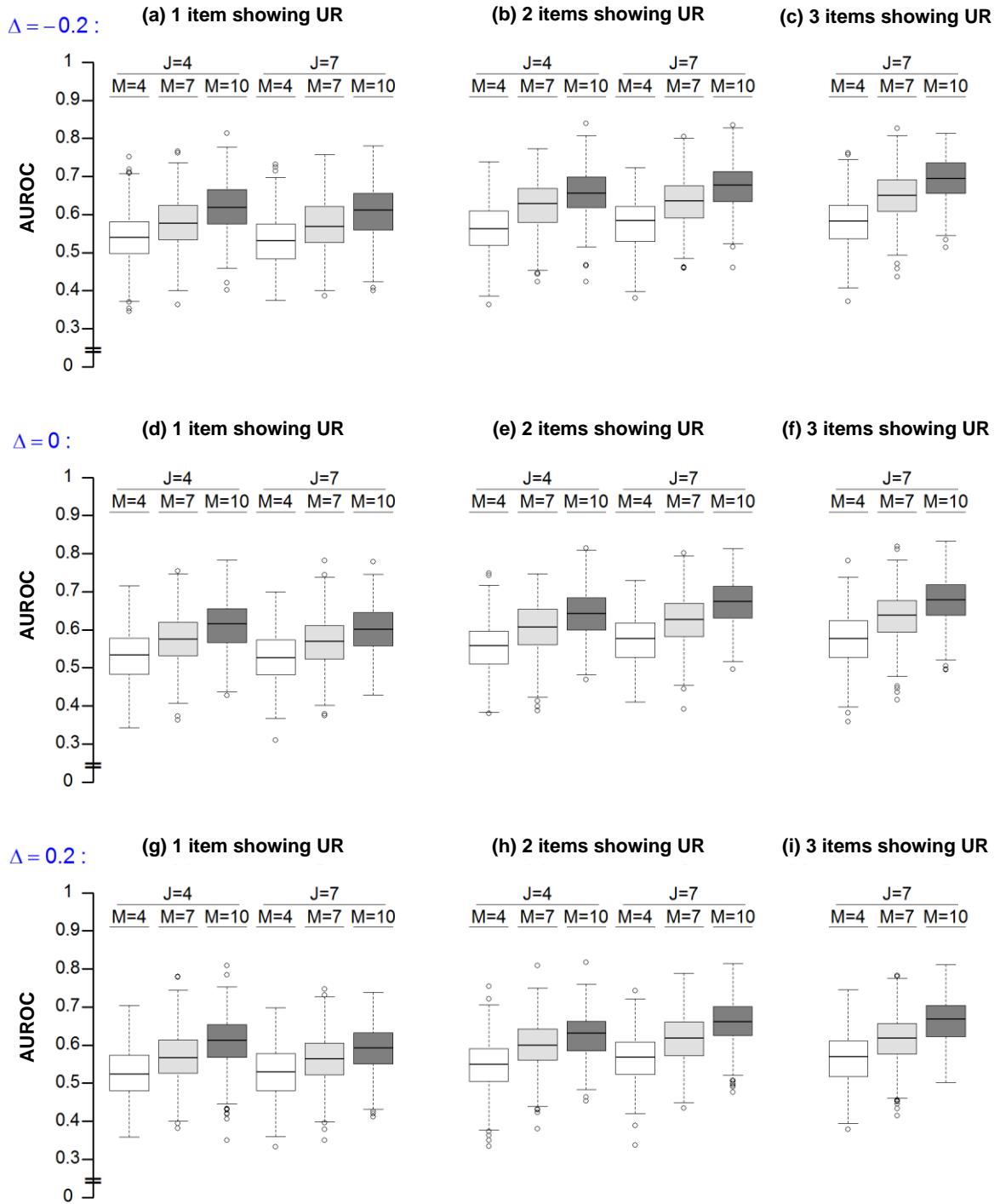


Fig. 6 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

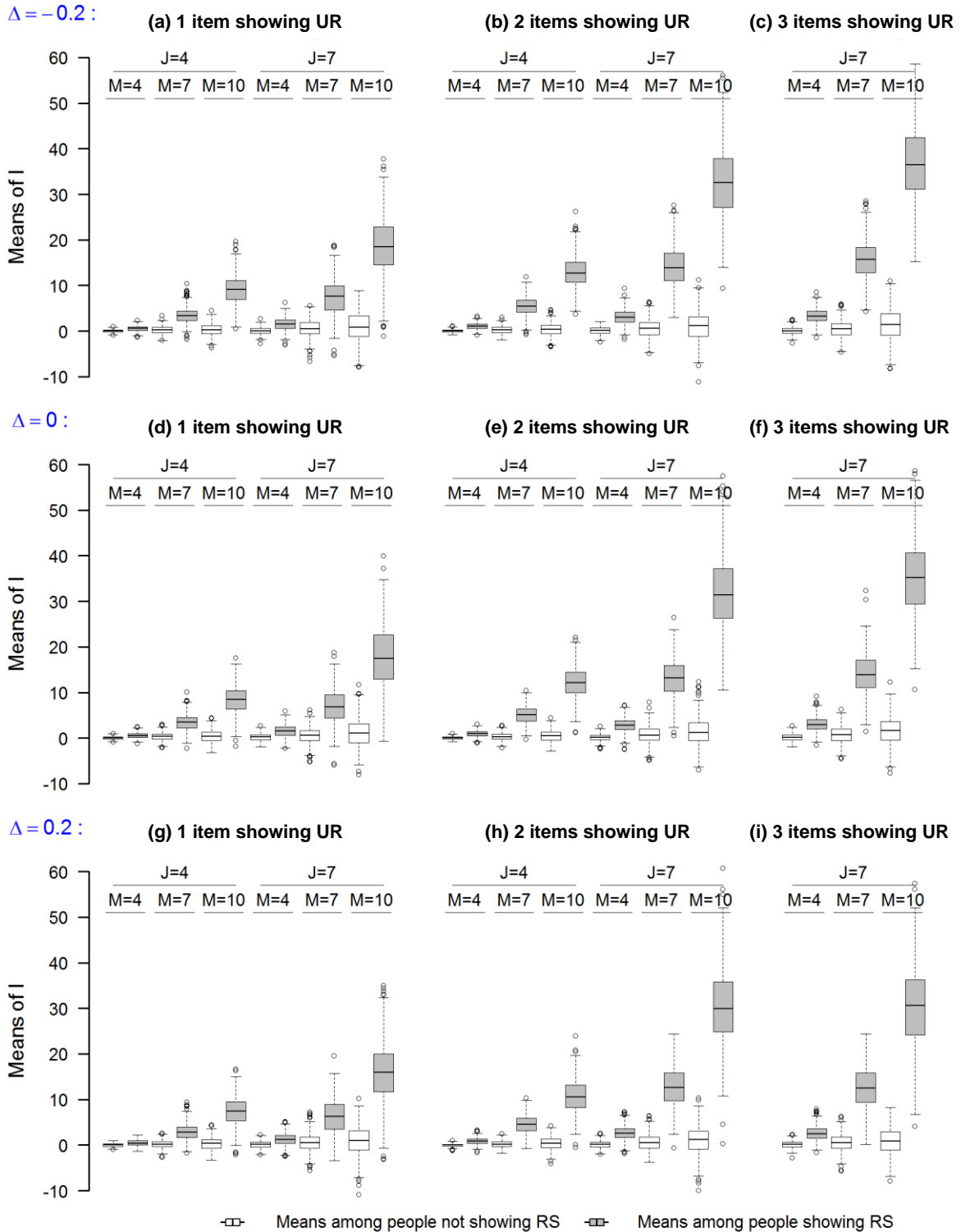


Fig. 7 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

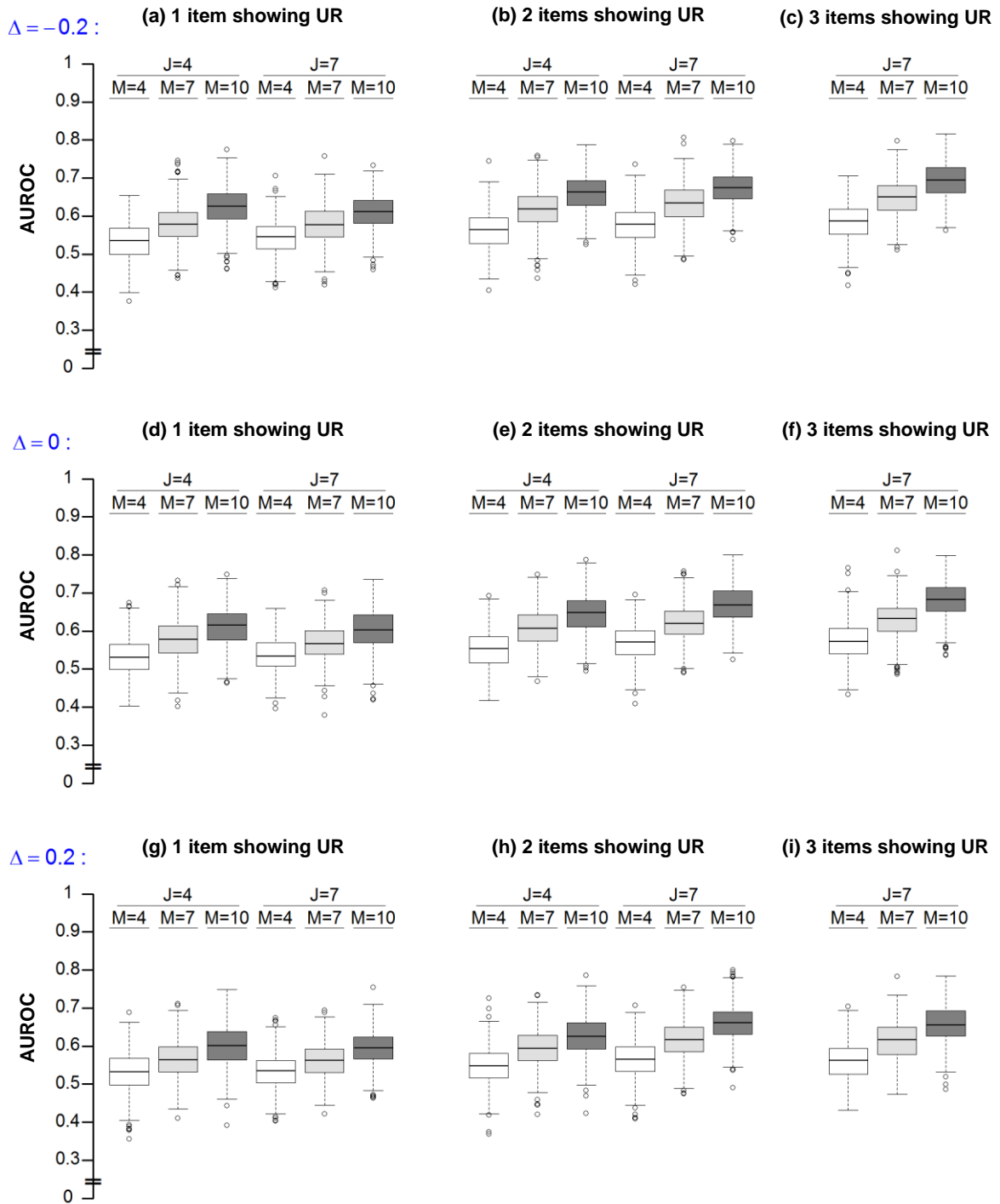


Fig. 8 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

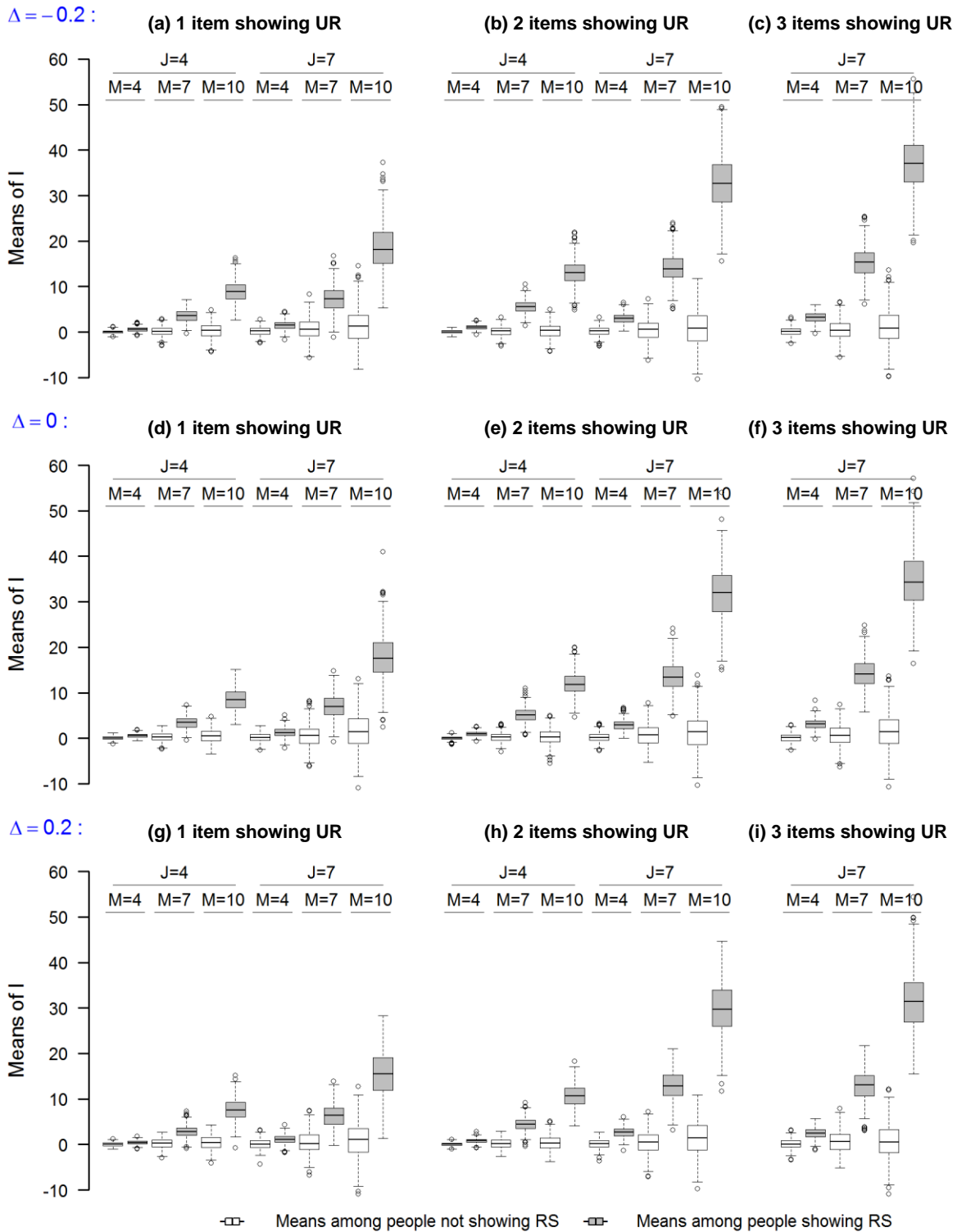


Fig. 9 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

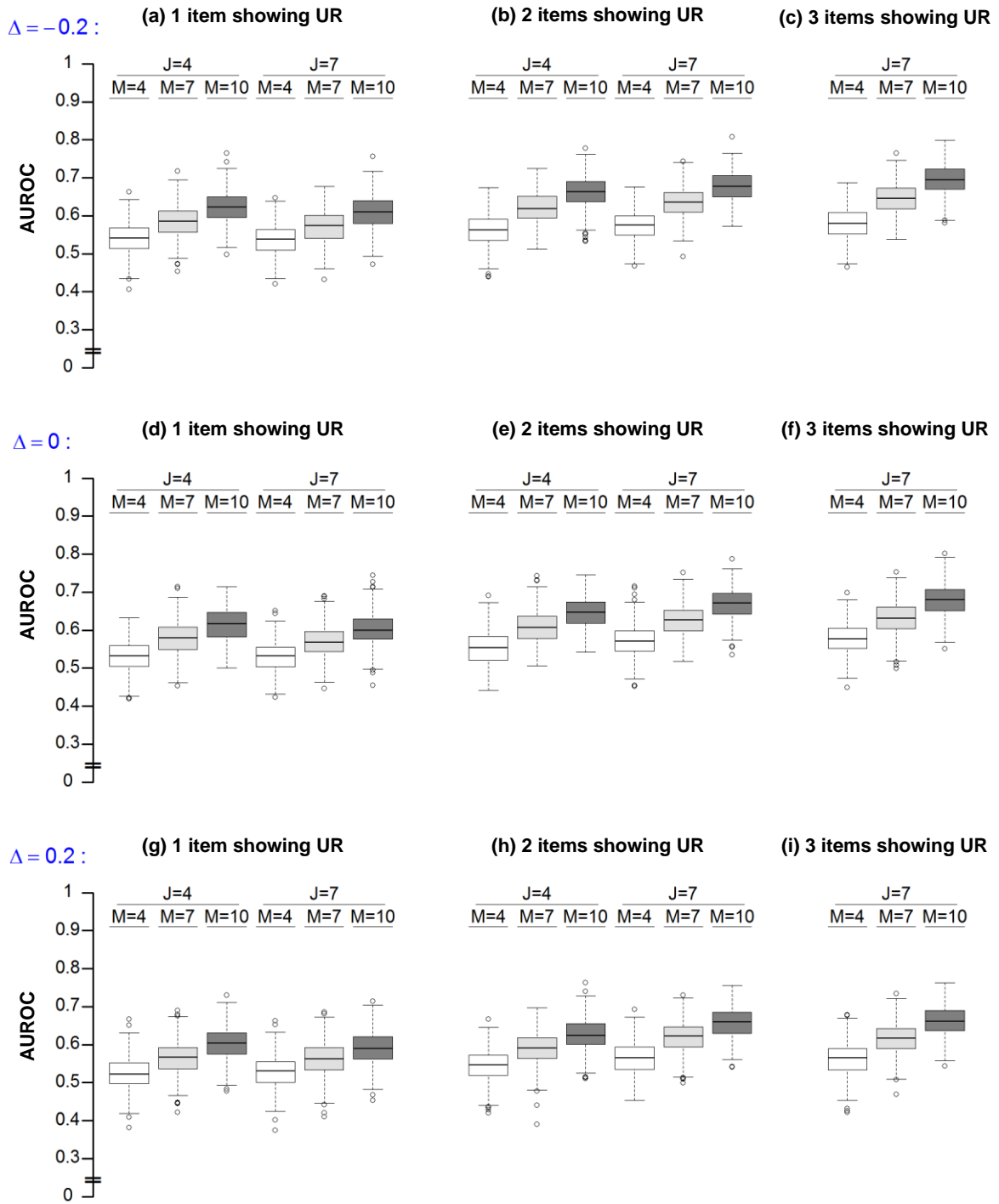


Fig. 10 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

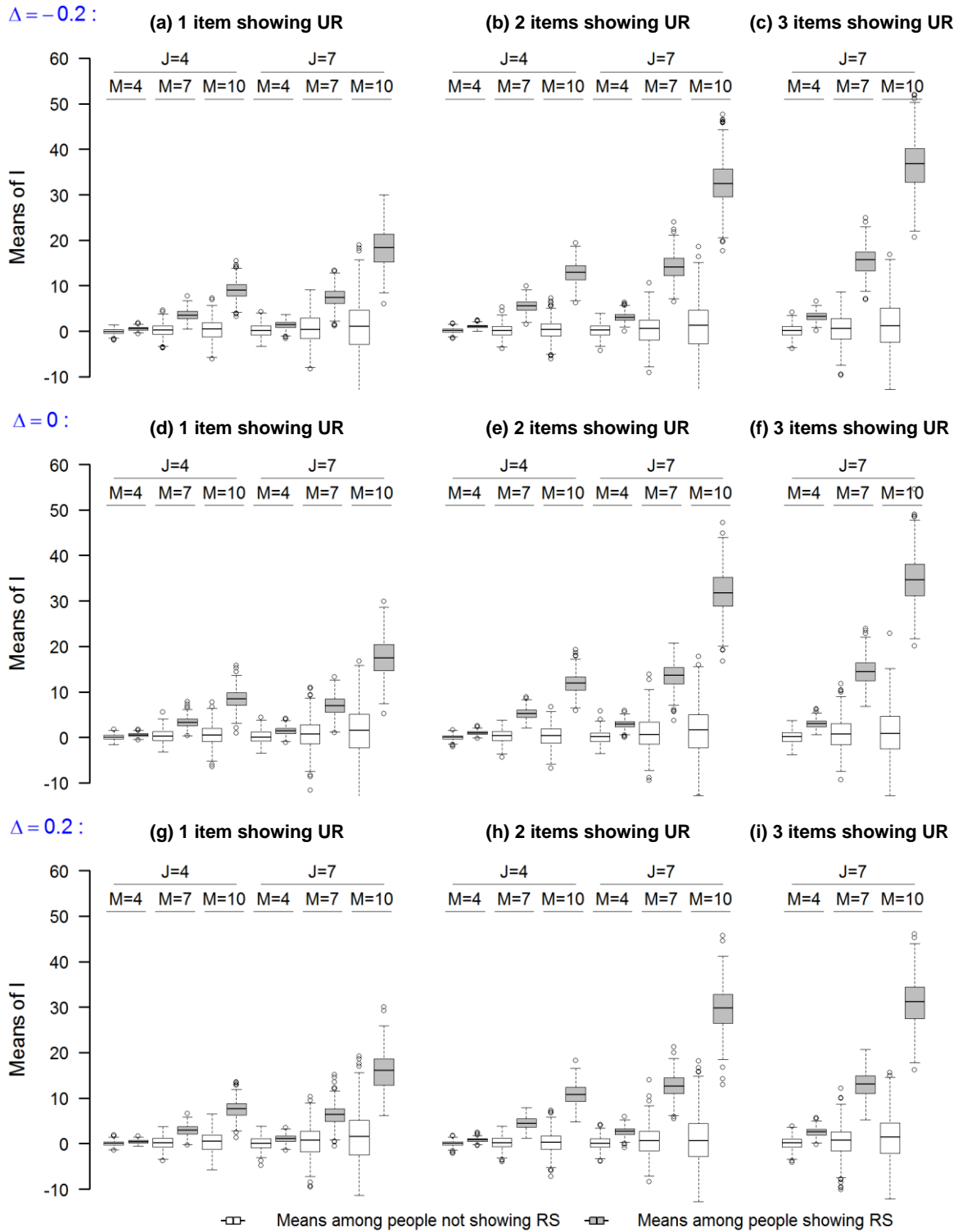


Fig. 11 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

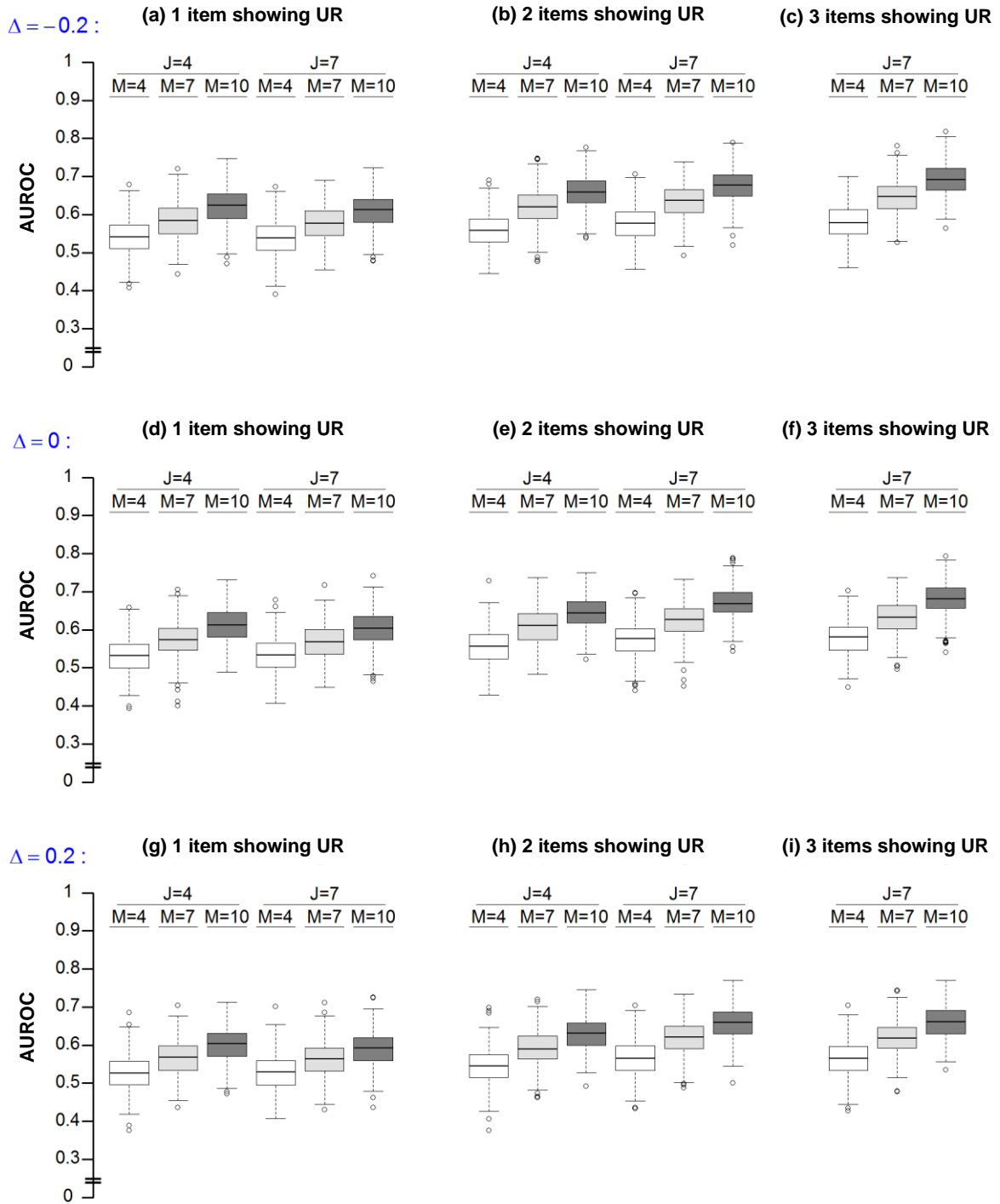


Fig. 12 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

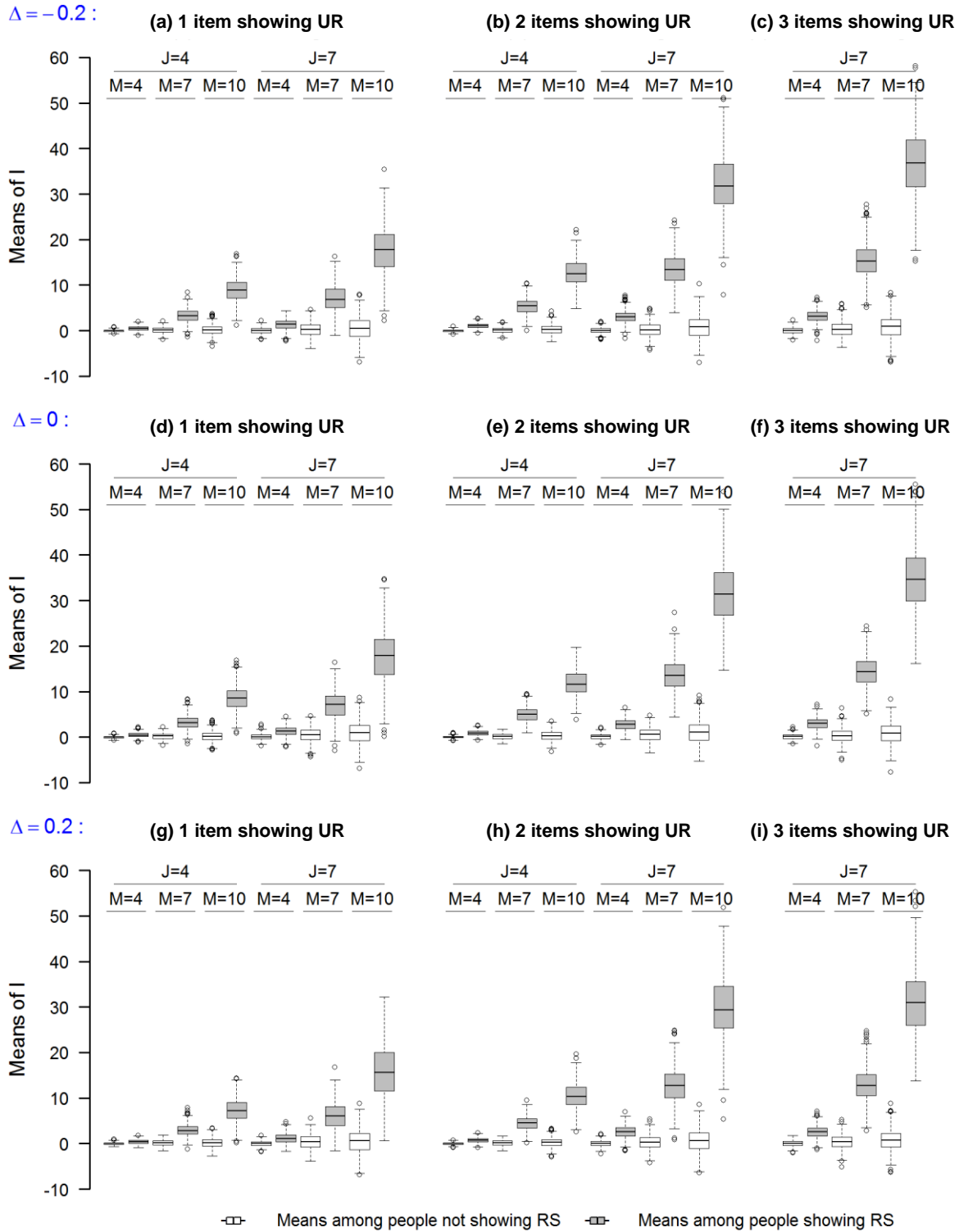


Fig. 13 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

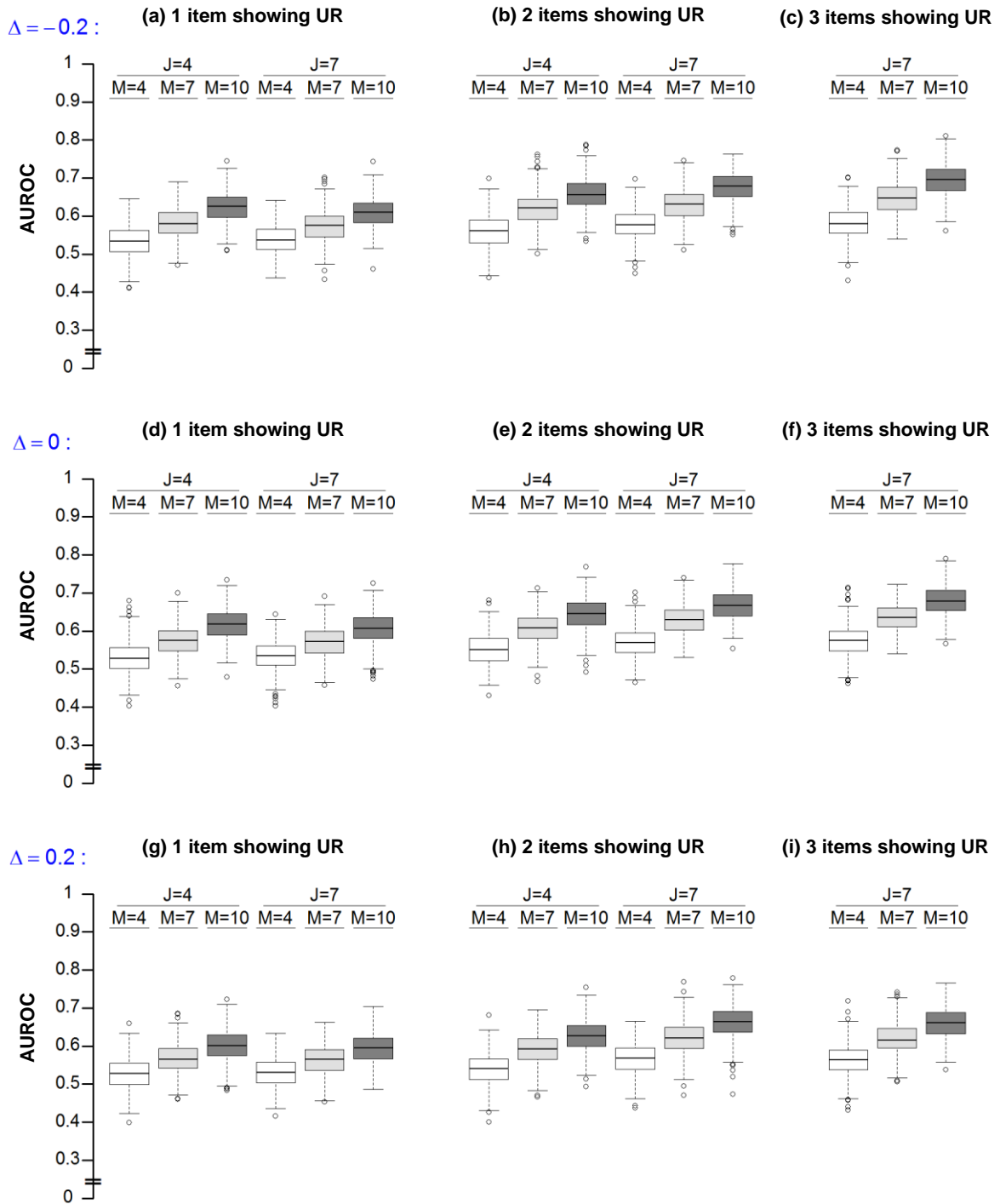


Fig. 14 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

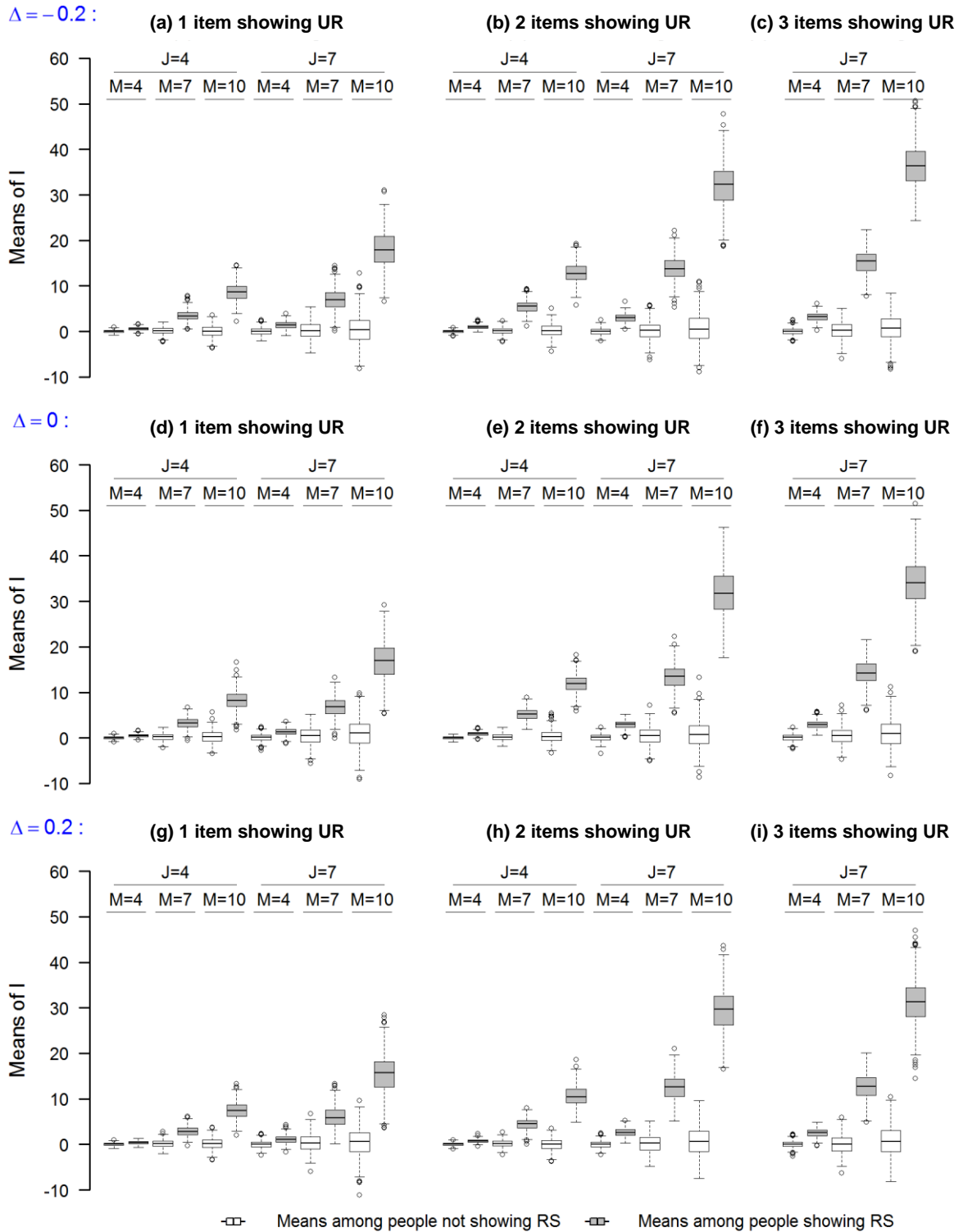


Fig. 15 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

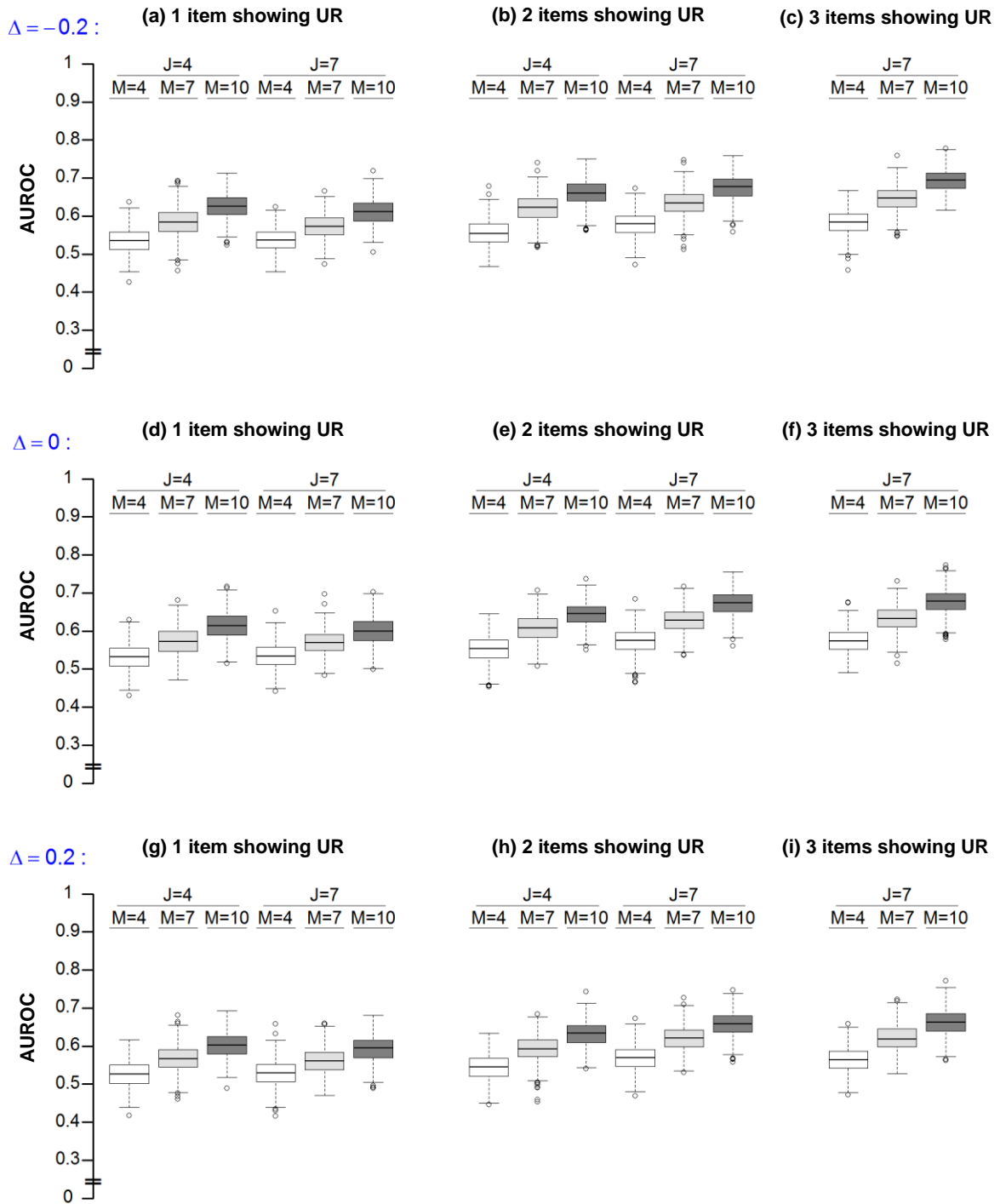


Fig. 16 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

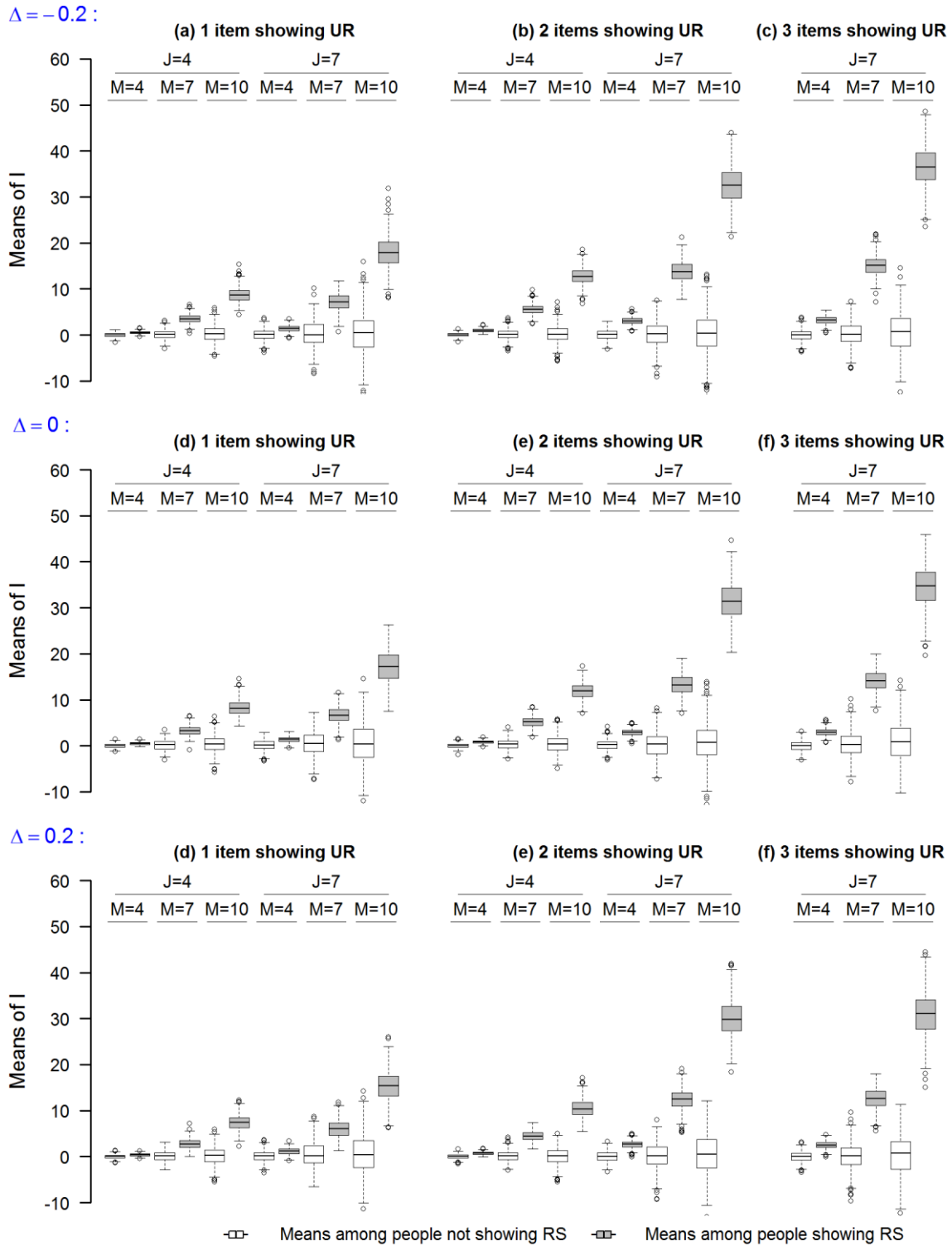


Fig. 17 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Uniform recalibration (UR)

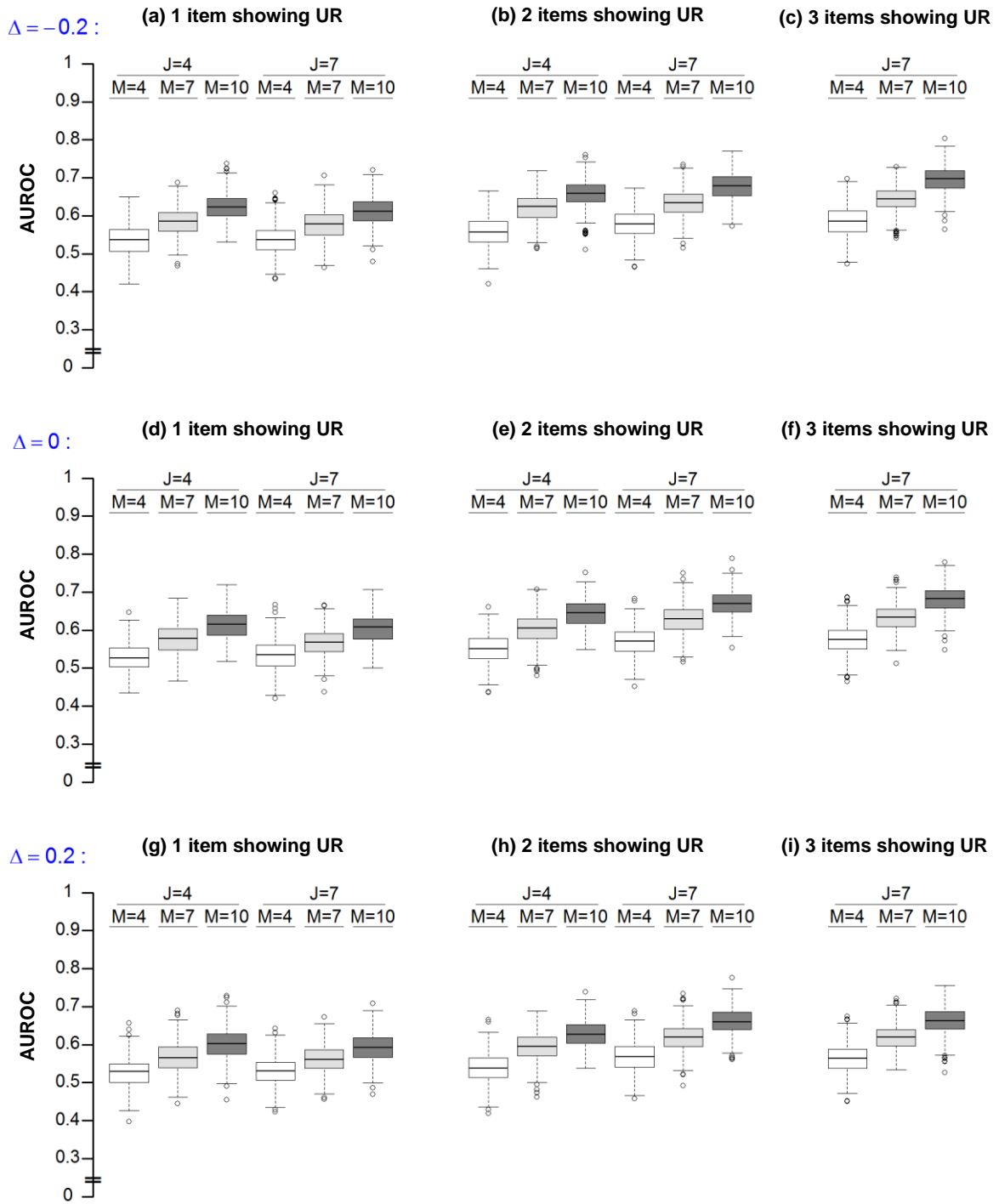


Fig. 18 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. UR: uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

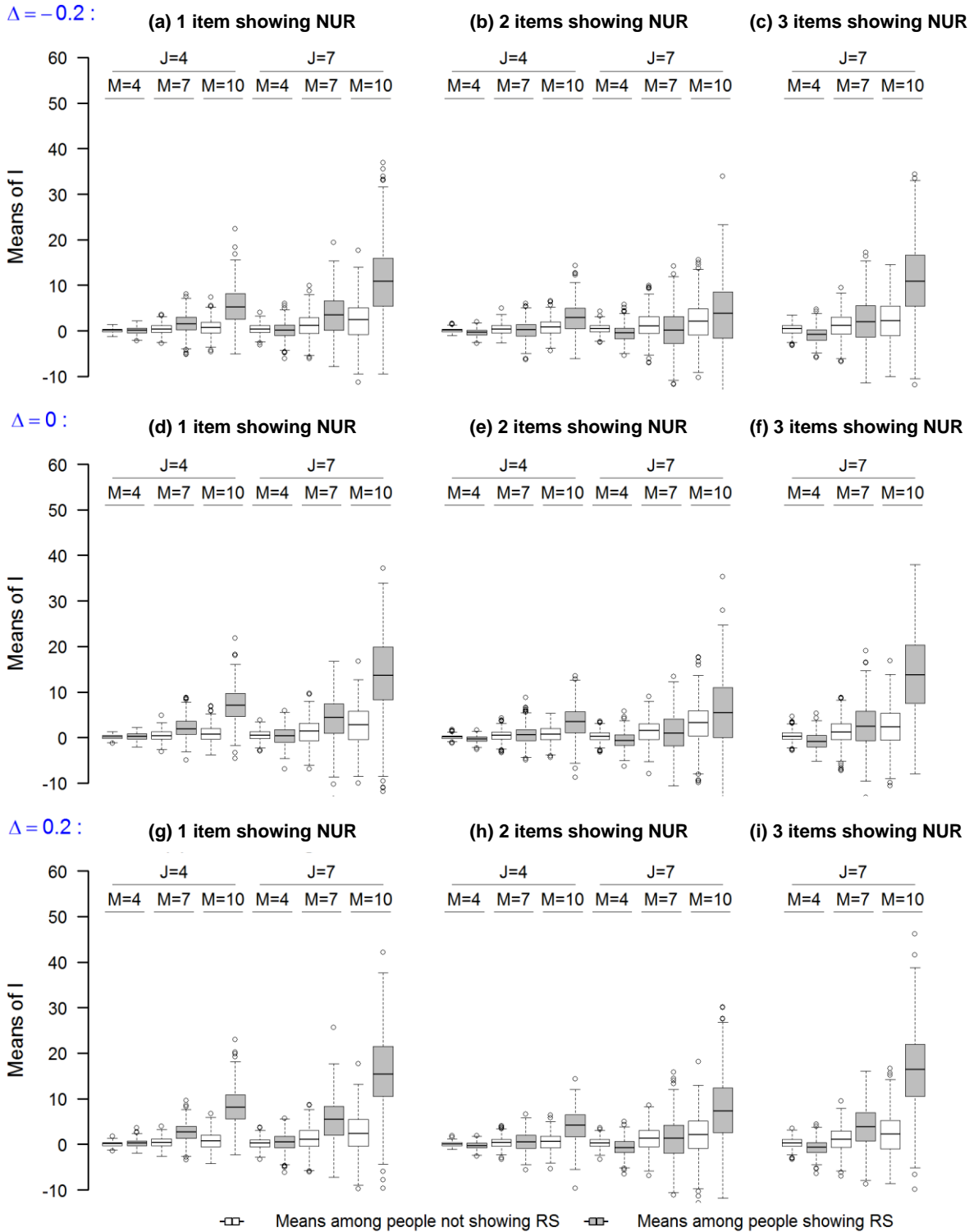


Fig. 19 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

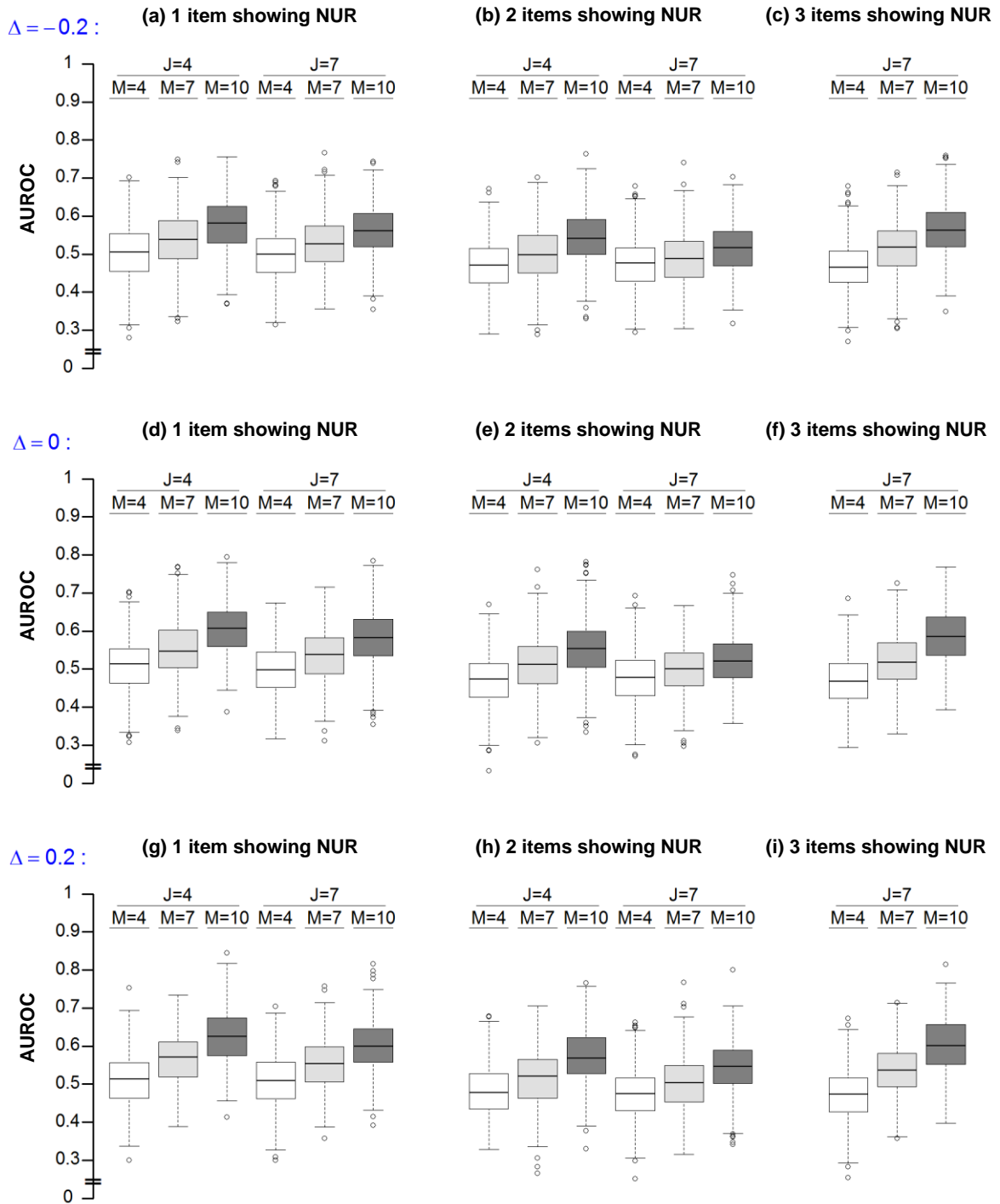


Fig. 20 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

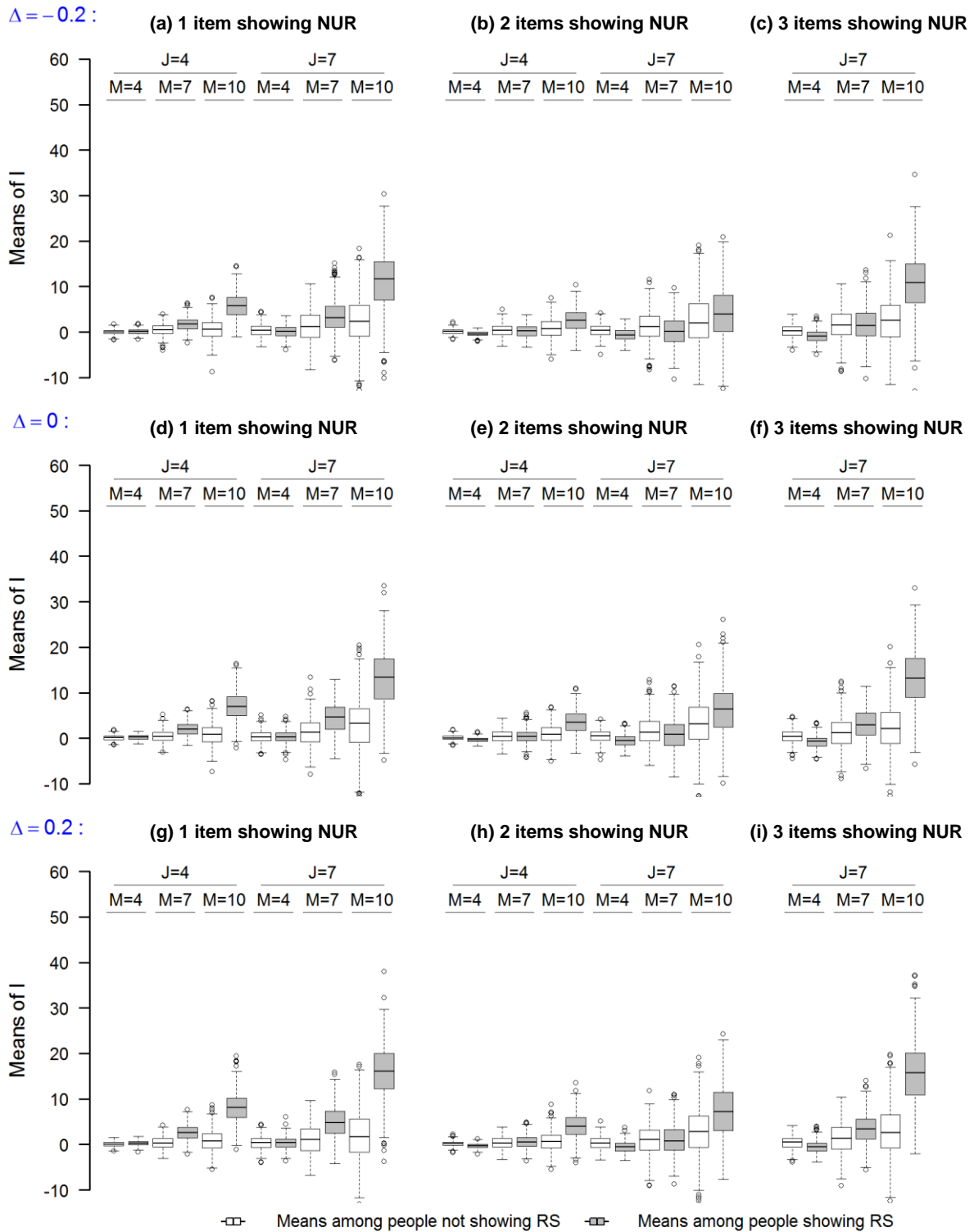


Fig. 21 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

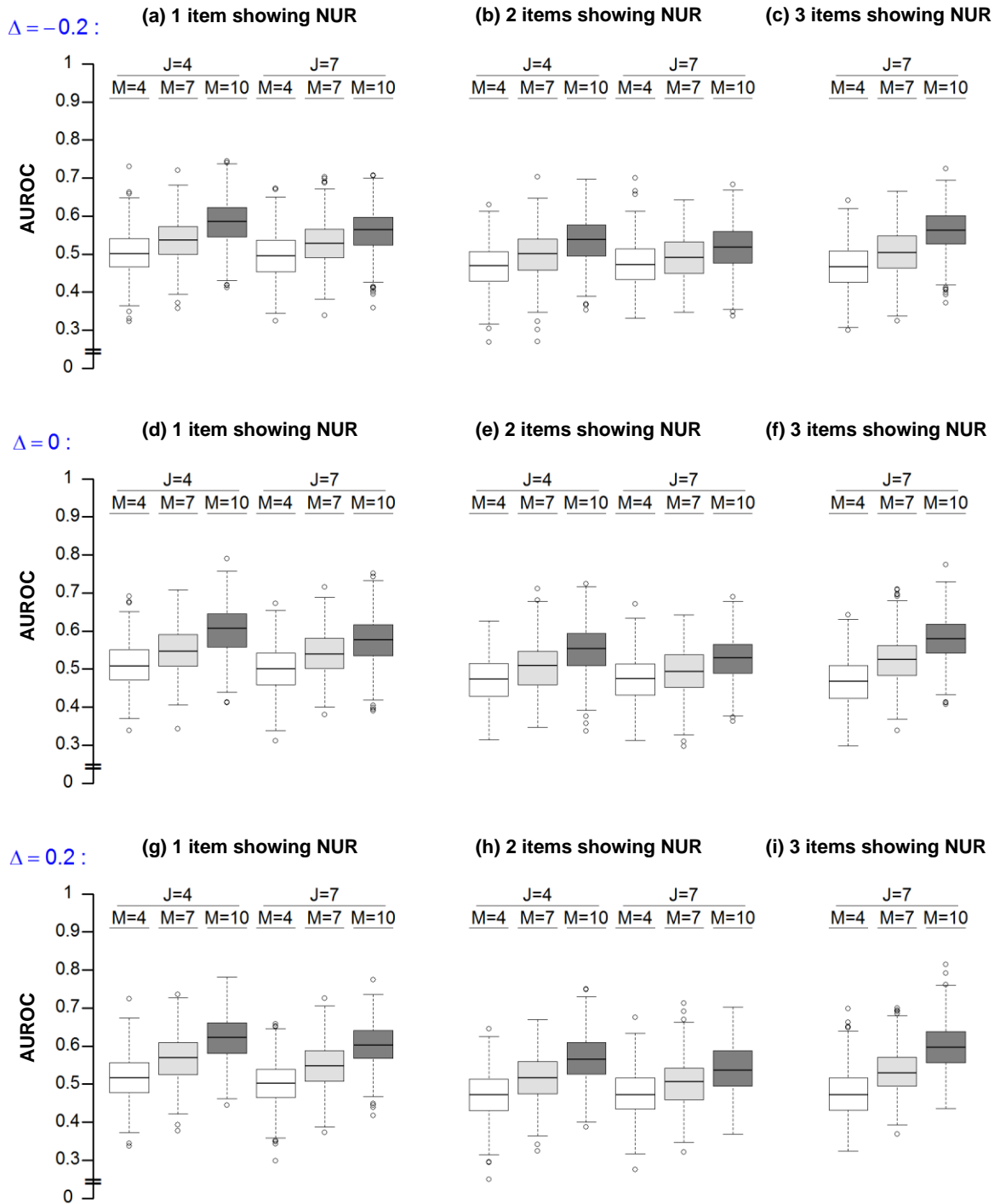


Fig. 22 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

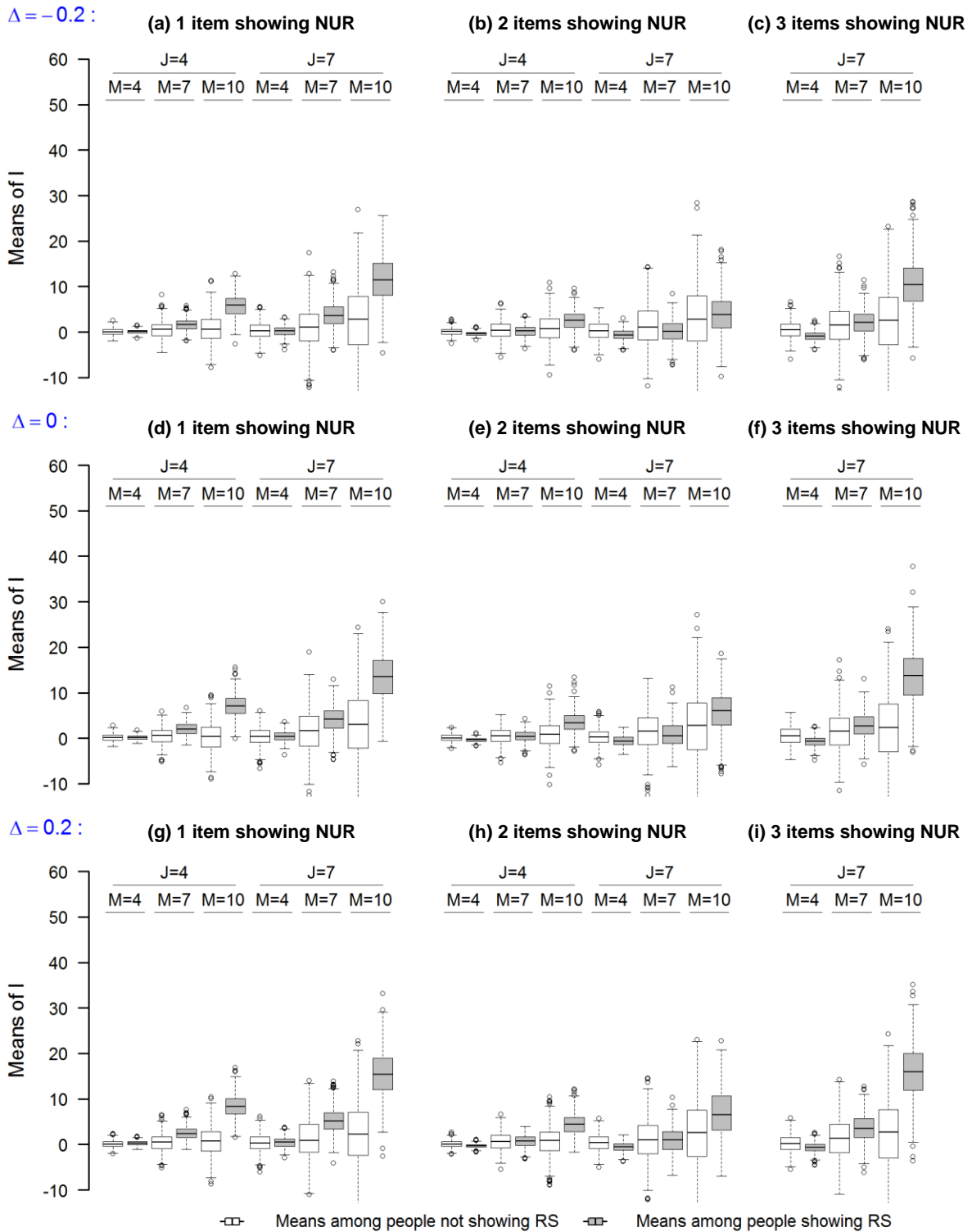


Fig. 23 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

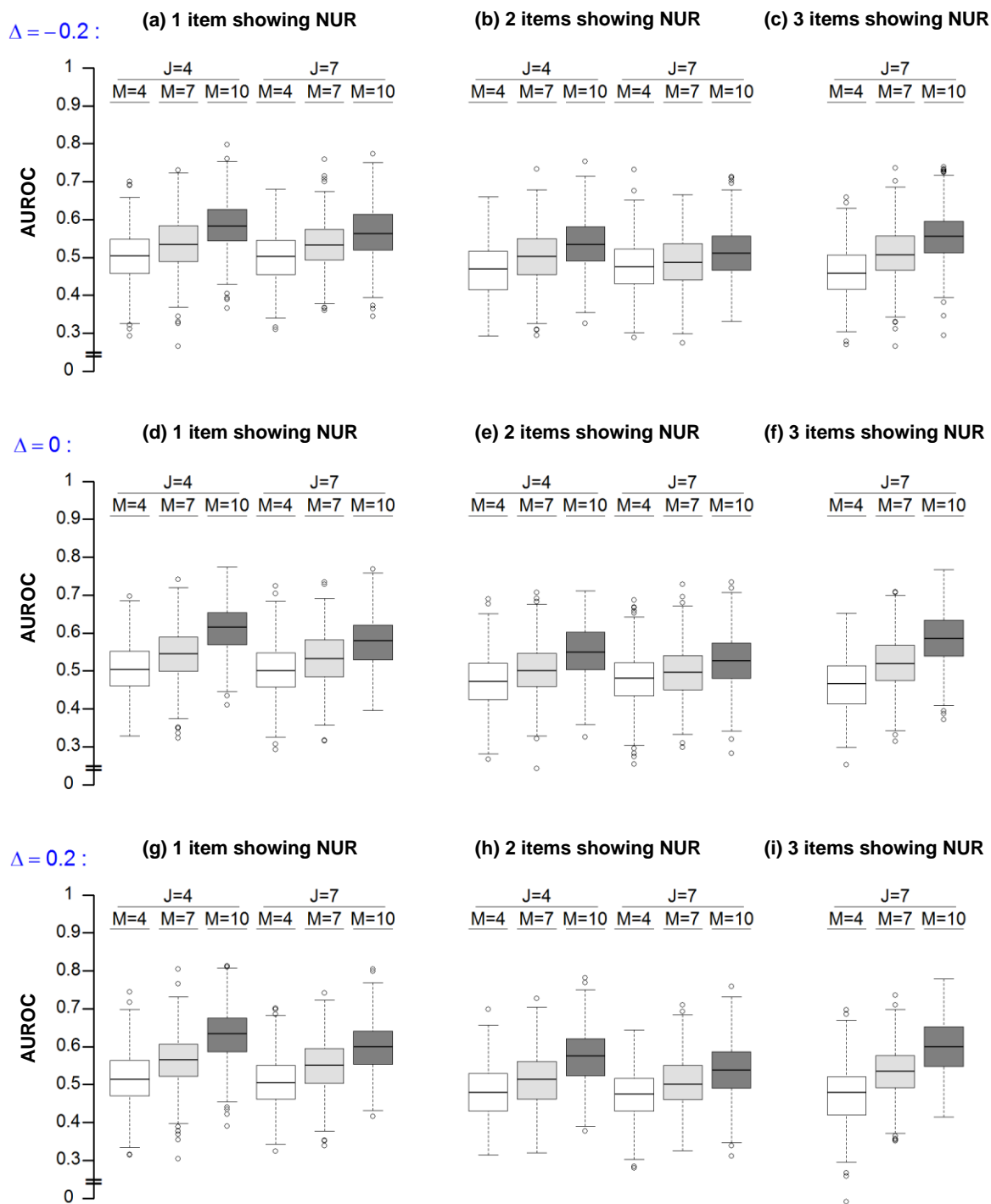


Fig. 24 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 100$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

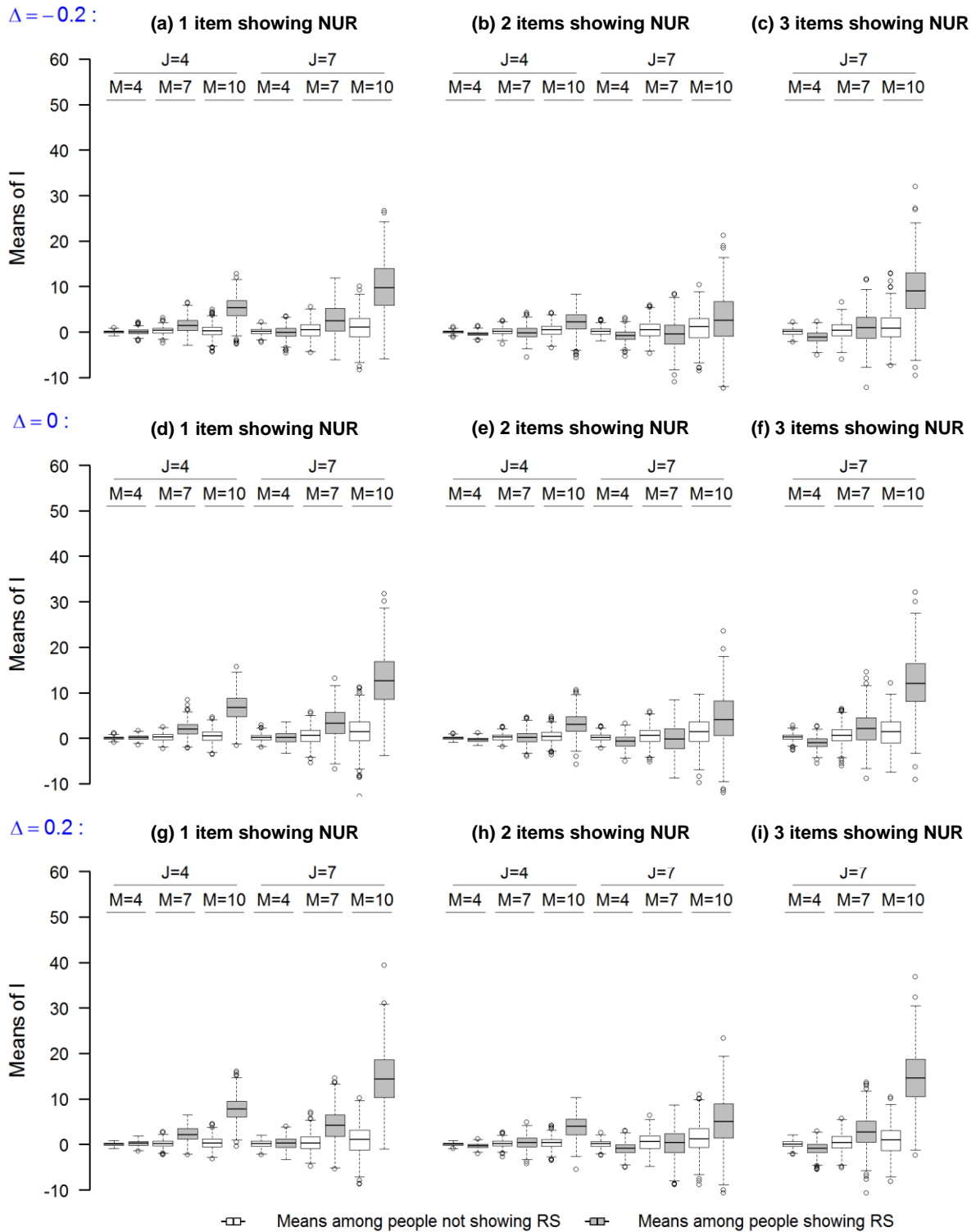


Fig. 25 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

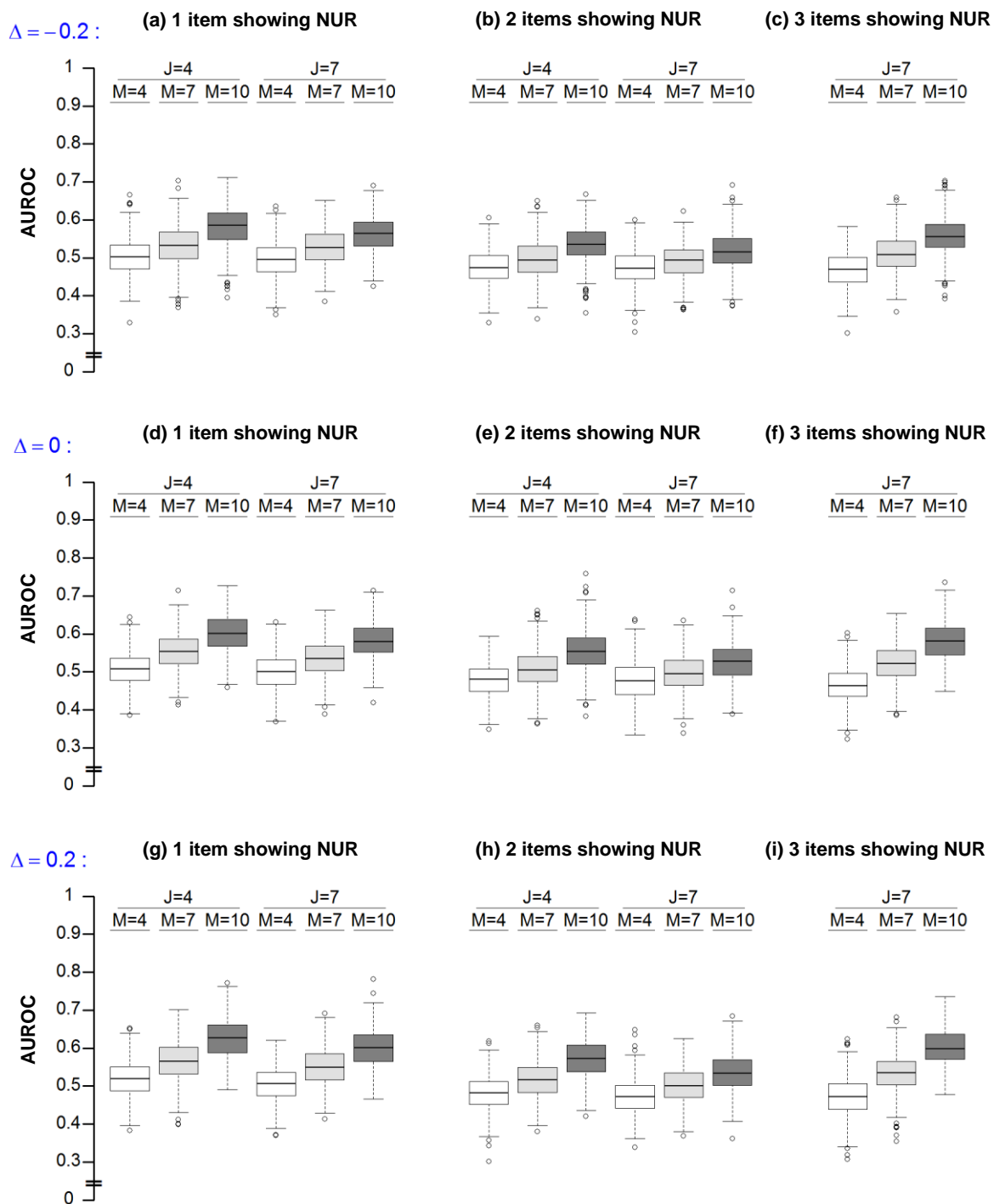


Fig. 26 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

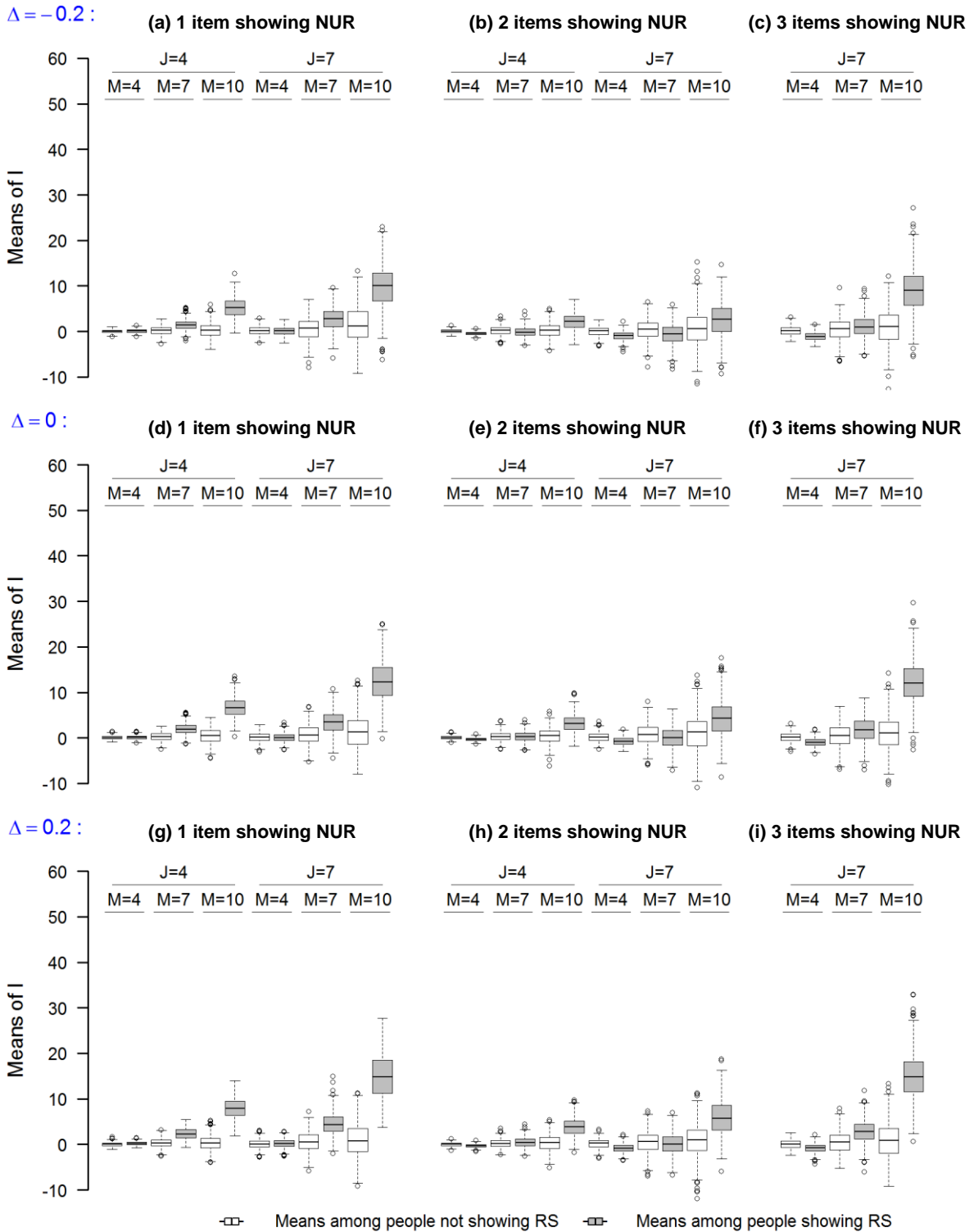


Fig. 27 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

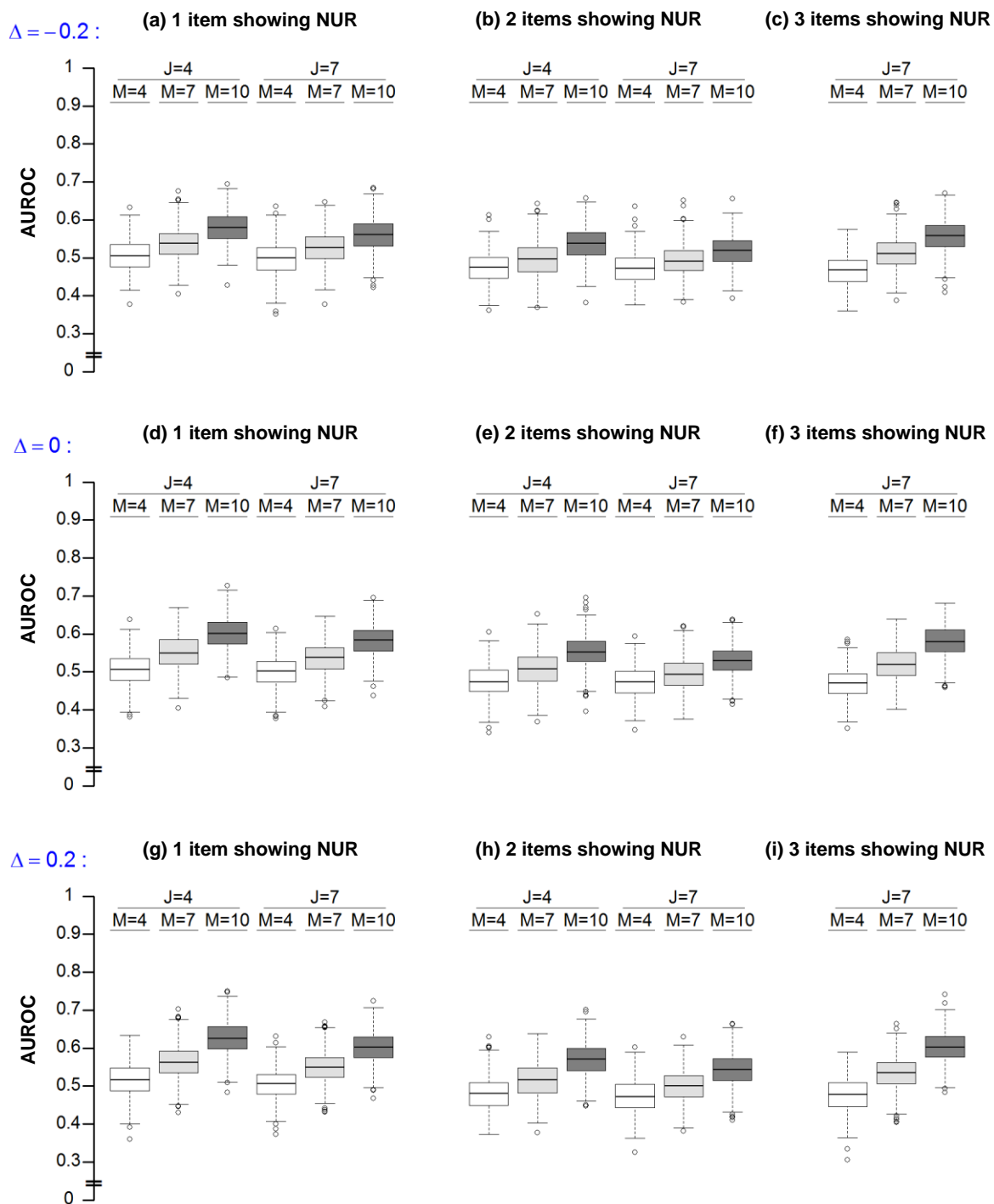


Fig. 28 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

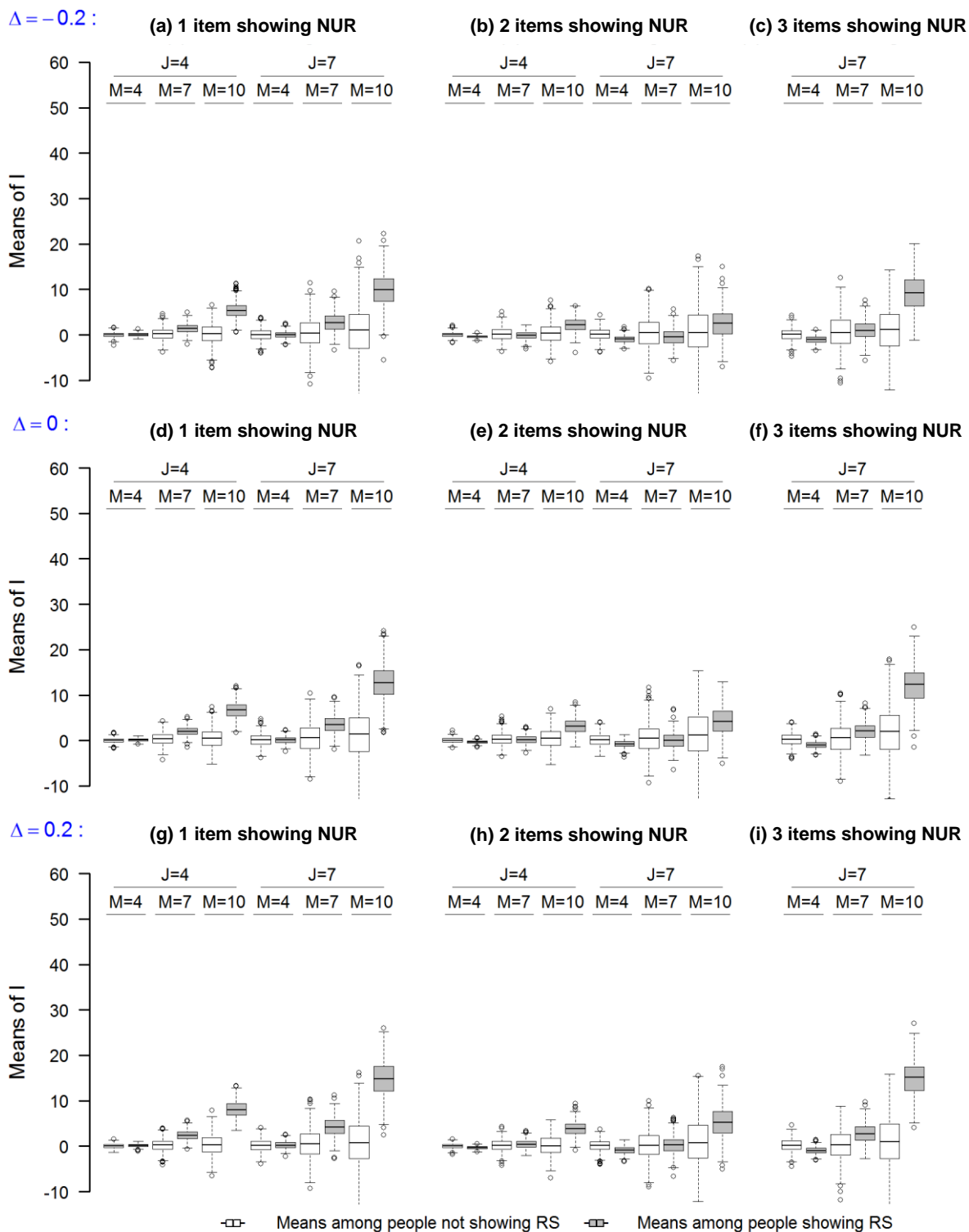


Fig. 29 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

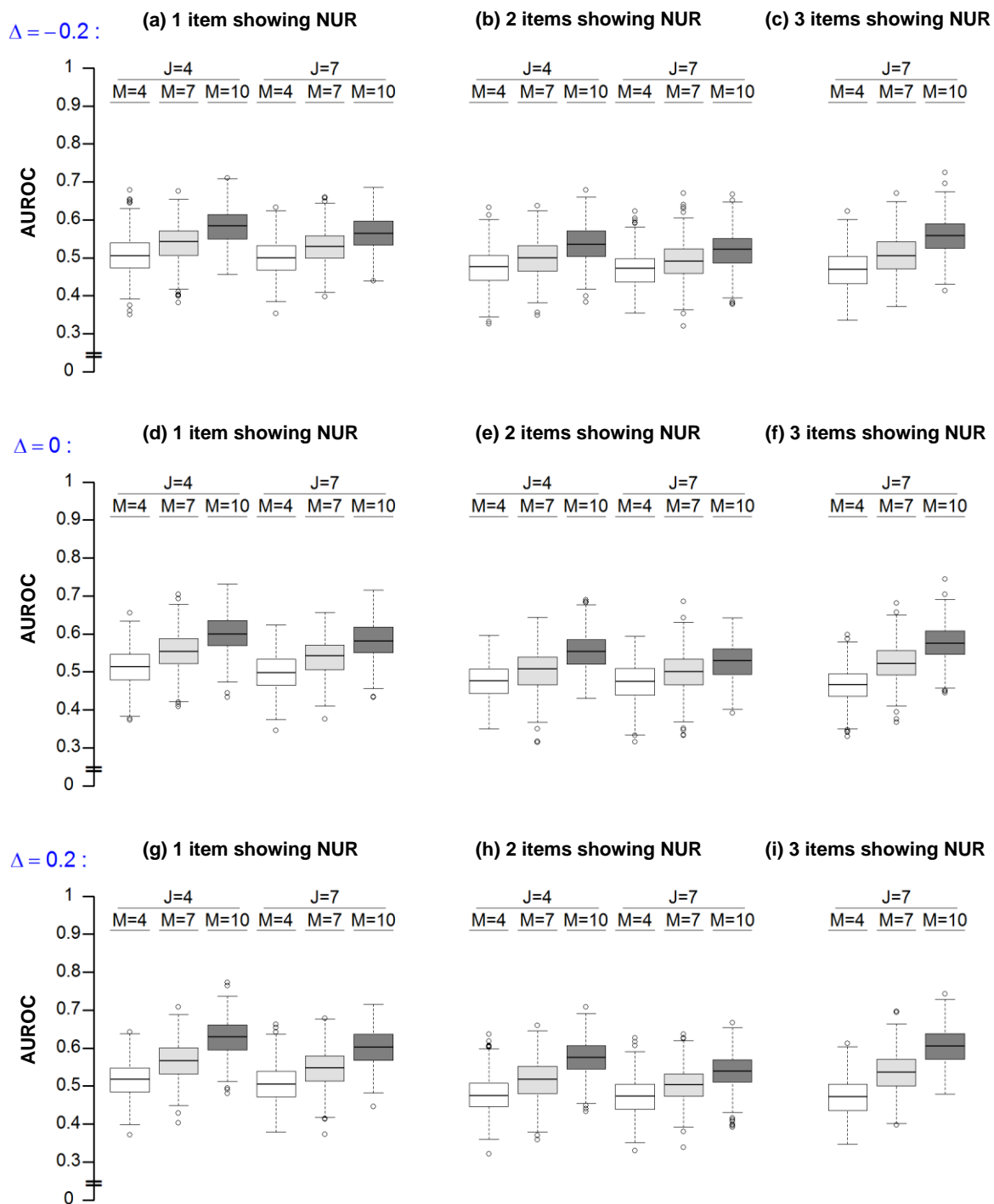


Fig. 30 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 200$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

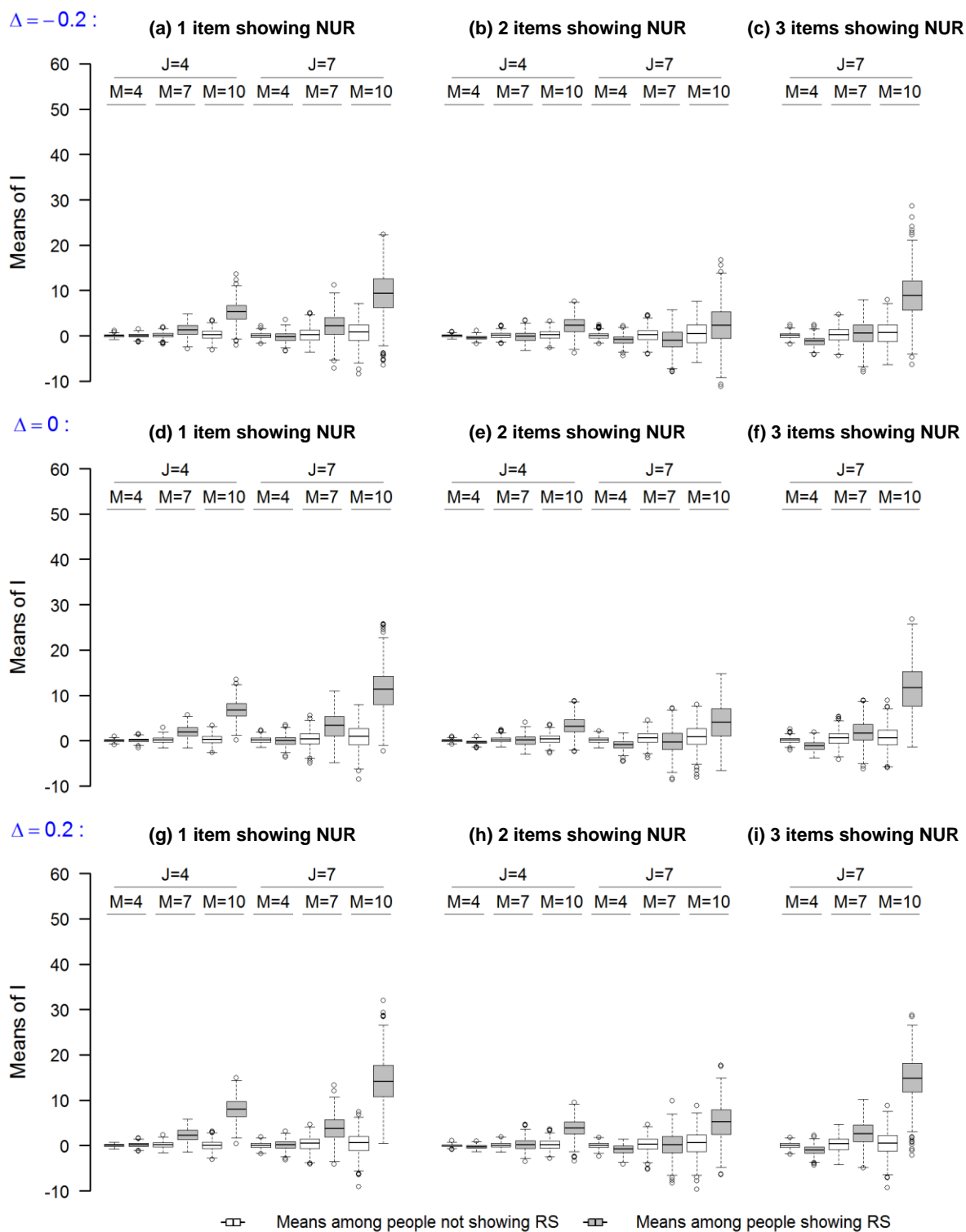


Fig. 31 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

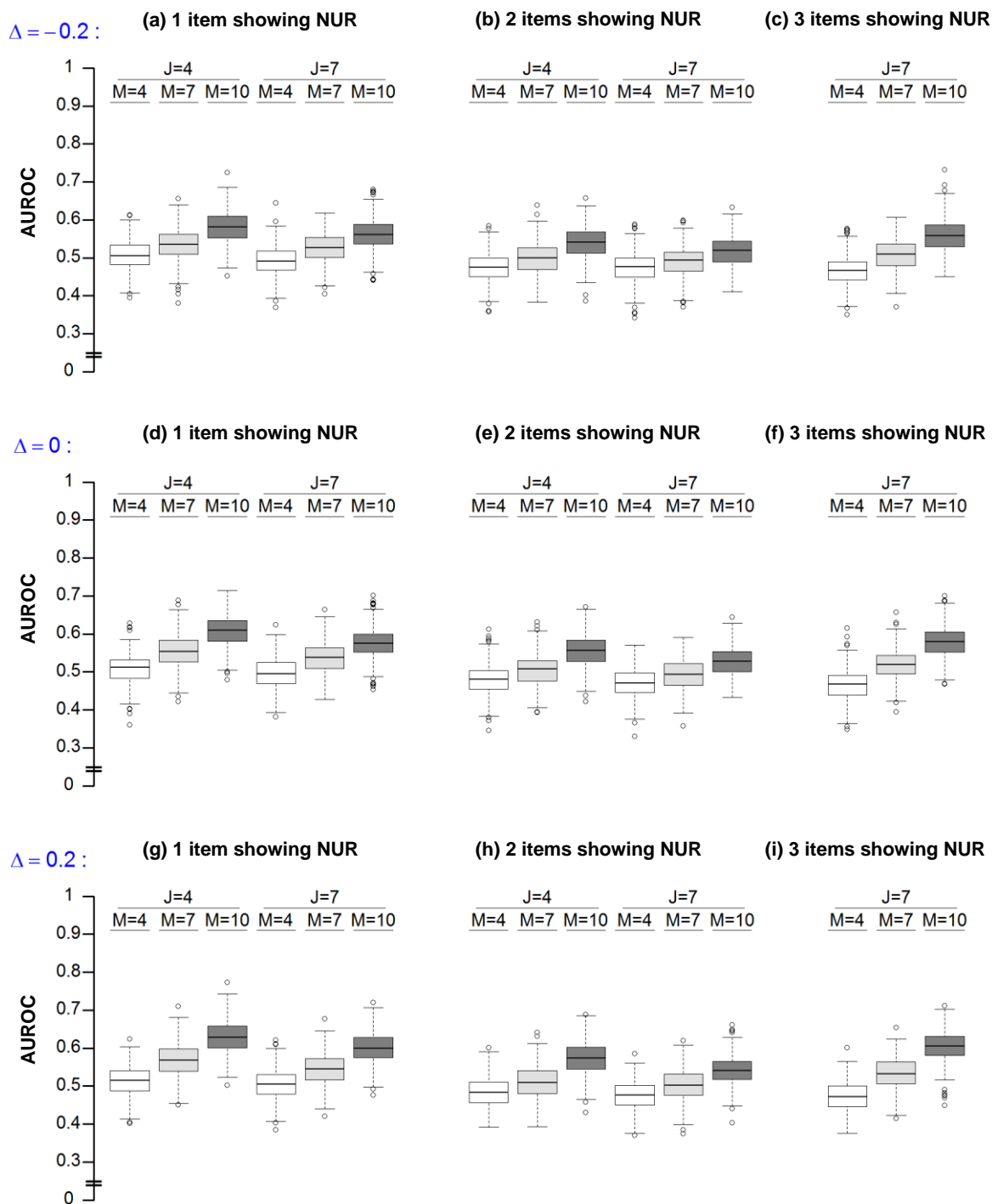


Fig. 32 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 25\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

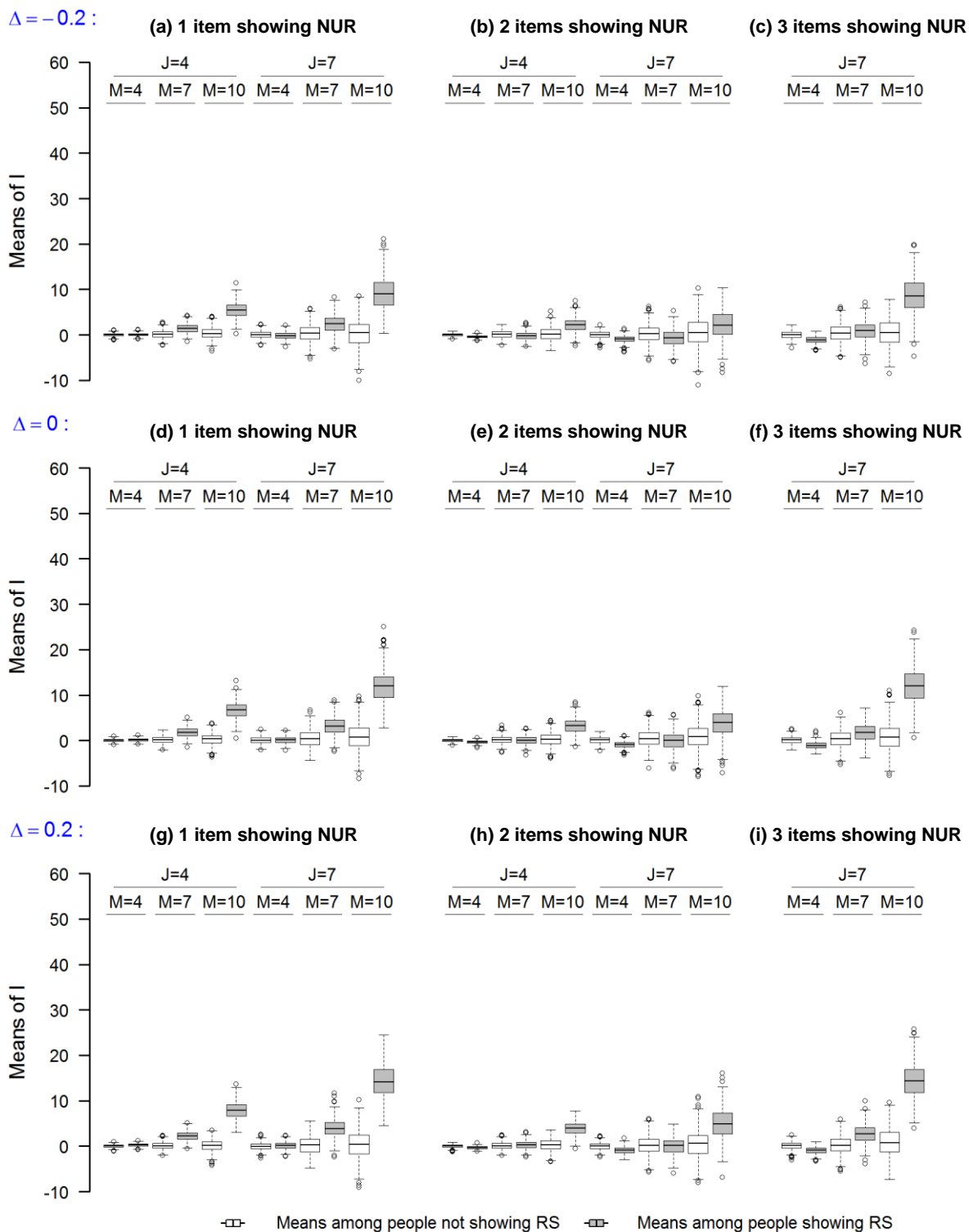


Fig. 33 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

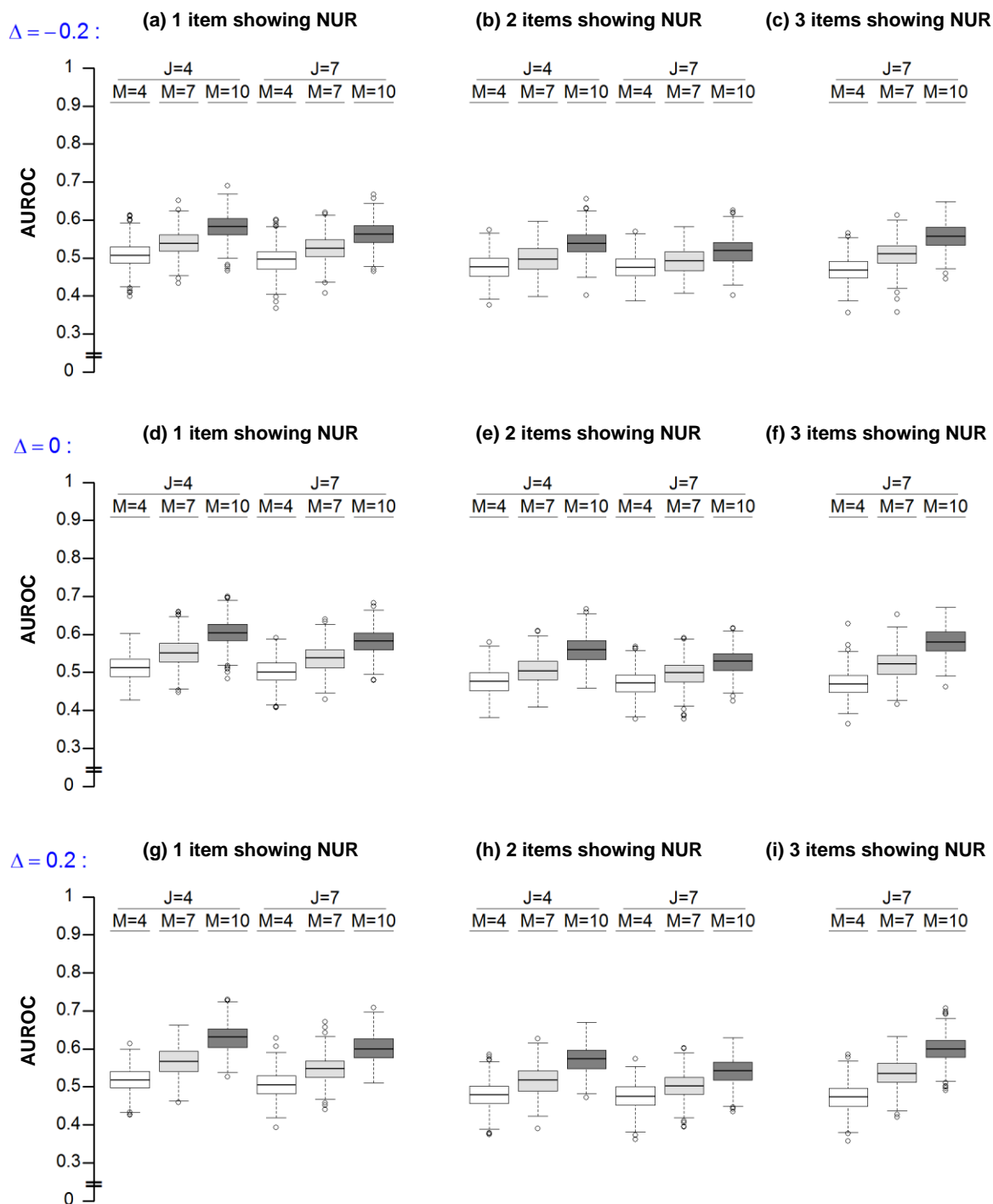


Fig. 34 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 50\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

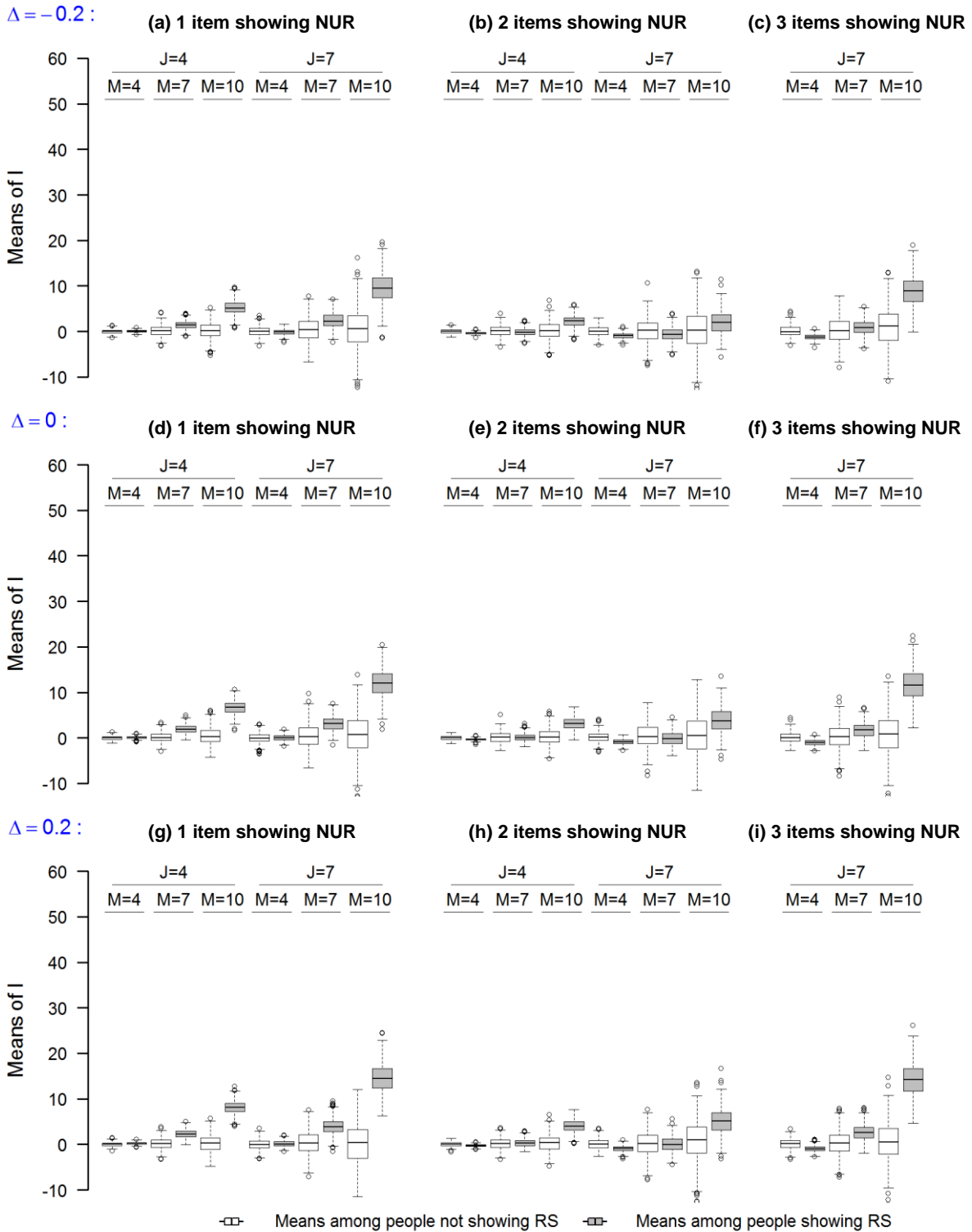


Fig. 35 Boxplots of the 500 means of index I obtained for each scenario among people affected by response shift (in white) and among people not affected by response shift (in grey). Each pair of boxplots corresponds to one scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item, Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)

Non-uniform recalibration (NUR)

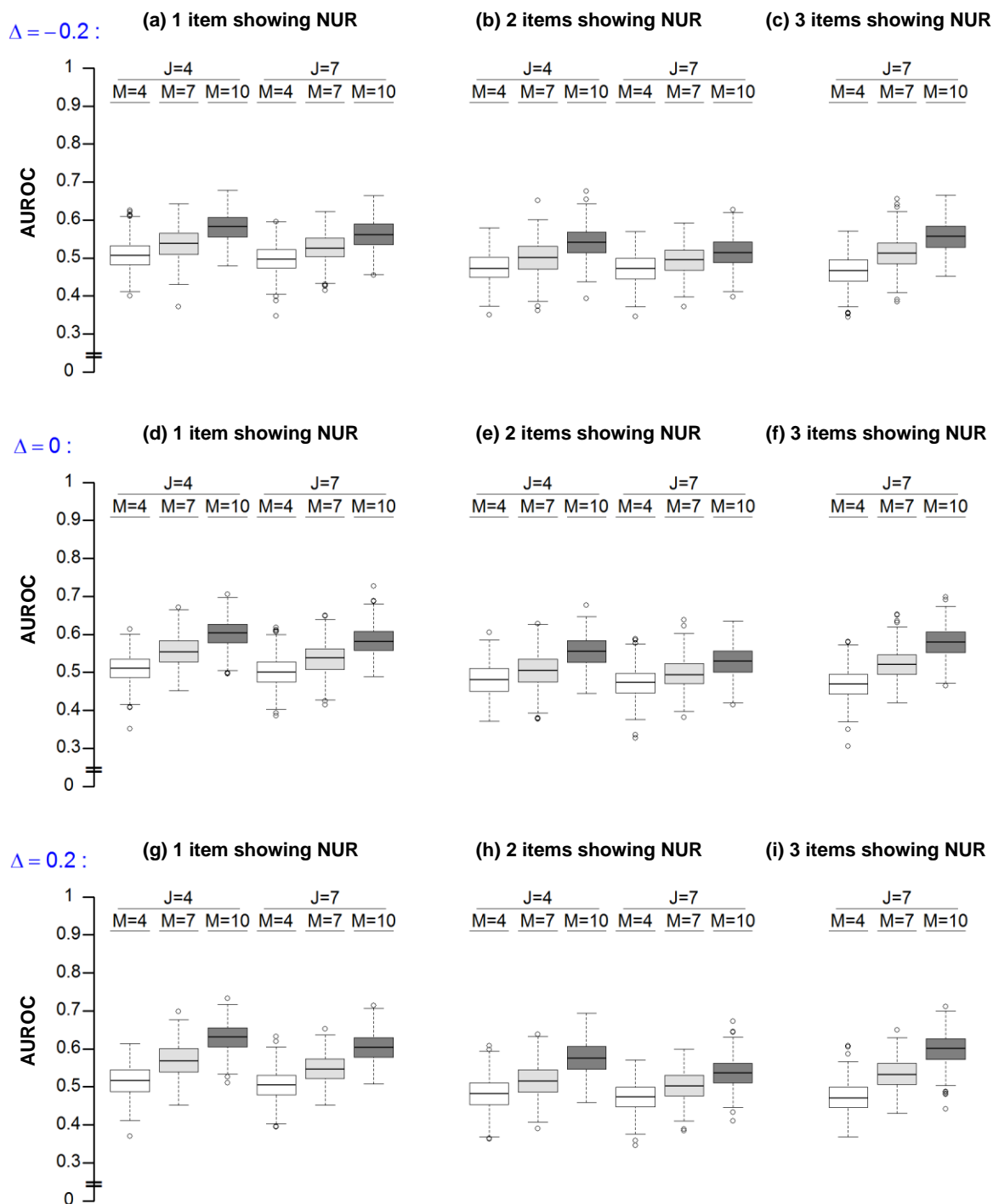


Fig. 36 Boxplots of the 500 AUROCs associated with index I obtained for each scenario. NUR: non-uniform recalibration; J : number of items; M : number of response categories per item; Δ : average change in the latent variable over time. Subset of scenarios considered: $N = 300$ (sample size), $p = 75\%$ (proportion of patients affected by response shift)