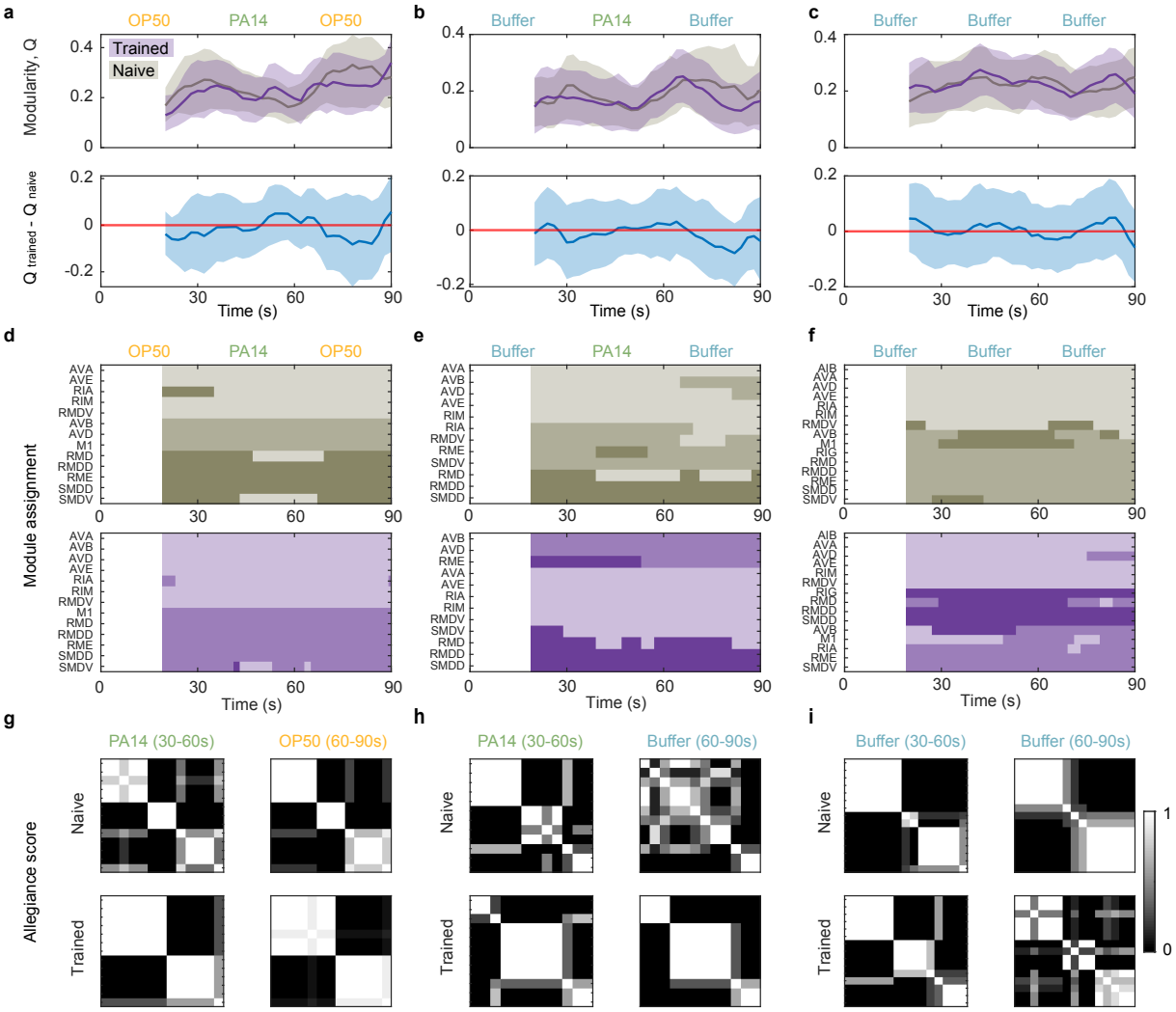
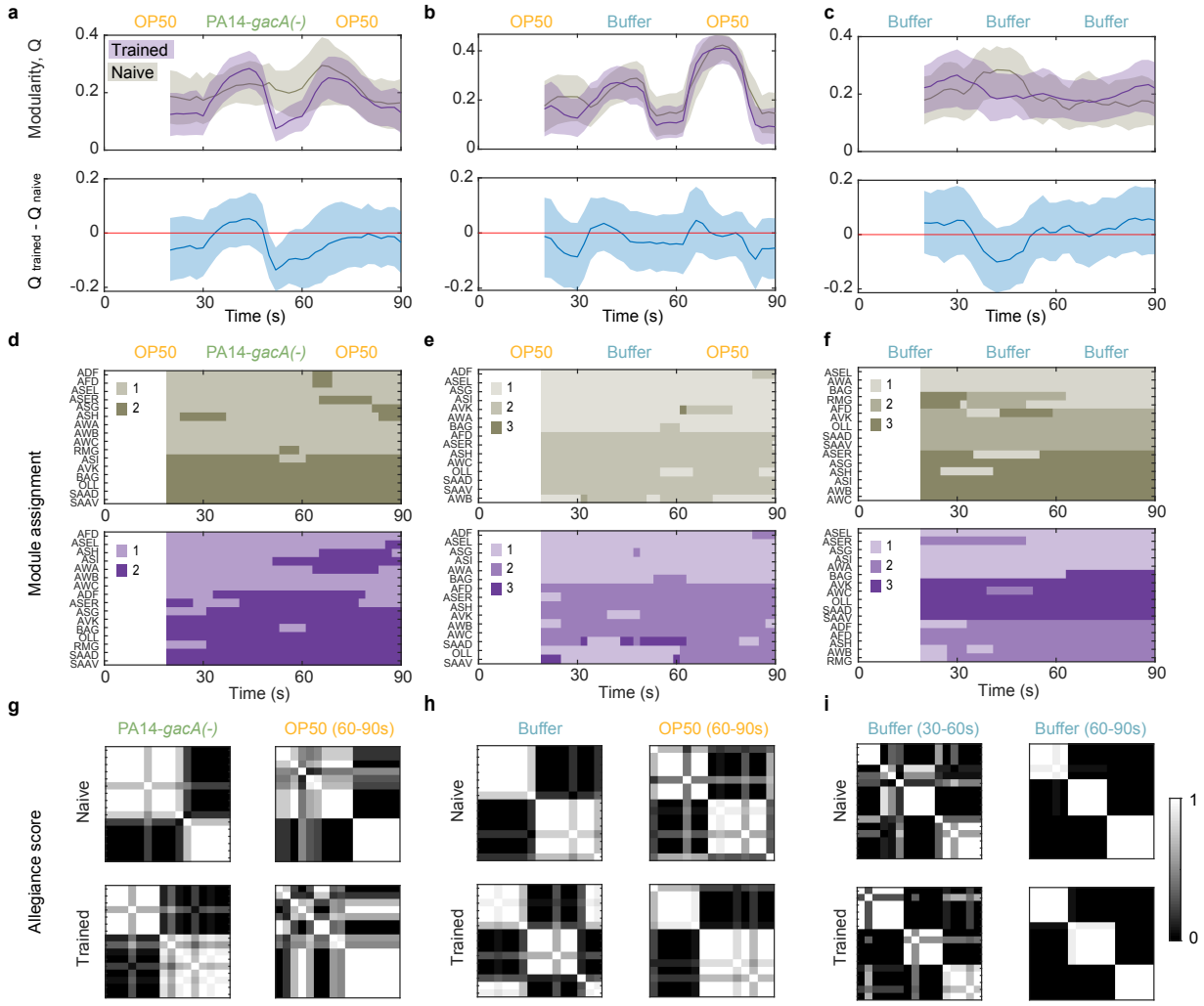


Inter-motor group modularity, module assignments, and allegiance matrices | Modularity, module assignments, and allegiance matrices for inter-motor group neurons (*glr-1p*) for discrimination (column 1), detection (column 2), and buffer control (column 3) tasks.

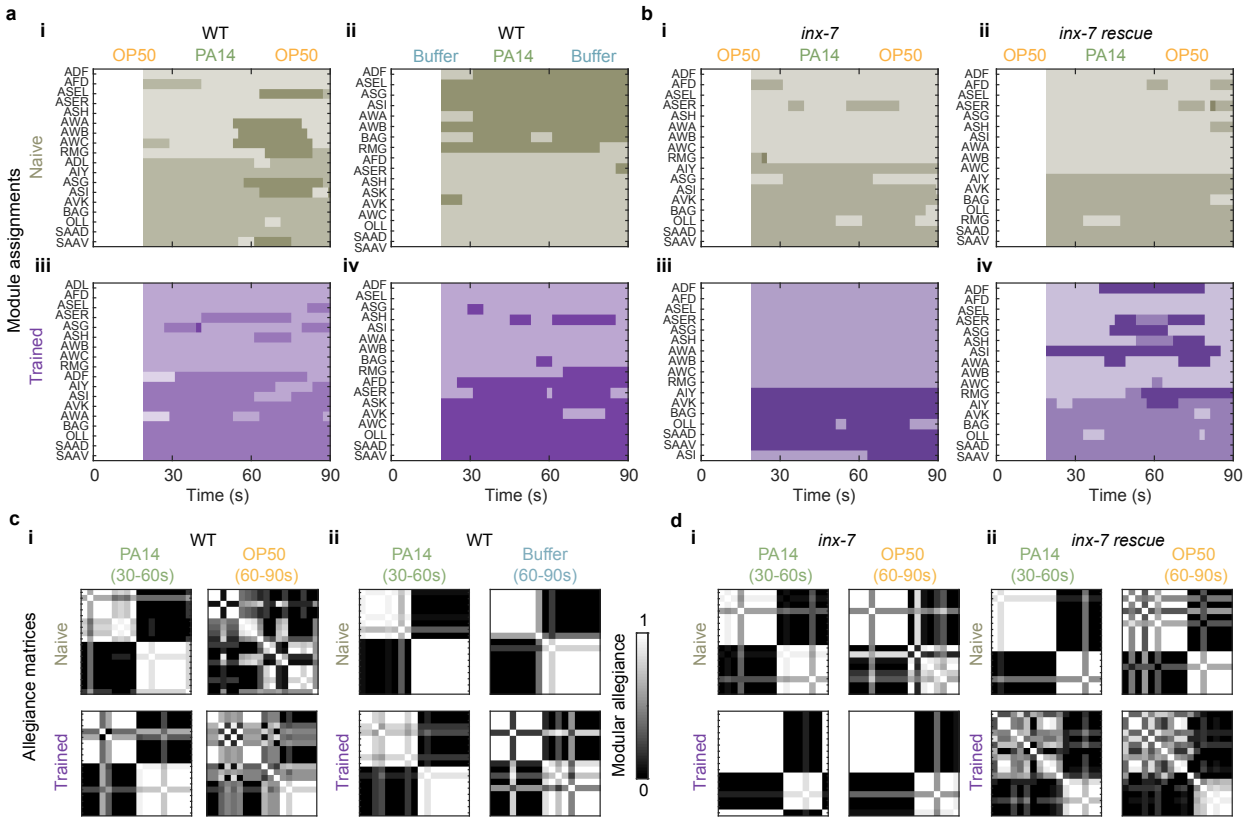
(a – c) No significant changes in modularity over time (top) or across naive and trained conditions (bottom) are observed across all three tasks. Shaded regions correspond to 5th and 95th percentile of bootstrapped values (n = 1,000 bootstraps). Red line in bottom corresponds to zero difference between naive and trained as visual guide.

(d – e) Module assignments for naive (top) and trained (bottom).

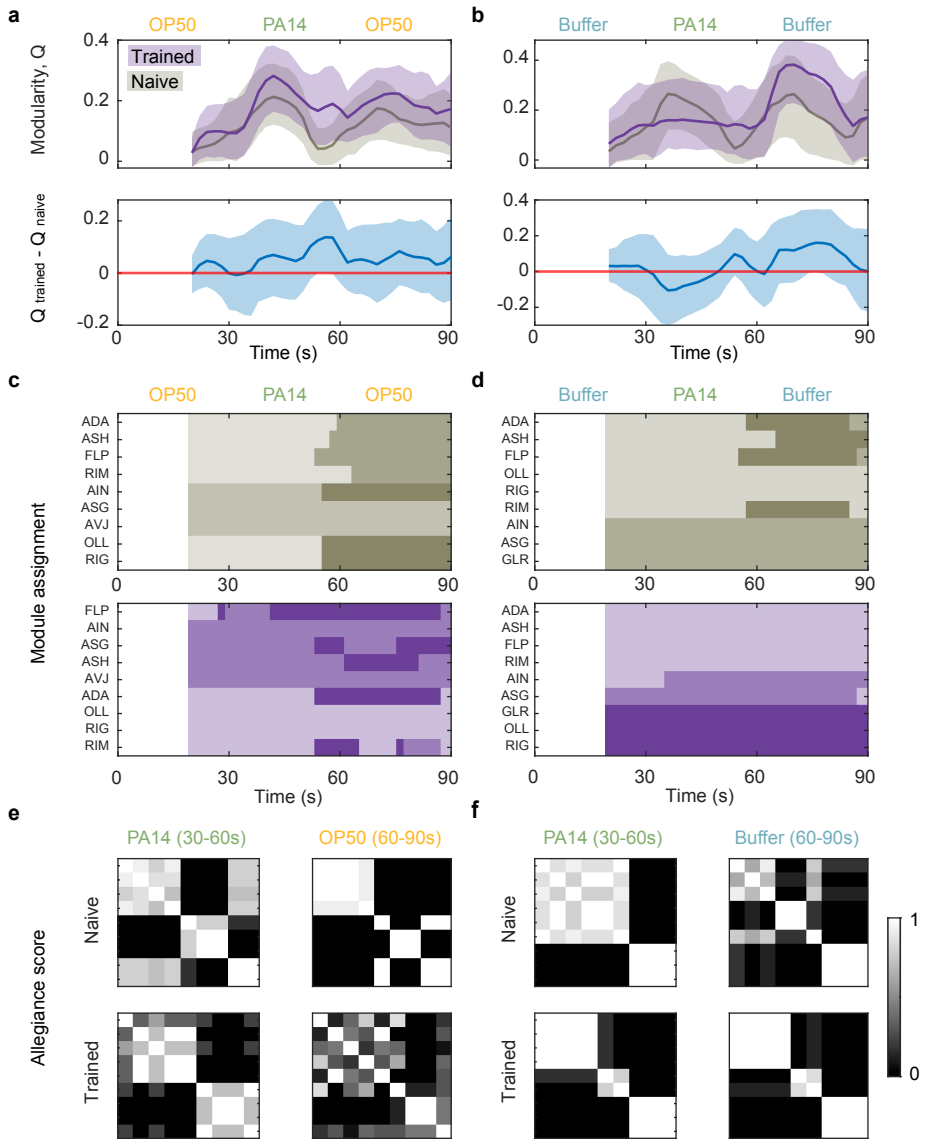
(g – i) Allegiance matrices (probability of module co-assignment between neurons) for different stimulus windows, training conditions, and stimulus contexts.



sensory-inter group I (control stimuli) modularity, module assignments, and allegiance matrices | figure included in publication as extended data figure 9



sensory-inter group I (control stimuli) modularity, module assignments, and allegiance matrices | figure included in publication as extended data figure 8

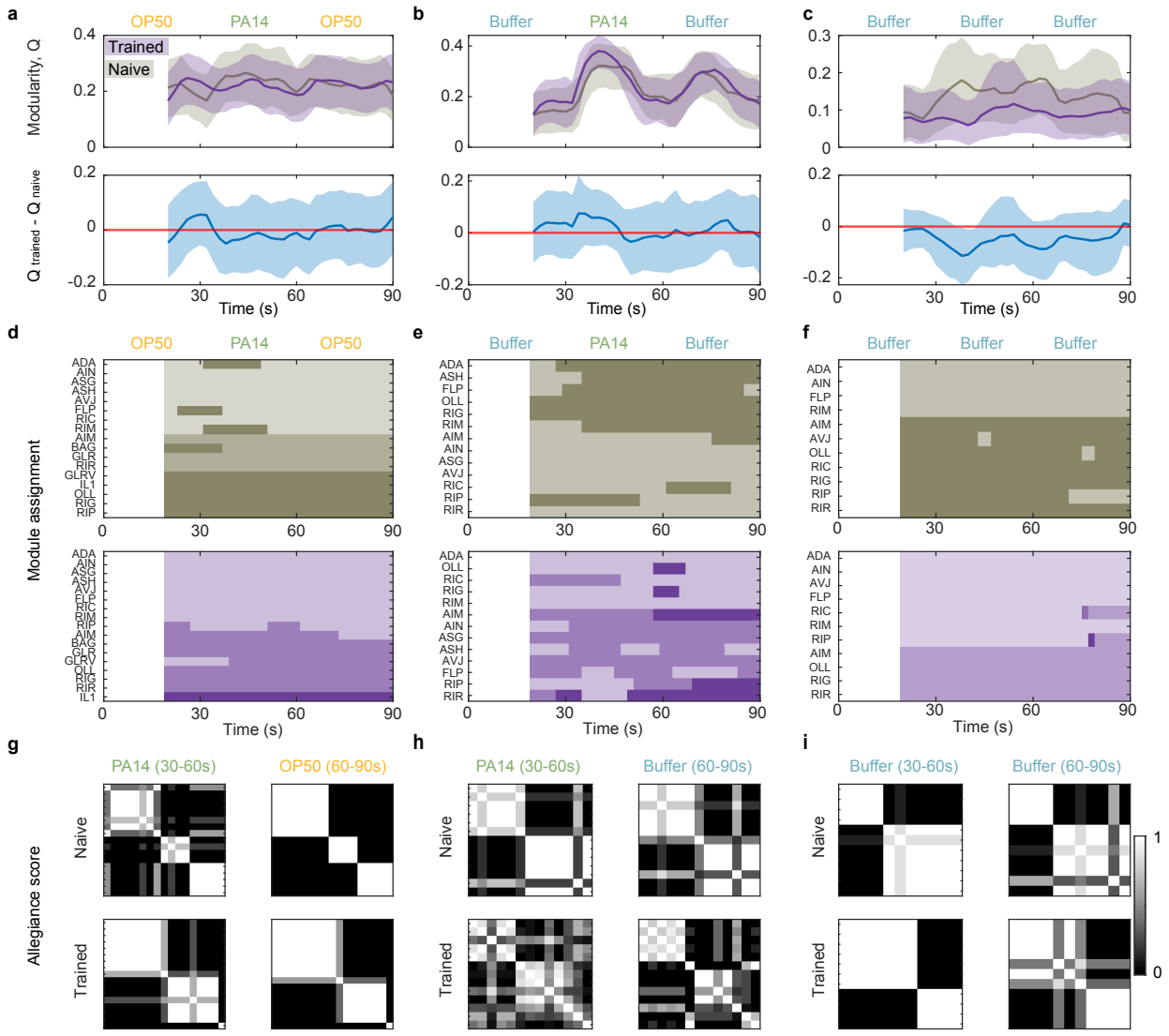


sensory-inter group II modularity, module assignments, and allegiance matrices | Modularity, module assignments, and allegiance matrices for sensory-inter group II neurons (*inx-4*) for discrimination (column 1) and detection (column 2) tasks.

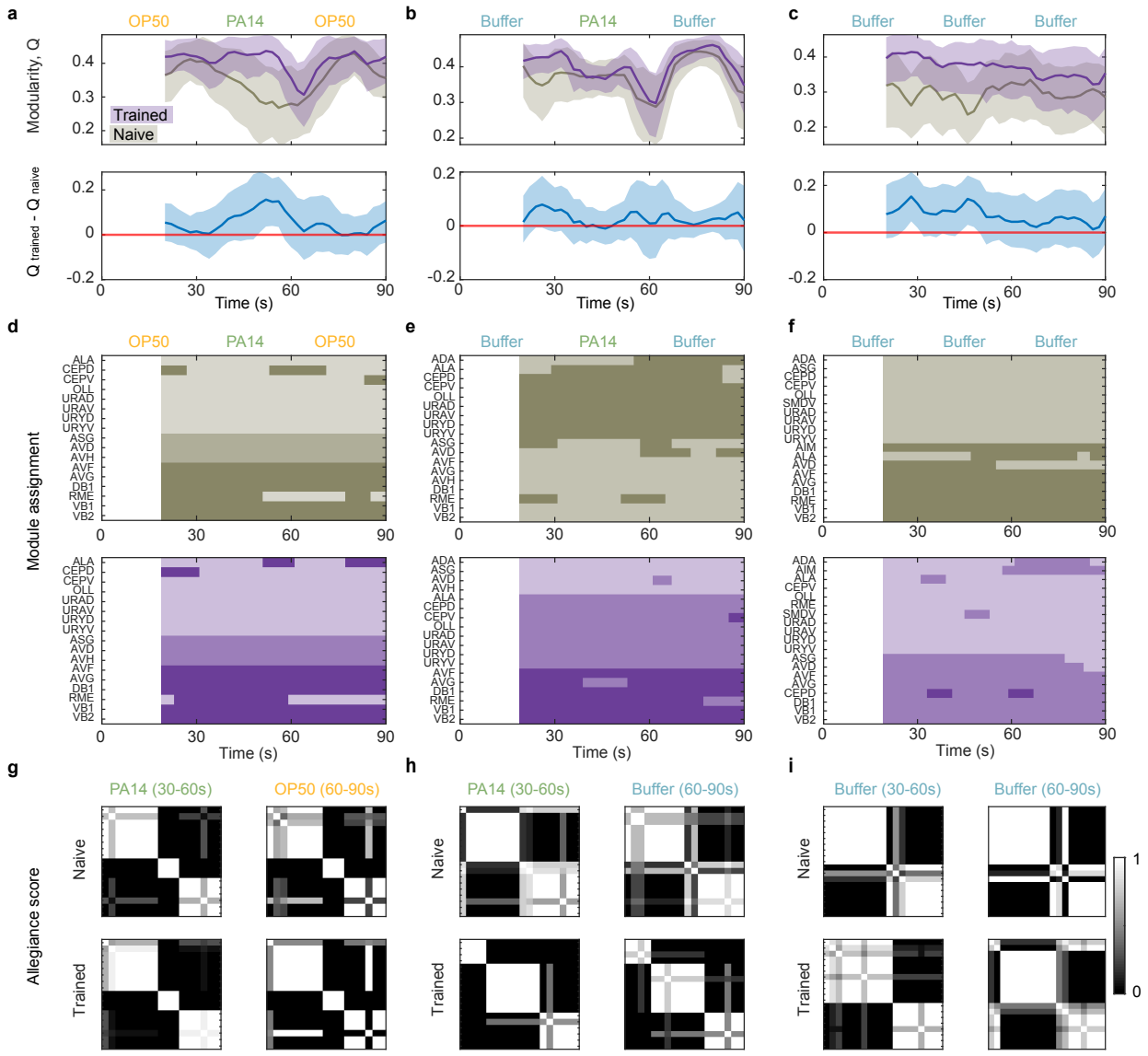
(a, b) No significant changes in modularity over time (top) or across naive and trained conditions (bottom) are observed across all three tasks. Shaded regions correspond to 5th and 95th percentile of bootstrapped values (n = 1,000 bootstraps). Red line in bottom corresponds to zero difference between naive and trained as visual guide.

(c, d) Module assignments for naive (top) and trained (bottom).

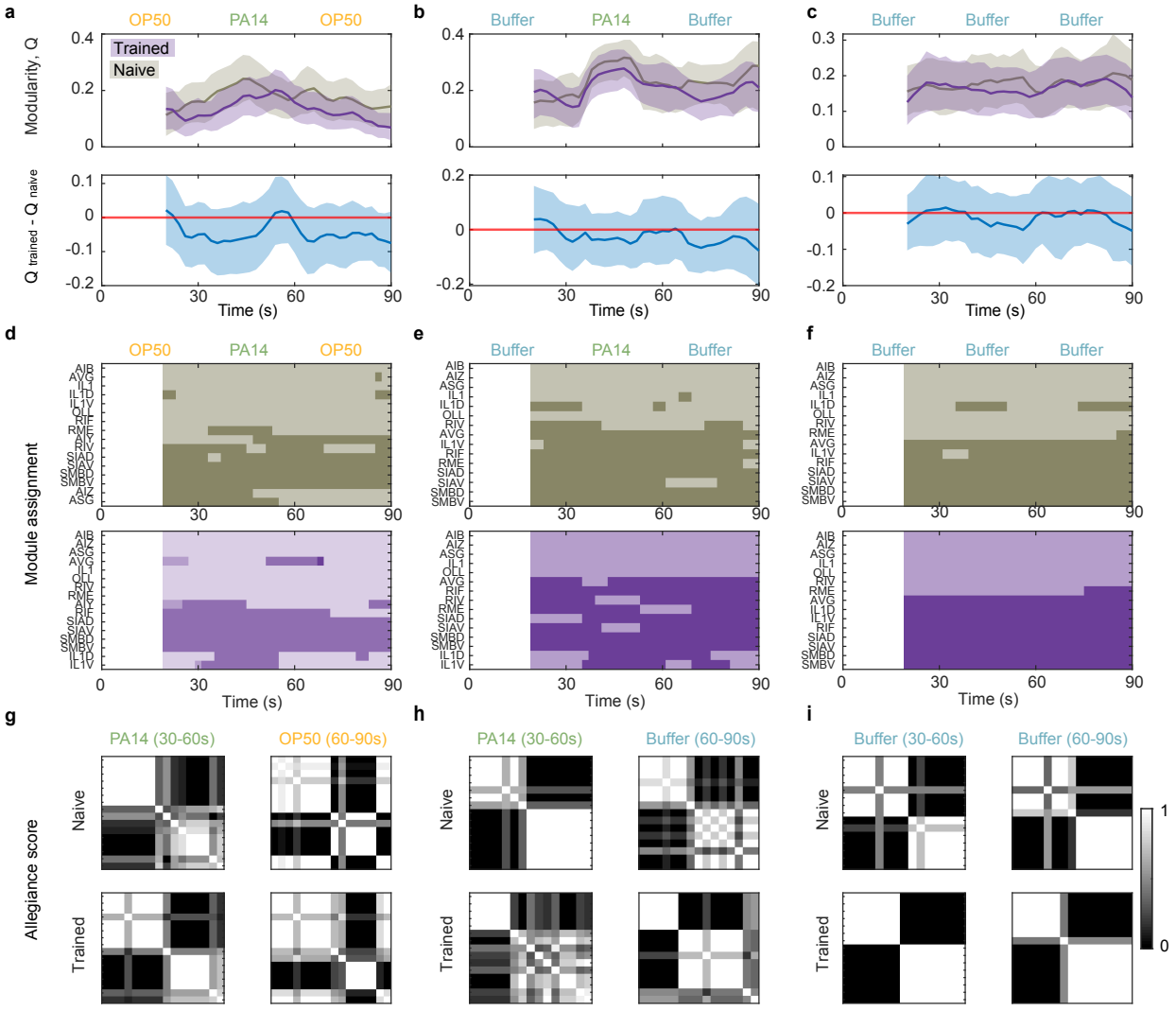
(e, f) Allegiance matrices (probability of module co-assignment between neurons) for different stimulus windows, training conditions, and stimulus contexts.



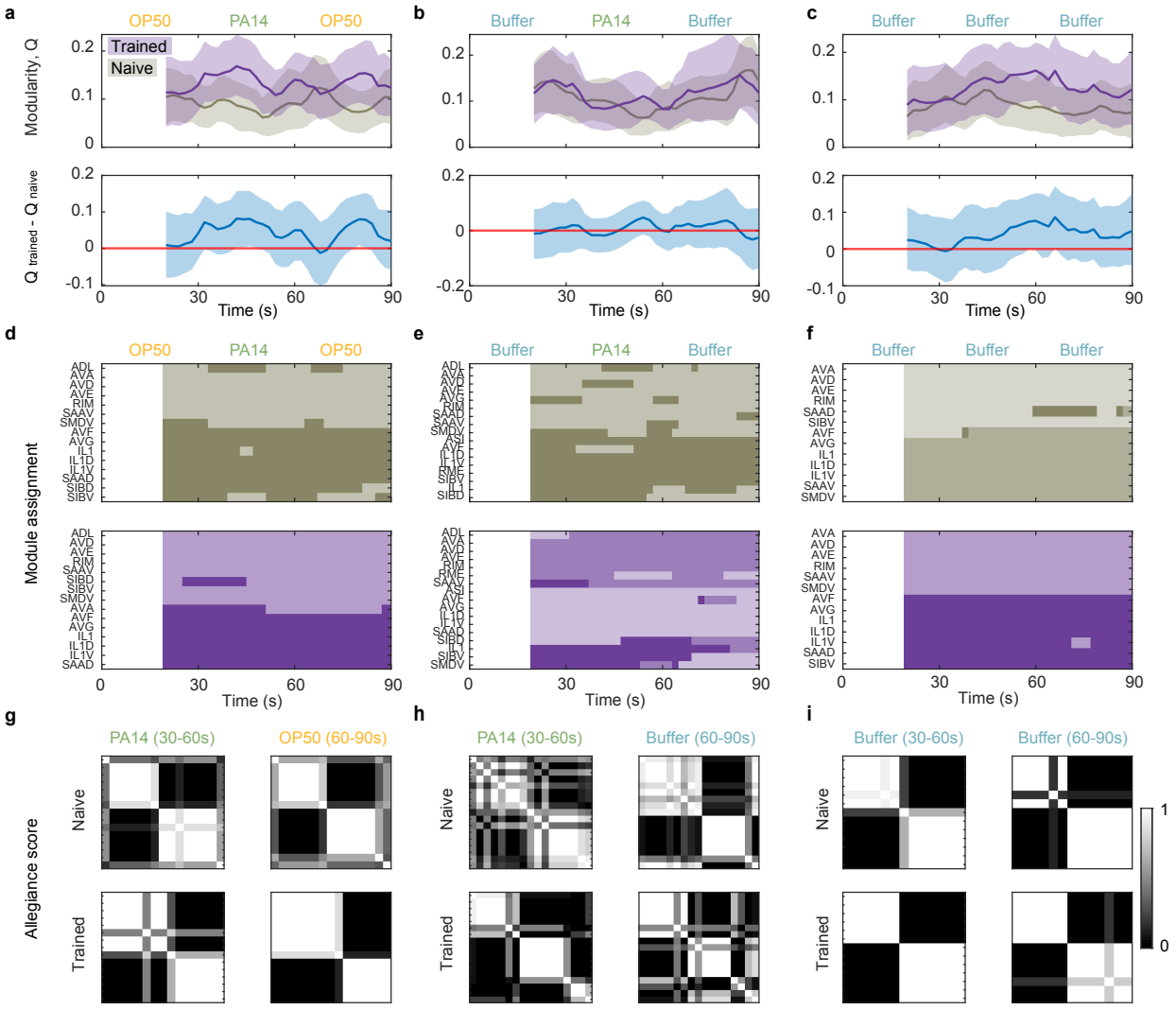
sensory-inter group III modularity, module assignments, and allegiance matrices | Modularity, module assignments, and allegiance matrices for sensory-inter group III neurons (*inx-4p+mbr-1p*) for discrimination (column 1), detection (column 2), and buffer control (column 3) tasks.
(a – c) No significant changes in modularity across naive and trained conditions is observed across all three tasks. Top corresponds to naive and trained modularity (purple and gray plots). Bottom corresponds to difference (trained – naive modularity). Shaded regions correspond to 5th and 95th percentile of bootstrapped values (n = 1,000 bootstraps). Red line in bottom corresponds to zero difference between naive and trained as visual guide.
(d – e) Module assignments for naive (top) and trained (bottom).
(g – i) Allegiance matrices (probability of module co-assignment between neurons) for different stimulus windows, training conditions, and stimulus contexts.



sensory-inter-motor group I modularity, module assignments, and allegiance matrices | Modularity, module assignments, and allegiance matrices for sensory-inter-motor group I neurons (*acr-5p*) for discrimination (column 1), detection (column 2), and buffer control (column 3) tasks.
(a – c) Modularity decreases in response to stimulus (30 – 60s) during discrimination task (a) for naive worms, but this decrease is reduced after training. No change is modularity between naive and trained is observed for the detection task (b), but the buffer control task (c) shows increased modularity after learning (but no responses to stimulus). Top corresponds to naive and trained modularity (purple and gray plots). Bottom corresponds to difference (trained – naive modularity). Shaded regions correspond to 5th and 95th percentile of bootstrapped values (n = 1,000 bootstraps). Red line in bottom corresponds to zero difference between naive and trained as visual guide.
(d – e) Module assignments for naive (top) and trained (bottom) across all three stimulus conditions.
(g – i) Allegiance matrices (probability of module co-assignment between neurons) for different stimulus windows, training conditions, and stimulus contexts.



sensory-inter-motor group II modularity, module assignments, and allegiance matrices | Modularity, module assignments, and allegiance matrices for sensory-inter-motor group II neurons (*odr-2(2b)p+odr-2(18)p*) for discrimination (column 1), detection (column 2), and buffer control (column 3) tasks.
(a – c) No significant changes in modularity across naive and trained conditions is observed across all three tasks. Top corresponds to naive and trained modularity (purple and gray plots). Bottom corresponds to difference (trained – naive modularity). Shaded regions correspond to 5th and 95th percentile of bootstrapped values (n = 1,000 bootstraps). Red line in bottom corresponds to zero difference between naive and trained as visual guide.
(d – e) Module assignments for naive (top) and trained (bottom).
(g – i) Allegiance matrices (probability of module co-assignment between neurons) for different stimulus windows, training conditions, and stimulus contexts.



sensory-inter-motor group III modularity, module assignments, and allegiance matrices | Modularity, module assignments, and allegiance matrices for sensory-inter-motor group III neurons (*flp-3p+flp-7p+sro-1p+nmr-1p*) for discrimination (column 1), detection (column 2), and buffer control (column 3) tasks.

(a – c) No significant changes in modularity across naive and trained conditions is observed across all three tasks. Top corresponds to naive and trained modularity (purple and gray plots). Bottom corresponds to difference (trained – naive modularity). Shaded regions correspond to 5th and 95th percentile of bootstrapped values (n = 1,000 bootstraps). Red line in bottom corresponds to zero difference between naive and trained as visual guide.

(d – e) Module assignments for naive (top) and trained (bottom).

(g – i) Allegiance matrices (probability of module co-assignment between neurons) for different stimulus windows, training conditions, and stimulus contexts.