

Fig. S1. Gait graphs of the transition between symmetrical gaits. (A) Typical lateral walk to trot trial. (B) Typical trot to lateral walk trial. (C) Typical lateral walk to pace trial. (D) Typical pace to lateral walk trial. 1, time of foot falls; 2, position of the feet; f1, first forefoot; f2, contralateral forefoot; h1, hindfoot on the same side as f1; h2, contralateral hindfoot.

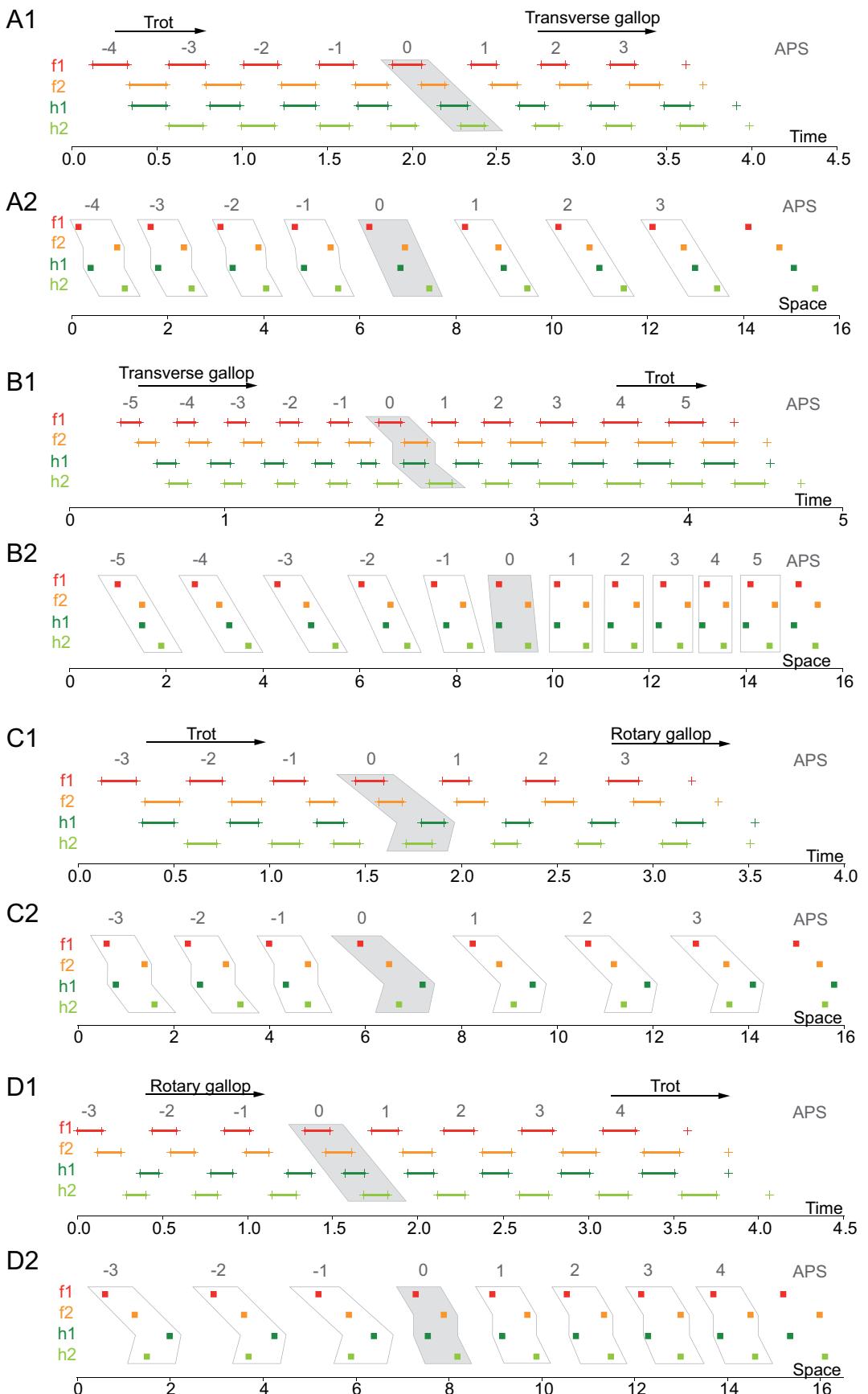


Fig. S2. Gait graphs of the transitions between symmetrical and asymmetrical gaits. (A) Typical trot to transverse gallop trial. (B) Typical transverse gallop to trot trial. (C) Typical trot to rotary gallop trial. (D) Typical rotary gallop to trot trial. 1, time of foot falls; 2, position of the feet; f1, first forefoot; f2, contralateral forefoot; h1, hindfoot on the same side as f1; h2, contralateral hindfoot.

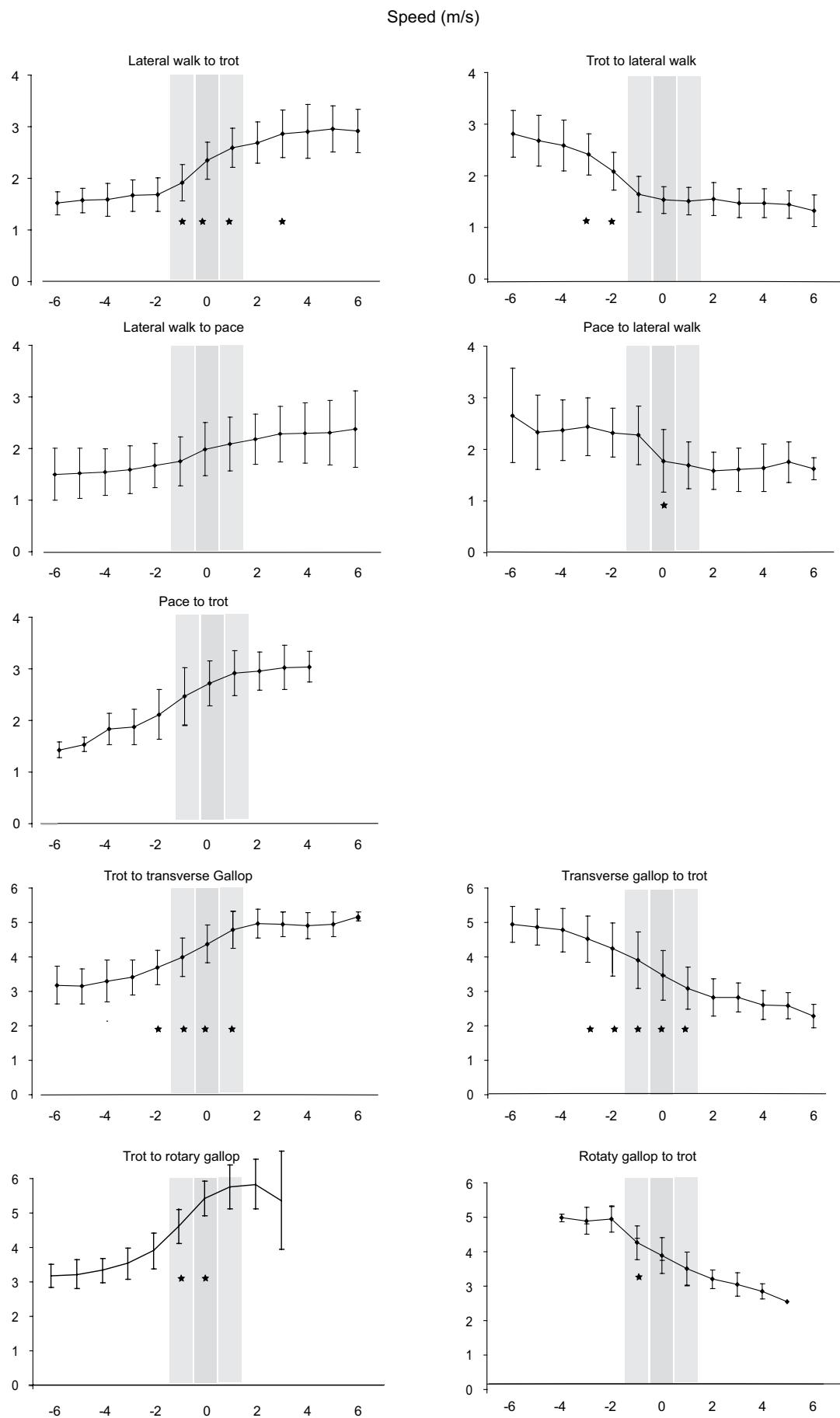


Fig. S3. Variation of speed. The sequences are aligned using APS 0 when $|\Delta PL|$ is maximal. The transition APSs are in gray. The asterisks indicate a significant difference between the marked APS and the previous APS.

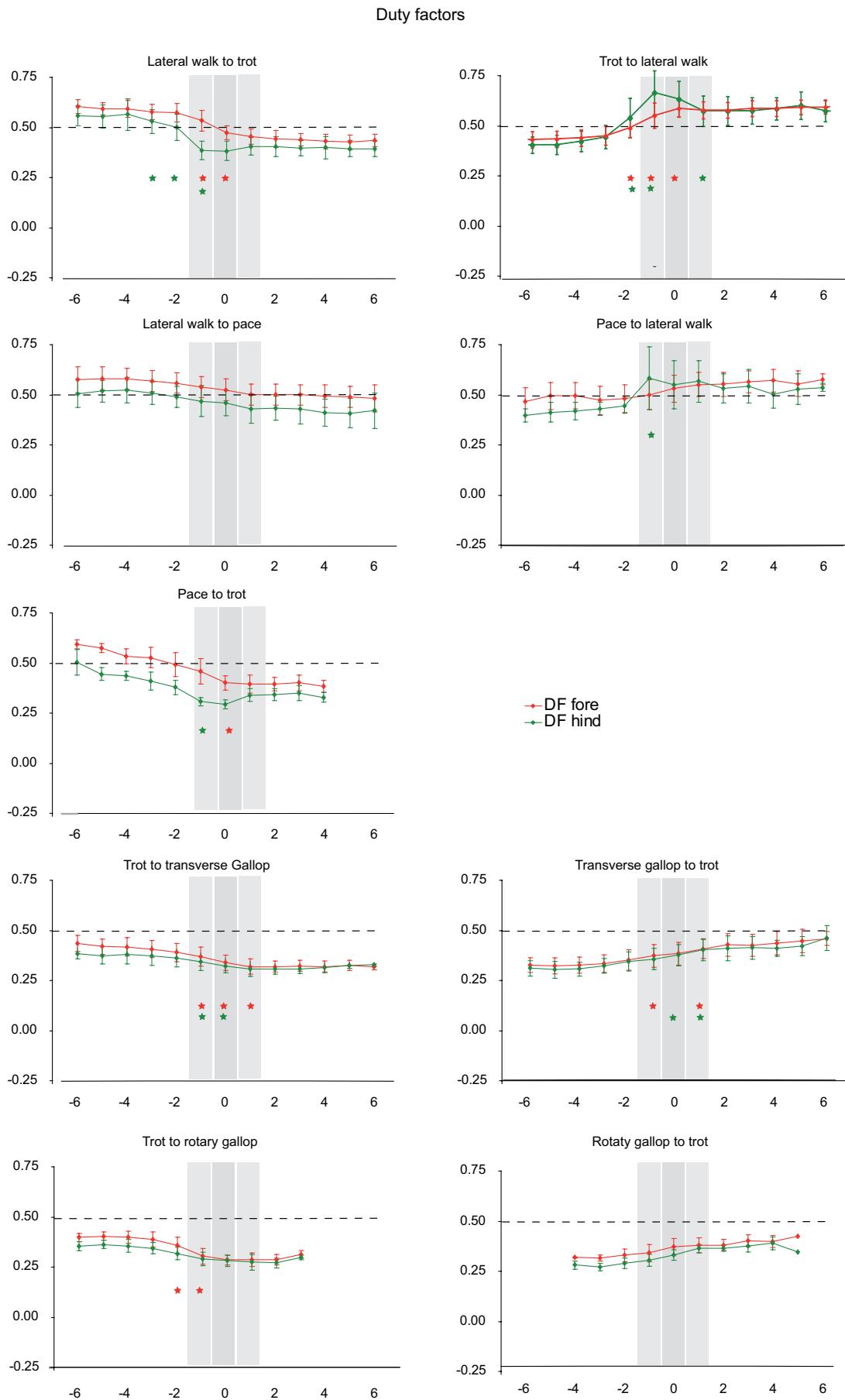


Fig. S4. Variation of duty factor. The sequences are aligned using APS 0 when the $|\Delta PL|$ is maximal. The transition APSs are in gray. The asterisks indicate a significant difference between the marked APS and the previous APS for the same colored factor.