Supplementary Methods

**Aggression assays**

Flies were raised on standard cornmeal medium at 25°C and 60% humidity under a 12hr:12hr light:dark cycle. All assays were performed on flies carrying the designated splicing allele (fru\(^C\), fru\(^F\), or fru\(^M\); ref. 1) in trans to fru\(^4\text{40}\), a deletion that removes all fru P1 transcripts\(^2\). Aggression assays of socially naïve flies were performed using the arena designed by Chen et al.\(^3\), and videotaped for 90 mins using a SONY DCR-TRV140 NTSC Digital 8 camera. fru\(^C\) flies and fru\(^F\) males were 6–10 d old; fru\(^M\) females were assayed at 2–3 d of age, as older fru\(^M\) females are more inclined to court than to fight.

**Data analysis**

Movies were examined frame-by-frame using iMovie to manually annotate all interactions during the first 30 mins after the two flies appeared on the food cup. An interaction was defined as any occasion in which one of the two flies came within one body length of the other and displayed any aspect of courtship or aggression behavior. For each aggressive interaction, the nature and number of attacks was also recorded, focusing on the mid- and high-intensity components: shove, head-butt, courtship thrust, short wing threat (< 0.5s duration), long wing threat ( 0.5s duration), lunge, and boxing/holding\(^3,4\). Note that an interaction for one fly is not necessarily scored as an interaction for the other (it may not respond by fighting or courting), that a given interaction can consist of any number and combination of discrete attacking components, and that not every interaction has a clear winner and loser. For statistical analysis of frequency data (Fig. 1b), all rare events (< 4% of all events) were discarded before performing \(\chi^2\)-tests on all remaining categories. For statistical comparisons of dominance relationships, actual data from each experimental series were replaced with simulated data, generated by randomly assigning the winner and loser for each encounter in each fight according to the overall win/loss probabilities for the test pairing and the D.I. of the control pairing. A total of 10,000 data sets were simulated for each test, and the \(P\)-value determined as the fraction of these data sets with a D.I. that deviated from the control D.I. by at least as much as the observed D.I.

**References**