

Appendix A from E. C. Snell-Rood and D. R. Papaj, ‘Patterns of Phenotypic Plasticity in Common and Rare Environments: A Study of Host Use and Color Learning in the Cabbage White Butterfly *Pieris rapae*’
(Am. Nat., vol. 173, no. 5, p. 615)

Results of Additional Tests

Table A1
 Tests for nonrandom behavior in host location and color choice

Landings	Host-finding efficiency				Color choice			
	Green		Red		Green		Red	
	<i>t</i>	df	<i>t</i>	df	<i>t</i>	df	<i>t</i>	df
1–10, day 1	7.81***	60	1.02	60	12.6***	60	5.15***	60
11–20, day 1	9.96***	60	3.02**	60	7.63***	60	.45	60
1–10, day 2	7.57***	60	4.16**	60	10.0***	60	.34	60
10–20, day 2	5.67***	30	5.15***	30	8.69***	30	.77	30

Note: One-sample *t*-tests were used to test whether host-finding efficiency differed from a null hypothesis of 0.167 (eight hosts, 40 nonhosts) and whether color choice differed from a null hypothesis of 0.50 (20 green nonhosts, 20 red nonhosts). For each bin of 10 landings, we used the least squares mean and standard error from ANOVAs that also included nonhost complexity and the host color × complexity interaction (see table 1; fig. 2) to compute *t* statistics.

** *P* < .01.
 *** *P* < .001.

Table A2
 Analyses from tables 3 and 4 repeated in a linear mixed model (restricted maximum likelihood method)

Landings	Host-finding efficiency		Color choice	
	χ^2	df	χ^2	df
Total ^a	27.6***	7	7.21	7
1–10, day 1	12.5**	3	.33	3
11–20, day 1	11.6**	3	.37	3
1–10, day 2	2.6	3	.29	3

Note: The significance of the family × host color effect was tested with a log-likelihood test in which the null model included all effects in tables 3 and 4 except the family × host color interaction.

^a This model also includes the applicable interaction terms listed in table 3.
 ** *P* < .01.
 *** *P* < .001.

Table A3
Family effect varies with environment

Landings	Green host				Red host			
	Host-finding efficiency		Color choice		Host-finding efficiency		Color choice	
	<i>F</i>	df	<i>F</i>	df	<i>F</i>	df	<i>F</i>	df
Total ^a	1.01	6, 49	.64	6, 49	9.56***	6, 41	4.47***	6, 41
1–10, day 1	.16	6, 58	.27	6, 58	6.07***	6, 43	2.57*	6, 43
11–20, day 1	1.23	6, 30	1.19	6, 30	6.65***	6, 23	1.67	6, 23
1–10, day 2	.69	5, 17	2.38	5, 16	5.38*	5, 8	3.03	5, 8

Note: Analyses reported in tables 3 and 4 were repeated for each host color environment separately; results shown here are for the family effect only.

^a This model also includes the applicable interaction terms listed in table 3.

* $P < .05$.

*** $P < .001$.