Table a). The effect of the food items' frequency and processing intensity on the migrants' peering behaviour analysed using a GLMM with negative binomial family distribution. Shown are the model estimates, with standard errors (SE), lower and upper confidence intervals (CI), Chi-square of the interaction (χ^2) and degrees of freedom (*df*), min. and max. of models` stability test, as well as dispersion parameter. Analysis is based on N = 789 daily dyadic observations of migrants peering at targets feeding on different food items, on days where peering occurred. The conditional pseudo delta R^2 for this model was 0.36.

Model	N	Response variable	Factor	Factor type	Estimate	SE	Lower CI	Upper CI	χ^2	*df*	*P*	Min	Max	Disp	Family
1a	789	Migrant males` peering counts at targets feeding on different food items	Intercept	Intercept	-0.04	0.2	-0.5	0.31	-	-	0.85	-0.14	0.05	0.99	Negative Binomial
			Frequency	**Predictor**	-0.38	0.19	-0.76	-0.04	3.521	1	**0.047**	-0.48	-0.32		
			Proc. intensity	**Predictor**	0.38	0.16	0.15	0.6	10.368	1	**< 0.001**	0.33	0.42		
			FAI	Control	0.13	0.2	-0.29	0.51	0.063	1	0.518	0.05	0.21		
			Site (Tuanan)	Control	-0.72	0.35	-1.53	-0.06	3.574	1	**0.043**	-0.94	-0.52		

Table b) Results of the Random effects of Model 1a, including variance, standard deviation, sample size, as well as random slopes of Dyad over FAI and Food item processing intensity ('complexity').

Groups	Name	Variance	Std.Dev.	N
Date	(Intercept)	3.48	0.059	111
Food item	(Intercept)	782.7	0.88	168
Dyad	(Intercept)	0.02	0.01	75
Dyad.1	z.FAI	502.2	0.71	75
Dyad.2	z.Complexity	<0.001	<0.001	75

Table c). Results of the GLMM with a Poisson family distribution of the migrants' interaction rate with the food item before and after the peering event ('condition') for the <u>Suaq population only</u>. Shown are the model estimates, with standard errors (SE), lower and upper confidence intervals (CI), Chi-square of the interaction (χ^2) degrees of freedom (*df*), min. and max. of models` stability test, as well as dispersion parameter. Analysis is based on N = 126 daily dyadic observations of migrants interacting with the peered-at item, on days where peering occurred. The conditional pseudo delta R^2 for this model was 0.99. For this analysis only data from the Suaq population were available.

Model	N	Response variable	Factor	Factor type	Estimate	SE	Lower CI	Upper CI	χ^2	*df*	*P*	Min	Max	Disp	Family
1b	126	Migrant males number of interacting with food item	Intercept	Intercept	-20.18	14.63	-56.51	2.59	-	-	0.168	-32.17	-14.41	0.56	Poisson
			Condition (Before)	**Predictor**	-4.39	0.11	7.34	7.79	951.4	1	**< 0.001**	-3.67	8.54		
			FAI	Control	0.41	1.18	-3.14	4.87	0.12	1	0.73	-0.19	0.81		

Table d) Results of the Random effects of Model 1b, including variance, standard deviation and sample size.

Groups	Name	Variance	Std.Dev.	N
Dyad	(Intercept)	25.58	5.06	15
Date	(Intercept)	191.50	13,84	20

Table e). The effect of the interaction between the role models' age-sex classes and site, on the migrants peering behaviour analysed using a GLMM with negative binomial family distribution. The age-sex classes of the targets are: adult females, immatures and unflanged males. Shown are the model estimates, with standard errors (SE), lower and upper confidence intervals (CI), Chi-square of the interaction (χ^2) degrees of freedom (*df*), min. and max. of models` stability test, as well as dispersion parameter. In italics are the results of the main contrasts comparisons of the interaction (for full post hoc comparisons see Table S6). Analysis is based on N = 2426 daily dyadic number of observations of migrants associating with targets of all age-sex classes, on days with and without peering, summed up quarterly per year. The conditional pseudo delta R^2 for this model was 0.12. Full information on post-hoc test (Tukey pair-wise comparisons) listed in Table S6, Supplement A.

Model	N	Response variable	Factor	Factor type	Estimate	SE	Lower CI	Upper CI	χ^2	df	P	Min	Max	Disp	Family
2	2426	Immigrant males` quarterly peering counts at targets of different age sex classes (including peer = 0)	Intercept	Intercept	-6.41	0.37	-7.69	-6.12	-		**< 0.001**	7.21	-6.62	0.64	Negative Binomial
			ClassTarget Ufm-Adf : SiteTuanan	*Predictor*	*2.33*	*0.77*	*0.19*	*4.51*	-		***0.0023***	*1.58*	*2.22*		
			ClassTargetImmature-Adf : SiteTuanan		*1.52*	*0.46*	*0.79*	*2.99*	-		***0.0011***	*1.46*	*2.13*		
			ClassTarget: Site	**Predictor**	-	-	-	-	15.02	2	**< 0.001**	-	-		
			FAI	Control	0.21	0.16	-0.14	0.5	0.58	1	0.45	0.11	0.32		

Table f) Results of the Random effects of Model 2, including variance, standard deviation and sample size.

Groups	Name	Variance	Std.Dev.	N
Year	(Intercept)	0.24	0.35	18
Dyad	(Intercept)	<0.001	<0.001	1350
Individual	(Intercept)	0.87	0.92	135

Table g). The effect of the time spent in the area on the migrants peering behaviour analysed using a GLMM with Poisson family distribution. Shown are the model estimates, with standard errors (SE), lower and upper confidence intervals (CI), Chi-square of the predictors (χ^2) and degrees of freedom (*df*). Analysis is based on N = 149 daily dyadic observations of migrants associating with targets of all age-sex classes, on days with peering, summed up quarterly per year. The conditional pseudo delta R^2 for this model was 0.94.

Model	N	Response variable	Factor	Factor type	Estimate	SE	Lower CI	Upper CI	χ^2	df	P	Min	Max	Disp	Family
3	149	Immigrant males` quarterly peering counts (> 0)	Intercept	Intercept	-4.9	0.12	-5.1	-4.65	-	-	**< 0.001**	-5.15	-4.79	1.10	
			PresentMonthInArea	**Predictor**	-0.51	0.15	-0.8	-0.24	8.246	1	**< 0.001**	-0.58	-0.32		Poisson
			FAI	Control	0.32	0.19	-0.04	0.63	3.576	1	**0.087.**	0.2	0.49		
			Site (Tuanan)	Control	0.02	0.24	-0.46	0.45	0.922	1	0.922	-0.19	0.38		

Table h) Results of the Random effects of Model 3, including variance, standard deviation, sample size, as well as random slopes of ID, dyad and year over FAI and the continuous predictor present month in area.

Groups	Name	Variance	Std.Dev.	N
Individual	PresentMonthArea	<0.001	<0.001	54
Individual.1	FAI	<0.001	<0.001	54
Dyad	PresentMonthArea	0.28	0.55	136
Dyad.1	FAI	0.94	0.97	136
Year	PresentMonthArea	0.06	0.24	18
Year.1	FAI	<0.001	<0.001	18