1. Full Model Specification

A list of all effects included in the analysis, as well as their mathematical formulation and a short interpretation can be found in table S1.

2. Results for control parameters

The results of the parameters not related to the hypotheses are shown in table S2 and S3. They give interesting insights into the evolution of friendship networks: Ties are generally unlikely, reflected in the negative *outdegree* estimate; however, they are more probable if they are *reciprocated*, *transitively* embedded, or between pupils of *same sex*, that receive similar amounts of pocket money (*pocket money similarity*) in the Glasgow data or that are in the *same form* in the ASSIST data. Further, in both datasets adolescents that send many ties are less attractive as friends (*outdegree popularity*). In model 1 for both datasets there is a small tendency to form and keep ties to popular others, measured in the *indegree popularity* effect, however, in the other four models this effect either disappears or changes sign to significantly negative. An interesting side note from this observation is that the often claimed (and equally often disproved) prevalence of preferential attachment in social networks seems to depend strongly on other parameters in the model, at least in this analysis. In the Glasgow data, there is a tendency towards forming ties to others that receive a lot of pocket money (*pocket money alter*). Additionally, girls are less attractive as friends (*sex alter*) and adolescents that have many outgoing ties are unlikely to send even more (o*utdegree activity*).

3. Tables

Effect Name	Mathematical Formula	Effect Description: The tendency…
Outdegree	$s(x) = \sum_j x_{ij}$	…to form and maintain friendships. This can be viewed as an intercept.
Reciprocity	$s(x) = \sum_j x_{ij} x_{ji}$	…to reciprocate friendships.
Any joint friend (trans. trip)	$s(x) = \sum_{j,h} x_{ij} x_{ih} x_{hj}$	…to form and maintain ties to friends-of-friends (additive)
1st joint friend (trans. ties)	$s(x) = \sum_j x_{ij} \, max_h(x_{ih} x_{hj})$	…to have ties to others that are considered a friend by at least one friend
Transitivity (GWESP)	$s(x) = \sum_j x_{ij} e^\alpha \{1 - (1 - e^\alpha)^{\sum_h x_{ih} x_{hj}}\}$	…to attach to friends-of-friends; each additional friend adds less weight
Indegree popularity	$s(x) = \sum_{j,h} x_{ij} x_{+j}$	…to attach to popular actors in the network
Outdegree popularity	$s(x) = \sum_{j,h} x_{ij} x_{j+}$	…to be tied to those that nominate many others as friends.
Outdegree activity	$s(x) = \sum_{j,h} x_{ij} x_{i+}$	…of those with a high outdegree to nominate more others as friends.
Covariate alter	$s(x) = \sum_j x_{ij} v_j$	…to befriend alters with a higher value of the Covariate.
Covariate ego	$s(x) = v_i \sum_j x_{ij}$	…of actors with a higher Covariate to nominate more friends.
Same covariate	$s(x) = \sum_j x_{ij} \, I(v_i = v_j)$	…of actors to befriend others of the same Covariate.
Covariate similarity	$s(x) = \sum_j x_{ij} \, 1 - \dfrac{|v_i - v_j|}{max_{ij}|v_i - v_j|}$	…of actors to befriend others with similar Covariate values.

Notes: The used effects are denoted $s(x)$. A tie from actor i to actor j is called x_{ij}. The variables x_{+j} and x_{j+} refer to all incoming and outgoing ties of actor j, respectively. Variable v_i denotes the Covariate of actor i. The indicator function I equals 1 if the sender and recipient of a tie are of the same Covariate and 0 otherwise. All Covariates are centred, as well as the average similarity of Covariates in the Covariate Similarity effect. In the GWESP effect $\alpha = log(2)$.
Table S1: Effects included in the analyses.

	Model 1			Model 2			Model 3			Model 4			Full Model		
	estimate		s.e.	estimate		s.e.	estimate		s.e.	estimate		s.e.	estimate		s.e.
Density / Intercept	-2.43	***	(0.18)	-2.59	***	(0.21)	-2.70	***	(0.22)	-2.52	***	(0.20)	-2.83	***	(0.26)
Reciprocity	2.00	***	(0.11)	3.30	***	(0.28)	2.77	***	(0.16)	2.81	***	(0.15)	3.14	***	(0.30)
First joint friend	1.19	***	(0.14)												
H1 Additional joint friend	0.43	***	(0.10)												
Transitivity (weighted)				2.17	***	(0.10)	2.65	***	(0.20)	2.18	***	(0.10)	2.56	***	(0.20)
Indegree popularity	0.062	**	(0.020)	-0.001		(0.024)	0.003		(0.024)	0.001		(0.023)	-0.001		(0.024)
Outdegree popularity	-0.28	***	(0.04)	-0.21	***	(0.05)	-0.22	***	(0.05)	-0.21	***	(0.04)	-0.22	***	(0.05)
Outdegree activity	-0.049	*	(0.020)	-0.067	**	(0.023)	-0.067	**	(0.022)	-0.068	**	(0.023)	-0.066	**	(0.026)
Sex attractivity	-0.172	*	(0.083)	-0.203		(0.107)	-0.149		(0.102)	-0.171		(0.089)	-0.172		(0.102)
Sex activity	0.064		(0.114)	0.090		(0.126)	0.021		(0.123)	0.051		(0.114)	0.057		(0.121)
Same sex	0.72	***	(0.08)	0.81	***	(0.13)	0.96	***	(0.13)	0.74	***	(0.10)	1.10	***	(0.16)
Money attractivity	0.011	*	(0.005)	0.013	*	(0.006)	0.010	*	(0.005)	0.010	*	(0.005)	0.013	*	(0.006)
Money activity	-0.005		(0.006)	-0.010		(0.007)	-0.005		(0.006)	-0.007		(0.007)	-0.010		(0.007)
Money similarity	1.12	***	(0.29)	1.74	***	(0.40)	1.25	**	(0.47)	2.98	**	(0.95)	3.41	**	(1.08)
H2 Transitivity * reciprocity				-0.85	***	(0.18)	-0.85	***	(0.20)	-0.90	***	(0.18)	-0.83	***	(0.18)
H3 Same sex * reciprocity				-0.53	*	(0.26)							-0.38		(0.29)
Money similarity * reciprocity				-1.71	*	(0.73)							-1.56	*	(0.76)
H4 Same sex * transitivity							-0.55	*	(0.19)				-0.47	*	(0.20)
Money similarity * transitivity							-0.27		(0.62)				0.06		(0.57)
H5 Same sex * money similarity										-2.03	*	(0.94)	-1.88		(1.04)

Notes: Estimated of parameters used Method of Moments. The number of iterations in phase 3 was 2500. All models converged with an overall convergence ration of < 0.25 and convergence t-ratio for each parameter < 0.1. *p-values*: * < 0.05; ** < 0.01; *** < 0.001.

Table S2: Results from the SAOM analysis Glasgow Data.

	Model 1			Model 2			Model 3			Model 4			Full Model		
	estimate		s.e.	estimate		s.e.	estimate		s.e.	estimate		s.e.	estimate		s.e.
Density / Intercept	-2.66	*	(0.10)	-2.91	*	(0.11)	-3.27	*	(0.13)	-2.85	*	(0.11)	-3.38	*	(0.13)
Reciprocity	1.66	*	(0.05)	3.45	*	(0.12)	2.64	*	(0.06)	2.85	*	(0.06)	3.21	*	(0.11)
First joint friend	1.25	*	(0.05)												
H1 Additional joint friend	0.31	*	(0.01)												
Transitivity (weighted)				2.09	*	(0.05)	2.93	*	(0.12)	2.13	*	(0.05)	2.86	*	(0.12)
Indegree popularity	0.030	*	(0.005)	-0.019	*	(0.004)	-0.019	*	(0.004)	-0.015	*	(0.003)	-0.019	*	(0.003)
Outdegree popularity	-0.22	*	(0.01)	-0.15	*	(0.01)	-0.14	*	(0.01)	-0.16	*	(0.01)	-0.15	*	(0.01)
Outdegree activity	0.012		(0.016)	-0.009		(0.018)	-0.006		(0.018)	-0.007		(0.018)	-0.005		(0.018)
Sex attractivity	0.030		(0.031)	0.045		(0.044)	0.022		(0.028)	0.035		(0.034)	0.031		(0.035)
Sex activity	0.011		(0.028)	0.017		(0.042)	0.039		(0.030)	0.026		(0.033)	0.034		(0.035)
Same sex	0.57	*	(0.06)	0.64	*	(0.06)	0.93	*	(0.09)	0.59	*	(0.07)	1.02	*	(0.10)
Same form	0.37	*	(0.04)	0.53	*	(0.04)	0.78	*	(0.05)	0.58	*	(0.06)	0.89	*	(0.05)
H2 Transitivity * reciprocity				-1.10	*	(0.05)	-0.96	*	(0.05)	-1.21	*	(0.05)	-0.94	*	(0.05)
H3 Same sex * reciprocity				-0.56	*	(0.09)							-0.48	*	(0.08)
Same form * reciprocity				-0.46	*	(0.05)							-0.34	*	(0.06)
H4 Same sex * transitivity							-0.75	*	(0.10)				-0.69	*	(0.10)
Same form * transitivity							-0.55	*	(0.04)				-0.52	*	(0.04)
H5 Same sex * same form										-0.27	*	(0.07)	0.007		(0.046)

Notes: Each school used in the meta-analysis, was estimated using Method of Moments. The number of iterations in phase 3 was 2500. All models converged with an overall convergence ration of < 0.25 and convergence t-ratio for each parameter < 0.1. *p-values*: * < 0.001

Table S3: Results from the SAOM meta-analysis ASSIST Data