

# Supplementary Material

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#### 1 Method

## 1.1 Measures of control variables

#### 1.1.1 Actor-level

At the actor level, sex has been found to serve as a fundamental demographic variable of network formation, and same-sex ties are found in personal discussion networks (Ibarra, 1992). Individuals high in generalized trust are more extraverted than those low in generalized trust (Yoshimoto & Hasegawa, 2017), and people high in extraversion tend to develop ties with those with similar levels of extraversion over time (Selfhout et al., 2010). Therefore, this study measured both information and controlled in the analysis.

The Big-Five personality factors (extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience) were measured by the Japanese version of the Ten-Item Personality Inventory (TIPI-J) (Oshio et al., 2012) on a 7-point Likert scale (1: disagree strongly to 7: agree strongly). Items included "extraverted, enthusiastic" and "reserved, quiet (reversed)" for extraversion, "anxious, easily upset" and "calm, emotionally stable (reversed)" for neuroticism, "critical, quarrelsome (reversed)" and "sympathetic, warm" for agreeableness, "dependable, selfdisciplined" and "disorganized, careless (reversed)" for conscientiousness, and "open to new experiences, complex" and "conventional, uncreative (reversed)" for openness to experience. The score was summed over the two items for each factor, ranging from 2 to 14 (extraversion:  $\alpha = .61$ , r = .44, M = 8.97, SD = 2.60; neuroticism:  $\alpha = .18$ , r = .10, M = 8.86, SD = 2.30; agreeableness:  $\alpha$ = .29, r = .28, M = 10.3, SD = 1.88; conscientiousness:  $\alpha = .44$ , r = .28, M = 6.80, SD = 2.50; and openness to experience:  $\alpha = .28$ , r = .16, M = 7.88, SD = 2.48). Higher scores indicate a greater propensity for each personality factor. Note that TIPI aims to measure broad domains of personality with only two items for each factor. Due to the compositional characteristic, TIPI tends to show low alpha coefficients (Gosling et al., 2003). The correlation between generalized trust and extraversion was positive but not significant (r = .20, p = .11).

## 1.1.2 Dyad-level

At the dyad level, there are several ways for first-year undergraduates to get acquainted with others in the same department before enrollment. If some of them graduated from the same high school or cram school, they may already know each other; or if some of them have communicated with others on social media by searching keywords related to the university, they may be able to identify each other even at the beginning of their campus lives. It is quite natural to assume that an acquaintanceship network outside the university has a significant influence on the structure of social networks within the university. There is also a well-known strategy of forming effective social ties

for advice seeking by being acquainted with those who have already gained great renown from third parties for their ability (Raub & Weesie, 1990). This reflects the process of informational social influence (Deutsch & Gerard, 1955) and can exert a significant impact on the formation of ties. Thus, this study asked participants about acquaintanceship with others before their enrollment and the names of others renowned for their academic excellence in the department to control these effects on the process of social selection.

The acquaintanceship network was measured at Wave 1 by the question, "Of persons at the department, who have you known in person, or with whom have you communicated individually on social networking services, such as Twitter or LINE before enrollment at the university?" The renown network was measured at each wave by the question, "Of persons at the department, who do other first-year students think is excellent?" Participants made open-ended nominations of the names of other students in response to these questions. The order of presenting the network measures was randomized across participants.

# 1.2 Details of analysis

The longitudinal data was analyzed using RSiena version 1.2-7 (Ripley et al., 2019), an R package for the computer program SIENA (Simulation Investigation for Empirical Network Analysis).

SAOM testing comprises three sections: model specification, model estimation, and goodness-of-fit assessment. In the model specification section, SAOM allows us to model the dynamics of social networks as combinations of (1) rate effects (expected frequencies of opportunities for changing outgoing ties for each actor over the measurement period), (2) network (structural) effects, and (3) actor-based (individual) or dyad-based covariate effects on tie formation (note that the term "covariate" refers not only to dummy variables but also to continuous variables at the individual level in general). SAOM can implement numerous effects in a model based on theoretical elaborations. In line with the guidelines for effect selection (Snijders, 2017; Snijders & Steglich, 2015; Snijders et al., 2010), this study included the effects presented in Supplementary Table 1.

Rate effects are essential to model the dynamics of social networks, which represent a grounded tendency for actors to have an opportunity to change ties at each period (Period 1 [Wave 1 to Wave 2], Period 2 [Wave 2 to Wave 3], and Period 3 [Wave 3 to Wave 4]).

Network effects capture endogenous processes of tie formation internalized in a network. Eight structural effects (outdegree, reciprocity, transitive closure (geometrically weighted edgewise shared partners in the forward-forward direction; GWESP FF), indegree- and outdegree-popularity, reciprocal degree-related activity, and zero and low outdegree-truncated effects) and one interaction effect of transitive closure × reciprocity were included in the model. Outdegree and reciprocity are two essential elements to represent a tendency for actors to form outgoing ties and a tendency for mutual nomination. GWESP closure (FF) serves as a generalized form of a transitive effect to represent closure and the interaction between reciprocity and transitivity. The (square-root) indegree-and outdegree-popularity effects represent the tendencies of some actors to have a greater number of incoming ties than other actors if they already hold incoming and outgoing ties, respectively. The reciprocal degree-related activity effect represents the tendency of actors having a greater number of reciprocal ties to create a new tie. The outdegree-truncated effects represent an inactive tendency of actors having a limited number of outgoing ties in a network, such as no (zero outdegree) and one (low outdegree) nomination of others.

Actor-based effects model the process of tie formation originating in individual variables, such as demographic attributes, psychological dispositions, behaviors, or experiences. There are four types of actor-based effects: ego, alter, ego × alter (i.e., the product of ego and alter), and same effects. The ego effect is a tendency for actors who scored high in a variable to create or maintain ties in a network, whereas the alter effect is a tendency for actors who scored high in a variable to receive ties in a network. Both the ego × alter and the same effects represent homophily tendencies: the former for actors with higher scores on a variable to nominate others with higher scores and the latter for actors to nominate others having the same score on a variable as themselves. The model included the ego, alter, and the ego × alter effects of generalized trust and extraversion; and the same effects of sex. Prior to estimation, individual variables were centered by subtracting the overall mean. All variables were measured at Wave 1 and remained constant over time.

The approach to modeling the ego effect of generalized trust in this study needs further explanation. By default, SAOM implements the probability of presence  $(x_{ij} = 1)$  to absence  $(x_{ij} = 0)$  of a tie through the periods. This is called an "evaluation model." The model assumes that the odds ratios of tie creation (i.e. comparison between the probabilities of creation  $(0\rightarrow 1)$  and non-creation  $(0\rightarrow 0)$  of a tie) and tie endowment (i.e. comparison between the probabilities of maintenance  $(1\rightarrow 1)$  and termination  $(1\rightarrow 0)$  of a tie) are equivalent (Ripley et al., 2019). Note that the term "endowment" refers to the maintenance of an existing tie. To see if the opportunities to disengage from existing ties and develop new ties differed according to the level of generalized trust, this study separately modeled the endowment and creation ego effects of generalized trust (to test Hypotheses 1 and 2) instead of modeling the evaluation ego effect.

Examining the emancipating role of generalized trust from existing ties and transitive closure in a network, this study also created an interaction term of generalized trust with transitive closure (to test Hypothesis 3) to scrutinize how individuals high in generalized trust show preferences for the formation of open triads. The parameter is interpreted in accordance with the general tendency (i.e., the main effect) toward transitive closure estimated in the endogenous network process of tie formation<sup>1</sup>.

Dyad-based effects model the process of tie formation derived from a set of existing relationships between actors in a network. This study included the acquaintance network as a constant covariate and the renown network as a changing covariate across the waves. It is natural to assume that an acquaintance network already existed among the current sample prior to their enrollment at the university, so this study separately put the creation and endowment effects of the network as antecedent factors of advice and personal discussion ties.

It is of no small concern that the advice and personal discussion networks might overlap with each other to some extent, as actors can seek information from both close and non-close friends (Elmer et al., 2017). In order to handle this issue, this study used a two-step estimation procedure (Snijders et al., 2013). The model was first applied separately to advice and personal discussion networks (the "uniplex" analysis), and then was combined to estimate the parameters in the advice networks simultaneously with those in the personal discussion networks (the "multiplex" analysis). In the

<sup>&</sup>lt;sup>1</sup> The form of open triads (two asymmetric ties among three nodes) directly corresponds to the number of distance 2 effect in SAOM. However, as mentioned in the RSiena manual (Ripley et al., 2019), this effect (nbrDist2) is difficult to interpret due to its involvement of different tie generative processes. Following the suggestion in the manual, we use the forms of transitive closure to model indirect tie formation in SAOM.

multiplex analysis, this study examined cross-network effects by separating the process of cross-network tie creation from that of maintenance. This distinction allowed us to explore how individuals create and maintain ties in accordance with the presence or absence of the different types of ties in the same dyads, such as the possibility that advice seeking initiates personal discussion, or that personal discussion ties work as a glue to stabilize advice ties. This study included the outgoing network-X-to-network-W effects (a tie from actor A to actor B in network X produces a tie in network W in the dyad) for tie creation and endowment, respectively. To examine if individuals high in generalized trust tend to avoid tie overlaps between the two networks, the interaction between generalized trust and these cross-network effects was included in the model (to test Hypothesis 4).

For the evaluation of the findings of SAOM, it is essential to judge the appropriateness of a model using network statistics that properly represent a macro-level network structure found in the data (Snijders & Steglich, 2015). The goodness of fit of a model is calculated by a systematic comparison between network statistics observed in actual data and those in simulation-based data generated by the model using the Method of Moments estimation. This study used four auxiliary network statistics—outdegree distribution (distribution of the number of outgoing ties), indegree distribution (distribution of the number of incoming ties), geodesic distance distribution (distribution of the shortest path between two actors), and triad census distribution (distribution of 16 possible triads in a directed network)—to check whether a model was fitted well to the data.

# 2 Results

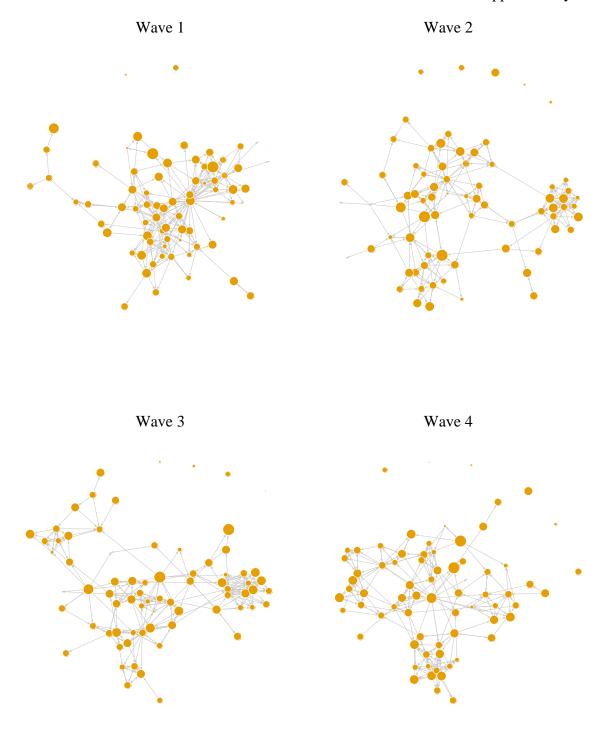
## 2.1 Network and covariate effects

In this section, we report the findings about the control variables in the multiplex analysis (complete results are reported in Supplementary Table 4). Several significant processes of tie formation rooted in local network structure were commonly found in both advice and personal discussion networks. The positive reciprocity effect (Estimates = 2.417 in the advice network and 3.994 in the personal discussion network, ps < .001) indicates that actors tended to be mutually tied with each other. The positive transitive closure (GWESP) effect (Estimates = 2.055 and 2.205, ps < .001) indicates that the more nodes through which an ego shared advice or had common friends with an alter indirectly, the more likely the ego was to have a direct advice or personal discussion tie with the alter. The positive zero outdegree effect (Estimate = 2.674, p < .001 and Estimate = 4.247, p < .05) indicates that actors having no outgoing ties tended not to change position. The negative low outdegree effect (Estimates = -0.895 and -3.610, ps < .05) indicates that those who had a sole tie sought more ties.

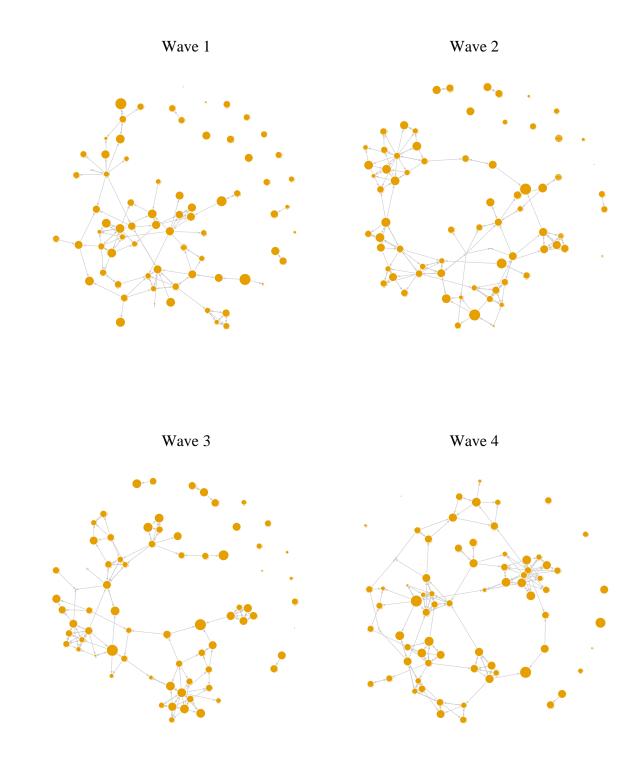
There are also a few additional effects found to be significant in each network. The negative outdegree popularity effect in the advice network (Estimate= -0.489, p < .001) indicates that actors already having outgoing ties tended to be less nominated by others as a source of advice. The negative transitive closure × reciprocity effect in the advice network (Estimate= -0.914, p < .01) indicates the weaker tendency for actors to reciprocate ties for advice within than outside of transitive ties. The negative reciprocal degree-related activity effect in the personal discussion network (Estimate= -0.486, p < .01) indicates that actors having greater numbers of reciprocal ties tended not to form new personal discussion ties.

Actor and dyadic covariates were significant predictors of tie formation only in the advice network. The positive same sex effect (Estimate= 0.607, p < .001) indicates sex-based homophily. The negative openness ego effect (Estimate= -0.070, p < .01) indicates that individuals high in openness

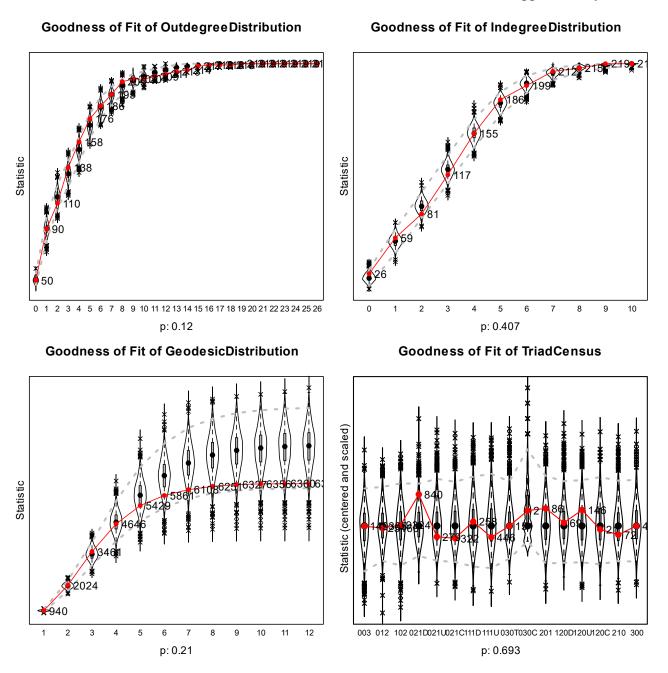
to experience tended not to form ties. The positive dyadic covariate effects of the renown network (Estimate= 0.837, p < .001) and the acquaintanceship network (on tie creation) (Estimate= 0.899, p < .05) indicate that actors tended to seek advice from those who were renowned for their academic excellence and to create new advice ties with those who were already familiar.



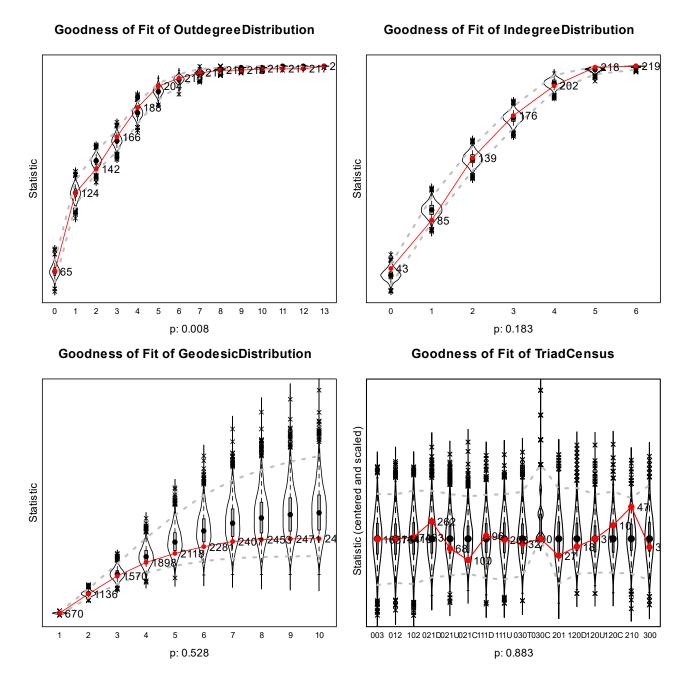
**Supplementary Figure 1.** Graphs of advice networks at each wave. The size of a node represents that actor's level of generalized trust.



**Supplementary Figure 2.** Graphs of personal discussion networks at each wave. The size of a node represents that actor's level of generalized trust.



Supplementary Figure 3. Goodness-of-fit indices of advice networks in multiplex analysis.



**Supplementary Figure 4.** Goodness-of-fit indices of personal discussion networks in multiplex analysis.

# **Supplementary Table 1.** Descriptions of effects included in the analysis.

Eff-~	Graphical expres		cal expression	Description
Effect	RSiena effect name	$t_1$	$t_1 + m$	Description
Uniplex network effects				
Network effects				
Rate	RateX			Frequency of opportunities to change ties
Outdegree	density	•	$\bullet \!$	Tendency to create or maintain ties (i.e. control variable)
Reciprocity	recip	•←•	●↔●	Tendency to form reciprocal ties
Indegree-popularity (square-rooted)	inPopSqrt		•	Tendency to form ties with actors having many incoming ties
Outdegree-popularity (square-rooted)	outPopSqrt		•	Tendency to form ties with actors having many outgoing ties
Reciprocal degree-related activity	reciAct	<i>-</i>	•	Tendency for actors having reciprocal ties to form outgoing ties
GWESP (transitive closure)	gwespFF			Tendency toward transitive closure based on the creation of ties wi indirectly connected actors
Zero outdegree	outTrunc	• •	• •	Tendency to nominate no one
Low outdegrees (1)	outTrunc2	•	•••	Tendency to nominate not more than one actor
GWESP (transitive closure) × Reciprocity				Tendency to form reciprocal ties with indirectly connected actors
Individual covariate effects				
Covariate alter	altX	0 0	$\bigcirc\!$	Tendency for actors high in a covariate value to receive incoming t
Covariate ego	egoX	○ ○ • •	$\bigcirc \longrightarrow \bigcirc$	Tendency for actors high in a covariate value to extend outgoing tive which assumes the creation and endowment effects as the same
Covariate creation ego	egoX (creation)	0 0	$\bigcirc\!$	Tendency for actors high in a covariate value to create outgoing tie
Covariate endowment ego	egoX (endow)	$\bigcirc$	$\bigcirc$	Tendency for actors high in a covariate value to maintain outgoing
Covariate ego × alter	egoXaltX	0 0	$\bigcirc \longrightarrow \bigcirc$	Tendency to create ties from an actor high in a covariate value to another high in a covariate value
Covariate same	sameX	0 0	$\bigcirc \longrightarrow \bigcirc$	Tendency to create ties between actors having the same covariate v

# Supplementary Table 1. (cont'd)

Effect	RSiena effect name	Graphic	cal expression	Description	
Effect RSiena effec		$t_1$	$t_1 + m$	Description	
Interaction between individual covariate	e and network effects				
Covariate ego x GWESP closure				Tendency for actors high in a covariate value toward transitive closure based on the formation of ties with indirectly connected actors	
Dyadic covariate effects <sup>a</sup>					
Covariate dyad (creation)	X (creation)	•	•===	Tendency of tie creation in a dyad where there is an opportunity to interact	
Covariate dyad (endowment)	X (endow)	●≕●	●≕●	Tendency of tie maintenance in a dyad where there is an opportunity to interact	
Interaction between individual and dyac	lic covariate effects <sup>a</sup>				
Covariate ego x Covariate dyad (creation)		<b>○</b>	<b>○&gt;</b> •	Tendency for actors high in a covariate value toward tie creation in a dyad where there is an opportunity to interact	
Covariate ego x Covariate dyad (endowment)		<b>○</b>	◯≕≠●	Tendency for actors high in a covariate value toward tie maintenance in a dyad where there is an opportunity to interact	
Multiplex network effects <sup>b</sup>					
$W \rightarrow X$ creation (outgoing W to X)	crprod (creation)	●	•	Tendency of tie creation in network X if there is a tie in network W in the same dyad	
$W \rightarrow X$ endowment (outgoing W to X)	crprod (endow)	●	●	Tendency of tie maintenance in network $\boldsymbol{X}$ if there is a tie in network $\boldsymbol{W}$ in the same dyad	
Covariate ego x W $\rightarrow$ X creation (outgoing W to X)		O	<b>○</b>	Tendency of tie creation in network X for actors high in a covariate value if there is a tie in network W in the same dyad	
Covariate ego $x W \rightarrow X$ endowment (outgoing W to X)		<b>○</b>	<u></u> <b>;</b> ●	Tendency of tie maintenance in network X for actors high in a covariate value if there is a tie in network W in the same dyad	

Some graphical expressions of effects refer to Rambaran et al. (2016, Table S1). The expressions in  $t_1$  indicate the initial state of the configuration. The expressions in  $t_1 + m$  indicate the state of the configuration after carrying out the estimation (Rambaran et al., 2016). a Solid lines indicate a dependent network; dotted lines indicate a dyadic covariate (i.e. an existence of an opportunity to interact).  $^bW = an$  independent network (dashed lines); X = a dependent network (solid lines). GWESP = geometrically weighted edgewise shared partners.

Supplementary Table 2. Descriptive statistics of acquaintanceship and renown networks.

	Peri	Period 1 Period 2		
	Wave 1	Wave 2	Wave 3	
Acquaintanceship network				
Density	.066			
Average degree	4.75			
Number of ties	309			
Missing fraction	11.0%			
Mutual dyads	72			
Asymmetric dyads	165			
Renown networks				
Density	.012	.030	.028	
Average degree	0.86	2.16	1.98	
Number of ties	56	136	121	
Missing fraction	11.0%	13.7%	16.4%	
Mutual dyads	2	8	6	
Asymmetric dyads	52	120	109	
Tie changes				
Creating tie $(0 \rightarrow 1)$	9	9 5	57	
Dissolving tie $(1 \rightarrow 0)$	2	$7$ $\epsilon$	56	
Stable tie $(1 \rightarrow 1)$	2	8 6	51	
Jaccard index	0.	18 0.	33	

N = 73. These statistics are reported in RSiena outputs, except for mutual dyads and asymmetric dyads calculated by the igraph package in R.

**Supplementary Table 3.** Parameter estimates in uniplex networks in Stochastic Actor-Oriented Models.

	Advice	Personal discussion
•	Estimate (SE)	Estimate (SE)
Generalized trust		
Trust alter	0.035(0.011) **	0.033 (0.018)
Trust ego (endowment)	-0.498(0.097) ***	-0.276(0.174)
Trust ego (creation)	0.669 (0.107) ***	0.415(0.153) **
Trust ego × Trust alter	-0.001 (0.002)	-0.001 (0.004)
Trust ego $\times$ GWESP closure	-0.075 (0.033) *	-0.092 (0.052)
Structural effects/Covariates		
Rate (Period 1)	22.744 (3.302)	6.341 (1.032)
Rate (Period 2)	7.883 (0.988)	3.106(0.478)
Rate (Period 3)	5.262 (0.619)	2.473 (0.391)
Outdegree	-1.932(0.296) ***	-1.188(0.519) *
Reciprocity	2.755 (0.262) ***	3.887(0.465) ***
GWESP closure	2.201 (0.174) ***	2.514(0.255) ***
Indegree popularity (square-root)	-0.331 (0.121) **	-0.629(0.300) *
Outdegree popularity (square-root)	-0.531 (0.120) ***	-0.358 (0.234)
Reciprocal degree-related activity	-0.112(0.044) *	-0.409(0.116) ***
Zero outdegree	2.989 (0.764) ***	2.569(0.786) **
Low outdegree (1)	-0.998 (0.446) *	-2.627(0.509) ***
GWESP closure × Reciprocity	-0.520 (0.312)	-0.572 (0.505)
Acquaintanceship network (endowment)	0.149 (0.294)	0.429 (0.458)
Acquaintanceship network (creation)	0.941 (0.278) ***	0.707(0.349) *

Renown network	0.824(0.180) ***	0.753(0.300) *
Same sex	0.638(0.122) ***	0.778(0.175) ***
Extraversion alter	0.020(0.018)	-0.044 (0.033)
Extraversion ego	0.028 (0.022)	0.041 (0.037)
Extraversion ego × alter	-0.004 (0.006)	-0.000(0.011)
Neuroticism alter	0.005 (0.019)	-0.021 (0.033)
Neuroticism ego	-0.015 (0.021)	-0.013 (0.035)
Neuroticism ego × alter	0.009 (0.008)	0.026(0.013) *
Openness alter	-0.010 (0.020)	0.028 (0.032)
Openness ego	-0.070(0.022) **	0.010(0.036)
Openness ego $\times$ alter	0.010(0.007)	-0.004 (0.012)
Agreeableness alter	-0.004 (0.025)	0.033 (0.041)
Agreeableness ego	0.102(0.033) **	0.044 (0.046)
Agreeableness ego $\times$ alter	-0.009 (0.013)	-0.021 (0.021)
Conscientiousness alter	0.034 (0.018)	-0.023 (0.030)
Conscientiousness ego	-0.008 (0.020)	0.007 (0.033)
Conscientiousness ego $\times$ alter	-0.001 (0.007)	-0.002 (0.010)

<sup>\*\*</sup>p < .001, \*\*p < .01, \*p < .05; SE = standard error; GWESP = geometrically weighted edgewise shared partners; Overall maximum convergence ratios = 0.09 (advice) and 0.13 (personal discussion).

**Supplementary Table 4.** Parameter estimates in multiplex networks in Stochastic Actor-Oriented Models.

	Estimate (SE)	
Generalized trust		
Advice network		
Trust alter	0.032(0.012)	**
Trust ego (endowment)	-0.509 (0.104)	***
Trust ego (creation)	0.640 (0.112)	***
Trust ego $\times$ Trust alter	-0.001 (0.003)	
Trust ego $\times$ GWESP closure	-0.069 (0.035)	*
Personal discussion network		
Trust alter	0.007 (0.031)	
Trust ego (endowment)	-0.770(0.912)	
Trust ego (creation)	1.200(1.161)	
Trust ego $\times$ Trust alter	0.005 (0.006)	
Trust ego $\times$ GWESP closure	-0.100 (0.127)	
Structural effects/Covariates		
Advice network		
Rate (Period 1)	33.327 (8.993)	
Rate (Period 2)	9.859(1.801)	
Rate (Period 3)	6.150(0.859)	
Outdegree	-2.244 (0.324)	***
Reciprocity	2.417 (0.304)	***
GWESP closure	2.055 (0.184)	***
Indegree popularity (square-root)	-0.258 (0.138)	
Outdegree popularity (square-root)	-0.489 (0.123)	***
Reciprocal degree-related activity	-0.061 (0.041)	
Zero outdegree	2.674(0.811)	***
Low outdegree (1)	-0.895 (0.449)	*

	GWESP closure $\times$ Reciprocity	-0.914(0.342)	**
	Acquaintanceship network (endowment)	-0.183 (0.429)	
	Acquaintanceship network (creation)	0.899 (0.370)	*
	Renown network	0.837 (0.189)	***
	Same sex	0.607 (0.142)	***
	Extraversion alter	0.023 (0.018)	
	Extraversion ego	0.003 (0.021)	
	Extraversion ego $\times$ alter	-0.006(0.007)	
	Neuroticism alter	0.002(0.021)	
	Neuroticism ego	0.001 (0.021)	
	Neuroticism ego × alter	0.006(0.009)	
	Openness alter	-0.022(0.021)	
	Openness ego	-0.070 (0.025)	**
	Openness ego × alter	0.002(0.008)	
	Agreeableness alter	-0.020(0.025)	
	Agreeableness ego	0.053 (0.033)	
	Agreeableness ego $\times$ alter	-0.001 (0.014)	
	Conscientiousness alter	0.042 (0.022)	
	Conscientiousness ego	-0.004 (0.020)	
	Conscientiousness ego × alter	-0.004 (0.008)	
I	Personal discussion network		
	Rate (Period 1)	6.471 (1.509)	
	Rate (Period 2)	3.399 (0.642)	
	Rate (Period 3)	2.539 (0.486)	
	Outdegree	-1.692(1.213)	
	Reciprocity	3.994 (0.854)	***
	GWESP closure	2.205 (0.488)	***
	Indegree popularity (square-root)	-0.879 (0.506)	

Outdegree popularity (square-root)	-0.146(0.439)	
Reciprocal degree-related activity	-0.486(0.228)	*
Zero outdegree	4.247 (2.115)	*
Low outdegree (1)	-3.610(1.436)	*
GWESP closure $\times$ Reciprocity	-0.332(1.002)	
Acquaintanceship network (endowment)	0.669 (0.570)	
Acquaintanceship network (creation)	-0.029 (0.685)	
Renown network	0.191 (0.377)	
Same sex	0.093 (0.409)	
Extraversion alter	-0.078(0.059)	
Extraversion ego	0.007 (0.055)	
Extraversion ego × alter	0.004(0.017)	
Neuroticism alter	-0.013 (0.046)	
Neuroticism ego	-0.061 (0.073)	
Neuroticism ego × alter	0.028 (0.020)	
Openness alter	0.062 (0.048)	
Openness ego	0.097 (0.091)	
Openness ego × alter	0.006(0.018)	
Agreeableness alter	0.074(0.062)	
Agreeableness ego	0.056(0.065)	
Agreeableness ego × alter	-0.033 (0.030)	
Conscientiousness alter	-0.076(0.049)	
Conscientiousness ego	0.002 (0.045)	
Conscientiousness ego × alter	-0.002 (0.016)	
Cross-network effects		
Outgoing personal discussion to advice (endowment)	1.711 (0.571)	**
Outgoing personal discussion to advice (creation)	1.089 (0.390)	**
Outgoing advice to personal discussion (endowment)	-0.801 (1.013)	
Outgoing advice to personal discussion (creation)	6.931 (3.584)	

Trust ego × Outgoing personal discussion to advice	-0.007(0.169)
Trust ego $\times$ Outgoing personal discussion to advice	0.239 (0.155)
Trust ego $\times$ Outgoing advice to personal discussion (endowment)	0.277 (0.313)
Trust ego × Outgoing advice to personal discussion (creation)	-0.681 (0.651)

<sup>\*\*\*</sup>p < .001, \*\*p < .01, \*p < .05; SE = standard error; GWESP = geometrically weighted edgewise shared partners; Overall maximum convergence ratio = 0.24.

#### References

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