WHEN NICE GUYS FINISH FIRST: THE ROLE OF RECIPROCAL ALTRUISM FOR NETWORKING PERFORMANCE AND COMMITMENT

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ABSTRACT

This study suggests a model recognizing that firm performance in networking arrangements is codependent upon simultaneous consideration of firm behavior and network contingencies. Specifically, this study examines if and how network configuration influence how firms achieve and produce benefits (i.e., performance) from being altruistic, and in turn how firm level gains positively influence the in-group commitment, and as such may invoke relational rigidity or inertia. Using multilevel data from a population of Swedish strategic networks, results reveal significant cross-level moderating effects explaining variation in firm level performance. Results reveal that firms taking part in networking arrangements benefit more from being altruistic in networks which show high levels of altruism, and that firms with low levels of altruism are worse off in highly altruistic networks compared to what they are in less altruistic networks. Further these results also reveal how firms performing well as a consequence of succeeding reciprocal altruism develops higher tendencies to commit to their group and not select other partners in future cooperation. These results are argued to support the importance of reciprocal altruism in networking arrangements, and demonstrate the potential benefits in terms of performance and relate this phenomenon to lock-in effects in network arrangements.

INTRODUCTION

Inter-firm networking arrangements have become increasingly popular in theory and practice over the last few decades. In support of this positive trend, studies have illustrated that firms can gain performance advantageous and competitiveness from taking part in cooperative activities (Das & Teng, 1998, 2002). Still, much is to learn about the conditions and contingencies under which such benefits can be achieved, and also about the influences of gains from cooperative activities. The present study aims to contribute by acknowledging the importance of simultaneous consideration of firm behavior and the cooperative context to reveal effects of networking in terms of networking performance and in-group commitment toward future networking activities.

Cooperation can take on multiple forms. One commonly studied form is that of mutualism, where cooperating parties simultaneously benefit from the cooperative activities, and where the balance of rewards and costs can be immediately evaluated. Another common form of cooperation and also a common trend in explaining and understanding how firms gain from network participation is offered by social exchange logics, which suggests that: “social behavior is an exchange of goods […] such as the symbols of approval or prestige. Persons that give much to others try to get much from them, and persons that get much from others are under pressure to give much to them. This process of influence tends to work out at equilibrium to a balance in the exchanges. For a person in an exchange, what he gives may be a cost to him, just as what he gets may be a reward, and his behavior changes less as the difference of the two, profit, tends to a maximum.” (Homans, 1958, p. 606). As obvious from this quote, social exchange logics have a quite rational view where cooperation is assumed to be motivated by the potential returns a focal
partner expect to bring from others (Blau, 1964). These forms are among the most commonly studied forms of cooperation in research on inter-firm cooperation, and do contribute much to our knowledge about individual and inter-firm networking.

A quite recent trend among firms is to subscribe to formal cooperation, such as strategic networks. These networks have been defined as “intentionally formed groups of small- and medium-sized profit-oriented companies in which the firms (1) are geographically proximate, (2) operate within the same industry, potentially sharing inputs and outputs, and (3) undertake direct interactions with each other for specific business outcomes” (Human and Provan, 1997, p. 372). The trend of joining formal network arrangements have been attributed to an increasing trend of globalization in competition, and a subsequent need among firms to be innovative. As such, a common motive for joining strategic networks is to pursue innovation-related projects including joint technological development and marketing activities (Human & Provan, 1997). While this form of networking arrangement is rather new, studies have found that about a third of the SME’s in for instance Denmark subscribes to this form of strategic networks (Hanna & Walsh, 2002). This trend to organize activities in network organizations has also flourished in the other countries of Scandinavia, the rest of Europe, and the United States (Human et al., 1997).

While both mutualism and social exchange logics plays central roles in such network arrangements, we here propose an alternative cooperative logic, which thus far has received limited attention in management literature -- reciprocal altruism. Reciprocal altruism is defined as a form of altruism where one party provides a benefit to another without expectations about immediate compensation (such as mutualism), but where the rewards of cooperating activities are temporally separated (Brosnan & Waal, 2003). In like with social exchange logics, reciprocal altruism is not unconditional. The conditions for performing altruistic acts, according to a reciprocal altruist logic, is that the cooperation should render in a surplus such that the gains to the beneficiary should substantially overweigh the costs to the benefactor. Also, another condition for performing an altruistic act is that the altruistic act should, if the situation later is reversed, be reciprocated by the original beneficiary.

The specific characteristics of formal networks, such as strategic networks, where firms cooperate on innovative projects makes it difficult, if at all possible, to apply only rational exchange logics such as those of mutualism and social exchange logics without recognizing cooperation based on more loosely give and take processes where expectancies on returns are not as rational. Although this cooperative form can be of promise for understanding the context of formal inter-firm networks better, there is today limited, if any, attention directed to this cooperative form in business and management. However, there is quite some studies which has investigated this phenomenon in for instance psychology, sociology and biology on samples of fish (Milinski, 1987), vampire bats (Wilkinson, 1986), primates (Packer, 1977) and other species. It is here argued that the phenomenon of reciprocal altruism can contribute but has yet to a large extent been overlooked in samples of firms engaged in inter-firm cooperation and networking.

As such, this study conceptualizes altruism at the firm-level and in respect to inter-firm relationships taking place in networks. Conceptualizing altruism as a meaningful multilevel construct is consistent with recent theoretical work, yet the extant literature has focused almost exclusively on the beneficiaries of altruism, and related citizenship behaviour, at the individual level (Schnake & Dumler, 2003). Examining the joint interaction effect of firm-level and network-level altruism can reveal whether or not network performance and subsequent in-group commitment stems from reciprocal altruism (i.e., when firm-level and network-level altruism both
are high) or from gains through more opportunistic cooperative alternatives (i.e., when firm-level altruism is low but network-level altruism is high).

The paper is organized as follows. First, we outline the research model and develop hypotheses that link reciprocal altruism to performance and indirectly to in-group commitment. Next, we discuss sampling, measurement and issues pertaining to our research methods. Third, we present our analytic procedures and the results of our empirical tests. The paper concludes with a discussion of our findings together with implications, limitations and directions for future research.

**RESEARCH MODEL AND HYPOTHESES**

The present study suggests a model recognizing that reciprocal altruism positively influences firm performance, such that the best prerequisites for performing well in a strategic network is when a firm is inclined to altruistic behavior and when simultaneously the norms for altruistic behavior in the strategic network are high. Thus, the model places performance as a consequence of the interaction of firm-level and network-level altruism. Further, the model acknowledges that performance gains from reciprocal altruism can invoke increased in-group commitment and reduce the tendencies to consider alternative networks, thereby leading to relational rigidity and inertia. As such, this study thus suggests that firms can gain from reciprocal altruism (from being more altruistic in environments which are characterized by altruism) and that such gains leads to increased in-group commitment. In that sense, profiting from altruism also contributes to relational rigidity and inertia as it fosters a system of give and take with a particular group of firms. The rationale for this model is outlined in the following sections, starting with direct relationships from firm- and network-level altruism and performance separately, followed by the interaction effect of firm- and network level altruism and performance, and ended by the mediating effect of performance on commitment.

**Altruism and Performance**

Numerous studies have placed altruism, as part of citizenship behavior, at the core of mechanisms explaining performance. Early studies focused on the individual effect of employees or individuals’ altruism and its influence on individual and organizational outcomes respectively. A common denominator of these studies is that they questioned why individuals engage in altruistic behavior when it demarcates a cost for the contributor and a benefit only to the receptor. The simple answer to this question is often that what appears to be altruistic cooperation (i.e., a cost for the benefactor) includes expected rewards which are not related to a direct and contractual exchange. Stevens and Hauser (2004) argued that altruistic cooperators safeguard themselves by adopting conditional strategies for making sure selfish benefits. These strategies involve kin selection (i.e., interacting only with relatives), harassment or punishment (i.e., related to threats and sanctions), and reciprocal altruism (i.e., interacting only with those that have cooperated previously).

Treating others as you want to be treated yourself is therefore often suggested as a cooperative strategy which can gain positive performance outcomes also for the benefactor. Trivers (1971) suggested that altruistic acts often lead to reciprocated favors where each iterated reciprocated assistance render a net gain for the original benefactor, and hence contributes also to own performance from participating in networking activities. Empirical support for a positive effect between altruism and performance is plentiful (see for instance Podsakoff & MacKenzie, 1994).
To this background, there are reasons to believe that there is a positive relationship between a firm’s altruistic behavior and their performance, which the following hypothesis demonstrates:

**Hypothesis 1.** Firm-level altruism will be positively related to performance in inter-firm networking arrangements.

While performance in part hinges upon own efforts much also subscribes to contextual or situational effects (see for instance Jarillo, 1988). For firms taking part in inter-firm networking arrangements, perhaps the most immediate social context impacting firm performance is that of their network. Thus, the characteristics and cooperative behavior of the network members can be expected to influence also the output of the individual firm. This contextual influence where higher-level factors shape the effects on a lower level is similar to “top-down” processes which are described in multilevel theory and research (Kozlowski & Klein, 2000).

Several studies advances logics which transferred to the context of this study would suggest that firms would gain more from being located in a network with relatively higher degrees of altruistic motives. For instance, Liebrand (1984) found individuals to show more restraint drawing from common resources when they had altruistic motives. As such, participants in a network with a higher degree of altruistic motives would likely experience less effect from social loafing, and from free-riding. As such, each firm has a potential to get more out of their invested time and efforts in the network. Further, it is also likely that a network with higher levels of altruistic tendencies creates more possibilities to pool resources and use bootstrapping techniques, especially considering that altruism has been shown to be one of the motives behind volunteering (Unger, 1991) and to display prosocial behavior across situations and time (Oliner & Oliner, 1988). Therefore, the following hypotheses argues for a positive relationship between network-level altruism and performance from participating in networking activities.

**Hypothesis 2.** Network-level altruism will be positively related to firm performance in inter-firm networking arrangements.

The two former hypotheses have forwarded a logic arguing that altruistic behavior can be beneficial for the benefactor when the benefactor engages in such behavior or when the norms of altruistic behavior are high in the benefactors network. While these effects are likely influential in separate, we also argue that there is a moderating effect such that performance from networking activities is dependent on the joint consideration of firm-level and network-level altruism, such that the positive effect of being altruistic on performance will be even greater in a context where also others show a norm of reciprocating altruism.

The interaction of own tendencies and contextual norms of reciprocating altruism can be explained as a combination of altruistic rewarding and altruistic punishment. The former refers to the predisposition to reward others for engaging in desirable cooperative behavior, and the latter relates to the propensity to impose sanctions on others for violating desirable cooperative behavior. It has been observed that these forms of rewarding or punishing cooperative partners is strongly rooted in human behavior and carried out even when they do not produce any benefits for the punisher or rewarder (Fehr, Fischbacher, & Gachter, 2002; Gintis, 2000). As such, being altruistic in a network where norms of reciprocating altruism are high would likely lead to altruistic rewards, and thereby contribute to the performance from engaging in networking activities. At the same time, displaying low tendencies to altruism would be worse for performance when the cooperative group displays a high norm of reciprocating altruism compared to when the norm of reciprocating altruism is low. These arguments provide the foundation for a
relationship between reciprocal altruism and performance, which the following hypothesis reflects:

Hypothesis 3. Reciprocal altruism will be positively related to firm performance in inter-firm networking arrangements; such that the higher the averaged displayed level of altruism on the network level the more attenuated will be the direct association between the level of firm altruistic behavior in a strategic SME network and subsequent performance levels.

Performance and Commitment to the Cooperative Group

Thus far the hypothesized relationships reveal that altruism can benefit own performance depending on the fit between own and contextual behavioral norms. Besides influencing a benefactors own performance, we here also argue that benefiting from reciprocal altruism will influence a firms in-group commitment. In specific, we argue that reciprocal altruism which leads to increased performance levels will influence a focal firm’s intention to remain as partner within the group and reduce its intentions of selecting partners outside of the network.

In-group commitment in inter-firm cooperative settings is likely depend on a function of ease and desirability of movement (originating from March & Simon, 1958). Students of the relationship of performance and turnover intentions (see for instance Jackofsky, 1984; Martin, Price, & Mueller, 1981) early proclaimed that high performance facilitates the ease of movement but at the same time reduces the desirability for movement. Therefore, it is likely that cooperation which renders performance for the focal firm will reduce the desirability for other cooperative arrangements and subsequently lead to lock-in effects where reciprocal contributions of altruism will guide future cooperative activities.

In inter-firm networking arrangements it is likely that firms who perform better as a result of reciprocal effects of altruistic behaviour exhibit increased levels of inertia. When performance is prescribed to working relationship arrangements the likelihood to withdraw from such arrangements are likely low, rather these arrangements continue a circle of altruistic exchanges as so specific for reciprocal altruism. In opposite, when performance levels are lower due to not working network arrangements it is possible that any firm engage in search activities for other arrangements which better responds to their inherent needs (compare Keller, 1984). This can be compared to the substantial literature which have supported that performance positively influences satisfaction, which in turn reduces turnover intentions and subsequent turnover (see for instance Petty, McGee, & Cavender, 1984; Steel & Ovalle, 1984). Thus, the proposed argument that desirability to turnover is reduced when performing well gives reason to hypothesize the following:

Hypothesis 4. Firm performance will be positively related to inertia in inter-firm networking arrangements.

RESEARCH METHOD

Sample

A model is proposed which places networking performance as a key mediating construct between reciprocal altruism (i.e., the interaction of firm- and network-level altruism) and network
commitment, where reciprocal altruism is hypothesized to lead to greater networking performance and subsequent commitment to participate in future network activities. In order to test this model, a sample of networks and networking firms was needed.

To ensure a proper sample, the first step was to identify a population of networks suitable for testing the hypotheses and model. Prerequisites for reciprocal altruism include repeated opportunities for cooperative interaction and the ability to detect and act upon “cheaters” not reciprocating (Trivers, 1971). A suitable and common form of network constellation offering this cooperative form is that of strategic SME networks, defined as networks of “intentionally formed groups of small- and medium-sized profit-oriented companies in which the firms (1) are geographically proximate, (2) operate within the same industry, potentially sharing inputs and outputs, and (3) undertake direct interactions with each other for specific business outcomes” (Human et al., 1997, p. 372).

As such, in a first step, we began by procedures directed to identifying the population of strategic SME networks in Sweden. As these networks do not adhere to a formal organizational form, there was a shortcoming of public registers. The population was identified by telephone interviews with representatives from each of the regional county administrative boards, the industrial development centre (IUC), and also with representatives from the state-owned development company (ALMI Företagspartner) in Sweden. In total, about 50 interviews were performed with the aim of identifying a population and composing a register of Swedish strategic SME networks. All parties contributed and we managed to identify 53 strategic SME networks which followed the attributes accordingly to the definition provided by Human and Provan (1997, p. 372).

In a second step, we contacted a representative of each network in order to obtain membership registers and background information on the networks. We managed to obtain responses from all networks, meaning that we obtained membership organizations, contact information and some background data on each of the 53 networks. We also performed interviews with the network representatives with the aim of further identifying active strategic SME networks, with resulting high saturation indications were the interviews with network representatives led to no new identification of networks but to a confirmation of the networks presently included in our registers.

In a third step, we prepared a mail out survey for each of the membership organizations for the 53 strategic SME networks. After two follow-ups, we retrieved responses from 612 of the 1431 surveyed members (response rate: 43%). While some responses were indicative of a certain oversubscription of the sampling frame we withdrew responses where the surveyed organizations implied that they were not active members of the network. In final, we kept 141 responses for analyses and re-estimated the population size by subtracting responses of no membership. Overall we found responses to be fairly well distributed over the networks and we found that the response rate for each separate network to vary between 17% and 75%, with an average of 40%. In comparison, Sun, Aryee, and Law (2007) aggregated responses from a sample of one to four responses for each higher-level unit examined. Hence, the distribution in this study is therefore deemed acceptable for performing multi-level analyses.

Measures

The measure of altruism is adopted and contextualized from a three-item scale previously developed by MacKenzie, Podsakoff, and Fetter (1991). This short scale of measuring altruism has shown previous evidence of reliability and validity (MacKenzie, Podsakoff, & Fetter, 1993).
items included reflects the benefactors activities in helping partner in the network although it has not been required, that the benefactor has been readily available to lend a helping hand to other members in the networks, and that the benefactor has willingly been giving of their time to help others in the network. The scale is measure using a seven degree Likert scale with responses ranging between ‘strongly disagree’ and ‘strongly agree’.

The performance outcome measure was assessed by a three-item scale originally developed by Saxton (1997). This measure reflects overall satisfaction with performance from networking activities, the degree to which own goals have been actualized, and contributions made to own core competencies and competitive advantage. A seven degree Likert scale with responses ranging between ‘strongly disagree’ and ‘strongly agree’ was used to capture the items. This measure has been validated and has shown high reliability in previous literature (see for instance Kale, Dyer, & Singh, 2002).

Commitment is measured on a seven degree three-item Likert scale. The items are reversed scores of items related to propensity to leave the networks, based on scales developed and used by researchers on turnover (see for instance Rahim & Psenicka, 1996; Veloutsou & Panigyrakis, 2004). The scale is comprised of statements which the respondent has to consider a suitable response for the focal firm ranging between ‘strongly disagree’ and ‘strongly agree’. The items relates to if the firm has a long term perspective on its membership in the network (i.e., will remain as a member in the network as long as possible) and if they have intentions to stop being associated to the network.

RESULTS

Before estimation and test of hypotheses we verified the factorial structure and necessary psychometric evidence of convergent and discriminant validity by multiple tests, including calculating and interpreting average variance extracted, and by exploratory and confirmatory factor analysis. The results of a simultaneous exploratory factor analysis of the two latent constructs (altruism, performance and commitment) indicated support for a three-factor model with three respective indicators, where no substantial cross-loadings were indicated and where all indicators showed a strong relation with its respective factors (i.e., >.70). Further, reliability statistics shows proof for consistency among measurement items (i.e., α > .80) across all three factors.

Testing reciprocal altruism of networking organizations necessitates a multi-level approach to data analyses, as simultaneous consideration of firm- and network-level variance are modelled to influence firm-level outcomes. As such, hypotheses were tested by multilevel mixed-effects linear regression analyses in the software STATA. Following recommendations by Rabe-Hesketh and Skrondal (2005) and others we tested three models as reported in Table 1.

Model 1 reveals that the average performance across networks, reflected in the intercept term, is 4.31. The variance component corresponding to the random intercept is .16. Because this standard error does not exceed the estimate, there appears to be significant variation in network means. An estimation of the intraclass correlation coefficient reveals that roughly 8% of the variance is attributable to the network-level.

In order to explain some of the network-level variance in performance we incorporate a network level predictor, in form of mean altruism, into the model. Model 2 reveals that a one-unit increase in the average altruism score is associated with an expected increased in performance of
It should be noted that this estimate is significant. This implies that firms perform generally better the higher the levels of average altruism are in the examined networks, and as such gives support for Hypothesis 2.

Model 3 introduces the firm level altruism. Because it is possible that the effect of firm level altruism varies across networks, this slope is treated as random. In addition, we expect the network level altruism to interact with the firm level altruism, accounting for some of the variance in the slope. Results reveal that the intercept is 4.29, which here is the expected performance level in a strategic SME network where a firm exhibit average scores of altruism in a network exhibiting average levels of altruism.

Because there are interactions in the model, the marginal fixed effects of each variable now depend on the value of the other variable(s) involved in the interaction. The marginal effect of a one-unit change in firm level altruism on performance will depend on the average levels of altruism within the network to which the firm belongs. Here the simplest interpretation of the interaction coefficients is that the effect of firm-level altruism is significantly higher in networks with high levels of altruism. To further interpret this interaction effect we plot the interaction effect in Figure 1.

The general rule of thumb when comparing the AIC and BIC statistics, is that given multiple models fitted on the same data, the model exhibiting the lower values of the information criteria is considered to be the one to prefer. As evident, Table 1 reveals that the final model is preferable to the first two models.

At this stage we have established the first part of the proposed model (i.e., that reciprocal altruism influences firm level performance). However, it still remains to test the hypothesis that firm level performance can be placed as a mediator to network commitment. As such, we continue by a mediation test following recommendations and procedures as outlined by Baron and Kenny (1986). Table 2 presents the results of this test. The first model in the table corresponds to the third model as presented in Table 1. In order to evaluate the mediating function of performance we compare the first model with two models where network commitment is used as dependent variable (see Model 2 and 3). First, we establish that the majority of the independent variables are related also to network commitment when not controlling for the effects of firm-level performance (see Model 2), while these effects are reduced in strength when including the effect of performance which is substantial and significant in expected direction (see Model 3). As such, we do find some evidence that reciprocal altruism influence firm-level performance which in turn determines network commitment. This is in support of, at least partial, mediation and is in line with the hypothesized model and thus the arguments advanced in the present study.

DISCUSSION AND CONCLUSIONS

The present study has focused on adding to the research on inter-firm arrangements (i.e., strategic networks) in understanding under which circumstances such formal networks can be beneficial for participating firms. The results attenuates that the cooperative form of reciprocal altruism has predictive power over performance from taking part in networking activities and subsequent commitment to the cooperative group, as comparable with relational inertia. In proposing and examining such a model there are several potential contributions to our contemporary knowledge about formal inter-firm arrangements.
The results of this study showed a positive relationship between being altruistic and gaining performance from participating in networking activities. Also, this study contributes by acknowledging that the contextual influence where altruism is played out is influential in determining the outcomes and influence on performance. Furthermore, results also revealed altruism to have significant cross-level moderating effects explaining variation in firm-level performance. These results implies that firms being altruistic in network arrangements will benefit more if also the network shows high norms of altruism such that there is a likelihood of reciprocation. Also, results imply that firms with low levels of altruism are worse off in highly altruistic networks compared to what they are in less altruistic networks. Therefore, this study lends support to the importance of reciprocal altruism, a concept which may have been overlooked in research on inter-firm networking arrangements. While there are obvious similarities between social exchange logics and reciprocal altruism, the differences in their rationality suggests for future studies to include both cooperative forms when examining how firms gain and contribute in network settings.

Another implication of the present study is related to the relationship between performance and commitment in inter-firm network arrangements. In previous studies, argued benefits of subscribing to strategic networks relates to the potential flexibility in combining resource pools with different actors depending upon the innovative project (Fukugawa, 2006; Lipparini & Sobrero, 1994). Hence, much of the literature on strategic networks advances members as actively changing partners for different projects. Yet, the results of this study demonstrates that momentarily performance from networking activities rather might increase a members commitment to its partners and reduce its activities in searching for other cooperative constellations. Hence, performance gains from networking can induce lock-in effects and be a source to relational rigidity.

Despite mentioned contributions, the study is not exempt from limitations. As it was cross-sectional in nature, it is difficult to claim causality in the relationships examined. While conceptual arguments exist for the proposed causality, future studies may benefit from longitudinal investigations to determine and validate such arguments. Another potential limitation of the present study pertains to the sample size which for this study was somewhat modest. The ratio of observations to indicators where well in line with recommendations (Bentler & Chou, 1987) and above suggested minimum levels for causal modeling (Bollen, 1989). Further, the responses are well distributed over the studied networks which support the multi-level design of the study. Still, uncertainty remains as related to the register used for sampling networks and network members. Because there were no readily available registers on networks and members, we had to rely on a series of interviews to map the population. As we experienced a saturation effect from the interviews, and since our approach of identifying networks and members were both careful and meticulous, we do believe there are no concerns for the validity of the study. However, as the registers of membership organizations showed proof for oversubscription, it is difficult to interpret accurate response rates for the study.

As the study has been performed in a very specific network setting and in one specific cultural context it should be noted that care should be taken before findings are generalized to other contexts and settings. Still, findings of extant studies support that the phenomenon under investigation (i.e., altruistic behavior) is dealt with in very similar ways across cultures and contexts (see for instance Fiske, 1992). There is even empirical evidence from behavioral observation and brain imaging studies supporting that communal sharing and altruistic tendencies are dealt with similarly over different contexts and cultures (e.g., de Quervain et al., 2004; Sanfey, Rilling, Aronson, Nystrom, & Cohen, 2003).
In final, this study has demonstrated the use of a multilevel approach in examining inter-firm cooperation, and suggests for future studies to examine cross-level moderating effects and their influence on firm performance. A promising agenda for future studies is to map additional sets of factors which may exhibit a joint influence at individual, firm and/or network level over firm performance.

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REFERENCES


Figure 1: Interaction of firm- and network-level altruism on performance

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Table 1: Estimated Coefficients from Regression Analysis of Hypothesized Effects

<table>
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<th>Model 2</th>
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<th>Model 3</th>
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<td>$\beta$</td>
<td>Std. Err.</td>
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*p<0.05; **p<0.01; ***p<0.001
## Table 2: Multiple regression analysis of hypothesized effects

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<th>Variables</th>
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<th>Model 2: Network commitment</th>
<th>Model 3: Network commitment</th>
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<td>Intercept ( (γ_{00}) )</td>
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<td>***</td>
<td>4.98</td>
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<tr>
<td>MEANALT ( (γ_{01}) )</td>
<td>.29</td>
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<td>.68</td>
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<td>CENTALT ( (γ_{02}) )</td>
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<td>.81</td>
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<tr>
<td>MEANALT*CENTALT ( (γ_{03}) )</td>
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<td>**</td>
<td>.09</td>
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<tr>
<td>PERF ( (γ_{04}) )</td>
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<td>Random Effects</td>
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<tr>
<td>CENTALT</td>
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<td>BIC</td>
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Standardized coefficients are shown.  
*p<0.05; **p<0.01; ***p<0.001