Transaction Costs in the Marital Bond:
The Link between Choice and Benefit of the Relationships

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Abstract

The benefits we can achieve from intimate relationships have been studied mainly in relation to the equity theory or profit maximization theory in the field of social psychology. However, considering the various transaction costs that choice of partner and the relationship itself impose on us, it is apparent that in practice we are making our choices based on much more complicated circumstances. Specifically, the costs within a relationship can be greatly affected by the choice of a partner. In this paper, simple models are proposed on not only the transaction costs of selecting partners but on how the choice affects the costs within relationships.

1 Property and Rationality of the Intimate Relationship

Social relations such as heterosexual relationships or marital ties are often referred to as the typical form of intimate relationships in academic literature. However, the operational definition of intimate relationships has not been made clear yet. In many cases the words "intimate relationship" are equivocated with the equivalent term to "love relationship." But we only need to think about intimate relationships without the sentiment of love, or conversely, sexual arousal with one whom one does not know very well, to notice the difference between intimacy and love.

Intimacy can be defined as the interpenetration of personalities through repeated communication or a commitment. There can be no intimacy before the accumulation of communication, so one can assume that the informational aspect of intimate relationships leads to other traits, such as mutual positive assessment or regulation by a unique informal code, such as love.

Sharing of personal information is naturally accompanied by a commitment. Through commitment, the choice of one partner (be it a person or an organization) comes to have great consequences on the other; it is rational for both partners to have positive feelings toward each other in the intimate relationship, for the cost of embracing negative emotions within social relations is greater the more intimate the relationships are. In other words, to keep relationships warm is not a necessary condition of intimate relationships, but it is more rational to do so. Intimate relationships can become unstable because of the vulnerability which comes from interpenetration of personalities, but intimacy itself does not hold the solution to this basic problem.

The modern version of romantic love imposes a particular code on intimacy to solve this problem (Luhmann, 1982). The code of exclusivity (sexual and emotional) and mutual approval help relationships achieve more predictability and hence more stability. However, that does not mean the code of love actually solves the problem of intimacy in every respect. The code of love can be said to be similar to credit dealings. The code tells us that intimate relationships last not because of the substantial mutual benefit from the relationship, but just because we love each other; the self-referentiality of the code. The code itself does not guarantee substantial satisfaction in the relationship; we just "expect" that the other partner will keep loving us because of the normative code of love.

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In summary, in this paper I propose the following operational definition of intimacy. Intimate relationships are characterized above all by the sharing of private information between each partner. That leads to the other property of intimacy: one partner's behaviors and decisions having a large impact on the other partner in the relationship. Because of this property, intimacy is not always a stable tie. Normative codes like love can regulate otherwise unstable relationships, but not always with success.

2 Equity Model of Social Psychology

A large body of research into innumerable models of intimate relationships exist within the field of social psychology. Among those, the most frequently referenced model is Adams's equity model of relationships, which is

$$\frac{O_p}{I_p} = \frac{O_o}{I_o} \tag{1}$$

where O_p is the output by one partner from the relationship and I_p is the input by the same person to the relationship (Adams, 1965). O_o and I_o refer respectively to the output and input by the other partner. This model indicates that relationships are in the most stable state when the ratio of output and input by one partner is equal to the ratio of output and input by the other partner.

Apparently, this simplistic model itself cannot be successfully applied to real situations, for it is not clear where the desirability of fairness in relationships which the equity model presupposes comes from. Subsequent researchers have taken notice of this point. The model proposed by Walster presupposes that the rationality of choice in individual persons lies first in the profit maximization: a person will maximize profit from a relationship, and making the relationship a fair one is not the first principle (Walster et al., 1978). This situation easily leads to conflicts, according to this model, and the norms of equity are introduced to solve Walster's problem. In Walster's model, the equity is not the desirable situation but an internalized normative regulation.

Models proposed by social psychologist' have cast many arguments. The main controversy lies in the method of measurement. There are several methods used to measure the level of contribution to a relationship (Walster, 1978). More quintessential is the debate over the equation formula itself. Walster's model can be applied in the case where certain values are below zero, while Adams's model cannot be applied when certain values are below zero.

$$\frac{O_p - I_p}{|I_p|^{sign(I_p)\,sign(O_p - I_p)}} = \frac{O_o - I_o}{|I_o|^{sign(I_o)\,sign(O_o - I_o)}} \tag{2}$$

This standardized model has its own share of defects (Harris, 1976)[1], but I will not pursue this issue here. What is important in this context is the problem of selection between equity and profit maximization. If individuals have a predisposition to act according to the principle of profit maximization, their purpose is not to balance the right side with left side, but to maximize the value $\frac{O_p}{I_p} - \frac{O_o}{I_o}$. In intimate relationships expected to last for some period, we can assume that both partner think it a wise strategy to keep the mutual benefit from the relationship even. However, more complicated factors are included.

First, as social psychologists themselves have reminded us at every moment, the cognition and assessment of cost and benefit from relationships can differ greatly between the partners. Most often, people overestimate the input they give to the relationship, or the one who is assessed as giving less by the other partner often sees the relationship as fair. In addition to this

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1) Series of disputes over the equity models seem to be purely technical. For example, the perfectness of the models partly depend on whether the measure should include negative scale.

cognitive discrepancy, there is an important point that deserves serious consideration. For what purpose do we use these equity models? Equity models can be used to judge two kinds of situations. One situation is whether couples feel more satisfied when equity is achieved. Research on marital ties documents that this is the case (Schafer and Keith, 1980).

The other situation is whether the equity model or the profit maximizing model explains the reality better. As we have already implied, in intimate relationships, equity can be a good means for profit maximizing because the probable adoption of a tit-for-tat strategy becomes higher in intimate relationships than in the case where the two partners have less expectation of having interaction with each other again in the future. However, by itself the equity model itself cannot predict actual relationships, especially marriage, for at least one reason. People do not usually dissolve their relationships just because of the loss of equity or negative rewards from relationship.

3 Transaction Cost of Intimate Relationship

If in an intimate relationship the equity overcomes short-term profit seeking, the model explaining the selection of relations is simple:

$$R_1 - R_2 > 0 \tag{3}$$

where R_2 is the expected benefit from a future (next) relationship (second marriage) and R_1 is the benefit from the present relationship ($R_2 > 0$ because one usually has no motive to start a negative relationship[2]). A person will dissolve the present relationship when (3) holds. On the other hand, in the more realistic model, we have to consider several types of transaction costs. Individuals will find more difficulty in dissolving a relationship when the relationship includes a deeper commitment. This is especially true in the case of marriage because of the probability that one partner will not approve dissolution of the marriage for economic or social reasons. The amount of shared property might also affect the cost of dissolution because common property like a house or children is a specific asset, whose value is reduced drastically outside the specific relationship within which its value is realized.

Search cost is another type of transaction cost of intimate relationships. Some researchers argue that social networks around at least one marriage partner enhance the probability of dissolution, for it becomes easier to find an alternative partner when a person has large social networks and accompanying chances to meet the opposite sex (South and Lloyd, 1995). One can also assume that the rewards from present relationships will affect the threshold value with which the changing of parters would occur.

Recent research on cohabitation seems to support the transaction cost approach to marriage and divorce (Bumpass et al., 1991). It is true that more and more people are choosing to cohabit with a partner without registering their relationship legally because they think they are able to "test" whether the partner they cohabit with is a suitable partner; however, the "enigma" among researchers is that those who experience cohabitation before marriage have a higher tendency to divorce. These transaction costs make dissolution of present relationships and replacing them for others much more difficult. Including dissolution cost (C_d) and search cost (C_s), we can assume the condition of changing partners is

$$\frac{R_2 - C_s}{R_1 + C_d} > 1 \tag{4}$$

These terms have complex interactions with each other, as I argue later. In order to raise the expected benefit from the next

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2)   Here, I omit the variable of time period, which is considered later on the same section

relationship, a person would pay a lot to the process of searching, while in the usual mating process the relation of search length and the probability of finding a good partner is not linear. A person's embeddedness in a social network outside his or her marital partner may help reduce the search cost, but in the long run it might heighten the risk of dissolution through alternative recognition. Adding this factor of social networks to the model makes it much more complex because the factors interact with each other.

In a linear model which includes a period of time, we can the make following equation. (p : time period from the first marriage. E : Marriage expenses.)

$$R_1 = f(p) - E = p - E \tag{5}$$

When the loss rate of dissolution tc (because we assume the rate rises as t increases) where t is the timing of breakup ($0 < t < p$ and $0 < tc < 1$), the benefit of remarriage is

$$R_2 = (1 - tc)t - E + (p - t - p_s) = -ct^2 + p - p_s - E \tag{6}$$

where p_s is the search period (hence the search cost) and no marriage expense has to be paid in the second marriage[3]. It would be rational to leave the first marriage when $R_1 < R_2$, that is $ct^2 + p_s < 0$. Naturally, this condition does not depend on the period from first marriage and marriage expenses, because it is not possible[4]. In order for the rationality of breaking up the present relationship to exist in the first place, the benefit of the next marriage should be greater than the first one. If we assume that the remarriage premium depends on the search period (P_s), we can remodel (6) to

$$R'_2 = -ct^2 + rp_s p - p_s - E \tag{7}$$

in which $rp_s > 1$. The condition of staying in the first marriage becomes $ct^2 + p + p_s - rp_s p > 0$. In order to maintain the higher value of the first marriage over the second,

$$r > \frac{ct^2 + p + p_s}{p_s p}, \tag{8}$$

must hold, which itself contains not a few tradeoffs and interaction terms (some of those are not expressed in the equation, such as the tradeoff between the timing of breakup and the length of the search period)[5]. Nevertheless and paradoxically, according to those tradeoffs one should cut back the benefit of the present relationship to reduce the cost of dissolving it and making a new relationship. The increasing loss of dissolution (ct^2) can be attributed to the fact that the benefits of relationships depend on specific assets. Whether people would refrain from deep commitment or not may depend partly on their recognition of the risk of dissolution. Reflexivity of information of the rising divorce rate can work as strong positive feedback here. Knowledge of ever heightening divorce rates, on the one hand, raises the alternative recognition by weakening the sense of resistance toward divorce and reduces the cost of dissolution. On the other hand, it might lead to less commitment in marriage by heightening consciousness about the losses involved in dissolving marriage. If the parameter of risk remains at a high level, the rational choice might be that one would not make a marital commitment to begin with.

In the field of economic transaction, one can reduce transaction costs by relational contract or tacit contract, which

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3) The case in which a person stays single is, for simplicity, not addressed.

4) In some cases we may find $p_s < 0$, which means finding another partner before marital breakup, but usually it does not suggest the "overlapping" of multi-commitments.

5) This model treats the breakup factor as exogenous. The satisfaction or dissatisfaction of the relationship is considered later in the next section.

complements the impossibility of a complete contract. But to the extent that intimate relationships are regulated by the tacit codes of love, formal contracts become inappropriate. In fact, almost all discourse about "prenuptials" in the media contrasts them with love, though they are not always totally unsupported by partners who think prenuptial agreements are favorable from the point of view of the commitment problem.

Possibly, positive feedback from information about the rising divorce rate undermining the benefit of marriage could result in a situation with suboptimal equilibrium. This exacerbating loop can reverse its direction, however, if the prenuptial contract or a compatible test performs an effective function. In this way, the code of love would not work as a regulating force but as an ironical dysfunction. The passionate emotion of love can work as a motivator at the start of relationships, but does not seem to function as the regulator of commitment.

4   Costs of Equity and Inequity

Though the search cost and loss of dessolution generated in the process of mate selection have been introduced previously, other types of transaction costs must be incorporated to the model of intimate transaction. Costs that are present inside the relationships need to be pointed out, though these are deeply linked to the costs of mating.

The basic presumption of the equity model of social psychology is that a couple's degree of satisfaction is maximized when equity within the relationship is attained. This assumption needs some corrections. One of the assumptions which has already been noted among social psychologists is that the recognition of equity can be different between people in the same relationship. Still, this possibility of a gap in recognition presupposes that couples are happiest in the egalitarian situation. But what if couples are happier if they are in an unequal situation?

This possibility is explained by the transaction cost approach. The main agenda in terms of equity in marital relationships is probably the distribution of labor, which includes distribution of housework and distribution of breadwinning. Theoretically, the most efficient form of distribution of work in a relationship is "specialization," which means that the person who is more skilled in breadwinning works outside and the one with better household skills works inside (Becker, 1981). But this economic "efficiency" is an unrealistic model not only on the substantiation level, but also theoretically. As Becker himself has proposed[6], "what is rational" for an individual depends heavily on "in what environment the individual is situated." On some occasions, the situation introduces tremendous extra costs to otherwise efficient choices.

For very simplistic models, we can assume factors which determine the distribution of work force in marriage to be as follows. Two kinds of role arrangements are to be considered: one is the egalitarian form and the other is the traditional form. Efficiency by specialized distribution of labor is not necessarily compatible with the traditional form, though these are often confused. If the wife is more efficient in breadwinning, the traditional role-style is inefficient from the economic point of view.

This is how the otherwise "efficient" choice of allocation of labor becomes an inefficient one. This extra cost results from the fact that the decision of role-allocation is usually not based on economic efficiency but on informal institutional factors, such as norms. In this simple model, norms add extra costs to the relationship.

Seen from another perspective, though, norms might work as cost reduction factors. People have limited rationality and incomplete information as to what forms of role allocation are efficient. In addition to that, it is difficult to assess the value of labor, especially for housework. The cost would be extremely high if people were in a really "efficient" situation. Compliance to norms reduces this decision cost.

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6)   For the argument which underscores the merit of egalitarian couples or "negotiation model", see Cherlin (2000).

Correspondingly, sociologists usually stress that individual action presupposes structure, which provides enough certainty to the action. Sociological ways to reconcile institutional and voluntaristic aspects of individual action are to consider institutions as substructures of behavior (Giddens, 1984). This theoretical solution, however, ignores the arguments about the rationality of institutions. So long as institutions are formed either in favor of those who have more power or just through inertia, it is entirely possible that an institution adds more cost than benefit to transactions[7].

The model I propose is as follows.

The most efficient form of role allocation within a marital tie is specialization, where one devotes oneself to the field in which one has better skill. Specialization has recently become more costly because egalitarianism is infiltrating society, and advancement of women in the workplace is becoming more common. Therefore, husbands and wives have to allocate their own workforce "efficiently". But to the extent that the cost of decision making in terms of role allocation is high, it is more efficient for marital partners to negotiate with each other to stipulate the rules of role assignment. However, this step cannot eliminate the possibility of a gap in recognition of what each person should do and who works harder in the relationship. This view is heavily affected by traditional views of gender roles. The stress caused by this gap creates extra mental costs and increases the costs of negotiation as well.

Traditional marriages, which adopt traditional role assignments in which men work outside and women do housework seem to be most efficient in this situation. Specialization condition is attained (in so far as men are more skilled in breadwinning), but traditional couples have to pay their own dues. To the extent that institutional environments surrounding marriage are egalitarian, couples have to pay the cost of not complying to the public code.

5 Conclusion: Implications for Social Networks and Assortative Marriage

I have so far considered the search costs and negotiation costs surrounding dissolution of marital ties and matings. Now I would like to delineate the more generalized model, which includes rationality in the selection of partners and rationality within relationships. The basic link here is that the selection of partners always affects the rationality within the relationship. Becker suggests that social capital such as association and residential environment at least partly determine the utility function of individuals. For instance, fertility is said to be stable in spite of the economic boom and bust, because the number of children one married couple has is strongly affected by the decisions of other couples, which make a "social standard." By the same mechanism, the allocation of labor within a relationship (L_h: labor by husband; L_w: labor by wife) may be determined by the social norm that is imposed by society. In the following social capital model, S is the utility of social capital, and usually complements many other goods.

$$U = U(L_h, L_w; S) \tag{9}$$

S affects the marginal rate of substitution between L_h and L_w. This does not mean, however, that an individual must conform to the norm. Rather, he or she needs to be rational when choosing a mate or life environment. The more matched partner one can find, the less cost he or she will pay within the relationship.

The familiar approach of social capital theory in the field of sociology is that social capital can enhance the individual or social benefit. Those who have better human relationships are more likely to get promoted. What has also been demonstrated, however, is that weak ties, not strong ties also, have advantages, especially for an individual's well being (Granovetter, 1973). This proposition itself was revolutionary in sociology, for what was usually considered as imperative to social integrity was the primary bonds.

Taking into consideration human relationships with deep commitments and intimate ties such as marriage, weak ties do not always seem to bring good consequences. Recognition of alternative mates outside relationships surely reduces the search cost, but from another point of view might not lead to an optimal situation. This is because the benefits of relationships come mainly from deep commitments, which pose a commitment problem that cannot be solved through reduction of the search cost only.

The reduction of costs to find an alternate mate has two contradictory aspects. Decreasing the search cost might lower the threshold to a new relationship, thereby leading to less benefits from the present commitment. On the contrary, with less search cost one might be able to find a better partner with whom one could make a deeper commitment and receive a greater benefit.

Positive assortative marriage could be considered a solution to the commitment problem here. Mating with a person from the same social class may elevate the possibility of more compatible mate selection with less search period. On the other hand, the gap between egalitarianism and traditionalism could cause massive stress and boost the risk of dissolution.

From this point of view, the longer search period resulting in marriage at an older age is not necessarily an indication that less benefit is being received from marriage, but can be seen as a strategic move that reduces the risk of marital breakup through finding a more compatible mate.

References

Adams, J. S. 1968. "Inequity in Social Exchange." *Advances in Experimental Social Psychology* 2: 267–299.

Bumpass, Larry, James A. Sweet, and Andrew J. Cherlin. 1991. "The Role of Cohabitation in Declining Rates of Marriage." *Journal of Marriage and Family* 53: 913–927.

Burt, S. 2000. "The Network Structure of Social Capital." in *Research in Organizational Behavior*. Sutton, Robert I and Barry M. Staw eds. Greenwich: JAI Press. pp. 354–423.

——. 2001. "A Structural Holes versus Network Closure as Social Capital." in Lin, Nan, Karen Cook, Ronald S. Burt. eds. *Social Capital: Theory and Research*. New York: Aldine de Gruyter.

Becker, Gary. 1981 (1991 enlarged edition). *Treatise on the Family*. Harvard University Press.

Becker, Gary S. and Kevin M. Murphy. 2000. *Social Economics: Market Behavior in a Social Environment*. Cambridge: The Belknap Press of Harvard University Press.

Chaikin, A. L. and V. J. Derlega. 1974. "Liking for the Norm Breaker in Self-Disclosure." *Journal of Personality* 42: 117–129.

Cherlin, Andrew. 2000. "Toward a New Socioeconomics of Union Formation." in Waite, Linda. eds. *The Ties That Bind: Perspectives on Marriage and Cohabitaion.* New York: Aldine de Gruyter.

Coase, R. 1960. "The Problem of Social Cost." *Journal of Law and Economics* 3: 1–44.

Giddens, Anthony. 1984. *The Constitution of Society: Outline of The Theory of Structuration*. Stanford: Stanford University Press.

Granovetter, Mark. 1973. "The Strength of Weak Ties." *American Journal of Sociology* 78: 1360–80.

——. 1983. "The Strength of Weak Ties: A Network Theory Revisited." *Sociological Theory* 1: 201–233.

——. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91: 481–510.

——. 1999. "Coase Encounters and Formal Models: Taking Gibbons Seriously." *Administrative Science Quarterly* 44 (1): 158–162.

Granovetter, Mark and Richard Swedberg eds. 2001. *The Sociology of Economic Life (2nd Edition)*. Cambridge: Westview Press.

Harris, R. J. 1976. "Handling Negative Inputs: On the Possible Equity Formulae." *Journal of Experimental Social Psychology* 12: 194–209.

Hochschild, Arlie L. 1979. "Emotion Work, Feeling Rules, and Social Structure." *American Journal of Sociology* 85 (3): 551–75.

——. 1983. *The Managed Heart: Commercialization of Human Feeling*. University of California Press.

——. 1989. *The Second Shift.* New York: Penguin Books.

Lin, Nan, Karen Cook, Ronald S. Burt. eds. 2001. *Social Capital: Theory and Research*. New York: Aldine de Gruyter.

Luhmann, Niklas. 1982. *Liebe als Passion: Zur Codierung der Intimität*. Frankfurt am Main: Suhrkamp. (= 1986. translated by Gaines, Jeremy and Doris L. Jones. *Love as Passion: The Codification of Intimacy*. Cambridge: Harvard University Press.)

——. 1984. *Sozial System: Grundriss einer allgemeinen Theorie*. Frankfurt am Main: Suhrkamp.

North, C. Douglass. 1981. *Structure and Change in Economic History*. New York: W. W. Norton and Company.

———. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

Oberschall, and E M Leifer. 1986. "Efficiency and Social Institutions: Uses and Misuses of Economic Reasoning in Sociology." *Annual Review of Sociology* 12: 233–253.

Oppenheimer, Valerie Kincade. 1988. "A Theory of Marriage Timing: Assortative Mating Under Varying Degrees of Uncertainty." *American Journal of Sociology* 94(3): 563–591.

Pollak, Robert A. 1985. "A Transaction Cost Approach to Families and Households." *Journal of Economic Literature* 23: 581–608.

Schafer, Robert B. and Patricia M. Keith. 1980. "Equity and Depression Among Married Couples." *Social Psychology Quarterly* 43(4): 430–435.

South, Scott J. and Kim M. Lloyd. 1995. "Spousal Alternatives and Marital Dissolution." *American Sociological Review* 60(1): 21–35.

Tsutsui, Junya. 2003. "Modeling the Intimate Relationships: An Economic Sociology Perspective." *Gendai Shakai Riron Kenkyu* 13: 96–107.

Wait, Linda eds. 2000. *The Ties that Bind: Perspectives on Marriage and Cohabitation*. New York: Aldine de Gruyter.

Walster, E., G. W. Walster, and E. Bershied. 1978. *Equity: Theory and Research*. Allyn and Bacon.