Gifts in a Romantic Relationship: A Survival Analysis

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Employing a survival analysis approach, this study synthesizes 3 aspects of gift literature and suggests their effects on the timing of dissolution for a romantic relationship. Products or services can be consumed for the purpose of enhancing self-attractiveness (self-gift), expressing love to partners (other-gift), and announcing a relationship to the outer world (joint-gift). Results indicate that the distribution of time until dissolution for young students' romantic relationships is more likely to first fall and then rise. Gifts can delay the timing of dissolution, but not the probability of its final destination. For female students, self-enhancing gifts are found to delay the timing; for male students, love-expressive gifts speed up the timing; and for both male and female students, relationship-announcing gifts delay the timing of dissolution. Consumers, thus, are advised to use gifts to make their relationships endure, but not to attempt to alter a poor relationship into a successful one.

What are the effects of gifts in consumers' romantic relationships? Using survival analysis, this study attempts to answer the question, “How do gifts influence the timing of a relationship’s dissolution and the probability of its eventual dissolution?”

From an evolutionary point of view and for reproductive reasons, a romantic relationship is much more significant for a consumer than a relationship with a friend or coworker (Kenrick & Trost, 1989). In the attempt to have a satisfactory and enduring romantic relationship, consumers use gifts for various purposes over the course of their relationship. Gifts such as cosmetics, perfume, and clothing are often purchased by consumers in relationships to enhance their own attractiveness (Mick, DeMoss, & Faber, 1992). Gifts such as roses and chocolates are frequently exchanged as forms of symbolic communication to convey love to one another (Belk, 1979). Gifts such as a pair of watches or matching clothes are customarily shared to communicate the relationship to the world.

Thus, it is important for consumer researchers to study the triangular consumer–object relational bond within the context of a romantic relationship. However, past studies in consumer research tend to address this bond under a variety of relationships and using purely qualitative data. For example, Mick and DeMoss (1990a, 1990b) used content analysis, as well as interpretative analysis, to study the self-gift phenomenon. Belk and Coon (1991, 1993) conducted a qualitative investigation, mainly in-depth interviews, to examine the role of gifts and expenditures in the dating process. McAlexander (1991) addressed the issue of divorce and the disposition of possessions using in-depth interviews with 18 divorced informants.

Using survival analysis to take into account the longitudinal nature of a relationship and combining it with the traditional qualitative approach, this study can provide rigorous tests of the bonds uncovered in qualitative studies. Compared to the more commonly known cross-sectional logit model, survival analysis is desirable for two reasons. First, it analyzes the longitudinal aspect of a relationship, taking the duration of the relationship into account. Second, it can estimate the dynamic effects of gifts that change in value (e.g., the frequency of gift consumption changes) over the course of a relationship. Without taking the two characteristics into account, Hatfield and Sprecher (1986) found that their cross-sectional statistical method weakens the statistical power of the study and disguises the actual relationship between covariates and the length of the relationship examined in their study.
The first section of this article elaborates three effects of gifts on relationships from synthesizing self-gift, other-gift, and joint-gift literature. The second section introduces survival analysis and its application to the study of a long-term relationship with covariates changing in value over time.

THE DEVELOPMENTAL PATH OF A ROMANTIC RELATIONSHIP

Romantic Relationship Defined

A romantic relationship, in contrast to the specific phenomenon of falling in love, is an ongoing and enduring partnership of two people that may last over an extended period of time, including a lifetime. Falling in love is a physiological, emotional experience ordinarily shared between two people (Hendrick & Hendrick, 1992, p. 20). This definition excludes loving episodes, such as a one-night stand, as being a relationship.

An ongoing and enduring relationship may go through a kind of modal developmental sequence, usually including the initiation, maintenance, and dissolution time periods (Byrne & Murnen, 1988). The phases of a relationship are considered more likely to overlap than be discontinuous (Kenrick & Trost, 1989). According to the increasing degrees of intimacy in a relationship, they can be operationalized into stages: (a) occasional or regular dating; (b) exclusive dating; and (c) living together, engaged, or both (Hatfield & Sprecher, 1986).

The Effect of Duration on a Romantic Relationship

The effect of duration on the timing of the dissolution of a relationship is more likely to follow a nonmonotonic function, with a low probability for relationship survival in the earlier stages and a high probability for relationship survival in the later stages of the relationship.

A relationship is unlikely to dissolve right after its formation, or it can be hardly labeled a relationship. However, as the pair gets to know each other a little better, the probability for it to dissolve reaches its highest point. This is the stage, based on initial satisfaction, that partners assess the potential for the relationship (Knee, 1998). With its continuing development, the chance for the relationship to survive increases. For example, Hendrick and Hendrick (1992, pp. 85–86) found that people who had been in love longer were more passionate and close in their relationship, which, in turn, enhanced the stability of the romantic relationship. In analyzing the fertility of Black adolescents, Hogan and Kitagawa (1985) observed that a longer dating period is associated with stronger emotional attachment, which thus increases the possibility for the relationship to survive. Sternberg (1986) proposed a nonlinear function for the effect of duration on a relationship. He stated that intimacy, the emotional basis of romantic relationships, grows gradually, because early in the relationship one is unable to predict the emotions of the other. This lack of interpersonal knowledge creates disruptions in the relationship. However, as the actors in the dyad become more familiar, they form increasing numbers of paired action sequences, or scripts, and the amount of disruption decreases in the relationship.

Many sources contribute to the instability of the earlier stages of relationships. According to Holmes (1981), the first source is that in the earlier stages of a relationship, the role structure and social norm is not sufficiently articulated to provide rituals for dealing with minor frictions or to provide more complex rules for settling serious disputes.

The second source is from an implicit theoretical perspective proposed by Knee (1998). Knee found that the early stages of relationships could be viewed as tests of their potential success. Those who believe that relationships are destined to be sensitive to early indications that they cannot succeed at the relationship and thus may similarly tend to give up easily. As a result, the initial impressions of satisfaction and closeness may function as success cues (if positive) or failure cues (if negative) for the relationship.

The third source is that in the early phases of a relationship, partners tend to idealize each other, transform faults into virtues, and view their partner more positively than their partner views him- or herself. Such idealization of one’s partner tends to predict higher relationship satisfaction (Knee, 1998); however, in the long run it may lead to dissatisfaction when the idealization gradually dissipates.

The relation between the duration of a relationship and the distribution of time in its dissolution is more likely to follow the principle of cumulative inertia, which suggests that the longer consumers are in a particular state, the less likely they are to leave that state. The first hypothesis is proposed to test the idea that the initial stages of a romantic relationship are less stable; with increasing length, the relationship is gradually stabilized.

H1: The effect of time duration first accelerates the timing of dissolution and then delays the timing of dissolution for a romantic relationship.

GIFTS IN A ROMANTIC RELATIONSHIP

Dating Gifts Defined

Various products, services, or experiences, including both the tangible and intangible, can be gifts. Such gifts include goods acquired for personal use (self-gift), for giving to others (other-gift), and those acquired for mutual use (joint-gift). They can be material and nonmaterial in nature. Nonmaterial gifts include helping the other person when they are stressed for time, lending a car, and so on (Belk & Coon, 1991). Dating gifts, different from general product consumption, are typically highly motivated (Faure & Mick, 1993). Regardless of
the material meaning and money value of these gifts, they are mainly used as a token of love and are used to express the feelings of love toward oneself and others. Therefore, they are nonessential and are not purchased based on need.

The meaning of gifts is subjective and is determined by the partners in a relationship. The physical form of the gift, per se, is not important, but the meaning it conveys is important. The meaning of a gift varies from person to person. For example, Nicolas (1988) stated that in a gift-giving situation the gift, per se, is useless. It is the love conveyed by the gift from the giver to the receiver that makes it valuable. Sternberg (1987) pointed out the limitations of exchange theory in explaining dating gift giving, because at times it is extremely difficult to specify just what constitutes a reward in a given relationship. Beauty is in the eye of the beholder. Cheul (1987) stated that it is the feeling behind the gift that is considered to be important. In principle, anything may be given that is the result of a sincere attempt to please the recipient.

Three Effects of Gifts on a Romantic Relationship

The contexts that motivate gift behavior in a romantic relationship can be conceptualized in terms of self-gift, other-gift, and joint-gift, respectively. From the self-gift perspective, consumers in romantic relationships are motivated to consume products for the purpose of enhancing self-attractiveness in their partners’ eyes. From the other-gift perspective, consumers are motivated to consume products for expressing love to their partners. Finally, from the joint-gift perspective, consumers are motivated to consume products in kind together for showing commitment and announcing the relationship to the outer world.

Self-enhancement. The first effect of gifts on a romantic relationship can be thought of in terms of self-gift behavior performed in interpersonal relationships. Within a relationship, consumers use products such as perfume, cosmetics, clothing, and other appearance-related products to enhance their self-appearance and attractiveness in their partners’ eyes and thus their own self-esteem, which is beneficial for the healthy development of a relationship.

The major studies in self-gift behavior are from Mick and DeMoss (1990a, 1990b) and Mick, DeMoss, and Faber (1992). They defined self-gifts as personally symbolic self-communication through special indulgences that tend to be premeditated and highly context bound. Typical of the self-directed messages are celebration, congratulations, or consolation. All are intertwined with self-concepts (how consumers define themselves) or self-esteem (how consumers feel about themselves). The four dominant contexts for self-gifts were: self-identification, self-indulgence, self-uniqueness, and self-hedonism.

Self-gifts in romantic relationships can be thought of in terms of impression management where consumers undergo self-communication for the purpose of self-enhancement. It is the kind of consumption that, through the purchase, display, and use of gifts, consumers aim at delivering an ideal social self (i.e., the image that one would like the significant other to hold) to their partners (Sirgy, 1982). From the symbolic interactionism perspective of consumption, Solomon (1983) proposed that such a social self is important for a consumer’s interaction pattern because the response of the partner to the impression delivered forms the consumer’s self-concept and functions to direct future behavior. He claimed that consumers often use products in a strategic and deliberate sense for impression management. In such a case, consumption is a response to a strategic goal. Appearance, thus, is very basic to an interaction and is important for the establishment and maintenance of self. It contributes to the meaning via identification and validation of the participants.

Using the language of survival analysis, Hypothesis 2 is proposed to test the assertion that gifts for the purpose of self-enhancement for the sake of a consumer’s significant other is a context for self-gifts and is an important factor in making the relationship endure.

H2: Self-gifts, for the purpose of self-enhancement, as a time-varying covariate delays the timing of dissolution for a romantic relationship.

Love-expression. The second effect of gifts proposed in this study is other-gift behavior, where gifts are used as a token of love, to convey meanings that are private between lovers. Although the love-expressive effect of gifts is evidenced in a romantic relationship, it may not always be beneficial for a relationship.

Using gifts to express love in a romantic relationship is well documented. Shaver and Hazan (1988) stated that in a romantic relationship, partners have a strong desire to give gifts to express their feelings to their loved ones. Interpretative evidence regarding the love-expressive effect of gifts is provided by one of Belk and Coon’s (1991) informants: “Gifts are used as an expression for they carry meaning. It is easier for me to express love through gifts than it is to do it verbally.” Mick and DeMoss (1990a) stated that the most common function of gift giving is an interpersonal act of symbolic communication, with explicit and implicit meanings of love.

However, love-expression is not always beneficial to a relationship. In the intimacy process model, Reis and Patrick (1996) proposed that self-expression is an important process for the development of intimacy in close relationships. It is a highly purposeful behavior that reflects the desire to continue or increase existing levels of intimacy. Such expression involves verbal and nonverbal communications and behavioral acts from which the observer may infer the self-disclosing person’s dispositions or feelings. The observer’s positive or
relationships are only one segment of experience in a world about their relationship. Here, gifts are used to convey possession of gifts in kind, lovers communicate to the outer world by obscuring their expression. To give gifts to express love takes the risk of stating the intention of the giver and defining the relationship in nonromantic, less personal terms.

Taking the instability of the initial stage of a romantic relationship into account, and coupled with the two theoretical perspectives derived from Reis and Patrick (1996) and Holmes (1981), love-expressive gifts are more likely to accelerate the timing of a relationship’s dissolution. First, from the perspective of the intimacy process, love-expressive gifts open the givers up to their partners and the chance for obtaining a positive response is, on a random basis, half, depending on how the receiver responds to the gifts. Second, from the perspective of macromotive, love-expressive gifts may elicit a high opportunity to result in a negative response, and the relationship is defined in nonromantic, less personal terms. The third hypothesis is proposed to test the idea that gifts serve the purpose of love-expression in a romantic relationship, which fluctuates in value over time, being more likely to limit the future development of the relationship.

H3: Other-gifts, for the purpose of love-expression, as a time-varying covariate accelerates the dissolution timing of a romantic relationship.

**Relationship-announcement.** The third effect of gifts can be labeled as joint-gift behavior; through the mutual possession of gifts in kind, lovers communicate to the outer world about their relationship. Here, gifts are used to convey public meanings and are beneficial to a relationship.

Why do lovers have the motivation to announce the relationship to the outer world? According to Cheal (1987), intimate relationships are only one segment of experience in a mass society that contains many social worlds. Meanings within the private sphere cannot be completely segregated from those arising in other spheres and are inevitably affected by the latter.

The announcement effect is more likely to be unambiguously positive. The mutual possession of gifts in kind excludes the possibility of misunderstanding in the meaning of such expression (Reis & Patrick, 1996) and achieves equivalent exchange to stabilize a close relationship (Holmes, 1981). Both are beneficial to the maintenance of a relationship. Lovers use such mutual possessions to announce or demonstrate their relationship. To achieve the public display function, the gifts need to be demonstrative, such as a pair of watches or matching clothes. The fourth hypothesis is proposed to test the idea that gifts can serve the purpose of relationship-announcement in a romantic relationship, which changes in value over time, to make the relationship endure.

**H4:** Joint-gifts, for the purpose of relationship-announcement, as a time-varying covariate procrastinates the dissolution timing of a romantic relationship.

**GENDER DIFFERENCES IN DATING GIFTS**

For the three aspects of gifts in a romantic relationship, women are more likely to use gifts to enhance self-attractiveness, whereas men use gifts to express love. Several studies have demonstrated that women have a higher propensity for self-gifts. McKeege, Richins, and Debevec (1993) found that women showed a significantly greater propensity to give self-gifts than did men. Luomala and Laaksonen (1997) argued that women are more likely to engage in self-gift behavior than are men. In studying the motivations and meanings of self-gifts, Mick et al. (1992) focused on women purchasing perfume for their own use for the reason that women may have higher propensities than men for some types of self-gifts.

In the non-dating gift domain, past studies have found that women were subsumed to the role of gift givers. For example, Cheal (1987) discussed gender-related patterns in gift giving, arguing that women are the primary gift givers because of their greater concern for showing love. Fischer and Arnold (1990) found that women are more involved than men in Christmas shopping. However, such findings that women are the major gift givers in a nonromantic context may not hold in a romantic context. Alternative to the self-gift context, men are more likely to take an active role in giving gifts to express their emotions. For example, in exploring gender differences in the meaning of memorable gifts, Areni, Kiecker, and Palan (1998) found that men tended to remember gift-giving episodes. They speculated that it is because men usually find it more difficult to express their emotions verbally than do women. Therefore, perhaps...
Survival analysis is used to explore the effects of time duration and gifts in maintaining a romantic relationship. The time elapsed, or duration $t$ (time taken for a relationship to dissolve), constitutes the dependent variable, which is assumed to follow a particular distribution, characterized by the cumulative distribution function $F(t)$. Corresponding to $F(t)$, $t > 0$, are the density $f(t) = F'(t)$ and the hazard rate $h(t) = f(t)/[1 – F(t)]$. The survivor function then can be defined as $S(t) = 1 – F(t)$, indicating the probability of a relationship that survives up to time $t$.

Specify a Distribution Function for the Effect of Duration

Using the notation of Kiefer (1988), four parametric survival distributions and hazard functions that are commonly used can be expressed as Equation 1:

- Exponential: $S(t) = \exp(-\gamma t), h(t) = \gamma$
- Weibull: $S(t) = \exp(-\gamma t^\alpha), h(t) = \gamma \alpha t^{\alpha-1}$
- Normal: $S(t) = \Phi(-\gamma t^\alpha), h(t) = \gamma \alpha t^{\alpha-1}$
- Logistic: $S(t) = 1/(1 + e^{\gamma t^\alpha}), h(t) = \gamma \alpha t^{\alpha-1}(1 + e^{\gamma t^\alpha})$ (1)

where $\gamma$ and $\alpha$ are two parameters ($\gamma > 0$ and $\alpha > 0$) that determine the shape of the hazard.

The hazard rates of the exponential and Weibull distributions are monotonic. The hazard of the Weibull distribution increases in duration if $\alpha > 1$, decreasing if $\alpha < 1$, and constant if $\alpha = 1$. The log-normal and log-logistic distributions, on the other hand, are nonmonotonic. The hazard of the log-normal distribution first rises and then falls, and once it begins to fall, it falls quickly. For the log-logistic distribution, when $\alpha > 1$ the hazard first increases with duration, then decreases; and when $0 < \alpha \leq 1$ the hazard function decreases with duration.

Incorporate the Effects of Gifts

The effects of gifts on the timing of relationship dissolution can be incorporated into the model to make predictions taking the effects of gifts into account. The effects of gifts are given by Equation 2, which assumes covariates constant in value over the duration of the relationship:

$$\gamma = e^{-\beta x}$$ (2)

where,

$B = [\beta_1, \beta_2, \ldots, \beta_j]$ is the coefficient vector of $i$ covariates $X = [x_1, x_2, \ldots, x_l]$, the vector of $i$ covariates, including age, gender, self-enhancing gifts, love-expressive gifts, and relationship-announcing gifts.

Given the density function $f(t)$ and survivor function $S(t)$, the log-likelihood function $\ln L(B) = \Sigma d_j \ln f(t_j, B) + \Sigma (1 – d_j) \ln S(t_j, B)$, where $d_j = 1$ if the observation is uncensored (i.e., the relationship dissolved), $d_j = 0$ if censored (i.e., the relationship is still proceeding on the survey date). The parameter vector $B$ in Equation 2 can be estimated with the maximum likelihood method using the Newton-Raphson algorithm.

Split Population Model: Not All Relationships Would Fail

The survival model that was considered in the previous section assumed all relationships would eventually fail. As dating relationships often lead to marriage, this assumption is somewhat restrictive. Schmidt and Witte (1989) developed the split-population model, which was applied to the diffusion of innovations by Sinha and Chandrashekaran (1992), relaxed that assumption. They introduced a new parameter $\delta$, the eventual dissolution rate, to split consumers at risk into two groups. One group would eventually dissolve their relationships ($F = 1$), and the other group would never dissolve their relationships ($F = 0$). Schmidt and Witte assumed a logit model for eventual dissolution,

$$\delta_j = 1/(1 + e^{-\delta_j \theta_j})$$

where $\theta_j$ is the parameter vector.

Given the logistic density function $f(t)$ and survivor function $S(t)$ shown in Equation 1, and incorporating the effects of gifts as given by Equation 2, the log-likelihood function for simultaneously estimating the timing of dissolution and the probability of eventual dissolution can be expressed as Equation 3:

$$\ln L(B, \theta) = \Sigma d_j [\ln \delta_j + \ln f(t_j, B|F = 1)] + (1 – d_j) \ln [(1 – \delta_j) + \delta_j S(t_j, B|F = 1)]$$ (3)

Incorporate the Time-Varying Effects of Gifts

The preceding discussions for the effects of gifts on the timing of relationship dissolution assume the value of gifts to be constant over time. We now turn to the survival model with time-varying covariates that assume that hazard rates are a log-linear function.
of parameters of the effects of covariates that vary in value over time. In the model, the hazard function is modeled as a step function, with different values of gifts through stages of the relationships between \( r = 0 \), the initial value in the observation, and \( r = T \), the terminal value in the observation, at which either censoring or exit takes place. The covariates are assumed to stay constant within each of the stages, but may change from one stage to the next. Equation 2 then can be rewritten to incorporate the time-varying effects of gifts:

\[
\gamma = e^{BX(t)}
\]  

(4)

Where \( X(t) = [x_i(t), x_2(t), \ldots, x_i(t)] \), the vector of \( i \) covariates, including self-enhancing gifts, love-expressing gifts, and relationship-announcing gifts varying in value over the relationship. The log-likelihood is given in Equation 5:

\[
\ln L = \sum d_j \ln h(t_k | x_j) - \sum_{m=1}^k \int_{t_{m-1}}^{t_m} h(y | x_m) dy
\]

(5)

where \( h(t_k | x_j) = \text{logistic hazard function from } t_{k-1} \) to \( t_k \), \( k = \text{the sequential order of stages of a relationship.} \)

DATA

The data used in this article consisted of 109 unmarried men and 116 unmarried women (undergraduate and graduate students) who either had a relationship that dissolved or were currently in a relationship. The mean age of participants was 22.21 years for men and 21.30 years for women. The mean duration of a relationship was 13.65 months for men and 14.25 months for women. Forty-eight participants were at the occasional or regular dating stage, 93 at the exclusive dating stage, 5 at the living together or engagement stage, and 27 at the breaking up or ended stage. The status of 2 respondents was unidentified.

A retrospective method was used to gather the timing of change and gift behavior in romantic relationships. After the demographic information was collected, participants were asked to indicate the beginning and ending dates of the stages in their relationships and the frequency of gift behavior for the three purposes at the stages of the relationship. These stages include occasional or regular dating; exclusive dating; living together, engagement, or both; and breaking up or termination (Hatfield & Sprecher, 1986). Each participant contributed one observation to the study by recalling their current or the most recent relationship to reduce the bias of consumers having rich love experience accounting more heavily for the estimation of the hazard rate and the effects of gifts on the timing of relationship dissolution.

MEASUREMENT OF KEY VARIABLES

Duration of a Relationship

Following Hatfield and Sprecher (1986) and Woll (1989), this construct was represented in months since the beginning time of their current (or the most recent past) relationship. If the relationship was still proceeding, the observation was considered to censor on the right (we do not know what will happen in the future), and the survey date was used to calculate the duration of the relationship. Whether the observation is uncensored or censored is indicated by \( d_j \) in the log-likelihood function in Equations 2 and 3.

Gifts for the Three Purposes

Participants were asked to indicate the frequency of gift consumption for the three purposes at stages in the relationships using a 5-point scale ranging from 1 (almost never) to 5 (very often). The self-enhancing gifts were measured by the question: “How often did you consume products or services to enhance your attractiveness in your partner’s eyes?” The love-expressing gifts were measured by the question: “How often did you consume products or services to express your love to your partner?” Finally, the relationship-announcing gifts were assessed by the question: “How often did you and your partner consume products or services together to announce the relationship to people around you?”

In fitting the time-constant effects of gifts on the timing of relationship dissolution, the initial values of the three variables were used to represent consumers’ general tendencies to use gifts for the three purposes throughout the relationship. In fitting the time-varying effects, the actual variations in value for the three variables at stages of the relationship were used.

ANALYSIS PLAN

Three classes of parametric models were fitted. The standard survival models without covariates were fitted. On the basis of the log-likelihood criteria and for consideration of fitting the time-varying effects of gifts, we retained the nonmonotonic log-logistic model to serve as the parametric representation for the empirical distribution of time until relationship dissolution. The split population model with the log-logistic distribution was then fitted to relax the restrictive assumption that all relationships would eventually fail. Finally, the log-logistic model with time-varying covariates was fitted to observe the effects of gifts that changed in value over the relationship.

RESULTS

Standard Models Without Covariates

We began our analysis by fitting the four parametric survival distributions, as shown in Equation 1, by maximum likelihood, to examine Hypothesis 1. The purpose was to look at the nature of the empirical distribution of time until relationship dissolution. The log-likelihood values were \(-168.223, -168.214, -165.616, \) and \(-166.984 \) for the exponential, Weibull, log-normal and log-logistic distributions, respectively.
The log-normal and log-logistic distributions provided a slightly better fit to the data, a confirmation to the prediction made in the first hypothesis that the early stage of a relationship would be less stable and once the relationship survived through the initial stage, the hazard rate for relationship dissolution would fall very quickly. Because the two nonmonotonic models provided almost identical fit to the data, the log-logistic model was chosen as the parametric representation for the empirical distribution of time until relationship dissolution for the consideration to incorporate time-varying effects of gifts.

The Log-Logistic Model With Time-Constant Gift Covariates

We then incorporated the three gift covariates into the log-logistic model to make predictions for the timing of relationship dissolution when consumers use gifts, as shown in Equation 2, to examine Hypotheses 2 and 4 simultaneously.

The likelihood value achieved for the model was \(-167.003\). The alpha parameter \((\alpha = 1.147, p = .000)\) was significant and was greater than 1, indicating that the elapsed time had a significant effect on the hazard of relationship dissolution, with the hazard first raised and then fallen. One significant result was obtained. The estimated coefficient for age was \(t \text{stat} = 8.519, p = .000\), indicating that consumers who were involved in their relationships at an older age were more likely to dissolve their relationships sooner than those consumers who were involved in their relationships at a younger age. No significant result for the gift covariates was obtained. The left column of Table 1 shows the results of the standard model.

The Split Log-Logistic Model With Time-Constant Gift Covariates

Now the split model is incorporated to relax the assumption of the standard model that all relationships will eventually fail and to estimate the probability and timing of dissolution simultaneously. Fitting the log-logistic distribution of \(S(t | F = 1)\) and \(f(t | F = 1)\) with time-constant gift covariates into our data, the log-likelihood value achieved was \(-168.598\). The probability of eventual dissolution rate \(\delta\) was \(0.684\), indicating that approximately two thirds of the relationships would eventually fail.

In predicting the probability of eventual dissolution, only the gender covariate (i.e., named male in Table 1) was permissible, but not significant, whereas other covariates resulted in zero standard errors. In predicting the timing of dissolution, the split model provided a similar prediction to the standard model with age being the only significant covariate, coefficient estimate = \(0.133, t \text{stat} = 6.366, p = .000\). The split model, thus, was not retained for estimating the time-varying effects of gifts. The right-hand column of Table 1 shows the results of the estimation of the split log-logistic model.

The Log-Logistic Model With Time-Varying Gift Covariates

We now turn to the log-logistic model with time-varying gift covariates, as shown in Equation 4. Two separate models were fitted to the male and the female samples, respectively. Different from the time-constant model, the alpha parameters for the two models, \(0.657\) and \(0.761\), respectively, were smaller than 1, indicating a hazard of relationship dissolution decline toward zero.

For the male sample, two significant results were obtained. Love-expressive gifts were found to increase the hazard of relationship dissolution, coefficient estimate = \(1.745, t(228) = 3.150, p = .002\), whereas relationship-announcing gifts were found to decrease the hazard of relationship dissolution, coefficient estimate = \(-1.066, t(228) = -4.313, p = .000\).

For the female sample, three significant results were obtained. Contrary to the finding obtained in the time-constant model, age was found to be significant, but the effect was in the opposite direction, coefficient estimate = \(-0.003, t(249) = -2.255, p = .024\). Female consumers who were involved in their relationships at an older age were more likely to have more enduring relationships than their younger counterparts. Self-enhancing gifts were found to increase the hazard of relationship dissolution, coefficient estimate = \(0.676, t(249) = 2.025, p = .043\), whereas relationship-announcing gifts were found to decrease the hazard of relationship dissolution, coefficient estimate = \(-0.671, t(249) = -2.398, p = .017\). Table 2 presents the results of the two models.

DISCUSSION

Conclusions

How does a romantic relationship proceed without gifts? Findings from the best fit log-logistic model without gift covariates indicate that, as time passes by, the distribution of time for college students’ romantic relationships to fail is more likely to first fall and then rise. The initial stage of a relationship is relatively unstable, probably because the role structure has not yet articulated for settling serious disputes (Holmes, 1981), the early stage was used as tests of its potential success, or partners overly idealize each other to entail dissatisfaction when the idealization dissipates (Knee, 1998). Once the relationship passes the initial unstable stage, the risk for it to dissolve reduces significantly.

Do gifts alter the course of a romantic relationship? When gifts are treated as individual difference variables, which remain stable throughout a relationship, gift covariates were found to have no effect on the timing of a relationship dissolution. However, because the tendencies to use gifts for the three purposes during relationships are more likely to fluctuate as situational variables, the findings from the time-constant model are misleading. When the values of gifts
are allowed to vary in the stages of relationships, gifts were found to have significant impacts. Findings from the time-varying models, which were performed for male and female samples, respectively, indicate that when female students use gifts to enhance attractiveness and when male students use gifts to express love, both increased the hazard of relationship dissolution. For both men and women, using gifts to announce relationships is more likely to be beneficial for decreasing the hazard of relationship dissolution.

**Do gifts affect the timing of dissolution or probability of eventual dissolution?** Including gift covariates in the split model suggested that gifts have statistically significant effects on the timing of relationship dissolution, but not the probability of its eventual dissolution. This suggests that when a relationship will dissolve can be predicted by gifts, but whether a relationship will dissolve eventually will be determined by factors other than gifts.

**How do men and women differ?** Although the effect of gender in gift behavior was not specified explicitly in the hypotheses, it undoubtedly serves an important role in modifying the distribution of time until relationship dissolution. Self-enhancing gifts were found to speed up the timing of dissolution for female consumers, love-expressive gifts had a similar negative effect for male consumers, and relationship-announcing gifts slow down the timing of dissolution for both male and female consumers.

**Limitations**

The exploratory nature of the study resulted in some limitations. First, to reduce the memory burden, single-item measures were used to measure gift consumption for the three purposes throughout the stages of romantic relationships. This was a trade-off between demand artificial responses and the unknown reliability concerns of single-item measures. Multi-item measures are necessary in the future to thoroughly comprehend the three aspects of gifts in romantic relationships.

Second, a retrospective method was used to collect the survival data used in this study. In the past, the superiority of survival analysis in exploring longitudinal effects was greatly limited by the scarcity and inaccessibility of longitudinal

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**TABLE 1**

Estimation Results of the Log-Logistic Standard and Split Models With Time-Constant Covariates

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<thead>
<tr>
<th>Covariates</th>
<th>Standard Model</th>
<th>Split Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Timing</td>
<td>Probability</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SE</td>
</tr>
<tr>
<td>Age</td>
<td>.173</td>
<td>.020*</td>
</tr>
<tr>
<td>Male</td>
<td>–.556</td>
<td>.305</td>
</tr>
<tr>
<td>Self-enhancing gifts</td>
<td>.194</td>
<td>.224</td>
</tr>
<tr>
<td>Love-expressive gifts</td>
<td>.039</td>
<td>.219</td>
</tr>
<tr>
<td>Relationship-announcing gifts</td>
<td>–.048</td>
<td>.170</td>
</tr>
<tr>
<td>α</td>
<td>1.147</td>
<td>.145*</td>
</tr>
<tr>
<td>Split parameter δ</td>
<td>–167.003</td>
<td>–168.598</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>.684</td>
<td>.213*</td>
</tr>
</tbody>
</table>

*Note.* Only the “male” variable was included in the split model. Other covariates resulted in zero standard errors.

*a* Alpha mean value for split model. *b* Alpha standard error value for split model.

*p < .001.

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**TABLE 2**

Estimation Results of the Log-Logistic Model With Time-Varying Covariates for Male and Female Samples

<table>
<thead>
<tr>
<th>Covariates</th>
<th>Timing of Dissolution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Age</td>
<td>.000</td>
</tr>
<tr>
<td>Self-enhancing gifts</td>
<td>–.680</td>
</tr>
<tr>
<td>Love-expressive gifts</td>
<td>1.745</td>
</tr>
<tr>
<td>Relationship-announcing gifts</td>
<td>–1.066</td>
</tr>
<tr>
<td>α</td>
<td>.657</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>–246.470</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.
data, and, thus, such analyses were used in analyzing secondary data only. This study tried to overcome such difficulties in collecting longitudinal data, which make the examination of specific variables such as dating gift behavior possible. Although we consider that initiation and dissolution are important events in consumers’ lives, which are subjected to a lesser degree of recall bias, there exists the possibility that even as gifts influence relationship outcomes, relationship outcomes also influence participants’ reconstructive memory of gift behavior. As demonstrated by Baumgartner, Sujan, and Bettman (1992), ads that increased retrieval of mostly positive autobiographical memory led to more favorable attitudes toward the ad. Individuals’ recall of gift behavior during the relationship may be downwardly biased when the relationship had an unhappy ending, or may be upwardly biased when the relationship is cherished and possesses a sacred position in the individual’s memory.

Two measures were taken to alleviate this concern. First, participants were only asked to recall information in important stages of the relationship to reduce the recall problems that may otherwise have been created by fatigue and boredom. Second, with the inclusion of the split model allowing a proportion of the relationships to eventually succeed, an examination of the coefficient estimates in the standard and the split models provided evidence for the direction of such bias. The results revealed that the coefficient estimates in the standard model were consistently larger than the estimates in the split model, suggesting that regardless of relationship outcomes, consumers’ recollected memory of their gift behavior would be consistent.

Implications

First, combining the findings from the split and the time-varying models, it suggests that gift consumption in a romantic relationship for the three purposes specified can be used to predict when the relationship will dissolve, but not predict whether a relationship will eventually be successful or fail. Gifts, thus, are essential to a romantic relationship. Through proper gift consumption, such as for the purpose of relationship announcement, gifts can make the relationship endure and thus increase the survival chances of the relationship. Alternatively, improper gift consumption, such as female consumers for the purpose of enhancing outer appearance and male consumers for the purpose of expressing emotions, gifts can speed up the timing of relationship dissolution.

Second, findings for the effects of gender on the timing of dissolution imply that men may be more inclined to use gifts as a form of nonverbal communication (Areni et al., 1998), whereas women engage in self-gift behaviors (Luomala & Laaksonen, 1997; McKeage et al., 1993; Mick et al., 1992). Such findings are important in that they highlight the fact that gift behavior in the context of a romantic relationship differs from gift behavior in the context of a nonromantic relationship. In a nonromantic setting, women act in the major gift-giving role, whereas in a romantic setting, men are more likely to be the gift giver.

Third, self-gifts as “gifts to me, from me” (Mick & DeMoss, 1990b) are still embedded in interpersonal relationships. The identification of self-enhancement for the sake of the significant other as a context for self-gifts bridges self-gifts and other-gifts. Self-gifts can be a personally symbolic self-communication not only to convey the messages of celebration, congratulations, or consolation, but also to form a desirable impression in the significant other’s eyes.

Fourth, though using gifts to express love is well documented and is common in practice, it was found to expedite the timing of relationship dissolution. For a romantic relationship, some ambiguity in the nature of the relationship and the intent of each party is beneficial for its future development (Holmes, 1981) by extending the trial period of a relationship. The material meaning of gifts takes the risk of defining the relationship in nonromantic, less personal terms. However, due to the ambiguous nature and diversified effects of using gifts to express love, this finding is tentative and future studies addressing this issue specifically are necessary.

Fifth, the capacity of survival analysis to handle longitudinal effects is fully shown in the significant time-varying effects of gifts on altering the timing of relationship dissolution. The value of covariates, self-gift, other-gift, and joint-gift vary over time, and such longitudinal effects have been captured by the survival analytical approach employed in this study. As demonstrated by the findings, gifts can serve different purposes in a romantic relationship and are capable of making the relationship endure or fail.

REFERENCES


Accepted by Frank Kardes.