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Holiday gift-giving – deadweight loss or welfare gain?

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Abstract

For macro-economists, the importance of holiday gift-giving is the effect of spending on the macro economy. However, for micro-economists, gift-giving has a different important aspect. As purchasing choice is made by someone other than the recipient (i.e. the final consumer), economic theory therefore suggests cash may be superior to gifts in-kind that are welfare reducing (i.e. deadweight loss). That is, the cost of the gift is higher than its value to the recipient. However, there has been no consensus in the empirical literature on whether gift-giving creates or destroys value. In this study, we found that purchasing holiday gifts (for the Jewish Passover in Israel) leads to welfare gains. Although there is no difference in the price of gifts given to women compared to men, the value and welfare gain are lower for women. This result is also reflected in a higher rate of gift return and lower satisfaction among women compared to men. Social distance between the giver and the recipient did not affect the welfare gain.

1. Introduction

For economists, gift-giving presents something of a puzzle. Since the giver often does not know with certain accuracy the recipient's preferences, gifts are therefore welfare-reducing (a deadweight loss) compared to giving cash. Thus, the cost of the gift is higher than its value to the recipient. Theoretical models have been spawned attempting to this claim (Camerer 1988, Carmichael and MacLeod 1997, Ruffle 1999, and Prendergast and Stole 2001) and empirical tests conducted to measure the magnitude of the deadweight loss of gift-giving (Waldfogel 1993, 2005, Solnick and Hemenway 1996, List and Shogren 1998, and Ruffle and Tykocinski 2000). Despite the deadweight loss, gift-giving continues and seems to be continuously increasing.

In this study, we examine whether purchasing holiday gifts (for the Jewish Passover) in Israel leads to welfare gains or deadweight losses. We discuss the difference between women and men in this respect and the role of the recipient's satisfaction with the gift. We also explore how the relationship type between giver and recipient (family, social, workplace) affects the difference between the cost and value of gifts.

Most of the economics literature on gift-giving has been concerned with explaining why gifts are given if they reduce welfare (by creating a deadweight loss) and estimating the deadweight loss (reduction of welfare benefits). In Ruffle (1999), the utility of gifts was measured. It included not only the monetary cost and monetary value of the gift, but also the emotions associated with the gift, measured according to the difference between the gift expected and the gift given. Gift-giving creates (or increases) welfare benefits if the giver's pride and the receiver's surprise from the gift plus the receiver's monetary valuation of the gift exceed the giver's monetary cost of the gift.

A series of articles that were published in the *American Economic Review* by Waldfogel (1993), Solnick and Hemenway (1996), and Ruffle and Tykocinski (2000) discussed the yield of gifts given on Christmas. Waldfogel (1993) surveyed 58 students on specific gifts they had received for Christmas. He asked recipients to estimate the amount paid by the giver for each gift received. Recipients were then asked to place a value on each gift they received. The question was phrased as follows: "Aside from any sentimental value, if, without the giver ever knowing, you could receive an amount of money instead of the gift, what is the minimum amount of money that would make you equally happy?". Waldfogel found that gifts lose about 13 percent of their value in the exchange from giver to receiver.

Contrary to Waldfogel, Solnick and Hemenway (1996) found that gift-giving is actually welfare-improving with an average yield of 214 percent. They claim that a broader subject pool than that questioned by Waldfogel may explain the reversal. They administered their survey to members of the general public at train stations and airports. Their question regarding value was phrased as follows: "Aside from any sentimental value, if, without the giver ever knowing, you could receive an amount of money instead of the gift, what is the minimum amount of money that would make you equally happy?".

Ruffle and Tykocinski (2000) investigated the framing of the recipient surveys. They inferred that the phrase "equally happy" (i.e. the wording in Solnick and Hemenway 1996) had caused respondents to reflect more favorably on the gifts they had been given, inflating the gift yields. Principe and Eisenhauer (2009) focused on recipient estimates of the costs of gifts in order to validate the methodology. They found

no statistically significant difference between the recipient's estimate of cost and the actual cost of the gift in 95% of gift categories.

As religion can have an impact on perceptions (e.g. Shtudiner et al. 2018, 2019, and Bayer et al. 2018), in this study we analyze the effect of gift-giving in another religion and holiday, the Jewish Passover. Shtudiner and Kantor (2015) analyzed the welfare benefit of purchasing religious souvenirs among tourists visiting Israel. They found that the welfare benefit is much higher among Christian tourists than among Jewish tourists. The greater their religiosity (the more religious they perceived themselves to be), the larger the welfare benefit. They also found that when a tourist purchases a souvenir as a gift, he/she mistakenly thinks that the value of the gift for the recipient will be higher than it realistically is.

This paper contributes to the existing literature in several ways. First, we analyze the effect of recipient gender on gift value and yield. Second, we discuss the importance of recipient satisfaction and its effect on gift yield. These two variables, gender and satisfaction, have yet to be taken into account in previous research. Third, existing studies mostly focus on the deadweight loss associated with gifts given in celebration of Christmas. Our research analyzes the same phenomenon, but in another religion and holiday - The Jewish Passover.

2. Method

We surveyed undergraduates at Ariel University (Israel) and the general public (convenience sample). The questionnaire was based on Waldfogel's (1993) and Solnick and Hemenway's questionnaires (1996). The subjects were asked to describe one gift they had been given for Passover. In Israel, there are two main gift-giving holidays: Rosh Hashanah in the fall and Passover in the spring. We deliberately distributed the survey directly after Passover 2017, while the memory of the holiday was still fresh.

We asked two questions to elicit their personal valuations: 1) the WTP question: "Ignoring sentimental value, how much money (maximum) would you have been willing to pay for this product?" and 2) the Equally Happy question: "Ignoring sentimental value, if, without the giver ever knowing, you could receive an amount of money instead of the gift, what is the minimum amount of money that would make you equally happy?"

Following the earlier studies, we instructed the subjects to estimate the amount of money they thought the giver had paid for each gift. The respondents were asked to identify their relationship to the giver of each gift, note their satisfaction (scale 1-5, 5-high) with the gift and indicate if the gift was returned. The questionnaire also included demographic questions on gender, age and socio-economic status (scale 1-5, 5-high). Our survey covered 200 respondents. The sample was almost equally divided by gender: 102 males and 98 females. Their ages ranged from 20 to 78 years, with a mean of 36.5 (s.d. 11.40). Their socio-economic status was average for 65% of the respondents, above average for 16% and below average for 19%.

3. Results

We began by asking: Is there a deadweight loss or a welfare gain? The responses of the subjects are reported in Table I. Two questions were asked to elicit subject personal valuations of gifts: 1) willingness to pay (subject responses are summarized in the left column) and 2) equally happy (subject responses are summarized in the right

column). Subjects estimated that the amount paid for the gift is 292 ILS on average, but the willingness to pay (left column) is higher (323 ILS) for the same gift. The ratio of average value to average price expresses 11% yield, with average yield per subject 15%. Phrasing the value question in a different way ("equally happy") also leads to higher values compared to estimated amounts paid (376 and 292 on average, respectively). Both the ratio of average value to average price and the average yield per subject are higher compared to the first phrasing. The results show that the phrasing puts the subjects in a different frame of mind. "Equally happy" automatically activates a set of positive, cheerful and optimistic emotions, in contrast to the sterile phrasing of "willingness to pay". To verify that the relationship between value and price is proportional, we ran regressions of log (value) on log (price). The results displayed in Table II confirm this relationship.

Table I. Average Estimated Amount Paid and Gift Value

	Value 1 WTP	Value 2 Equally Happy
Estimated Amount Paid	292.3	292.3
Value	323.7	375.5
Percentage Ratio*	1.11	1.28
Average Percentage Yield**	1.15	1.53

Note: Two questions were asked to elicit subjects' personal valuations of gifts: WTP (left column) and equally happy (right column).
* Percentage ratio of average value to average estimated price paid.
** Average of division (value/price) for each subject.

Table II. Regression Analyses

	Model 1	Model 2
Constant	0.083	0.704
	(0.113)	(0.192)
log (Price)	0.978	0.745
	(0.048)	(0.082)
Adj R-squared	0.807	0.452
N	200	200

Note: The dependent variables are log (value wtp) in Model 1 and log (value happy) in Model 2. Standard errors are displayed in parentheses. Coefficient significantly different from 0 at the 1% level ***, 5%** and 10%*

Table III reports the average yield for gifts in various (estimated) price ranges. Over a third of the gifts in the survey are estimated to cost between 101 ILS and 200 ILS, a range with the highest average yield of 175%. The second category of gifts, by prevalence, is gifts that are estimated to cost over 300 ILS. These gifts have an average

yield of 118%. The results show that welfare gains are large and significant for gifts in all price ranges. Greater generosity of the giver did not appear to improve the yield.

Table III. Average Yield by Price of Gift

	Average Yield	Standard error	% N
100 - 0	1.668	1.075	22%
101-200	1.754	0.972	37%
201-300	1.388	0.820	17%
Over 300	1.184	0.550	25%

The next analysis examines whether yields differ between women and men. Figure 1 shows the average estimated price (black bars) and average value (white bars), broken down by gender. The estimated price of women's gifts, 294 ILS, was similar to the estimated price of men's gifts, 291 ILS. A T-test showed that this difference was not significantly different from zero (p-value 0.958). However, the average value that men gave for gifts, 431 ILS, was significantly higher than the average value given by women, 313 ILS (in "equally happy phrasing"). This discrepancy was found to be significant according to a T-test for comparing averages (p-value 0.060).

Figure 1. Average Price and Value by Gender of Recipient
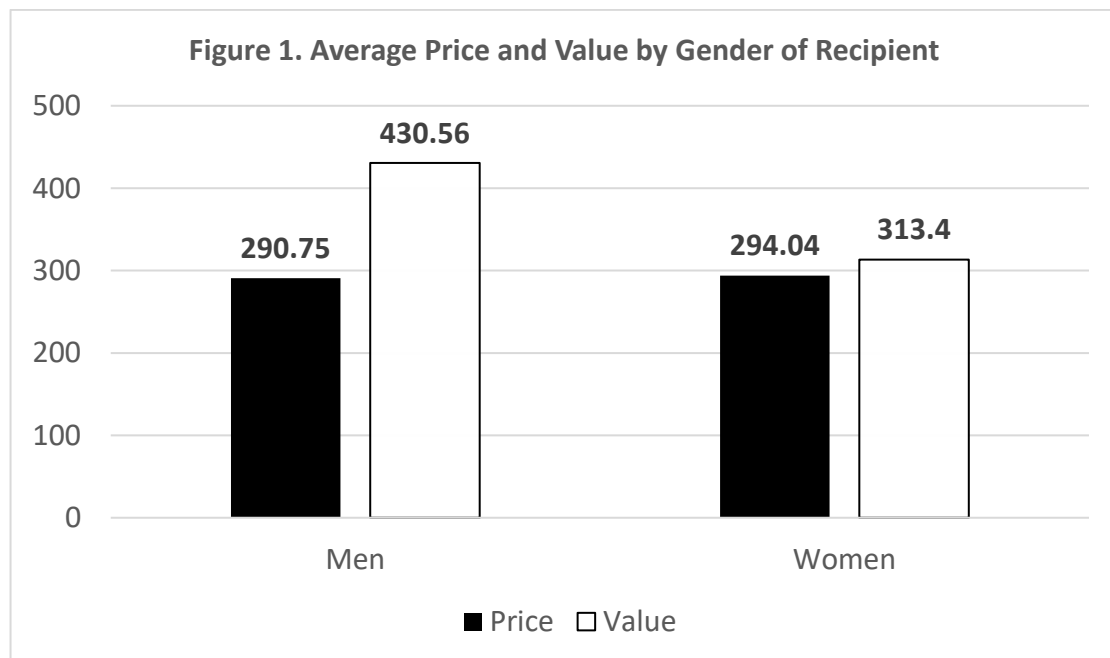
To explain this difference between women and men regarding the monetary value given to the gifts received, we compared the satisfaction of the recipients of the gifts, broken down by women and men. Satisfaction was measured on a 1 to 5 Likert scale (5 - high satisfaction). Figure 2 shows that women's average satisfaction (3.4) is

lower than men's average satisfaction (4.0). The results of a T-test showed that this difference was significantly different from zero (p-value 0.01). This gap in female-male satisfaction is also reflected in the difference in the return rate. As can be seen in Figure 2, 25.5% of women decided to return the gift they received, compared to 15.1% of men. This discrepancy in the return rate was significantly different from zero using a T test (p-value 0.08)

Figure 2. Return Rate and Satisfaction by Gender of Recipient
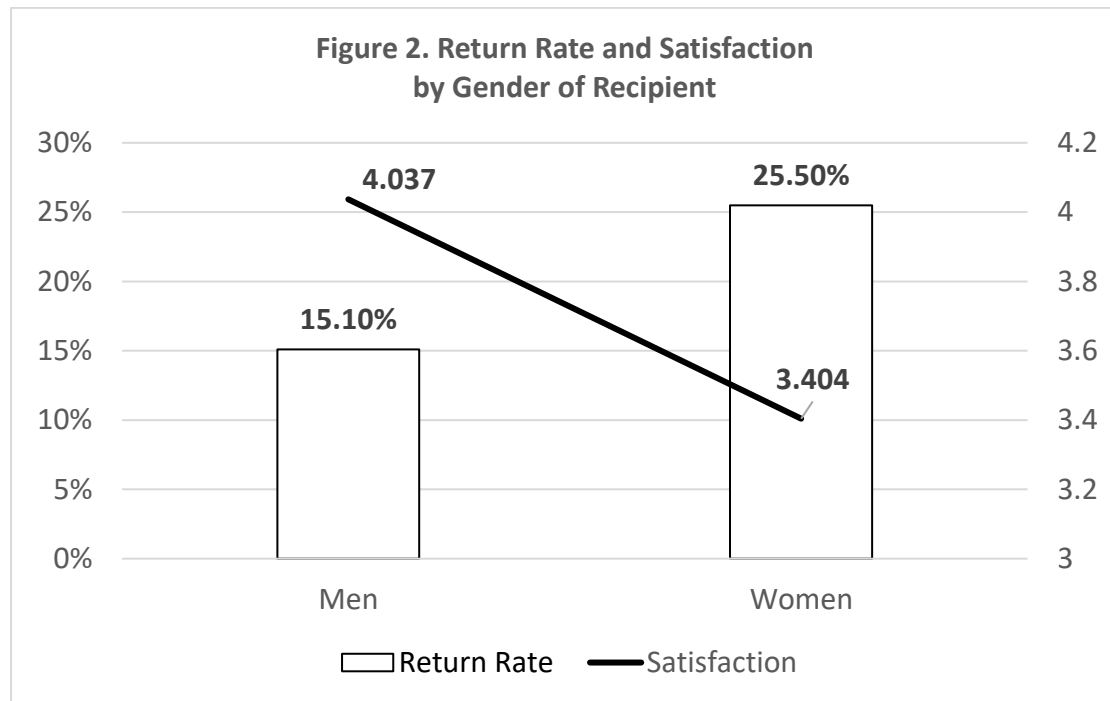
To analyze the effect of each variable separately on gift value, a regression was run on several specifications. The results are displayed in Table IV. The dependent variable is log (value happy) and the independent variable in the first specification is log (price). The results show that the value is proportional to the estimated price. The second specification includes dummy variables for the relationship between the gift giver and the gift recipient: parents, siblings, grandparents, relatives, spouses, friends and gifts from work. The coefficients of these variables were not significantly different from zero. The third specification included demographic variables of gift recipients: male dummy variable, age, and socioeconomic status (on a 1-5 scale, 5 - high). As displayed in Figure 1, the value of male gift recipients is higher, as reflected in the high, positive, and significant coefficient of the male variable in specification (3). This results in higher yields for men. Specification (3) also shows that the coefficients of the other two demographic variables are positive and significant. In other words, the older the recipient and the higher his/her socioeconomic status, the higher the gift's value.

Table IV. Regression Analyses

	(1)	(2)	(3)
Constant	0.704***	0.765***	0.465**
	(0.192)	(0.223)	(0.221)
log (Price)	0.745***	0.719***	0.641***
	(0.082)	(0.088)	(0.084)
Parent		-0.074	-0.006
		(0.124)	(0.125)
Sibling		-0.129	-0.105
		(0.160)	(0.148)
Grandparent		0.046	-0.064
		(0.144)	(0.145)
Relative		-0.070	-0.051
		(0.127)	(0.120)
Spouse		-0.034	0.059
		(0.164)	(0.159)
Friend		0.007	0.069
		(0.132)	(0.123)
Work		0.100	0.104
		(0.120)	(0.116)
Male			0.148***
			(0.055)
Age			0.050**
			(0.019)
Socio-Economic			0.062*
			(0.034)
Adj R-squared	0.452	0.502	0.600

Note: The dependent variable is log (value happy). Standard errors are displayed in parentheses. Coefficient significantly different from 0 at the 1% level ***, 5%** and 10%*

4. Conclusions

It is clear that economic behavior does not always accord with the tenets of classical rationality (e.g. Greenberg et al. 2016). Most studies on gifts found that gift-giving leads to a deadweight loss (a negative welfare benefit). In other words, the cost of the item is higher than the value for the recipient. This is due to the fact that there often exists a difference between gift choice of the giver and gift preference of the receiver. We found that holiday gift-giving during the Jewish Passover is a source of welfare gain. We also found that the question wording of "Equally Happy" puts respondents in a cheerful or optimistic frame of mind and leads to higher values of gifts.

For the average estimated price of gifts, there was no difference between men and women recipients. However, the value of gifts was lower for women compared to men. This result is somewhat surprising given that women are generally more involved in gift exchange than are men (Caplow 1982, 1984). Women also devote more time and effort to exchange gifts (Fischer and Arnold 1990), therefore we could have expected

that the value will be higher for them. A possible explanation that was supported by our data is lower satisfaction among women recipients. This result was also reflected in a higher rate of gift return.

The reliance on a convenience sample limits the generalizability of the results. Certainly, future research should examine more representative samples. Another direction for future research is to analyze the value of gifts for women recipients given on Valentine's Day or Mother's Day.

Despite the exploratory nature of this research, several conclusions are evident. First, gifts during the Jewish Passover have a welfare benefit. Therefore, economists will also agree that this giving tradition, besides the macro-economic effect, also has a positive micro-economic utility and should be encouraged. Second, men, contrary to popular opinion, appreciate gifts and give high values for them. Specific marketing efforts can target men as recipients. Third, the low level of satisfaction and high rate of gift return among women recipients emphasizes the importance of attention when choosing gifts for women.

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