Maximizing Joint Gains: Transaction Utility Within and Between Groups

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Abstract

In a choice between equal payoffs (e.g., self gets $500 / other person gets $500) and more lucrative but disadvantageously unequal payoffs (e.g., self gets $600 / other person gets $800), individuals willingly trade disadvantageous inequality for extra profit (e.g., Blount and Bazerman, 1996), choosing the more lucrative but disadvantageously unequal payoff. The present analysis, however, explores how the transaction utility (Thaler, 1985; 1999), the perceived value of such “deals,” depends on whether allocation recipients come from the same social category (e.g., same gender) or different ones (e.g., females versus males). Studies 1 – 3 test the prediction that individuals tend to trade disadvantageous inequality for greater profit when allocations recipients share the same social category (e.g., within groups), but do not when recipients belong to different social categories (e.g., between groups). Study 4 shows that the transaction utility of disadvantageous inequality requires a greater premium between groups than it does within them. Implications for maximizing joint gains are discussed.

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Although the mantra “maximize the pie” is ubiquitous in financial, political, and interpersonal negotiations (Fisher, Ury, & Patton, 1991; Raiffa, 1982; Shell, 1999), it is often easier said than done. While most people prefer having more money to less, most people are also concerned with how well they are treated in comparison to others (Adams, 1963). For instance, individuals are naturally unsatisfied receiving a payoff of $600 when a counterpart gets $800. Such disadvantageous inequality is intolerable. One important revelation, however, is that, when payoff options are presented simultaneously, say as a choice between $600 for the self / $800 for a counterpart or $500 for the self / $500 for a counterpart, one can recognize the value of the extra profit and willingly choose the more lucrative but disadvantageously unequal payoff. Individuals become less concerned with disadvantageous inequality and more concerned with maximizing profit (Bazerman, Loewenstein, & White, 1992; Bazerman, White, & Loewenstein, 1995; Blount & Bazerman, 1996). While this extra profit seems like a “deal,” certainly other factors that complicate the transaction utility (Thaler, 1985; 1999) of this “deal” may likewise diminish these profit-taking opportunities.

While people might trade disadvantageous inequality for greater profit in the choice setting, we test the hypothesis that the transaction utility of this tradeoff is much lower when these allocations occur across social category lines. For instance, Americans might maximize profit between themselves and other Americans, within social category lines, but they may be less inclined to maximize profit between themselves and foreign nationals, across social category lines. What is a “good deal” within social categories becomes a “bad deal” between them. Hence, the scope of profit maximization exhibited in the choice setting is narrower than
previously thought, being limited to circumstances in which recipients are all members of the same social category. Because the transaction utility of such payoffs is lower in allocations across social category lines, individuals become less willing to tradeoff disadvantageous inequality for the extra profit.

*Transaction Utility and Profit Maximization in Choice*

In order to understand why the transaction utility of trading disadvantageous inequality is lower when allocations recipients belong to different social categories versus the same one, we first must define transaction utility. Thaler (1985, 1999) posits that consumers derive two kinds of utilities from transactions: *acquisition utility* and *transaction utility*. *Acquisition utility* is “the measure of the value of the good obtained relative to its price,” whereas *transaction utility* “measures the perceived value of the ‘deal’.” (Thaler, 1999; p. 188-189). In a clever study (Thaler, 1985), participants imagined being at the beach on a hot day with nothing but ice water. They also imagined that a friend was going alone to fetch some drinks and asked them the highest price they would be willing to pay for a bottle of their favorite beer from either a “fancy resort hotel” or a “run-down grocery store.” The median response in the “resort” condition was $2.65 compared to $1.50 in the “store” condition. Even though the retail venue should be irrelevant to the consumption experience (acquisition utility), the reference price was higher in the “resort” context than in the “store” context. Hence, someone who would spend $4 for a beer from a resort but only $2 from the store would pass up a refreshing beer from the store if it cost $2.50. The transaction utility – the value of the “deal” – greatly shapes people’s choices.

The present analysis posits that transaction utility similarly affects the tradeoff between disadvantageous inequality and profit (Bazerman et al., 1992; Bazerman, Schroth, Shah, Diekmann, & Tenbrunsel, 1994; Blount & Bazerman, 1996). Individuals tend to maximize
profit in the choice setting. Getting a more lucrative payoff, albeit disadvantageously unequal, is a good deal. In fact, Bazerman and colleagues (1992; Bazerman, Schroth, Shah, Diekmann, & Tenbrunsel, 1994; Blount & Bazerman, 1996) showed how the choice setting can help individuals comprehend this good deal. Although individuals consider equal payoffs (e.g., self-$500 / other -$500) to be more attractive than more lucrative but disadvantageously unequal payoffs (e.g., self-$600 / other -$800) when these payoffs are presented separately, Bazerman and colleagues (1992; Blount & Bazerman, 1996) showed that individuals actually choose the $600-self / $800-other payoff when individuals evaluated these two payoffs in a choice setting. Profit maximization in this tradeoff is a good deal: “Surely it is worth $200 in inequality to receive an extra $100” (Bazerman et al., 1992; p. 222).

Why Category Lines Diminish Transaction Utility

While individuals may see trading disadvantageous inequality for extra profit as a good deal, the transaction utility can change as the referential context changes (Thaler, 1985; 1999), and we posit that the social category context is one important contextual factor that can affect the transaction utility of any given tradeoff. What was once a good deal in the absence of social category lines becomes a worse one across them. As we will see, the transaction utility is lower in payoffs across social category lines, as concerns about disadvantageous inequality shift from the interpersonal level, between individuals (e.g., Americans), to the intergroup level, between social categories (e.g., Americans versus French).

Why would the transaction utility of exchanging disadvantageous inequality for greater profit diminish in inter-category allocations relative to intra-category ones (e.g., Bazerman et al., 1992)? To answer this question, we can turn to social identity theory (Deaux, 1996; Tajfel et al., 1997; Hogg, 2000), which describes the affective component of intergroup relations. For one,
intergroup bias transpires because individuals place emotional value on their social category memberships (Tajfel, 1981), and the degree of intergroup bias emerges more greatly between factions from different social categories, as opposed to the same social categories (Tajfel & Turner, 1979; Brewer, 1979; Doise & Sinclair, 1973). These social category distinctions play such a powerful role in intergroup bias that, according to the Common Ingroup Identity Model (e.g., Dovidio, Gaertner, Validzic, Matoka, Johnson, & Frazier, 1997; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993), re-categorizing sub-groups in terms of an overarching super-ordinate social category is sufficient to ameliorate intergroup discrimination and facilitate cooperation.

With respect to the present analysis, trading disadvantageous inequality for greater profit should become psychologically more painful if people on the advantageous side of the payoff are members of a different social category versus the same one. After all, disadvantageous inequality in the inter-category context not only means getting paid less than other individuals, but, even more humiliating, is the fact that these other individuals are from a different social category. Such disadvantageously unequal outcomes can threaten self-esteem of ingroup members in the disadvantageous position (Crocker & Luhtanen, 1990), thus undermining one of the core motives of social identification (Deaux, 1996; Hogg, 2001; c.f., Hogg & Mullin, 1999). Hence, these inter-category situations, relative to intra-category ones, can lower the transaction utility for any given tradeoff, complicating the decision to choose profit maximization in the choice setting.

In the original Bazerman et al. studies (1992, 1995), the tradeoff between disadvantageous inequality and profit was seen as a good deal; the transaction utility was sufficiently attractive that individuals overwhelmingly chose to get paid more money even though it meant getting paid less than another person. Despite this robust finding, however, we
hypothesize that such profit-taking tendencies will subside when payoff recipients belong to different social categories. Under these circumstances, the lower transaction utility requires a higher premium in order to compensate the additional threat of getting paid less than members of another social category. What is a good deal within social category lines becomes a worse one across them.

**Overview**

On a theoretical level, the objective is to explore how the transaction utility of maximizing profit in the choice setting depends on social category context. Profit maximization may seem like a good deal within groups but not between them. On an applied level, such effects can help explain why “maximizing the pie” in negotiation may be more difficult across social category lines (e.g., countries, regions, etc.) than within them. In a series of decision making scenarios, we compared inter-category allocations in which payoff recipients divided along social category lines, to control conditions in which they were not.

**Study 1**

We test the hypothesis that the transaction utility of trading disadvantageous inequality for extra profit is lower when payoffs divide along social category lines compared to when they do not. Accordingly, we placed individuals in two different conditions. In the **control condition**, allocation recipients shared the same social category. In the **inter-category condition**, allocation recipients came from two different social categories. Our prediction was that fewer participants in the inter-category condition would choose a more lucrative but disadvantageous payoff over a less profitable but equal one in the choice setting, relative to the control condition.

**Participants**
A total of 26 undergraduates from the University of Michigan volunteered to participate in a 3-page questionnaire, which required about 60 seconds to complete. The key manipulation and dependent variable were on the third page.

Procedure

In a between-subjects design, participants were assigned to either a control condition (neutral) or inter-category condition (gendered). The control condition read as follows:

“Following this survey, you may participate in one of the following two experiments. Experiment A pays you and other participants $1.00 for completing a 3-minute survey. Experiment B pays you and 50% of the participants $1.25. The other 50% of participants will receive $2.25 for completing the 3-minute survey.” Participants then chose the experiment in which they would like to participate.

The inter-category condition was written similarly, although we slightly modified the payoffs for females (“Experiment A pays female and male participants $1.00…Experiment B pays female participants $1.25. Male participants…$2.25…”) and males (“Experiment A pays male and female participants $1.00…Experiment B pays male participants $1.25. Female participants…$2.25…”) to ensure that the ingroup was always in a disadvantageous position relative to the outgroup in the discrepant payoff. After completing the brief questionnaire, we told the participants that they did not need to complete another experiment and gave them $1.00 for their willingness.

Results and Discussion

Results from a chi-square analysis revealed a significant effect in the predicted direction ($\chi^2 = 7.5, p < 0.01$). That is, 75 percent of the participants chose Experiment B, thus maximizing profit in the control condition. However, only 21 percent of the participants in the inter-category
condition maximized profit. Incidentally, there were no apparent gender differences ($p=.55$) in the tendency to maximize profit in inter-category allocations. While this finding is consistent with the prediction, it also transpires with rather small differences in pay ($1.00). Moreover, these results suggest that trading disadvantageous inequality for extra profit is more difficult across social category lines because of the lower transaction utility. What is a good deal within social category lines becomes a worse one between them.

We do note that the basis for the differences in pay was arbitrary; we did not explain why payoffs would be different in the more lucrative but disadvantageously unequal option. Even so, the greater majority of the participants (75 percent) in the control condition felt this arbitrariness sufficiently nonaversive to choose profit maximization, while individuals in the inter-category condition did not. In the next study, we provide justification for such differences in pay.

Study 2

While Study 1 establishes support for the predicted effect, Study 2 seeks to replicate this effect in a different context by providing explicit justification for differences in pay – tests scores on an internship exam. Again, we posit that the transaction utility in trading disadvantageous inequality for extra profit is lower when the advantaged others are members of a different social category. We predict that, even when providing justification, individuals will still be less inclined to maximize profit in inter-category allocations relative to the control conditions.

Participants

A total of 36 University of Michigan undergraduates was asked to choose between two payoff options.

Procedure
In a between-subjects study, participants read about an internship offer from Citibank. The control condition read as follows: “Imagine that Citibank is revising summer internship offers to college students. Like many other companies, Citibank requires that all interns take an Internship Exam in order to assess skill level. It turns out that half the students offered an internship (including yourself) scored just below the 85th percentile, while the other half offered internships scored above the 95th percentile.” At this point participants were asked, “If Citibank was deciding between two possible offers, which would you prefer?:  – EQUAL PAY: All students earn $4,000 – OR – PAY BY EXAM: Half the students (including yourself) earn $4,500, Half the students earn $5,000.” Note that the 10% difference in exam performance is commensurate with the differences in pay.

The inter-category condition was similar except that payoffs were divided along university lines: “all University of Michigan students offered an internship (including yourself) scored just below the 85th percentile, while all Ohio State University students offered internships scored above the 95th percentile.”

Results and Discussion

Our prediction was confirmed. In the control condition, 82.4 percent maximized profit. However, in the inter-category condition, only 31.6 percent chose the more lucrative payoff ($\chi^2=9.4 \ p < .01$). Hence, it appears that the transaction utility is not the same across both conditions, even when justification for the payoff differences is made apparent. What is a good deal in the control condition, in the absence of category lines, becomes a worse deal in the inter-category condition, between social categories.

Study 3
While Studies 1 and 2 show evidence that the transaction utility in trading disadvantageous inequality for extra profit may be lower in inter-category allocations, this result is based on the decisions of payoff recipients. Certainly, outside observers, who are not members of the focal social categories, can also recognize that intergroup relations between members of different social categories are more fraught with emotion than intergroup relations between among members of the same social category. Indeed, research demonstrates that witnesses – uninvolved parties – to group conflict readily recognize that disputes between members of different social categories are more serious in nature than identical disputes between members of the same social category (Miller & Prentice, 1999). Accordingly, we hypothesize that outside observers will likewise recognize that the transaction utility is lower in allocations across social category lines and greater within them. We test the prediction that individuals will tend to maximize profit for groups that share the same social category but forgo profit for groups that do not.

**Participants**

A total of 71 college undergraduates from the Boston area participated in a questionnaire day at Harvard Business School. The key materials for this between-subjects study were embedded within the pages of a larger questionnaire packet that required forty-five minutes to complete. Participants were paid $15 for their time.

**Procedure**

Participants in the *control condition* read about research grant allocations: “Imagine that the National Science Foundation (NSF) has decided to award grants to two graduate schools within the University of Utah. If NSF was considering two following distribution options, which option should NSF choose?” Participants were given the following two options: “Option A – School 1 of the University of Utah gets $50,000,000, School 2 of the University of Utah gets
$50,000,000”; “Option B – School 1 of the University of Utah gets $65,000,000, School 2 of the University of Utah gets $75,000,000."

The inter-category condition was phrased similarly, except that the payoffs were between the University of Utah and the University of Wyoming (e.g., “Option A – University of Utah gets $50,000,000, University of Wyoming gets $50,000,000”; “Option B – University of Utah gets $65,000,000, University of Wyoming gets $75,000,000”).

Results and Discussion

The prediction was confirmed. In the control condition, 63 percent of the observer participants preferred to maximize profit, whereas only 27 maximized profit in the inter-category condition. This data pattern was significant ($\chi^2 = 9.1, p<0.01$). Taken together, Studies 1 – 3 provide compelling evidence that ingroup members and outside observers alike are less likely to maximize profit in inter-category allocations, relative to the control conditions. According to our hypothesis, the transaction utility in trading disadvantageous inequality for extra profit is lower in inter-category allocations. The deal of any given tradeoff diminishes across social category lines.

Study 4

If the transaction utility in trading disadvantageous inequality for extra profit is lower in inter-category allocations because the threat of getting paid less than a member a different social category requires additional compensation, then we would predict that individuals would require higher premiums (acquisition utility) in inter-category allocations relative to a control condition. Study 4 tests this prediction. We ask participants what minimum dollar amount they would need to accept disadvantageous inequality in the choice setting. This open value response is similar to that used in the beer on the beach study (Thaler, 1985).
Participants

A total of 54 University of Michigan undergraduates volunteered to participate. Participants were recruited at student centers on campus.

Procedure

Participants read a modified scenario from Study 2 in a between-subjects design. The control condition read, “Like many other companies, Citibank requires that all interns take an Internship Exam to assess skill level. It turns out that half the students offered an internship (including yourself) scored just below the 85th percentile, while the other half offered internships scored above the 95th percentile. As a result, Citibank will pay half the students (including yourself) $500 less than the other half. Assume you also had another offer from Bank One that pays you a $4,000 summer stipend, and so here are your two options: Bank One’s Offer: All interns get $4,000; Citibank’s Offer: Half the students (including yourself) get $x; Half the students get $x + 500” Participants were then asked the following question, “What MINIMUM amount of summer stipend (x) must Citibank pay you in order for you to accept their offer (which would be $500 less than half the students’ offer)?” Participants indicated their response in the following phrase, “x must equal at least $_____ for me to accept the Citibank offer.”

The inter-category condition was identical, except that the payoff was between students from the University of Michigan and Harvard. Hence, the University of Michigan participants were always in the disadvantageously unequal position.

Results and Discussion

The results support the prediction. Participants in the control condition on average required at least $3,907.48 (SD = $395.35) in order to accept Citibank’s offer. Participants in the inter-category condition, however, required on average at least $4,137.07 (SD = $385.38) in
order for them to accept the Citibank offer. Although these values are significantly different 
\( F(1,54)=4.7, p<.05 \), we do note that participants in the control condition would rather accept 
less money to work for the banking Citibank over Bank One, perhaps because Citibank has more 
brand recognition. Nevertheless, these results further confirm that the transaction utility in 
trading disadvantageous inequality is lower in tradeoffs across social category lines than it is 
within them. What is a good deal within category lines becomes a worse one across them, as 
trading disadvantageous inequality for extra profit requires an additional premium.

General Discussion

The transaction utility in trading disadvantageous inequality for extra profit is high in the 
absence of social category lines. Individuals tend to maximize profit, as they recognized the 
profit-taking opportunity as a good deal (Bazerman, et al., 1992; Bazerman, et al., 1994; 
Bazerman, et al., 1995; Blount & Bazerman, 1996). We propose, however, that social category 
lines represent one important contextual factor that can erode the transaction utility in these 
tradeoffs. A good deal in the absence of category lines becomes a worse one across them.

Studies 1 – 3 suggest that the transaction utility in trading disadvantageous inequality diminishes 
in inter-category allocations, as individuals become less inclined to maximize profit, regardless 
of whether an ingroup member or outgroup observer is making the decision. Moreover, Study 4 
provides additional evidence that the transaction utility is lower in inter-category allocations, 
which require additional premiums to increase the acquisition utility.

Implications and Future Directions

While reaching pareto efficient agreements and allocations remains an important goal, 
“maximizing the pie” is more difficult to achieve when payoff recipients are from different social 
categories. Brokering win-win deals across national, cultural, and religious lines requires a
higher premium, and there are a myriad of examples around the world. One interesting possibility, however, is that the process of “re-categorization” may help safeguard against the unwanted salience of social categories, at least in some cases. Based on the “common ingroup identity model” (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993), re-categorization is a process by which a larger, more inclusive, social category is made salient to foster trust and cooperation between groups from different social categories (Gaertner & Dovidio, 2000). For instance, if two countries from Asia are competing for financial opportunities, the common ingroup identity model would suggest that trust and cooperation can be facilitated by making salient the fact that both countries belong to the same continent. Thus, invoking the superordinate category of “Asia” may facilitate the acceptance of profitable but disparate opportunities, increasing the transaction utility of such allocations together with their beneficial monetary consequences. In fact, the formation of the European Union is an exceptional example.

It would also be interesting to examine the effect of multiple transactions over time. Previous research (Axelrod & Dion, 1988) suggests that individuals tend to become more cooperative in the prisoner’s dilemma game as the number of rounds increases; over time, participants learn to trust each other to maximize joint returns. The present analysis might suggest, however, that such cooperation is more likely to occur among parties within social category lines than across them. Hence, cooperation over time may be more difficult to achieve across national lines than within them, especially when a viable superordinate social category cannot be invoked.
Conclusion

Previous research has found that individuals trade disadvantageous inequality for extra profit when payoffs are presented in the choice setting (e.g., Bazerman et al., 1992; Blount and Bazerman, 1996). After all, the transaction utility is quite high – it is a good deal. The present analysis suggests, however, that what is a good deal within groups becomes a worse one between them. We find that ingroup members and outside observers alike tend to forgo profit maximization when allocations are distributed across social category lines and that such tradeoffs require an additional premium. Future research should explore how superordinate social categories can preserve the transaction utility necessary to enable profit maximization across groups.
References


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