Induced Over-Benefiting and Under-Benefiting on the Web: Inequity Effects on Feelings and Motivations With Implications for Consumption Behavior

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Inequity in its many forms has been the subject of a number of empirical research efforts. Results show that positive inequity, an over-benefited condition, and negative inequity, an under-benefited condition, have divergent effects on subsequent affects and behavioral tendencies. We embed equity treatments within a motivational structure to predict reactions to a quasi-shopping experience in which these methods operate in concert. Interaction effects—predicted by procedural justice considerations as well as instrumentally based arguments—are also tested whereby technical motivation is crossed with the equity conditions. In testing, an online experiment was created incorporating pre- and posttreatment measures. While completing a hypothetical sale, respondents received either an unanticipated, completed coupon field (the over-benefited group), an uncompleted, empty coupon field (the under-benefited group), or were not prompted with a coupon field (the control group). Results showed strong negative effects on postexposure satisfaction, intention, and desire to complete the purchase in the empty coupon field group, and similar positive effects in the completed coupon field group. Moreover, a model linking preexposure variables (expectations and technical sophistication) to postexposure measures was supported indicating carry-through effects. Lastly, procedural justice and instrumental predictions received mixed support when testing for the interaction between technical motivation and inequity. Results showed that, for those in the under-benefited group, there was only a slight tendency for those with higher levels of technical sophistication to report greater satisfaction; however a strong tendency was found for the same individuals to report a

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lower likelihood of completing the purchase. Implications for future research are discussed.

The notion of getting a "square deal" is steeped in tradition, so much so that the knowledge of others getting a better deal can be unsettling. Writers have raised this issue in many consumer contexts relating to pricing and other forms of sales incentives in the marketplace (e.g., Bolton, Warlop, & Alba, 2003; Campbell, 1999; Feinberg, Krishna, & Zhang, 2000). In this paper, we address the better deal proposition in a unique context, that of Internet shopping—and within that context, the notion of over-benefiting and under-benefiting via the provision of Web e-tailer coupons. The overarching issue is one of inequity in the classical sense (Homans, 1961), but in a manner tailored to current practice. We also embed the inequity perspective within a theoretical framework containing both antecedents and consequences in a compressed time-staged consumer shopping experience. As proposed here, the antecedents of fairness are both utilitarian and hedonically anticipated, whereas the consequences are hedonically realized and motivational in the form of stated intentions to engage in acts in the future. Additionally, we hypothesize interactions between the inequity treatment and reports of motivation-specific Web shopping expertise.
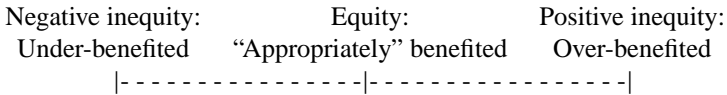
BACKGROUND[4]

(In)equity

In general terms, equity is a "fairness," "rightness," or "deservingness" comparison against other entities. These entities may be real or imaginary, individual or collective, or person or nonperson. One can compare him or herself to another individual, to a fictional prototypical character, to an average of a group of individuals, or to any entity with which he or she has dealings such as a company or, as in the present case, a Web site. Oliver (1997), building on the seminal contributions of others (Adams, 1963; Walster, Walster, & Berscheid, 1978), asserts that definitions of equity are socially determined and arise from interpersonal philosophies common to a culture or environment. In this sense, many equity norms are held as passive expectations as in "fair play" in sports, and "sealed with a handshake" agreements more generally. Thus, feelings of equity may not be processed unless these norms are transgressed. Additionally, as will be explored here, some transgressions will actually benefit the recipient beyond a standard which one would call "fair."

[4]The material in this section relies on Oliver (1997), chapter 7. It is used with permission from the first author and copyright owner, Richard L. Oliver.

Positive Inequity

As is the case with many discrepancy terms (e.g., disconfirmation of expectations), inequity implies a negative deficit in the lay language. However, it is possible for an individual to be over-benefited; that is, to obtain more outcomes than are deserved under the application of a "correct" equity rule. Thus, equity exists on a continuum bounded by negative inequity where outcomes are less than deserved, through equity where outcomes are as deserved, to positive inequity where outcomes are greater than deserved. This latter possibility will be specifically entertained, as it is a frequently found in many aspects of life (e.g., games of chance). This suggests an equity "continuum" as follows:

Negative inequity: Equity: Positive inequity:
Under-benefited "Appropriately" benefited Over-benefited
|- - - - - - - - - - - - - - - -|- - - - - - - - - - - - - - - - -|

The Role of Equity in Consumer Satisfaction Person-to-Person Comparisons

Purchase and consumption activities provide a rich venue for the application of equity principles due to the potentially large number of referent persons available. The category of other persons could include an agent in a sales transaction, a service provider, another purchaser of the same product, or even owners of large corporations. In this latter case, it is not uncommon for consumers to become outraged upon hearing of the very large salaries and termination agreements of corporate CEOs (e.g., golden parachutes). And, in another example, sports fans can compare themselves and the prices they pay for tickets to the players and their salaries. This may, in part, explain the decision by the major leagues to place "salary caps" on the total compensation granted to all athletes on a particular roster.

Generally, equity principles would predict that the focal consumer would compare his/her inputs and outcomes to those expected (or predicted) of another individual engaging in a similar transaction. Although the actual cognitive mechanisms used by consumers are subject to debate (e.g., Farkas & Anderson, 1979; Harris, 1983), it is known that many consumers do have perceptions, however inaccurate, of the benefits that accrue to others in like-transactions in the same medium. For example, studies have found that consumers are sensitive to the knowledge that other consumers had gotten better prices or better treatment from merchants (e.g., Bolton et al., 2003; Campbell, 1999; Fisk & Young, 1985; Grewal, Monroe, & Krishnan, 1998; Mowen & Grove, 1983). In these examples, the "other consumers" were not known to the participants; rather they were hypothetical consumers or simply data on normative levels of what other consumers would have paid or received. This illustrates the point that equity comparisons can involve standards of comparison that exist as only imagined interpersonal norms. In other examples,

data on what others paid is known with certainty. Auction prices (e.g., eBay) and stock market transactions are widely published and freely available.

Consequences of Inequity

The consequences of equity comparisons, as found in the consumer behavior literature, are similar to those of other postpurchase concepts, including intention to re-buy, complaining, and both positive and negative word-of-mouth (e.g., Goodwin & Ross, 1990; Hess, Ganesan, & Klein, 2003; Maxham & Netemeyer, 2002; Oliver & Swan, 1989; Shim, Eastlick, Lotz, & Warrington, 2001). Additionally, equity concepts are known to affect satisfaction directly (e.g., Bolton & Lemon, 1999; Oliver & Swan, 1989; Shankar, Smith, & Ramaswamy, 2003). However, it may be more accurate to say that equity considerations first influence satisfaction, and that it is satisfaction that affects intention, complaining, and word-of-mouth. This issue will be partially addressed here.

CONCEPTUAL FRAMEWORK AND HYPOTHESES

Model Context: Electronic Commerce

In an attempt to mimic the promotional nature of offline competitors, online outlets have sought out analogous equivalents of various promotional offerings intended to spur purchasing such as "sale" discounts and sales promotions in the form of coupons. Traditionally, coupons have been provided through various media including inserts in newspapers, mail promotions, in-store displays, and package inserts. To provide a mechanism whereby coupons can be distributed for use electronically, e-tailers have provided, through the print media and targeted e-mails, "codes" which are entered by the consumer when ordering. This is most often done through a special field on the order form which typically asks for a "coupon code." The consumer with a coupon code is given a discount immediately; the discount is displayed automatically on the pricing field. In contrast, those without a coupon code have no recourse but to complete the sale "codeless," or to abandon the purchase.

To facilitate the process of coupon code acquisition, Web sites have been constructed to scan the Web for coupon listings; these listings are archived and provided free to users savvy enough to search for discounts of this nature. These Web repositories are typically independent of any merchant whose coupon codes are provided.

This practice presents the merchant with an unintended consequence. Namely, the effective use of coupon codes is dependent on a user who is: (a) aware of the existence of online codes, (b) familiar with the search heuristics needed to obtain

them, and (c) motivated to use them. An unfortunate result of these requirements is that not all shoppers satisfy these conditions. This limitation is exacerbated by the necessity that the entry of coupon codes must be prompted; that is, a specific query and code field must be provided to the shopper.

It should be apparent that a number of inequity considerations are operative here. For now, assume that the savvy consumer with a coupon code views the code prompt and submission as normal within the online purchase scenario. However, the consumer without a coupon code cannot feel so complacent. Does not the code query presume that more fortunate others are treated with benefits in the form of discounts not available to this shopper? Other questions would, in all probability, enter this person's mind. These could include: "What are coupon codes?" "How does one receive or obtain one?" and "Why don't I have one?" More importantly, this consumer may ask whether or not they should complete the purchase before investigating further. This problem is complicated by the usual tendency of online merchants to postpone the coupon code query until all information required to complete the transaction has been provided.

We frame the preceding scenario as one of (negative) inequity. Here the consumer may strongly suspect that others will receive a discount not available to him or her. This is just one of the many comparisons individuals may make to other entities not known to them (see Oliver & Swan, 1989). The inequity perception is constructed (with good reason) and becomes one of the many concepts which enter into the summary perceptions of a given act—in the present case, a purchase opportunity.

We now turn to the opposite pole of the equity/inequity continuum, that of being over-benefited. There are occasions where fortuitous events occur that many would attribute to luck—"being in the right place at the right time." It is not uncommon in purchasing for a discount to be awarded without prior knowledge on the part of the shopper. Unadvertised specials, "blue light" sales, and odd-lot or bargain basement merchandise where discounts are "hit or miss" are a number of examples. It has also been shown that the surprise of receiving a bargain may be instrumental in more favorable feelings among the fortuitous (Heilman, Nakamoto, & Rao, 2002; Sheppard & McNulty, 2002). This effect reinforces the positive influence of over-benefiting, despite the fact that this condition is inequitable as well.

The preceding examples of over-benefiting could most likely be attributed to chance, but others are somewhat more deterministic. An example would be the typical quote one would receive on a repair, for example, where the actual price is not known until a bid is received. Estimates much below the consumer's expectation, that is, on the low side of a probabilistic range, would qualify as over-benefiting. In the present context, we make the over-benefiting treatment more naturalistic in that the situation is not quite luck and not purely deterministic. Rather, respondents are provided a price discount in a manner that would appear to

be part of the normal ordering process—receiving a discount without fanfare. This and the preceding under-benefiting scenario constitute the inequity manipulation to be used in the study.

This leads us to an overarching hypothesis that over-benefited individuals will respond more favorably to the shopping experience than a control group who will, in turn, respond more favorably than will respondents assigned to the under-benefiting condition. To a large extent, this outcome would appear to be straight-forward. Our concern, however, is with specific emotions, notably satisfaction, and specific intentions, most notably a willingness to rebuy at the same outlet. We also investigate the influence of the inequity condition on one's motivational tenden-cies. In particular, how does inequity interact with technical competence—a strong motivator of Web usage—in fostering favorable and unfavorable Web shopping behaviors? We turn to the favorability issue first.

Web Emotions

Although online shopping is a relatively new phenomenon, the emotions ex-perienced by consumers within this medium are those displayed in purchasing more generally. In this regard, our focus is on the primary emotional responses to consumption, that of satisfaction and the emergence of potential loyalty that re-peated episodes of satisfaction may bring. Satisfaction, in particular, is described as an elementary pursuit and outcome of shopping (e.g., Howard & Sheth, 1969), deriving from its reflection of the need-fulfilling properties of consumption expe-riences. Satisfaction is now thought to be a primary emotion-related outcome and appears in a number of emotion typologies (for a review, see Oliver, 1997). It is considered to be a hybrid concept consisting of an affective liking/disliking toward the cognition that a need has been (un)fulfilled, and studies measuring its prop-erties have proliferated across many consumption venues. Thus, within the study context used here, we would suggest that respondents' satisfaction ratings of the purchase experience would be sensitive to the inequity manipulation as follows:

Hypothesis 1a. Satisfaction ratings will mirror the inequity treatments such that over-benefited respondents will report the greatest level of satisfaction than will a control group, whereas under-benefited respondents will report the lowest satisfaction levels when contrasted to a control group.

Intentions: Repatronage, Recommendations, and Potential loyalty

Web store repatronage is a much sought-after state (Divett, Crittenden, & Henderson, 2003). Traditional writings on retaining customers, however, are more concerned with the typical precursors of loyalty such as continued patronage,

recommendations to others, and satisfaction. Satisfaction, then, may be viewed as a correlate or precursor to repeat purchasing (Anderson & Srinivasan, 2003) and, thus, we would predict that repurchase intentions would be positively related to satisfaction and the inequity manipulation.

Hypothesis 1b. Repurchase intention and related outcomes (e.g., favorable word-of-mouth, loyalty inclinations) will be related to reported satisfaction and to the inequity treatments such that over-benefited respondents will express greater repurchase tendencies than will a control group which, in turn, will report greater repurchase tendencies than the under-benefited group.

Model Dynamics: The Role of Expectations of Satisfaction

For some time, expectancies have been noted as powerful determinants of behavioral outcomes (e.g., Feather, 1982; Kirsch, 1999). Whether couched as a placebo effect or as assimilation agents, expectations have been shown to impact later behavioral responses. This same effect has been observed in a longitudinal study of restaurant dining (Oliver & Burke, 1999) whereby patrons were asked to predict the nature and affective content of a dining experience. The authors showed that expectations colored subsequent reactions well into the dining scenario. We propose that this same effect will operate in the present context. Specifically, it was hypothesized that prior expectations of the Web shopping experience would have some carryover to subsequent judgments independent of the treatment received so that postexperience affective indicators (e.g., satisfaction, repurchase intention) will be a function of the preexperience satisfaction level. Thus:

Hypothesis 2. The postexperience endogenous satisfaction and intention variables will be positively correlated with preexperience satisfaction expectations regardless of the assigned treatment.

Intended Completion

Because the study design was of a hypothetical purchase, respondents could not actually complete the sale. Rather, they were asked to indicate whether they would have completed the purchase "had this been an actual purchase situation." Completion tendencies should reflect the affective tone of the postexperience responses such that more satisfied respondents and those indicating a repurchase interest should be more likely to express a willingness to complete the sale. Thus, we hypothesize the following:

Hypothesis 3. Hypothetical willingness to complete the sale will be a positive function of the favorableness of the postexperience satisfaction and intention variables regardless of the assigned treatment.

Web Motivations

Studies on Web usage have categorized users along the lines of the classic cognitive/affective dichotomy in the manner of dual process theory (Childers, Carr, Peck, & Carson, 2001; Epstein & Pacini, 1999; Novak, Hoffman, & Duhachek, 2003). This division, when applied to the motivational domain, has typically separated utilitarian or functional processes from experiential processes such as recreation. Our focus here is on the utilitarian nature of shopping and, in particular, that of Web-shopping mastery. Generally, Web usage and navigation skills, like any other set of cognitive endeavors, are acquired and honed with experience. This pertains not only to one's general technical knowledge, but also to specific applications such as shopping. Whereas one might be highly skilled with computers and with the Web environment generally, shopping requires knowledge of price-comparison Web sites, and, in the case here, coupon code repositories. This defines the motivational basis for the study; respondents with Web savvy should react more positively to their Web shopping experience as defined in this study, ceteris paribus.

Hypothesis 4. Respondents with greater levels of technological sophistication and Web shopping experience will respond more favorably, as measured by postexperience satisfaction and intention, to the Web experience than will respondents with lower levels of shopping-specific experience.

Interaction of Inequity and Technological Competence

The discussion to this point has focused on one particular type of inequity known as distributive justice—the amount or allocation of resources received by two parties. The justice literature also describes an additional form of procedural justice (Lind and Tyler, 1988), whereby the fairness of the process of distribution is considered. A body of evidence has accumulated indicating that perceptions of fairness regarding an allocation *process* (procedural justice) can be consequential for the impact of distributive justice judgments on affective responses (Brockner and Wiesenfeld, 1996). Specifically, research has shown that when an individual experiences inequity in the distribution of resources, perceptions that the allocation process was fair can dampen or attenuate the negative impact of distributive justice judgments on satisfaction.

Our contention is that individuals with higher levels of expertise with the Web will perceive the potential use of coupon codes as an accepted and familiar part of the Web-shopping experience. Additionally, these individuals will understand that it is typically within their power to acquire these codes. In contrast, those who have less experience with the Web may either lack an understanding of coupon codes or the knowledge of how to acquire them. These divergent viewpoints should lead

to perceptions of the use of coupon codes as being either procedurally fair (high levels of Web knowledge) or procedurally unfair (low levels of Web knowledge). This leads us to the following hypothesis:

Hypothesis 5: Technical ability will be more positively related to satisfaction and intention in the under-benefited (empty coupon field) condition than in the over-benefited (completed coupon field) condition.

Technical ability relates to more than potential judgments of procedural fairness. As noted, those with high levels of technical ability are more likely to possess the knowledge required to acquire coupon codes. This instrumental aspect of technical ability may have consequences for how individuals react to the presence or absence of a completed coupon field beyond their affective responses. For those with an empty coupon field, the ability to locate a code should be a key determining element in their decision to abandon the transaction. However, for those with a completed coupon field, this knowledge is irrelevant; if they abandon the purchase it will most likely be unrelated to their ability to locate this type of information. This leads to an additional hypothesis regarding the interaction between inequity and technical ability.

Hypothesis 6: Technical ability will be more negatively related to purchase completion when a coupon field is empty than when one is completed with a code inserted.

On the basis of the preceding, the basic model tested here is shown in Fig. 1. We now turn to the study design.

METHOD

Medium

A Web site was constructed in the context of buying a gift for a youngster at a toy store. Details of the procedure follow those used by Oliver and Shor (2003). We extend their work along a number of dimensions including pretest measurement (expectations, technical competence), model structure, simultaneous equation testing, and interaction testing. In their method, consumers are guided through a hypothetical shopping experience, which includes simulated searching for the item at the online store and adding it to the consumer's virtual shopping cart. After administration of the pretest, a checkout screen is displayed confirming the purchase total and billing information, and containing the treatment stimuli. If a completed coupon field is provided, the price reduction is 25%. The Web site scenario posed to respondents is available from the authors.
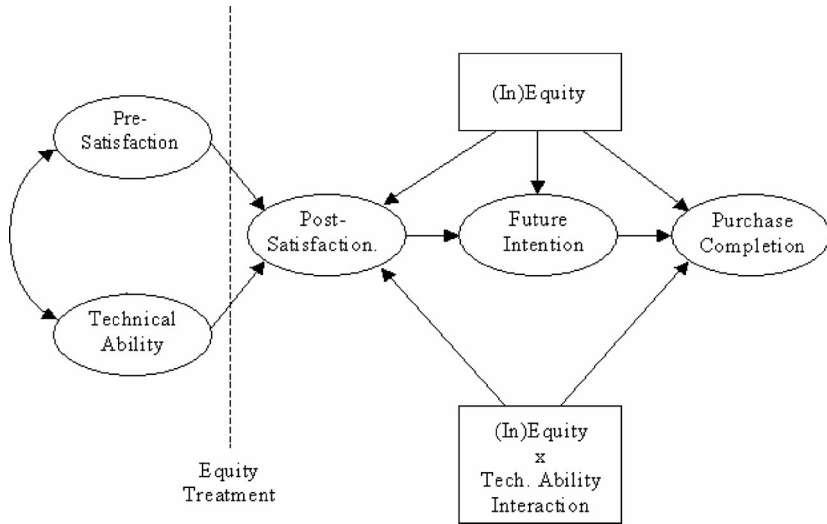
Fig. 1. Theoretical model.

Respondents

Study participants were recruited from a number of sources including an ad on a widely-used search engine, various e-mailing lists of survey "panelists," and students at the authors' and others' institutions. In all, 358 respondents participated, randomly assigned to treatments. The online survey was stopped when the noncontrol cells became nearly balanced. The two treatments of over-benefited (completed coupon field) and under-benefited (empty coupon field) contained 150 and 148 participants respectively; a control group of 60 respondents was also collected but was used only for the main effect analyses as discussed later. Respondents in the completed coupon field condition were exposed to a field with the coupon code entered; their final purchase amount detailed the reduction in price as a result of the discount. Respondents without a code were exposed to an empty coupon field and no price reduction in the billing. No mechanism was provided whereby respondents with an empty coupon field could delay purchase and search for a coupon code. Control participants were billed without a coupon code field or any mention of one.

Instruments and Measures

The survey component consisted of three pages, the first of which was presented before the stimulus materials to acquire respondents' Web experience data and preexperience expectations data. The items used for all measures are shown in Appendix A. The second survey page, which was answered after the treatments

were received, contained the two endogenous variables of postexperience satisfaction and future intentions to repatronize, recommend, and become potentially "loyal" to the Web store. The third page contained the primary criterion of willingness to complete the purchase. Because this page also contained items tapping Web retailer promotions, it was deliberately separated by a "Continue" command from the second page so that respondents would not be likely to change their answers after seeing the intent of the survey. All items were recorded on seven-point agree–disagree scales. Items on the same page were presented to respondents randomly so as to eliminate order effects.

The items in the pretest measuring expectations of fairness, value, and satisfaction were averaged to form an expectations scale ($\alpha = .80$) for the summary analyses and used as separate indicators for the structural equation model (SEM). The technical competence scale, consisting of four items ($\alpha = .76$) was averaged for the summary analyses as before. For the SEM analysis, two indicators from these four were formed for estimation reasons (to be discussed) consisting of the two most highly correlated paired variable subsets.

The postexperience satisfaction items were identical to the preitems except that they were used in the past tense; the alpha across the groups both including and omitting control respondents was .87. The intention variables (repatronage, recommending, loyalty tendencies) resulted in an alpha of .81 for both conditions. Factor analysis revealed a univariate solution across these six items, possibly because of their juxtaposition in the same section of the survey. For purposes of estimation, a second order analysis (Bollen, 1989b) on the six items revealed that they could be represented by three constructs consisting of postexperience satisfaction (three items), behavioral intention (two items), and the loyalty item. Thus, we had two levels of latent variables in the post-treatment, affective section of the SEM, one of all postexposure variables and three secondary latent variables comprised of affective experience (satisfaction), behavioral intention, and loyalty proclivities respectively.

The completion item in the third survey phase addressed the potential for purchase abandonment by respondents in the study. This item was reserved for the second posttest so as not to affect responses in the first posttest section, as mentioned. Because all respondents were required to complete the hypothetical purchase, we were not able to test actual completion or abandonment and, therefore, posed this question in a hypothetical manner. Note that we report this variable in the positive sense (completion) so that high scores represent greater completion proclivities on the part of the respondent.

ANALYSIS AND RESULTS

Testing the complete set of hypotheses required several analytic approaches. To test the hypotheses concerning the main effects of (in)equity on the postexposure measures of satisfaction, intention and completion, we performed t tests between

Table I. Means and Tests for the Completed Field, Empty Field, and Control Group Pairings (Ns)

Variable/group	Complete (150)	Control (60)	Empty (148)	Complete/ empty	Complete/ control	Control/ empty
Satisfaction	5.06	4.61	4.17	8.02**	3.22**	2.75**
Intention	4.63	4.42	4.07	4.75**	1.42	2.17*
Purchase completion	4.57	4.07	3.36	5.92**	1.95*	2.47*

$^{*}p < .05.$ $^{**}p < .01$ by t test.

the completed coupon field (over-benefited) and empty coupon field (under-benefited) groups and then contrasted each with the control group scores. Structural equation modeling was then used to test the direct effects shown in Fig. 1 as described in Hypotheses 2, 3, and 4. Lastly, hierarchical linear regression was used to test the final two hypotheses (5 & 6) concerning the interaction between technical ability and (in)equity in predicting satisfaction/intent and desire to complete the purchase.

Main Effects

As shown in Table I, all effects of the over/under-benefited conditions were in the expected direction; all were highly significant across dependent variables when these two opposite groups were compared. When contrasts were performed against the control group, these same effects were also significant with the exception of the completed coupon field group versus the control group for the intention dependent variable, although the direction of effect was as predicted. Overall, however, the equity manipulation was successful, and provided support for Hypotheses 1a and 1b.

Structural Equation Results: Tests of Hypotheses 2, 3, and 4.[5]

The structural equation analysis was performed using AMOS (Arbuckle & Wothe, 1999). AMOS has been used previously to model positive and negative experiences as they affect behaviors (e.g., Fisher, 2002). Because of the relatively large number of parameters to be estimated relative to the sample size, we formed composite indicators for two of the latent constructs. Using the technique described by Hall, Snell, and Foust (1999), sets of indicator variables for technical ability and for postsatisfaction/intention were collapsed, by way of averaging, to form a smaller set of composite indicators, as described in the measures discussion. The resulting ratio of estimated parameters to sample size of 1 to 12 is more conservative

[5]Note, that, in this and all following analyses, the control group participants were not used. They received no treatment and were not exposed to an equity manipulation.
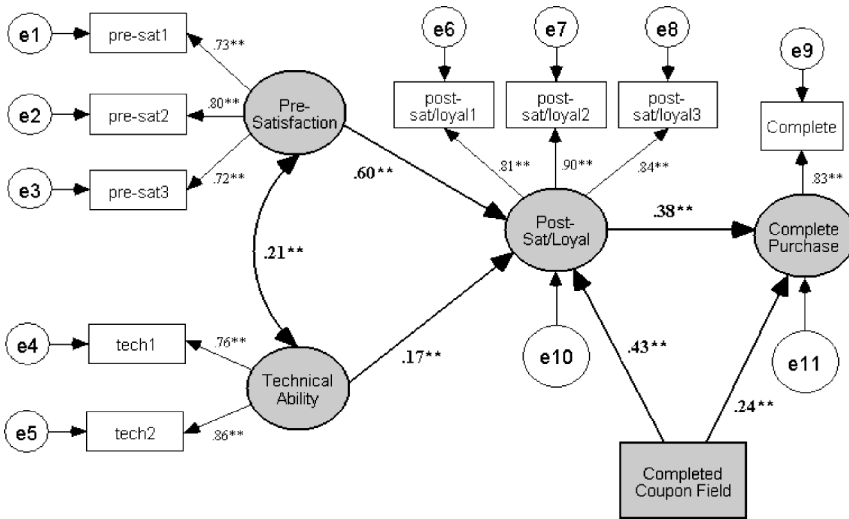
Fig. 2. Structural equation model; ** $p < .01$.

than the 1 to 10 threshold suggested by Bentler and Chou (1987). Additionally, because willingness to complete was assessed with a single item, it was necessary to fix the loading of this item on the latent construct as well as to constrain the error variance. The procedure typically followed in this circumstance is to fix the indicator loading at the square root of the reliability and the error variance at one minus the reliability, multiplied by the item variance.[6]

Because we had two randomly determined groups of respondents receiving different treatments, a two-group analysis was performed to determine whether the model structure, as determined by the construct intercorrelations, could be considered invariant across groups. It was our expectation that, although main effect differences would be observed, correlational differences in the basic structure of the model would not. Analysis revealed that there were no significant differences in the intercorrelations taken either singularly or as a set. Therefore, the following analysis proceeds under the assumption that the structural model is invariant across treatments. This model, with the final indicators illustrated, is shown in Fig. 2.

Following the advice of Medsker, Williams, and Holahan (1994) and Maruyama (1998), we relied on several goodness-of-fit indices to assess overall model fit: the comparative fit index (CFI; Bollen, 1989a), the incremental fit index

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[6]In a situation where a multiple item scale is collapsed to form a single indicator variable, coefficient alpha can be used as a measure of internal reliability. In this situation, we were required to estimate the reliability of the response. We chose a conservative value of .70, based in part on normative criteria for an accepted threshold for reliability. Sensitivity tests using both higher (.80) and lower (.60) estimates did not substantively affect the overall model.

(IFI; Bollen, 1989a), the Tucker-Lewis Index (TLI; Bentler & Bonett, 1980), and the root-mean-square error of approximation (RMSEA). Values of .90 or greater indicate acceptable fit measured by the first three indices; a values of .08 or below indicate acceptable fit determined by the RMSEA (Browne & Cudeck, 1993).

An examination of the fit indices indicated a strong overall fit between the structural equation model and the data (CFI = .98; IFI = .98; TLI = .96; RMSEA = .06). Additionally, the loadings between the indicator items and the underlying latent constructs were both uniformly strong and significant. As shown in Fig. 2, the two exogenous variables, technical competence and preexperience satisfaction, were modestly but significantly correlated. Although no hypothesis was proffered regarding these variables, it could be the case that those with greater technical ability would feel more confident in, and thus have higher expectations of, their Web shopping experience.

Consistent with Hypothesis 2, expectations of satisfaction with the shopping experience were predictive of the combined (satisfaction/intention) latent variable at the time of checkout ($\beta = .60$, $p < .01$). This is in accord with expectations theory which holds that expectations shape (but do not determine) experiences. Support was also shown for Hypothesis 3 whereby completion was a significant function of the satisfaction/intent latent variable ($\beta = .38$, $p < .01$). Lastly, technical ability was also positively correlated with this measure of postexperience affect ($\beta = .17$, $p < .01$), providing support for Hypothesis 4.

Note that the model also shows the effect of having a completed coupon field on the two endogenous variables. Its effect was highly significant in both cases (post-satisfaction/intent $\beta = .43$; completion $\beta = .24$) again demonstrating the effect of the inequity treatments. Although not an explicit hypothesis, we also tested whether postexperience affect fully mediated the relationship between expected satisfaction and completion. When we reestimated the model adding a direct path between initial satisfaction and completion, the path was not significant ($\beta = .16$, $p = .13$) and its inclusion did not significantly improve the overall model fit ($\Delta \chi^2 = 2.3$, $N = 298$, $df = 1$, $p = .13$). However, the magnitude of the correlation and its relatively low p value do suggest that a direct effect may be tenable. We turn our attention now to the impact of having/lacking a completed coupon field on postexperience satisfaction/intent and completion beyond the direct effects shown in Fig. 2.

Multiple Regression Analysis: Interaction Effects

To test for the moderating effect of technical ability on the relationship between (in)equity and postexperience satisfaction/intent (Hypothesis 5) as well as the relationship between (in)equity and completion (Hypothesis 6), multiple regressions were run with both postexperience satisfaction/intent and completion as dependent variables and all hypothesized antecedents from Fig. 1 as predictor

Table II. Regression Equations Predicting Satisfaction/Intent

Variable	Model 1		Model 2	
	b	ß	b	ß
Constant	1.83** (.26)		2.18** (.35)	
Presatisfaction	0.49** (.04)	.52**	0.49** (.04)	.51**
Technical ability	0.15** (.04)	.17**	0.09 (.06)	.10
Empty coupon field	−0.79** (.09)	−.40**	−1.41** (.43)	−.71**
Empty coupon field × Technical Ability			0.12 (.08)	.33
R^2	.460**		.464**	
ΔR^2			.004	

Note. $N = 298$.
$^*p < .05.$ $^{**}p < .01.$

variables. To aid in the interpretation of the interaction results, the scoring of the completed coupon field variable was reversed and it was renamed "Empty Coupon Field" (*lack coupon = 1; have coupon = 0*). After entering the hypothesized antecedents into the regression model, the term representing the interaction of technical ability and (in)equity was added to the basic models and the significance of any increase in R^2 was examined.

As shown in Table II (Model 1), the main effects for preexperience satisfaction, technical ability, and an *empty* coupon field were significant and, as one would expect, quite close in magnitude to the structural equation model estimates described above and shown in Fig. 2. Together, these variables accounted for a substantial amount of the variability in postexperience satisfaction/intent ($R^2 = .460$, $p < .01$). The addition of the interaction term (Model 2) resulted in only a slight increase in explained variance ($\Delta R^2 = .004$, $p = .14$). However, the interaction term was in the expected direction, lending marginal support to Hypothesis 5 which states that, for those individuals who were displayed an empty coupon field, increased levels of technical ability may help increase postexperience affect.

Table III shows the analogous pattern for the completion dependent variable. Model 1 shows the results in the absence of an interaction term. Here, the coefficients for the endogenous variables, expected satisfaction and technical ability, are nonsignificant indicating that the effects of these variables are, as shown in Fig. 2, fully mediated by postexperience satisfaction/intent. This latter variable and the coupon field treatment (*empty field = 1*) are significant as hypothesized. When the interaction term was added (Model 2), the term was very significant and negative ($\beta = -.69$, $p < .01$), indicating that those with high technical competence and with an empty coupon field were *less* likely to complete the purchase, in accord with Hypothesis 6. The increase in R^2 was fairly substantial and significant ($\Delta R^2 = .018$, $p < .01$). A graphical portrayal of this interaction is shown in Fig. 3. The slope for those individuals who had a completed coupon field is relatively flat,

Table III. Regression Equations Predicting Purchase Completion

Variable	Model 1		Model 2	
	b	ß	*b*	ß
Constant	2.42** (.65)		0.96** (.86)	
Presatisfaction	−0.14 (.12)	−.08	−0.13 (.12)	−.08
Technical ability	−0.12 (.09)	−.07	0.12 (.13)	.07
Satisfaction/intent	0.70** (.13)	.37**	0.73** (.13)	.39**
Empty coupon field	−0.69** (.22)	−.19**	1.82 (1.0)	.49
Empty coupon field × Technical ability			−0.46** (.18)	−.69**
R^2	.194**		.212**	
ΔR^2			.018**	

Note N = 298.
*$p < .05$. **$p < .01$.

suggesting that whether they complete the purchase or not is insensitive to varying levels of technical ability. However, the slope for those individuals with an empty coupon field is markedly negative, indicating that as technical ability increases, these individuals are less likely to complete the purchase.
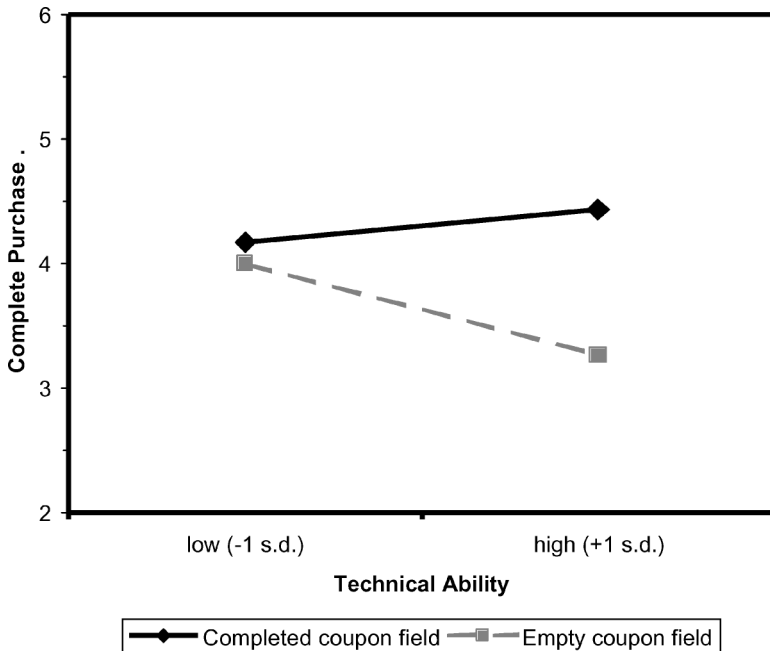
Fig. 3. Interaction plot: Empty coupon field × technical ability predicting completion.

DISCUSSION

Inferred Inequity as Satisfying and Dissatisfying

The observed results for the effect of over- and under-benefiting are in accord with theory. Providing a completed coupon field and its attendant price reduction clearly had positive effects on perceptions of satisfaction, intention, and purchase completion when compared to a control group. Similarly, prompting for a coupon code in the presence of an empty field had negative effects on these same variables. As would be expected from these findings, the three groups were ranked in the predicted order (completed coupon field > control > empty coupon field) for all dependent variables.

Equity theory, then, becomes an alternative explanation for reactions to completed coupon fields and empty coupon fields beyond the main effect of the dollar value gained or forgone. In contrast to the effect, for example, of anticipated regret on letting an offline coupon expire (Inman & McAlister, 1994), the Web buyer without a coupon code experiences the additional impact of the inequity perceived if others are imagined to have a code, are selectively provided one, or are simply viewed as special in some manner.

The design of the experiment allowed for the full effects of unanticipated distributive justice to operate. This was particularly the case for respondents in the empty coupon field group. In a manner duplicating the experiences of Web purchasers, the coupon field was thrust on this latter respondent; at the same time, it became apparent that neither the coupon code nor the means to attain one was available. We suspect that these purchasers may have felt cheated or disadvantaged in some manner as the coupon field itself was *prima facie* evidence that coupon codes were available to others. At the other extreme, the completed coupon field respondents may have felt some form of deservingness or entitlement as a result of receiving a coupon code without effort. This effect is less surprising as there is evidence that unexpected benefits in the form of in-store coupons follow the same affective and behavioral pattern (Heilman et al., 2002). However, it is not as clear that comparisons to less-fortunate respondents were triggered to the same extent as was found in the empty coupon field group.

The Model Test

The structural equation analysis showed that the endogenous and exogenous constructs were defensible as prescribed by the proposed model. As has been found elsewhere, affective (expected satisfaction) and cognitive (technical competence) preexisting conditions were predictive of subsequent affective states even when the effects of the treatments were accounted for (Table II). Thus, embedding an experimental condition of over- or under-benefiting adds to this underlying model

structure. One conclusion from this finding is that inequity appears to be a viable influence in online purchase processes.

We believe that this combined experimental and structural analysis may hold a greater number of implications for both theory and application. When compared to an experiment alone (Table I) or to a SEM model alone, the findings here reveal a symbiosis of methods as well as confirmation of the treatment operations within an ongoing behavioral structure. Although this is not the first study to do this in the context of purchasing responses, we hold out the hope that others will replicate these findings with other experimental influences.

Testing for Interactions

We hypothesized that the equity treatment would interact with technical ability in predicting postexperience affect as well as the purchase completion variable. The findings for the first of these hypotheses (affect) were weak and without statistical significance. One explanation for this finding rests with the nature of the technical competence measure itself. Our hypothesis was based on the assumption that technical competence would be predictive of feelings of procedural justice. We suggested that those who were more capable and familiar with Web shopping would see the use of coupon codes as procedurally fair. To this end, future research would benefit from directly measuring feelings of procedural justice.

The design of the experiment did not allow for respondents to search for coupon codes and then revisit the Web site; we tested the plausibility of this course of action as an interaction between technical competency and the coupon field condition in predicting purchase completion. We found that for those individuals with an empty coupon field, increased levels of technical competence made abandoning the purchase more likely. This finding is consistent with our reasoning that those with both a need for a coupon code and the ability to acquire one would not complete the purchase as they may have known from experience that they could ordinarily opt out at this juncture, obtain a coupon code, and reenter the shopping experience. It may have been that, in their minds, this was the correct procedure for a purchase of this nature.

As an alternative to our hypothesis, one may argue that those accustomed to searching for coupon codes and with no means to obtain one may have been frustrated because they were not allowed to engage in this alternative. In a test of this notion, correlations between search expertise and postexperience satisfaction/intent were calculated. For the respondents with an empty coupon field, the correlation was positive (.373, $p < .01$), whereas that in the completed coupon field group was also positive, but much less so (.164, $p < .05$). These findings would appear to rule out the alternative proposition that frustration or anger was a likely outcome of technically adept respondents in under-advantaged situations like that tested here.

Future Directions

The findings reported here add some new facets to the interplay of satisfaction-related affect and technical motivation within the over- and under-benefited literatures and in the context of distributive inequity and the variant of procedural justice. Because the main effects are rather straightforward and have been demonstrated in other contexts, structural effects and interactions such as that elaborated here have been slow to emerge in the respective literatures.

Indeed, equity and inequity appear to have fallen from grace since the earliest writings. This is not the case in the consumption literature, however, as works on price unfairness (e.g., Bolton et al., 2003) continue to appear. Interestingly, inequity is becoming intertwined with a number of other constructs and this may partially explain why it is not seen more frequently in direct tests. For example, regret theorists have used the concept in the context of expectations and disappointment (van den Bos, Lind, Vermunt, & Wilke, 1997; van Dijk, Zeelenberg, & van der Pligt, 2003) where expectations of equitable treatment, for example, can be powerful determinants of future affects and behaviors. In fact, regret has been incorporated into the consumption literature (e.g., Zeelenberg & Pieters, 1999) and combining this concept with inequity is a promising new direction.

In yet other examples, equity can be found embedded in a constellation of systemic justice (Beugré & Baron, 2001; Sparks, & McColl-Kennedy, 2001) and what is now referred to as fairness heuristic theory (Lind, Kray, & Thompson, 2001). Although other researches continue to focus on only one aspect of equity, primarily procedural justice (e.g., Anand, 2001; Avery & Quiñones, 2002), this broadening of equity dimensions is encouraging as new forms of equity may be forthcoming. Consumption provides a rich venue for the discovery and testing of these variants.

Thus, inequity will continue to be represented in its many forms, in sole interpretations and, hopefully in interactions with other constructs. We have posed the concept in terms of over- and under-benefiting and hope that our interpretation will spawn new insight into the workings of equity theory.

APPENDIX

Survey Items
(all in 7-point agree/disagree format)
Pretest

Expectations of satisfaction:
    I am paying a fair price (for the toy).
    I expect that I am getting good value for the money on this purchase.
    I expect that I will be satisfied with this purchase.

APPENDIX CONTINUED

Survey Items
(all in 7-point agree/disagree format)
Pretest
Web skills, experience:
   I frequently shop online.
   I feel that I am technically competent on the Web.
   I am exceptionally good at searching for things on the Web.
   Shopping on the Web is effortless for me.
Posttest, Page 1
Postexposure affect, satisfaction:
   The price I paid was fair.
   I got good value for the money I paid.
   I am satisfied with my purchase.
Postexposure affect, intention:
   I would definitely buy other products I need at this store.
   I would recommend this store to others I know.
   I feel I could become loyal to this store.
Posttest, Page 2
Completion (reverse scored):
   If this were a real shopping experience, I would not
     have completed this purchase.

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