

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO

Civil Action No. 10-cv-01546-REB-CBS

The Direct Marketing Association,

Plaintiff,

v.

Roxy Huber, in her capacity as Executive Director, Colorado Department of Revenue,

Defendant.

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DECLARATION OF PROFESSOR DONALD LICHTENSTEIN

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I, Donald Lichtenstein, pursuant to 28 U.S.C. § 1746 depose and state as follows:

1. I am Professor and Chair, Division of Marketing, Leeds School of Business, University of Colorado. I have been retained by the Office of the Colorado Attorney General to present my opinions on the research conducted for the Plaintiff by Resource Systems Group, Inc., (RSG) and the conclusions drawn from that research by RSG President Dr. Thomas J. Adler and Professor Kevin Lane Keller.

2. These opinions and conclusions are set forth in my report dated November 4, 2010 attached as Exhibit A, and which is expressly incorporated in this declaration.

3. In providing my opinions and conclusions, I have relied on my experience, education, and knowledge in the fields of marketing, marketing research, and consumer behavior. I have also reviewed the following documents supplied to me by the Colorado Attorney General's Office:

1. A document entitled "Taxation," Chapter 9, also referred to as Exhibit 1, pages 54-57.
2. A document entitled "Regulation 39-21-112.3.5," also referred to as Exhibit .
3. Plaintiff's Motion for a Preliminary Injunction and Incorporated Memorandum of Law.
4. A document entitled "Colorado Consumer Survey, Final Results, 9 August 2010," produced by RSG, and also referred to as Exhibit B.
5. Declaration of Thomas J. Adler, Ph.D.
6. Declaration of Professor Kevin Lane Keller.
7. Declaration of Jeana M. Petillo.
8. Declaration of Jerry Cerasale.
9. A disc to me labeled "Direct Marketing Association v. Huber, 10-CV-1546-REB-CBS, Documents Produced by Plaintiff 10-1-10)" that contain "native files" of RSG and those files converted to pdf format (and hard copies of the pdf documents), which I understand were provided to defendant's counsel by plaintiff's counsel
10. Deposition transcript and associated exhibits of Thomas J. Adler, Ph.D.
11. Deposition transcript and associated Exhibits of Professor Kevin Lane Keller, Ph.D.

Additionally, I have also relied on numerous academic articles and documents. These sources are cited in my report where they are relied on, and I supply references for all such sources at the end of my report.

4. My qualifications and the publications I have authored are contained in my curriculum vitae submitted with my report and attached as Exhibit B. My report includes the matters in which I testified as an expert during the last four years and the compensation I am receiving for my services in this matter, \$500.00 per hour.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 15<sup>th</sup> day of November 2010.



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Donald Lichtenstein

**Report of Opinion of Donald R. Lichtenstein  
in the Matter of  
Direct Marketing Association, Plaintiff, v.  
Roxy Huber, in her capacity as Executive Director,  
Colorado Department of Revenue, Defendant**

**November 4, 2010**

**Donald R. Lichtenstein, Ph.D.  
Professor and Chair  
Division of Marketing  
Leeds School of Business  
419 UCB  
University of Colorado**

**Boulder, Colorado 80309-0419**

## **I. Introduction and Summary of Opinion**

I am Professor and Chair of the Division of Marketing in the Leeds School of Business at the University of Colorado at Boulder. I have been retained by Ms. Stephanie Scoville and Mr. Jack Wesoky of the Colorado Attorney General's Office at a rate of \$500 per hour as an expert in marketing, marketing research methods, and consumer behavior in the case of *The Direct Marketing Association, Plaintiff v. Roxy Huber, in her capacity as Executive Director, Colorado Department of Revenue, Defendant*. I provide my curriculum vita as Appendix A to this report.

I have not testified at any trial within the last four years and I have been deposed on four occasions in this time period, that being (1) in the matter of General Steel, Inc. vs. the Greater Denver-Boulder Better Business Bureau, (2) in the matter of Mostchoice.com v. NetQuote, Inc., (3) in the matter of Good Sports Marketing vs. Non Typical, and (4) in the lawsuit filed by Silverman & Olivas against the Nash Finch Corporation. I have also testified in an arbitration hearing in the matter of Whigham v. General Steel, Inc.

I have been asked to provide my opinion on the research conducted by Resource Systems Group, Inc., (RSG) and the conclusions drawn from that research by RSG President Dr. Thomas J. Adler and Professor Kevin Lane Keller. In his capacity as president of RSG, Dr. Adler was hired to conduct a survey with two primary objectives: "(1) to determine whether Colorado consumers consider the requirement that out-of-state retailers must report their purchasing information to the (Colorado Revenue) Department to be an invasion of their

privacy, or instead, if Colorado consumers do not mind the disclosure of such information to the Department; and (2) to determine whether the reporting requirement will affect, in any way, Colorado consumers' future purchases from out-of-state retailers who are required to provide such information to the Department" (p. 3 of Dr. Adler's declaration). Based on the RSG survey findings, Dr. Adler concludes that if out-of-state retailers who sell to customers in Colorado are forced to collect and report the information at issue in this case to the Colorado Department of Revenue, (1) the majority of customers (estimated to be two-thirds) will see this as an invasion of their privacy, and as a result (2) 67% will decrease purchases from these retailers and 63% would not buy from the same out-of-state retailer (p. 2 of RSG report). Relying on these data, Professor Keller's conclusion is consistent with that of Dr. Adler.

In providing my opinion regarding the research of RSG and the conclusions of Dr. Adler and Professor Keller, I have relied on my experience, education, and knowledge in the fields of marketing, marketing research, and consumer behavior. I have also reviewed the following documents supplied to me by the Ms. Scoville and Mr. Wesoky of the Colorado Attorney General's Office:

1. A document entitled "Taxation," Chapter 9, also referred to as Exhibit 1, pages 54-57.
2. A document entitled "Regulation 39-21-112.3.5," also referred to as Exhibit 2.
3. Plaintiff's Motion for a Preliminary Injunction and Incorporated Memorandum of Law.
4. A document entitled "Colorado Consumer Survey, Final Results, 9 August 2010," produced by RSG, and also referred to as Exhibit B.
5. Declaration of Thomas J. Adler, Ph.D.

6. Declaration of Professor Kevin Lane Keller.
7. Declaration of Jeana M. Petillo.
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9. A disc to me labeled “Direct Marketing Association v. Huber, 10-CV-1546-REB-CBS, Documents Produced by Plaintiff 10-1-10)” that contain “native files” of RSG and those files converted to pdf format (and hard copies of the pdf documents.”
10. Deposition transcript and associated exhibits of Thomas J. Adler, Ph.D.
11. Deposition transcript and associated Exhibits of Professor Kevin Lane Keller, Ph.D.

Additionally, I have also relied on numerous academic articles. These sources are cited in this report where they are relied on, and I supply references for all such sources at the end of this report.

My opinion is that the conclusions reached by Dr. Adler and Professor Keller are not supported by their survey. Specifically, there are several factors that undermine the conclusions drawn by these two experts. I review these factors in the following section.

## **II. Basis for Opinion**

- A. **The Size of the Effect Lacks “Face Validity.”** That “invasion of privacy” (as considered in the present case) can lead 67% of consumers to avoid buying from this entire category of non-Colorado retailers is, in my opinion, beyond reason on the face of it, i.e., it lacks what researchers call “face validity.” Two conditions contribute to finding larger effects



(which, considered in the field of consumer behavior, this 67% certainly is). First, ceteris paribus, larger effects are found when potential influencing variable is more meaningful and important to the consumer. For example, for most consumers price is very important. Thus, across consumers, product categories, and purchase situations, higher prices will affect consumer purchasing behavior to a larger degree than changes in some other variable that consumers may see as less important (e.g., changing store hours, ease of parking). Thus, changes in price often lead to very profound changes in consumer behavior, i.e., they generate larger “effects.” Second, holding the strength of the influencing variable (e.g., price) constant, larger effects are found when consumers are less insistent on undertaking the behavior in question, that is, in the present context, when other purchase options are seen as viable substitutes for the purchase in question – when the consumer’s behavior is more malleable. For example, changes in price of a given amount will exert more influence on consumers to change brands in cases where consumers have lower levels of brand loyalty (i.e., multiple brands are acceptable) than when they have a clearly preferred brand. For reasons I provide below, in the present context I believe factors relating to both of these conditions strongly suggests significantly lower levels of consumer switching behavior away from non-Colorado retailers to Colorado retailers (or opting out of purchasing at all) than that found by the RSG survey. That is, in the present context, the size of the effect found by Dr. Adler and relied on by Professor Keller, is too large to have face validity. I review both categories of considerations for effect sizes below.

1. Regarding the first consideration, how powerful of an influence on consumer decision-making is the disclosure of the data in question to the State? Consider that the customer

knows that the retailer from whom the consumer purchases already maintains their purchase data. Second, if the customer purchases using a credit card (which my belief is that most consumers do for nonlocal purchases), consumers also know that the credit card company has a record of their purchases. Finally, some consumers may even know that their purchase data is commonly sold by retailers to data aggregators such as:

Acerno (<http://brandedcontent.adage.com/adnetworkguide09/network.php?id=3>),

Epsilon (<http://www.epsilon.com/Epsilon%20Targeting/p31-11>),

Ibehavior (<http://www.i-behavior.com/>),

Wiland Direct (<http://wilanddirect.com/Products.htm>)

Targus Info (<http://www.targusinfo.com/>)

Experian (<http://www.experian.com/business-services/business-services.html>)

Datalogix (<http://www.experian.com/business-services/business-services.html>)

To take just one example, on the Datalogix website referenced above, the company claims to offer “A display targeting network leveraging the online, in-store and catalog transactions of over 210MM consumers.” Based on a conversation with Mr. Alex Merwin of Datalogix, this represents right at 100% of consumers 18 years and older. Mr. Merwin told me that at any time they have between 600-900 merchants that supply their house files to Datalogix (house files contain names, addresses, and specific item purchases) in return for reduced rate services from Datalogix. Thus, Datalogix, as well as all of the competitors named above, have and maintain personally identifiable information and individual item purchases. In the privacy statement on their website, Datalogix states “Datalogix does not share any personally identifiable information with 3<sup>rd</sup> parties for online advertising.” The point is simply this: information even more specific (i.e., item

level purchases) than the data currently in question is already maintained and readily swapped among numerous for-profit companies. Consequently, given the number of entities that already have consumer item-level purchase data, how powerful of an influence can privacy concerns be on consumer behavior that one more entity has data that is not even item-level, but only sum total of annual dollar purchases? Any perceived loss of privacy would be extremely incremental.<sup>1</sup>

Moreover, that 67% of consumers would change a consumer behavior in such a drastic fashion (i.e., to cut out an entire class of retailers that offer unique benefits) that is so much a part of the fabric of the consumer marketplace for any incremental privacy concerns is hard to believe. As noted by Kotler and Keller (2009, p. 86-87), consumers are increasingly willing to swap personal information for customized products – as long as the seller can be trusted. Regarding the issue of trust to which Professor Kotler and Keller refer, they note that consumers are worried that they will be “robbed or cheated; that private information will be used against them; that someone will steal their identity; that they will be bombarded by solicitations; and that children will be targeted.” The State of Colorado is a nonprofit entity, rendering many of these concerns moot. Moreover,

<sup>1</sup> Dr. Adler and Professor Keller may argue that consumers do not know that these companies have this data and therefore the customers’ *perceived* “loss of privacy” will have the effect found in his survey. To this I would respond that it seems inconceivable that, at a minimum, consumers would not understand that the retailers and credit card companies have this item-level data. And, to the extent consumers are unaware of data aggregators, good survey practice is for the researcher to make sure that consumers have the requisite knowledge to be able to respond to survey items in a meaningful way before asking them to do so, so that survey responses will be meaningful. In this instance, in order to get a more meaningful response from respondents, prior to asking them about their perceptions of “loss of privacy” and what behaviors they would or would not undertake in the future if non-Colorado retailers were compelled to provide the information in question to the state, Dr. Adler should have informed consumers of the current state of affairs with respect to who has what data. Then at least respondents would have been educated that the “loss of privacy” data about which they were responding was already widely available to many commercial companies. As noted by Kumar, Aaker, and Day (2002, pp. 210-211) under the general heading of “Sources of Survey Error,” “The problem with getting meaningful results from the interview process stems from the need to satisfy reasonably the following conditions: ... Respondents have the knowledge, opinions, attitudes, or facts required.”

based on representations made to me by the State Attorney General's office, by law the Colorado Department of Revenue must keep confidential any data that is collected as part of the tax collection process. Thus, given this, I cannot see where the State of Colorado having this information would cause consumer concerns strong enough to counter the trends where consumers are 1) increasingly purchasing on the Internet and 2) they are "increasingly willing to swap personal information."

Thus, it is my opinion that a perception of "loss of privacy" is simply not influential enough to result in the drastic change in consumer behavior for the 67% of respondents as found by Dr. Adler and RSG. To get such a drastic response, other factors must be at play. As noted by Peterson, Albaum, and Beltramini (1985), consumer behavior is multiply motivated and we should not expect any single variable to exert a large influence (as that found by RSG) unless the relationship is a very powerful and obvious one (e.g., tripling price on a discretionary purchase). That behavior in this present domain is multiply motivated is even consistent with the position of Professor Keller on page 4 of his declaration where he says "the amount of lost sales (if the law goes into effect) for any particular retailer will depend on a number of factors." It is also consistent with Professor Keller's recognition on pages 43 and 94-95 of his deposition transcript of the many factors (beyond privacy concerns) that influence consumer purchase decisions from non-Colorado retailers. It is not simply that the reporting of sales data to the State, by itself, that is deterministic of consumers purchasing from a non-Colorado retailer, or from this class of retailers, in the future. Bottom line, to the degree the retailer is differentiated on some salient dimension(s), e.g., price, product quality, selection, convenience, any sales loss will be smaller. As such, if after the new disclosure

requirement was instituted, the non-Colorado retailer was still the most attractive outlet for these other reasons (price, selection, service, convenience, etc.), I am confident that the non-Colorado retailer would have the highest probability of making the sale.

I should also note that the recognition of Professor Keller that a retailer's sales loss will depend on a number of factors (factors that exert influence on a consumer's decision whether or not to purchase from a non-Colorado retailer), is very consistent with the literature that "concern for privacy" is not a stable and mentally-stored "yes or no" preference that consumer's simply retrieve from memory when confronted with a request to supply privacy information. Rather, it is a "constructed preference" that is sensitive to so many contextual variables (including those noted/recognized by Professor Keller) confronted at the time of the decision on whether or not to supply the privacy information. In fact, in a recent study, John, Acquisti, and Lowenstein (forthcoming in 2011) found consumer willingness to provide sensitive information (much more sensitive than that in question in this matter – see Tables 1 and 2 of this paper), could be manipulated by something as seemingly innocuous as the phrasing of the scale item requesting the sensitive information (see Appendix, Figure A1 of this paper), and how professional looking the website was where the request for privacy information was made (see Appendix, Figure A2 of this paper). In fact, John et al. (forthcoming in 2011) motivates her study by posing the question "how can we make sense of the contradictory attitudes that individuals display toward privacy – from the seemingly reckless willingness of some to post personal and even incriminating information on social networks to the deep concern people express over the information being collected about them and the way it is used" (page 1 of the article). John et al. then provides their

explanation of this inconsistency. They state that because privacy is a domain where the material value is difficult to estimate, and the psychological value is even more difficult to estimate, people are uncertain about their own values regarding their preferences. The authors state that this suggests that preferences for privacy are not stable, are constructed at the time of behavior, and are sensitive to subtle contextual cues. They cite the literature showing that scales that measure preference for privacy “at best, only weakly predict actual disclosure behavior” (p. 2 of the article) as support that is consistent with their position. The authors then provide the following formal proposition: “Proposition 1: Privacy is a domain in which preference uncertainty is pronounced” (p. 2 of the article).

That preferences are constructed at the time of confronting the decision to provide privacy information is also supported by the Norberg, Horne, and Horne (2007, p. 109): “During actual disclosure situations, salient environmental cues will likely be relied upon when making disclosure decisions.” Professor Keller also recognizes the role of environmental variables in affecting consumers’ decisions to disclose privacy information. As noted by Professor Keller on page 127 of his deposition transcript, “there could be all kinds of other changes that might occur that, other laws, other factors in the environment that I don’t know that might change [that] result [the estimate that 63% of consumers would not purchase from non-Colorado retailers]. I agree, many contextual factors in the environment may affect what consumers will or will not do with respect to these privacy decisions, hence purchases, and consumers will construct their preferences at the time the privacy concern tradeoffs are relevant. For this reason (as well as a multitude of others), there is simply no way to put any confidence in the 63% found by RSG.

2. Regarding the second consideration noted above, I should note that purchasing from non-Colorado retailers, in total, is one where there are often “no close substitutes.” For instance, suppose that it was somehow permissible for some non-Colorado retailers not to report the data in question to the State, while other non-Colorado retailers were required to do so. Since many benefits of purchasing from one non-Colorado retailer can be more readily duplicated by another non-Colorado retailer (e.g., both have an Internet presence and thus have similar benefits related to consumer internet usage), demand for any particular non-Colorado retailer would be more readily substitutable by another. Thus, if a non-Colorado retailer that previously did not report data to the State began to do so while other non-Colorado retailers did not, I can imagine a larger effect on consumer behavior (but more due to higher prices in the form of taxes rather than loss of privacy – addressed below). Many consumers might simply switch to a non-Colorado retailer that did not report data to the State. However, in a scenario where all non-Colorado retailers would be required to report data to the state (as in the current situation), there are no close substitutes for many consumers to this entire class of retailers. For example, the obvious advantage of time savings, brand/price search (using shopping bots), convenience of shopping from any place at any time, having many competitors from whom to choose, etc., that shopping on the Internet affords is a large advantage that is not available from Colorado retailers. This makes demand for non-Colorado retailers more inelastic relative to “brick and mortar” Colorado retailers such that the imposition of the new data disclosure would have less impact than would be the case if consumers could get these same benefits from Colorado retailers.

In sum, (1) the data disclosure to the State is simply not that powerful, especially when considered in light that multiple other entities already have this data and the many factors that affect consumer purchase decisions at the time the decision is made, and (2) the change in consumer behavior is simply too costly in terms of benefits sacrificed, to support a finding that 67% of consumers would stop shopping non-Colorado retailers. If not due to privacy concerns, then to what can account for the RSG survey findings? I respond to this below.

**B. There is an obvious means-end relationship between the reporting of data to the Department of Revenue and paying higher prices.** If you ask a child if they want to take a car ride, and the child knows the ride is to the dentist office, they will likely say “no.” The reason has less to do with the car ride, and more to do with the destination. The car ride is the means to the end – and while the child was only asked about the means, they are responding based on their knowledge of the end. Similarly, if you ask a consumer if they want their purchase data turned over to the State Department of Revenue, the negative reaction you get will be due, in large part – and in my opinion the largest part, to their knowledge of end reason for the action... so that the government can collect taxes from you. When there is such an obvious means-end relationship in survey questions, asking consumers to respond to the means (in this case, requiring the non-Colorado retailers to disclose purchase information to the State, loss of privacy) is “confounded” with their feelings about the end (paying higher taxes), even though paying higher taxes is never mentioned in the question. Thus, the survey question “If you were to make a similar purchase in the future, but with this new disclosure requirement in place, what would you most likely do?” will be interpreted to many respondents as “If you were to make a



similar purchase in the future, but with this *new tax* in place, what would you most likely do?” Similarly, the question “As a result of this law, how would your Internet and catalog purchases from those out-of-state retailers who must report your name, address and purchase amount to the Department of Revenue likely be affected over the coming year?” will read “As a result of this *tax*, how would your Internet and catalog purchases likely be affected over the coming year?” Price/tax motivations can easily account for the large effect (67%) found in this study. It stands to reason that when prices go up, quantity demanded goes down, and I see nothing in the survey that lets me unconfound the privacy issue from the price/tax issue. Regardless of all other criticisms I have with this study, this one issue in and of itself is sufficient to reach a conclusion that the survey is “**fatally flawed,**” a term used in academics when researchers conclude that no inferences of causality can be drawn from the data. Is it loss of privacy as Dr. Adler and Professor Keller conclude or is it higher prices in the form of taxes that is responsible for the survey findings? As there is no empirical way to disentangle these two factors, they are said to be “confounded” together and thus, we cannot draw any conclusions from the survey.

And beyond the issue of the disclosure of data resulting in higher prices to consumers, when the price that consumers pay is higher due to reasons of taxes, some consumers are even more prone not to want to pay the price. In their working paper entitled “Axe the Tax: Taxes are Disliked More than Equivalent Costs,” Sussman and Oliva (2010) investigate the phenomenon of tax aversion, which they define as “a desire to avoid taxes, *per se*, that exceeds the rational economic motivation to avoid a monetary cost” (p. 2). Across two experiments, they provide evidence that “people are more willing to exert effort to avoid paying taxes than to avoid other (and larger) tax-unrelated costs”

(p. 3). Specifically, their “results provide evidence not only that people dislike paying taxes (due to higher outlays of money), but also that they exhibit tax aversion, i.e., they are actually willing to make sacrifices to avoid taxes that they would not make for other, larger tax-unrelated costs” (p. 6).

Thus, there is much research that shows higher prices as a critical factor in affecting quantity demanded (for example, the entire field of economics). And Sussman and Olivola (2010) show that when higher prices are in the form of taxes, the effect is even more pronounced. While Dr. Adler and Professor Keller assume that consumers loss of privacy is responsible for the huge effect size that 67% of respondents would not purchase from this class of retailers, the “loss of privacy” variable is inherently confounded with a “higher prices” and “higher prices in the form of taxes” variables and these three factors (and perhaps others) combine to create the huge effect size (the 67%). How much the effect size is due to loss of privacy vs. higher prices/taxes? From these data, as noted above, it is impossible to tell. That is why this is called a “confound,” and why the study is “fatally flawed.” The effects due to each factor cannot be pulled apart. However, based on previous findings, and as I have written in my research (Lichtenstein, Burton, and Karson 1991; Lichtenstein, Ridgway, and Netemeyer 1993), there is an abundance of research evidence that across consumers, products, and purchase contexts, no variable exerts more influence on consumer purchase probabilities as does price – and collection of the data in question by the Department of Revenue means higher prices and respondents in this survey know this. Thus, it is my opinion that most of the variance in the dependent variable (intent to purchase from non-Colorado retailers in the future) can

be explained by an aversion to higher prices/taxes, a variable definitely confounded with the measured “invasion of privacy” independent variable.

How should have this “confound” issue been addressed in the research (given the current correlational study design)? If an argument is to be made that loss of privacy is the driver of the decision not to purchase from non-Colorado retailers, then this variable should be measured. If there are other foreseeable potential causes (e.g., higher prices, higher prices in the form of taxes), these too should be measured. Then, before assessing the effect of loss of privacy on purchase from non-Colorado retailers, the influence of these other potential should be “covaried” out of the dependent variable (purchase from non-Colorado retailers) so that we can get an estimate of the influence of “loss of privacy” over and beyond the other foreseeable factors. This is a basic procedure in survey design and data analysis that was not followed here.<sup>2</sup>

A still better way, and the means that the scientific community uses in situations like this to test a potential cause (loss of privacy) and an effect (not purchasing from non-Colorado retailers) is by use of an experiment. Here is one possible way to conduct an experiment. Experimental participants would be randomly assigned to one of two scenario conditions. In one scenario, they are exposed to the proposed law. In the second condition, they would be exposed to the exact same material, except it would be altered such that instead of the non-Colorado retailer turning the data in question over to the state for the purpose of tax collection, non-Colorado retailers would be forced by the state to collect taxes and turn the tax money only over to the state. Both groups would be asked

<sup>2</sup> On page 128 of his deposition transcript, it seems as if Professor Keller is suggesting that the survey has indeed “netted out” (i.e., covaried out) other possible reasons than concern for privacy for 63% of consumers saying that

about future purchase intentions from the non-Colorado retailer. The difference in the two groups would be the effect that could be attributed to loss of privacy.<sup>3</sup>

The advantage of experiments over correlational study designs (as used in the present case) is that causality can be inferred with a higher degree of scientific certainty. To see this, we can look at Professor Keller's inference of causality from the present study design. On page 53 of his deposition transcript, he states "we know two things and we know that they (survey respondents) consider the Act to have negative effects on their privacy and we also know that they would subsequently be less likely to purchase from retailers, and from that you can draw the conclusion of the relationship between the privacy and the ultimate, and its importance in their decisions to purchase from a retailer outside the state." I disagree with Professor Keller as this is a classic example of attempting to infer causality from correlational data. For instance, he says that A (the Act) causes B (consumer statements of concern on privacy), which in turn causes negative effects on C (consumer forecast of their purchase decisions from non-Colorado retailers) – hence, A affects C through B. It can be the case (as I argue) that A affects some other variable D (wanting to avoid higher prices) in addition to affecting B, and D is the factor that causes C. If this is the case (which I argue is most likely), then Professor Keller has incorrectly inferred causality. This shows why scientists avoid drawing inferences of causality from any single correlational study. In any event, in social science, the responsibility falls on the researcher to provide evidence of some effect and rule out alternative explanations. This burden has definitely not been met here.

they would not purchase from non-Colorado retailers, so that he can assume that the reason for this response is concern for privacy. If that is indeed what he is saying, I have seen no analysis that "nets out" anything.

I should also note one other factor that is likely at play. It is very plausible that when asked about their likelihood of purchasing from non-Colorado retailers if the data in question were turned over to the state, many consumers would respond in an *instrumental* fashion. That is, given that they do not want to pay higher prices/taxes, they will respond in a manner to discourage public policy makers to institute such a law/practice. If I was surveyed about my willingness to pay higher prices for some good I purchase, it would be rational for me to respond negatively in an attempt to dissuade the decision-maker from raising prices.

C. **One of the two of the first four survey questions implies a falsehood to respondents, the perception of which will likely affect responses to subsequent survey questions.**

According to my reading of Section 4.a.iv. on page 6 of Regulation 39-21-112.3.5 (Exhibit 2), a non-Colorado retailer is compelled to report the total purchase amount for a purchaser (in addition to the billing and shipping address) to the State, but will not report any product category information, i.e., what products were bought or even from what categories products were bought. In fact, section 3.a.iv.of Regulation 39-21-112.3.5 (Exhibit 2) explicitly states that “The notice (from non-Colorado retailers to their customers) must also indicate that the non-collecting retailer is required by law to provide the Colorado Department of Revenue with the total dollar amount of purchases made by the Colorado purchaser, **however no information about the purchase other than the dollar amount of the purchase will be provided to the Department**” (emphasis added).

<sup>3</sup> That said, for reasons relating to behavioral-intentions relationships (discussed subsequently), I would not stand behind the number itself as projectable to actual behavior.

This noted, one of first two of the four focal questions on the survey was “I do not mind the State of Colorado knowing the kinds of products I buy, from whom I buy them, where I have them shipped, and how much I spend.” The “kinds of products I buy” is never disclosed to the State. It may be true that at times, for *some* retailers, *some* notion of the type of products may be deduced. However, for many retailers it cannot, e.g., Amazon.com. However, having this phrase in the question suggest to respondents that information on “the kinds of products” will be disclosed to the State. Moreover, given that “from whom I buy them” is already in the question, the “kinds of products I buy” suggests that it is information over and beyond knowledge of the retailer. Further, ***and very importantly***, as this question (on page 5 of the report) preceded those noted on page 6 of the report, the erroneous information noted in the second question on page 5 would likely have been in respondents’ mind and influenced responses to these latter questions also.

Dr. Adler disagrees with my position on the grounds that “the reporting does include the entity from which the product is purchased from which a kind of product can be inferred” (page 105 of his deposition transcript). Professor Keller also disagrees with my position on page 47 of his deposition transcript where he states: “the kinds of products are going to be a function of retailers and where you buy from. The extent to which retail information is disclosed, kinds of products information is disclosed. In that sense, I don’t see it [the survey question] as misleading.” On page 48 of his deposition transcript, Professor Keller states “You don’t know specific products, buy you know the general range of products.” Putting Dr. Adler’s and Professor Keller’s position to the test, is a reported purchase in the \$15-\$20 range from Amazon.com for the purchase of

“Trojan Ultra Ribbed Latex Condoms with Spermicidal Lubricant”

([http://www.amazon.com/Trojan-Condoms-Spermicidal-Lubricant-12-](http://www.amazon.com/Trojan-Condoms-Spermicidal-Lubricant-12-Count/dp/B001ECQ728/ref=sr_1_1?s=hpc&ie=UTF8&qid=1288541846&sr=1-1)

[Count/dp/B001ECQ728/ref=sr\\_1\\_1?s=hpc&ie=UTF8&qid=1288541846&sr=1-1](http://www.amazon.com/Trojan-Condoms-Spermicidal-Lubricant-12-Count/dp/B001ECQ728/ref=sr_1_1?s=hpc&ie=UTF8&qid=1288541846&sr=1-1)), or is it

for “Garden Botanika: The Original Dish Drying Mat.”

([http://www.amazon.com/Garden-Botanika-Original-Drying-](http://www.amazon.com/Garden-Botanika-Original-Drying-Inches/dp/B002OEBYZU/ref=sr_1_16?s=hpc&ie=UTF8&qid=1288542501&sr=1-16)

[Inches/dp/B002OEBYZU/ref=sr\\_1\\_16?s=hpc&ie=UTF8&qid=1288542501&sr=1-16](http://www.amazon.com/Garden-Botanika-Original-Drying-Inches/dp/B002OEBYZU/ref=sr_1_16?s=hpc&ie=UTF8&qid=1288542501&sr=1-16))? Is

a purchase in the range of \$25 from Drugstore.com for a “Doc Johnson P3 Penis Pump”

([http://www.drugstore.com:80/qxp213983/doc\\_johnson/p3\\_penis\\_pump\\_clear.htm?from](http://www.drugstore.com:80/qxp213983/doc_johnson/p3_penis_pump_clear.htm?from_srch=penis)

[srch=penis](http://www.drugstore.com:80/qxp213983/doc_johnson/p3_penis_pump_clear.htm?from_srch=penis)), or is it for the “BuySeasons Adult, Pink Dolls Jacket?”

([http://www.drugstore.com:80/qxp173083/buyseasons/adult\\_pink\\_dolls\\_jacket\\_medium.](http://www.drugstore.com:80/qxp173083/buyseasons/adult_pink_dolls_jacket_medium.htm)

[htm](http://www.drugstore.com:80/qxp173083/buyseasons/adult_pink_dolls_jacket_medium.htm))? Is a \$8.00 order from BarnesandNoble.com for the purchase of the “Starfish” music

cd by the band “The Church” ([http://music.barnesandnoble.com/Starfish/The-](http://music.barnesandnoble.com/Starfish/The-Church/e/78221852128/?itm=6)

[Church/e/78221852128/?itm=6](http://music.barnesandnoble.com/Starfish/The-Church/e/78221852128/?itm=6)), or is it for a book entitled “Sexual Urban Legends:

Penis Captivus, Vagina Dentata, Soggy Biscuit, Gerbiling Mars Bars Party, Sex Parties

& Rainbow Parties” ([http://search.barnesandnoble.com/Sexual-Urban-Legends/Aaron-](http://search.barnesandnoble.com/Sexual-Urban-Legends/Aaron-Bruckner/e/2940011887543/?itm=10&USRI=vagina)

[Bruckner/e/2940011887543/?itm=10&USRI=vagina](http://search.barnesandnoble.com/Sexual-Urban-Legends/Aaron-Bruckner/e/2940011887543/?itm=10&USRI=vagina))? I think the point is clear. For many

Internet retailers, knowing the retailer provides no information whatsoever about the

“kinds of products.” The examples noted above illustrate that within these retailers, some

purchases have very little social sensitivity, while some have a great amount. Thus,

adding this phrase to the question can materially alter the question in the consumer’s

mind. And, given that the subject of the survey is “privacy,” the “kinds of products” that

were likely evoked in the consumer’s were those where privacy is a concern, e.g.,

socially-sensitive products.

In justifying the use of this second survey question that had the “kinds of products” wording, Professor Keller states that “what I would say is that often what you try to do is try to find alternative wording that gets across the same intent, same objective. So that otherwise, consumers, if they have to think again the question, and if it’s too much a mirror of the first, then you’re just going to get the same response. So the hope is to try to get people to think again and give you another chance to get a good valid answer” (p. 51 of deposition transcript). The practice to which Professor Keller refers is that of generating multiple scale items to measure some unobservable construct (e.g., “concern over privacy”) in order to increase the reliability of the measure. However, a necessary condition is that all the scale items (measures) that are used come from “within the domain of the construct.” That is, they all have to measure what they are supposed to measure and not anything other than what they are supposed to measure. If they measure something outside of what they are suppose to measure, their validity is totally compromised – which compromises the study. It is my strong belief that by using the phrase “kinds of products,” they measured something in addition to concern for privacy as would be defined by Colorado law and thus, their scale lacks validity. I should note that measurement development, measure reliability, and measure validity is a research stream in consumer behavior unto itself, and it is also an area where I have an extensive background (Lichtenstein, Ridgway, and Netemeyer 1993; Lichtenstein, Netemeyer, and Burton 1995; Netemeyer, Burton, and Lichtenstein 1995).

It interesting to note that when Dr. Adler was asked if he thought: 1) “that the inclusion of the words ‘kinds of products’ in that question had any residual effect on the survey respondents for the following questions?” (p. 107 of his deposition transcript), 2)



“Do you think that the Colorado Department of Revenue caused any of the respondents to think in terms of an increase in a product price because the Department of revenue is the tax man?” (p. 108), and 3) “you don’t think there are people that responded knowing that the reporting was to the Colorado Department of Revenue because many people are tax averse?” (p. 108), his response to all three (even after agreeing on the third question that it was conceivable that it could have influenced responses) was simply “no.” In the scientific community (and the social science/consumer research communities more specifically), such a response would not be accepted, even from someone qualified as an expert. If there is a plausible alternative explanation for the data, the researcher must rule that alternative explanation out with sound rationale, e.g., previous findings in the literature or additional analyses within the data set (e.g., use of covariates). A simple response such as “no” would never be accepted.

D. **A concern of “invasion of privacy” is prompted by the question.** Researchers have a term known as “reactivity bias” (a type of testing effect). Reactivity bias refers to a situation when the testing process itself influences the respondent’s answer to a question. One type of reactivity bias occurs when the survey question puts a thought into the consumer’s head that would never have been there but for the question. For instance, if a car manufacturer surveyed consumers as to the importance of some attribute (e.g., adjustable steering wheel), yet the consumer would have never thought of it had it not been in the question, and the consumer responds that it is important, that’s a reactivity bias. This type of reactivity bias leads to consumers responding to things as being more important than in reality they actually are as they are brought to mind when they never

would have been had the question not been asked. Regarding this type of bias, Diamond (2000, p. 246) states:

“Open-ended and closed-ended questions may elicit very different responses. Most responses are less likely to be volunteered in answering an open-ended question than to be endorsed in answering a closed-ended question. The response alternatives in a closed-ended question may remind respondents of options that they would not otherwise consider or which simply do not come to mind as easily. The advantage of open-ended questions is that they give the respondent fewer hints about the answer that is expected or preferred... For example, when respondents in one survey were asked, what is the most important thing for children to learn to prepare them for life, 62% picked ‘to think for themselves’ from a list of five options, but only 5% spontaneously offered that answer when the question was open-ended.”

It is my opinion that many of those people who responded to the RSG survey that this law represented an invasion of privacy would never have raised such a concern had only a copy of the law been given to them and an open-ended question been asked for them to give their comments and concerns. In fact, given the general salience of price noted above and the reason for the law to begin with (collecting taxes), along with consumer knowledge that their purchase data is already known to public entities, it is my belief that the focal concern for most consumers would be monetary in nature. However, when asked about the reporting of data to be an “invasion of privacy,” many of the respondents are going to agree with this.

In response to the question “Do you think any of that (this type of bias) occurred in your questionnaire?”, Dr. Adler responded simply responded “no” (page 109 of his deposition transcript). Two issues are noteworthy. First, again he has no justification other than “no.” And secondly, in contradiction to his “no” response, in explaining his response, he states that “I personally have done many focus groups dealing with issues of privacy, and I find that individuals *who have concerns* (emphasis added) about privacy

bring those up of (on) their own. It's not something that's suggested to them from the outside. And there are others who simply don't react to the issue of privacy, for example" (p. 109). This is exactly the phenomenon to which I refer. Thus, when the issue of privacy is "suggested" by the question, many of those in the latter group will respond as it being important when they would not have thought of it on their own.

E. **Customers do not have enough information to answer some of the questions.** RSG

ask customers "If you were to make a similar purchase in the future, but with this new disclosure requirement in place, what would you most likely do?"<sup>4</sup> Dr. Adler notes that as a "Key Finding" on page 2 of the RSG report that "63% would not buy from the same retailer." This 63% is a summation of three responses: "Purchase from a retailer in Colorado not required to report info." (43%), "Not purchase at all" (15%), and "other" (5%). What if unbeknownst to the respondent, the particular item is not carried locally and it is badly needed/wanted for those in either the 43% or 15% categories, e.g., a part for an expensive espresso maker, the ideal sofa to finish out their dream living room? What if it's a product and the price is significantly cheaper from the non-Colorado retailer but the respondent is not aware of this because they didn't engage in price search beyond the Internet? In such a case, would Dr. Adler expect that consumers would not purchase from the non-Colorado retailer? The issue is simply that the question is too general, assumes too much respondent knowledge of situational/contextual factors of which respondents may be unaware and that would likely affect their individual purchase decisions. As noted above, there is much evidence that concerns about privacy are not held as a given in memory, but rather, are constructed at the time the privacy behavior is

relevant, and the decision about giving privacy information is dependent on the context and environmental cues at the time.

Some consumers may even be aware that they do not know how they would behave because of a lack of contextual information. For such consumers, a “don’t know” response would have been a very likely response. However, Dr. Adler failed to allow for such a response by not including it in the RSG survey.

In his *Marketing Research Methodological Foundations* textbook, Churchill (1999, p. 367) provides a list of “Some Do’s and Don’ts When Preparing Questionnaires.” He says to “Provide for ‘don’t know’” responses in preparing questionnaires. Similarly, Aaker, Kumar, and Day (2004, pp. 228-229) state “respondents may not know the answer to a question because of ignorance or forgetting, or may be unable to articulate it. All three problems create further errors when respondents contrive an answer because they do not want to admit that they don’t know the answer or because they want to please the interviewer.” Finally, Diamond (2000, pp. 244-245) recommends providing respondents with a “don’t know” or “no opinion” option in order to reduce unmeaningful responses. She states that “By signaling to respondents that it is appropriate not to have an opinion, the question reduces the demand for an answer and, as a result, the inclination to hazard a guess to comply...The consequence of this change in format is substantial. Studies indicate that...presentation of an explicit ‘don’t know’ or ‘no opinion’ alternative commonly leads to an increase in that category of about 20% to 25%.” In my opinion, given the obvious “it depends on the purchase particulars at the time,” this survey screams out for a “don’t know” category and I would not be surprised if the

<sup>4</sup> With respect to the word “similar,” on a previous screen respondents were told to “think about the MOST

inclusion of such a category garnered responses in an amount exceeding that noted by Diamond.

A question might be asked, “then why did consumers respond in the manner they did if they really would not know how they would behave?” First, again, there is negative affect toward the notion of paying higher prices, and these responses reflect that. Second, as noted above, some consumers may have responded in an instrumental fashion. Third, also, as noted by Diamond above, it is well known that consumers will respond to practically any survey question put in front of them, even when they do not have knowledge of a response. For example, an often-cited study in research texts (e.g., see Churchill, p. 337) is a 1947 study by Gill who asked the following question of respondents:

- What is your opinion of the Metallic Metals Act?
  - Good move for U.S.
  - Should be left to individual states
  - O.K. for foreign states, but should not be required in U.S.
  - Of no value at all

Seventy percent (70%) gave an opinion even though there is no such Act. The provision of a “don’t know” category (something that the RSG survey did not provide) will reduce this effect, but it will still be present. Similarly, Hawkins and Coney (1981) found that respondents would indicate their opinions on various phony topics such as the National Bureau of Consumer Complaints, the proposed Religion Verification Act, etc. In addition to citing these two findings, Churchill (1999, p. 337, footnote 4) cites numerous other

RECENT purchase that you made from an Internet or catalog retailer that did **not** charge sales tax on the transaction.

studies that find the same result – respondents answering questions about which they simply have no knowledge. Thus, a fundamental tenet of marketing research is never to ask consumers questions unless you have reason to believe they have a sound basis for giving a meaningful response – or at a minimum, at least include a “don’t know” category. In this case, the question is just too general to have any value at all. This same criticism also applies to the question “As a result of this law, how would your Internet and catalog purchases from those out-of-state retailers who must report your name, address and purchase amount to the Department of Revenue likely be affected over the coming year?” How do consumers know what they would do until they are confronted with particulars of the situation? Preferences are largely constructed at the time of the behavior (John et al., forthcoming in 2011). What responses to these questions mean to me is that consumers do not want the government being in possession of their purchase data – again, predominantly because it is a means to the end for the collection of additional taxes from consumers.

- F. **Store trust will not be significantly impacted by this law.** Professor Keller maintains that consumers will lose trust in retailers who turn data over to the state (p. 5 of his declaration). I disagree. It is well-documented in the attribution theory literature that a necessary condition for such an attribution of “not trustworthy” to an individual retailer is that the retailer’s behavior results in “noncommon effects,” or “high distinctiveness” (different retailers doing different things) (Mizerski, Golden, and Kernan 1979). As all non-Colorado retailers would be required to do the same thing, there would be no noncommon effects across this class of retailers, hence, no basis for a negative attribution to any retailer. Moreover, a consumer knowing that their preferred retailer is being forced

to turn this data over to the state, and that other Internet retailers are being forced to do the same (“low distinctiveness” in the attribution theory literature) indicates a lack of free choice to this class of retailers. Any negative attribution would go to the State, not any particular retailer, nor class of retailers. Indeed, In section 3.a.iv.of Regulation 39-21-112.3.5 (Exhibit 2), it states that “The notice (from non-Colorado retailers to their customers) must also indicate that the non-collecting retailer is **required by law** (emphasis added) to provide the Colorado Department of Revenue with the total dollar amount of purchases made by the Colorado purchaser....” Thus, any negative attribution would be significantly more likely to be directed at the State. That non-Colorado retailers were legally forced to comply, there simply would be no basis for an attribution of “not trustworthy” to the retailer.

Professor Keller correctly notes on page 6 of his report consumer concerns with Verizon, AT&T, and Bell South in turning over phone records to the government in 2006. However, there is a key difference in that situation to the one here. They did so voluntarily, they exercised free choice – it was a business decision. Indeed, in the 2006 USA Today article ([http://www.usatoday.com/news/washington/2006-05-10-nsa\\_x.htm](http://www.usatoday.com/news/washington/2006-05-10-nsa_x.htm)), Cauley states “The three telecommunications companies are working under contract with the NSA... Among the big telecommunications companies, only Qwest has refused to help the NSA, the sources said. According to multiple sources, Qwest declined to participate because it was uneasy about the legal implications of handing over customer information to the government without warrants.” Therefore, the three companies could easily be the target of negative consumer attribution – especially given that Qwest behaved differently (high distinctiveness). Qwest understood that with a warrant,

consumers would not have a basis for a negative attribution toward Qwest, as they would have been legally compelled to provide the information to the government. In the present matter, negative attributions would not follow to non-Colorado retailers as they are not exercising free choice; they are being compelled to do it by the government. To the extent negative attributions result, attribution theory would predict they would be directed at the State of Colorado as that is the entity exercising free choice.

Along these lines, on pages 6 and 7 of his declaration, Professor Keller states that “Retailers **who comply** (emphasis added) with the requirements of the Colorado law by disclosing information to the Department can expect to lose customers (and thus future sales) in Colorado.” This, in my opinion, reads as if Professor Keller is suggesting variance across retailers as in “non-Colorado retailers who comply vs. non-Colorado retailers who do not comply.” My understanding is that all non-Colorado retailers would be compelled to comply and thus, consumers will understand that retailers are not making an election, but rather merely complying with the law. In such a scenario, will 67% of consumers really be willing to back off purchasing non-Colorado retailers in total in favor of purchasing from local retailers... again when consumers know that their credit card purchase data is already on record with companies? I simply do not believe so.

G. **The observed correlation between intentions and behavior (from the general intentions-behavior literature field) tells us that, on average, intentions explain only somewhere in the neighborhood of 10% of the variance in behavior.** It is Dr. Adler’s position that of the 67% (of 100%) of Colorado consumers who state their intentions not to purchase from non-Colorado retailers, that “63 (of 100) percent... would follow up with that intention” (p. 113 of his deposition transcript) – a conversion rate of  $63/67=$



94%. Professor Keller appears to hold this same view. Dr. Adler substantiates this conversion ratio based on his company's work, "There are in some cases variances between behaviors and stated intentions, yes, and there's also a lot of work that we've done that indicates those variances are small" (p. 113). In response to the question "And the same question with respect to the 67 percent of the state of Colorado would reduce their purchase from retailers who have to report this, who are required to report the data?," Dr. Adler replies "yes" (p. 113). Then, in response to the question "And again, you would think there may be a minor variance from that stated intention to subsequent behavior?" (p. 113), Dr. Adler replies "yes" (p. 114). In response to a follow-up question as the basis for his response, he states it is "based on work we've done in behavioral intentions over the years" (p. 114).

Several issues are raised by Dr. Adler's responses. First, the research on intentions-behavior consistency requires that people's intentions are measured then their individual subsequent behavior is measured at a later point in time, and the two are correlated on an individual-level basis. It has been my experience that the motivation for conducting such studies is largely academic. I am surprised that Dr. Adler has conducted a number of these studies. However, given that he has, what jumps out at me is the magnitude of the difference in his findings relative to findings in the well-established intentions-behavior research stream. That is, the conversion rate that Dr. Adler finds is so astronomically higher than conversion rates found in that literature.

Such an effect size deviates by orders of magnitude from that found in the literature. For example, based on a meta-analysis of 87 studies of the relationship between measured intentions and subsequent behavior, Sheppard, Hartwick, and Warshaw (1988) found an

average correlation between the two of .53<sup>5</sup> (with a 95% confidence interval of between .15 and .92). More recently, based on a meta-analysis of 40 studies encompassing data from 65,000 consumers across 200 products over 50 years, Morwitz, Steckel, and Gupta (2007) report an average intentions-behavior correlation of .49, again with substantial variation around it. By squaring these correlations, we can conclude that, on average, only about 25% of the variance in consumer behavior is accurately predicted by measured intentions. However, Chandon, Morwitz, and Reinartz (2005) provide evidence that even part of this predictive validity is due to an artifact, namely the premeasurement of intentions increases the relationship between intentions and behavior by 58% vs. those that are not premeasured (as Colorado consumers at large would not be). Deflating the .49-.53 correlations found in the meta-analyses by this 58% amount gives an average valid correlation of .33, or about 10% of the variance in behavior is explained by what consumers say they will do; 90% of the variance is due to other factors.

Additionally, as noted above, these 53% and 49% correlations are averages, there is substantial variance around these estimates. Regarding this variation, Morwitz et al. (2007) find that the predictive validity of intentions increases as the specificity of the purchase context increases (as Dr. Adler also agrees -- see p. 114 of his deposition transcript. Professor Keller also agrees – see page 58 of his deposition transcript). Given the previously noted ambiguity of the purchase context in Dr. Adler's survey to which consumers were asked to respond, and moreover, not if they will purchase a specific brand or even a product category, but from an entire class of retailers, it is my opinion that the predictive validity would be significantly worse than the .33 found by Chandon et

<sup>5</sup> It should be noted that squaring the correlation gives the effect size.

al. (2005). Further, given the literature reviewed above finding evidence that preferences for privacy behaviors are constructed at the time of the behavior, we would expect that the predictive validity of intentions might even be less in the privacy domain. Thus, something significantly less than 10% of the variance in what the surveyed consumers would actually do is captured by Dr. Adler's intention measure.

H. **Evidence from within the privacy research stream specifically shows that stated intentions are a poor predictor of actual behavior.** The evidence noted above comes from literally hundreds of studies. The overwhelming general finding is that stated intentions are a poor predictor of actual behavior. And, as noted immediately above, it is my expectation that the intentions-behavior link observed in the present context would actually be lower than that found in the more general intentions behavior literature. There is research that supports my perspective. For example, Spiekermann, Grossklags, and Berendt (2001) measured privacy concerns of 171 respondents along a series of scaled measures. Via a cluster analysis using their responses as clustering variables, respondents were identified as being either: (1) "profiling averse" – i.e., averse to providing information that allowed the information receiver to profile the respondent on interests, hobbies, health, or other personal information, (2) "identity concerned" – i.e., averse to providing information that allowed the information receiver to identify the respondent, e.g., name, address, email, (3) "marginally concerned" – less concerned with providing information of either type, and (4) "privacy fundamentalist" -- more concerned about providing information of either type. The authors then investigated if these segments' subsequent privacy behaviors were consistent with their stated privacy concerns in a situation where the subsequent information request made was during an online sales

interaction, and *where the requested information had nothing to do with the particular purchase*. Results showed that regardless of which cluster a respondent was in, all had a strong tendency to disclose personal information. Specifically, the authors state “Table 3 shows that participants from all clusters had a strong tendency to self-disclose. 87% of users were in the group with maximum PCIC values<sup>6</sup>” (page 43). The authors also state “an investigation of cluster details showed that privacy fundamentalist (cluster 4) in particular did not live up to their expressed attitude. 78% of them display high PCIC values and answered an average of 86% of the bot questions (questions requesting privacy-related information). With this, they only answered 10 percentage points fewer questions than marginally concerned participants” (cluster 1 (the 3<sup>rd</sup> cluster listed above in this description)) (page 43). In summarizing the findings/implications of their study, the authors state:

“Our initial hypothesis that users’ privacy concerns impede the depth and breadth of truthful online interaction was not confirmed. In contrast, participants displayed a surprising readiness to reveal private and even highly personal information and to let themselves be ‘drawn into’ communication with the anthropomorphic 3-D bot. The readiness of participants to reveal most of or even all of the information demanded from them during the sales dialogue with the shopping bot, and the widespread willingness to also provide their address, are alarming findings. The degree of inconsistent behavior found in the data among ‘privacy aware’ clusters 2-4 appears particularly problematic. The results are even more relevant when one considers the experimental conditions: after all, bot questions were designed to include many non-legitimate and unimportant personal questions. Participants also had to sign that they agreed to the selling of their data to an anonymous entity...The conditions under which participants ‘revealed themselves’ were therefore probably even more unfavorable in terms of privacy than a regular Internet interaction would be. **This indicates that even though Internet users have some view on privacy, they do not act accordingly. A majority of persons who participated in the shopping experiment disclosed so much**

<sup>6</sup> PCIC was an index constructed by the authors to reflect willingness to respond to privacy questions. Specifically, in describing the index, on page 42 they state “A user with a high PCIC answers many bot questions even though he perceives them as being rather non-legitimate, unimportant, and difficult to answer. A user with low PCIC values answers few questions, most of which he perceives as legitimate and important and easy to answer.”

**information about themselves that a relatively revealing profile could be constructed on the basis of only one shopping session.** (emphasis added) This result is not only alarming in itself, but even more so given that for many participants this behavior stands in sharp contrast to their self-reported privacy attitude” (page 45).

The authors also state that their results “revealed a major misconception of the current privacy debate: that people behave the way they say they will” (page 46). And in the abstract of the paper that summarizes the studies findings, the authors state “In our study, most individuals stated that privacy was important to them, with concern centering on the disclosure of different aspects of personal information. However, regardless of their specific privacy concerns, most participants did not live up to their self-reported privacy preferences” (page 38).

In a study with similar findings, Norberg, Horne, and Horne (2007) use the term “privacy paradox” to refer to the phenomenon that “consumers voice concerns that their rights and ability to control their personal information in the marketplace are being violated. However, despite these complaints, it appears that consumers freely provide personal data” (page 100). One purpose of the Norberg et al. study was to “investigate whether people say one thing (intend to limit disclosure) and then do another (actually provide personal details) during marketing exchanges. To that end, we report the results of two studies that show the privacy paradox” (page 101). Based on the authors’ premise that consumers consider different factors when responding to intentions questions regarding answering privacy questions, and the behavior of actually doing so, they hypothesize that: “H1: Individuals will *actually* disclose a significantly greater amount of personal information than their stated intentions indicate” (page 108). In Study 1 of the paper, the authors asked participants about their willingness to respond to 17 privacy-

related questions. Then, 12 weeks later, respondents were asked to actually respond to the questions. The mean number of questions respondents stated they were willing to disclose at time 1 was 8.7, however, at time 2, they actually disclosed 14.75 ( $p < .001$ ). In study 2, these results were replicated, with the mean number of questions respondents said they were willing to answer was 10.49, with the actual number they did answer being 15.16 ( $p < .001$ ). Based on these results, the authors conclude that “in the two studies reported here, we found that the level of actual disclosure significantly exceeded individual’s intentions to disclose,” and the authors note that this effect was found “in all information categories (personally identifying, financial, preferences, demographic, etc.)” (p. 118). These findings converge with the observations of Aaker, Kumar, and Day (2004, p. 171) where they note that companies are increasingly gathering information from consumers from visits to the companies’ websites. They note “it is surprising to see how many Website visitors are willing to leave personal information (such as address, phone number, and e-mail number).

### **III. Conclusion**

When I teach marketing research at the University of Colorado, I often assign Crossen’s (1991) *Wall Street Journal* article to my students in order to differentiate between studies designed to provide valid insights into an issue versus those designed to promote a position. In this article, Crossen notes:

“Many so-called independent studies are sponsored by firms with a serious interest in the outcome of the research...studies have become vehicles for polishing corporate images, influencing juries...Yet while studies promise a quest for the truth, many today are little more than vehicles for pitching a product or opinion. An examination of hundreds of recent studies

indicates that the business of research has been pervaded by bias and distortion...While described as 'independent,' a growing number of studies are actually sponsored by companies with a real – usually financial – interest in the outcome. And often the study question is posed in such a way that the response is predictable...Every study should have to face an attorney across the room.”

It is my opinion that given the methodology employed in this study, it would have been highly unlikely that the respondents' answers would have been anything other than what they were.

Therefore, for the reasons noted in Section II, it is my opinion that the survey of RSG tells us nothing reliable about the effect of the State law on the perceived loss consumer privacy, or the relationship between any perceived loss of privacy and the effect that the loss will have on Colorado consumer purchases from non-Colorado retailers.

I do reserve the right to revise these opinions should additional information be presented to me that provides additional insights. One example of an issue that may cause additional concern (pending additional information) is the representativeness of the sample. It has been represented as a probability sample by Dr. Adler. However, I am not clear on the exact nature of the sample. As I understand it, the KnowledgePanel sample is represented as a probability sample. According to RSG 00226, the KnowledgePanel sample is comprised of a pilot sample (n=64) and a main study sample (n=268) for a sample size of 332. To these 332, an external vendor surveyed an additional 687 respondents, for a total sample size of 1019. I may have overlooked it, but I did not see anything related to the sampling of the 687 respondents that would allow me to be willing to accept that the 1019 sample was a probability sample. If not, this raises an additional set of issues. However, I am willing to complete this report without a full understanding of this issue because I am confident that even if the sampling were done using the most appropriate methods, the survey is so fundamentally flawed on the other accounts noted above (that speak to internal validity), that the appropriateness of the sampling

methodology is moot – i.e., an appropriate sampling methodology cannot offset a flawed survey. In sum, because of a lack of information at this point, I am not sure to a level of scientific certainty that the sample is not appropriate. However, I am highly confident that the study is fatally flawed for the combination of the other reasons I note.



11/4/2010

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Donald R. Lichtenstein, Ph.D.

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Date



## References

- Aaker, David A., V. Kumar, and George S. Day (2004), *Marketing Research*, 8<sup>th</sup> Edition, John Wiley & Sons, Inc., Hoboken, NJ 07030.
- Chandon, Pierre, Vicki G. Morwitz, and Werner J. Reinartz (2005), “Do Intentions Really Predict Behavior? Self-Generated Validity Effects in Survey Research,” *Journal of Marketing*, 16 (April), 1-14.
- Churchill, Gilbert A. (1999), *Marketing Research: Methodological Foundations*, 7<sup>th</sup> Edition, Dryden Press, Harcourt Brace College Publishers, Orlando, FL 32887.
- Crossen, Cynthia (1991), “Margin of Error: Studies Galore Support Products and Positions, But are They Reliable?,” *Wall Street Journal*, November 14, A1.
- Diamond, Shari Seidman. (2000), “Reference Guide on Survey Research” Reference Manual on Scientific Evidence, 2nd ed. Washington, DC: Federal Judicial Center.
- Hawkins, Del I. and Kenneth A. Coney (1981), “Uninformed Response Error in Survey Research,” *Journal of Marketing Research*, Vol. 18, No. 3, pp. 370-374.
- John, Leslie, Alessandro Acquisti, and George Lowenstein (forthcoming in 2011), “Strangers on a Plane: Context-Dependent Willingness to Divulge Sensitive Information,” *Journal of Consumer Research*, February (37).
- Kotler, Philip and Kevin Lane Keller (2009), *Marketing Management*, 13<sup>th</sup> Edition, Prentice-Hall: Upper Saddle River, NJ 07458.
- Kumar, V., David A. Aaker, and George S. Day (2002), *Essentials of Marketing Research*, 2<sup>nd</sup> Edition, John Wiley & Sons, Inc., Hoboken, NJ 07030.
- Lichtenstein, Donald R., Scot Burton, and Eric J. Karson (1991), “The Effect of Semantic Cues

- on Consumer Perceptions of Reference Price Ads,” *Journal of Consumer Research*, 18 (December), 380-391.
- Lichtenstein, Donald R., Richard G. Netemeyer, and Scot Burton (1995), "Assessing the Domain Specificity of Deal Proneness: A Field Study," *Journal of Consumer Research*, 22 (December), 314-326.
- Lichtenstein, Donald R., Nancy M. Ridgway, and Richard G. Netemeyer (1993), "Price Perceptions and Consumer Shopping Behavior: A Field Study," *Journal of Marketing Research*, 30 (May), 234-245.
- Mizerski, Richard W., Linda L. Golden, and Jerome B. Kernan (1979), "The Attribution Process in Consumer Decision Making,” *Journal of Consumer Research*, 6 (September), 123-140.
- Morwitz, Vicki G., Joel H. Steckel, and Alok Gupta (2007), "When Do Purchase Intentions Predict Sales?," *International Journal of Forecasting*, 23, 347-364.
- Netemeyer, Richard G., Scot Burton, and Donald R. Lichtenstein (1995), "Trait Aspects of Vanity: Measurement and Relevance to Consumer Behavior," *Journal of Consumer Research*, 21 (March), 612-626.
- Norberg, Patricia A., Daniel R. Horne, and David A. Horne (2007), "The Privacy Paradox: Personal Information Disclosure Intentions versus Behavior,” *Journal of Consumer Affairs*, Vol. 41, No. 1, 100125.
- Peterson, Robert A., Gerald Albaum, and Richard F. Beltramini (1985), "A Meta-Analysis of Effect Sizes in Consumer Behavior Experiments,” *Journal of Consumer Research*, 12 (June), 97-103.

Sheppard, Blair H., Jon Hartwick, and Paul R. Warshaw (1988), “The Theory of Reasoned Action:

A Meta-Analysis of Past Research with Recommendations for Modifications and Future Research,” *Journal of Consumer Research*, 15 (December 1988), 325-343.

Spiekermann, Sarah, Jens Grossklags, and Bettina Berendt (2001), “E-Privacy n 2<sup>nd</sup> Generation E-Commerce: Privacy Preferences versus actual Behavior,” In ACM EC’01, October 14-17.

Sussman, Abigail B. and Christopher Y. Olivola (2010), “Axe the Tax: Taxes are Disliked More than Equivalent Costs,” working paper, Princeton University, Princeton, NJ: 08544.

## Appendix A

# DONALD R. LICHTENSTEIN

## Vita

### ADDRESS

#### **Home Address:**

**5219 Pierre Street  
Boulder, Colorado 80304**

**Phone: 303-530-9172**

#### **School Address:**

**Leeds School of Business  
419 UCB  
University of Colorado  
Boulder, Colorado 80309**

**Phone: 303-492-8206**

**E-mail: Donald.Lichtenstein@Colorado.Edu**

### ACADEMIC EMPLOYMENT

January 1, 2009 to Present	Professor and Chair of the Marketing Division Leeds School of Business, University of Colorado
August 1998 to Present	Professor of Marketing (with tenure), Leeds School of Business, University of Colorado
September 1999 to August 2002	Associate Dean of Faculty and Academic Programs and Professor of Marketing (with tenure), Leeds School of Business, University of Colorado
May 1991 to August 1998	Associate Professor of Marketing (with tenure), College of Business Administration, University of Colorado (Sabbatical leave at Georgia State University, 1994-1995)
June 1988 to May 1991	Assistant Professor of Marketing, College of Business Administration, University of Colorado
August 1984 to June 1988	Assistant Professor of Marketing, College of Business Administration, Louisiana State University
August 1980 to August 1984	Instructor and Research Assistant, College of Business Administration, University of South Carolina

## **EDUCATION**

Bachelor of Science                      1978 University of Alabama, Major: Marketing  
Ph.D.    1984 University of South Carolina, Major: Marketing

## **HONORS AND AWARDS**

### ***Undergraduate***

Elton B. Stephens Marketing Scholarship  
Beta Gamma Sigma  
Marketing Merit Award

### ***Graduate***

Alpha Mu Alpha Marketing Honorary  
Two Time Recipient of the Purchasing Managers' Association of the Carolinas and Virginia  
Scholarship  
1981-82 Marketing Ph.D. Candidate Teaching Award  
1983 Doctoral Consortium Representative  
1984 University Dissertation Research Grant

### ***Faculty***

Finalist for the College of Business Frasca Teaching Excellence Award (University of Colorado,  
1993)  
Nominated for the Hazel Barnes Prize Teaching Award (University of Colorado, 1993, 1997)  
Recipient of the American Marketing Association Hugh G. Wales National Award for Outstanding  
Faculty Advisor of the Year (1994)  
Recipient of the Dean's Teaching/Research Scholar Award (1998)  
*Journal of Consumer Research* Outstanding Reviewer Award (2001, 2004, 2007)  
Selected to Participate in the University of Colorado Emerging Leader's Program (2001-2002)  
Recipient of the 2004 Fordham Life-Time Achievement Award in Behavioral Pricing Research.  
The National Society of Leadership and Success Excellence in Teaching Award (2010)

## **PROFESSIONAL AFFILIATIONS**

- American Marketing Association
- Association for Consumer Research

## **TEACHING EXPERIENCE**

### ***University of Colorado***

- Marketing Analysis (Undergraduate)
- Adding Value with Management and Marketing (Undergraduate)
- Principles of Marketing (Megasection - Undergraduate)
- Marketing Research (Undergraduate)
- Marketing Research (MBA)
- Pricing/Sales Promotion Seminar (Ph.D.)
- Introductory Seminar in Marketing (Ph.D)

### ***Georgia State University***

- Principles of Marketing (Megasection - Undergraduate)
- Consumer Behavior Seminar (Ph.D)

### ***Louisiana State University***

- Principles of Marketing (Undergraduate)
- Marketing Research (Undergraduate)
- Marketing Research (MBA)

### ***University of South Carolina***

- Marketing Management (Undergraduate)
- Consumer Behavior (Undergraduate)
- Principles of Marketing (Undergraduate)

## **COLLEGE/UNIVERSITY SERVICE**

### ***Louisiana State University***

Undergraduate Marketing Advisor (1987-1988)

Member of MBA Curriculum Committee (1986)

Faculty Coordinator for the Alpha Mu Marketing Honorary (1984-1988)

Faculty Co-advisor for the Pi Sigma Epsilon Marketing and Sales Fraternity (1986-1987)

### ***University of Colorado***

Member of Research Committee (1988-1991, 1998-1999)

Member of Julie Johnson's Thesis Committee (1989)

Member of Dave Mason's Dissertation Committee (1992)

Member of Ken Chapman's Dissertation Committee (1994-96)

Member of Charles Brooks Dissertation Committee (1995-96), Student at Georgia State University

Member of Lisa Moet's Dissertation Committee (1995-97)

Faculty Advisor for the Undergraduate Chapter of the American Marketing Association (1991-1994)

Chair of the Marketing Recruiting Committee (1991)

Co-Chair of the Marketing Speaker Series (1991-1992)

Member of the College of Business Faculty Appointments Committee (1991)  
Member of the University Library Committee (1992-1994)  
Recording Secretary for the College Faculty (1993-1994)  
Member of the Undergraduate Committee to Restructure Majors (1993-1994)  
College Core Committee to Integrate the Undergraduate Curriculum (1995-1998)  
Developed and Coordinated the College of Business Subject Pool (1996)  
Member of the College of Business Ethics Committee (1996)  
Member of the College of Business Entrepreneurship Committee (1996)  
Developed the BCOR 2050 Adding Value With Management and Marketing Course (1995-96)  
Member of the College of Business Budget Committee (1997)  
Member of the College of Business Resource Allocation Review Committee (1997)  
Member of the Marketing Department Ph.D. Committee (1997 to 1999)  
Member of Sally Widener's Dissertation Committee (1998 to 1999)  
College of Business FTEP Technology Liaison (1998 to 1999)  
Participant in the FTEP Technology & Summer Teaching Program (1998)  
Chair of Steve Engel's Personnel Committee for Reappointment (1996, 1997, 1998)  
Marketing Department Executive Committee (1998 to Present)  
Member of the College of Business Technology Committee (1998 to 1999)  
Member of the College of Business Research Committee (1989-1992, 1998 to 1999)  
College of Business Freshman Seminar Professor (1998)  
Member of Professor Edward Gac's Personnel Committee (1998-1999)  
Chair of Peggy Sue Lorang's Dissertation Committee (1998-Present)  
Faculty Representative to the Haring Symposium at the Univ. of Indiana (1999)  
Member of the University Administrator Appraisal Committee (1999)  
Member of the College of Business Post-Tenure Review Committee (1999)  
Member of Dean's Faculty Policy Committee (1999)  
Member of College Personnel Committee (1999)  
Member of Special Programs Committee (1999)  
Member of the Leeds School Bylaws Committee (2005-2006)  
Member of CESR (Curriculum Emphasis on Social Responsibility) Steering Committee (2007-2009).  
Member and Chair of the UCPC (Undergraduate Curriculum and Policy Committee) (2006-2009)  
Member of the Dean's Personnel Committee (2007-2009)  
Member of Gina Mohr's Dissertation Committee (2008)

### **COMMUNITY SERVICE**

Raised \$2350 for the Rocky Mountain Chapter of the Leukemia Society via sponsorship for the Los Angeles Marathon (1993)

### **ACADEMIC SERVICE**

Editorial Review Board Member for the Journal of Marketing (1996-2002), Ad Hoc Reviewer (1990-1996, 2002-present).



Editorial Review Board Member for the Journal of Consumer Research (since 1999), Ad Hoc Reviewer (1988-1999).

Editorial Review Board Member for the Journal of Business Research (1994-2006), Ad Hoc Reviewer (1986-1994).

Editorial Review Board Member for the Journal of Public Policy & Marketing (1998-2001), Ad Hoc Reviewer (1997-1998).

Editorial Review Board for Marketing Letters (2008-present), Ad Hoc Reviewer 1998-2008).

Ad Hoc Reviewer for Journal of Marketing Research (1989-Present).

Ad Hoc Reviewer for Marketing Science (2006-Present).

Ad Hoc Reviewer for Decision Sciences (1990).

Ad Hoc Reviewer for Journal of Advertising (1991-1996).

Ad Hoc Reviewer for the Journal of the Academy of Marketing Science (1989-1994, 1998).

Ad Hoc Reviewer for Journal of Economic Psychology (1993).

Ad Hoc Reviewer for Research in Consumer Behavior (1993-1998).

Ad Hoc Reviewer for the Journal of Retailing (1998-present).

Ad Hoc Reviewer for the Journal of Consumer Affairs (1999).

Ad Hoc Reviewer for Perceptual and Motor Skills Psychological Reports (1998).

Ad Hoc Reviewer for the International Journal of Research in Marketing (2008).

Reviewer for McGraw-Hill for the second edition of Pricing: Making Profitable Decisions by Kent B. Monroe (1989)

Reviewer for numerous national conferences (annually)

Session Chairperson for Southwestern Marketing Conference (1985)

Reviewer for the 1993 American Marketing Association Dissertation Award

Member of the Association for Consumer Research Program Committee (1992-1993, 1996-1997, 1998-1999, 2006)

Session Chairperson for the Marketing and Public Policy Conference (1995)

Session Discussant for the Society for Consumer Psychology Conference (1996)

Special Session Co-chair for a session entitled "Correlates of Deal Proneness and Deal-Responsive Behavior" at the 1996 Association for Consumer Research Conference

Arrangements co-chair for the 1997 Association for Consumer Research Conference

Reviewer for 1997 Sheth Dissertation Awards

Member of the Association for Consumer Research Publications Committee (1998)

Co-Chair for the 2003 ACR Doctoral Consortium

## **PRESENTATIONS**

Presented a paper entitled "An Assessment of the Moderating Effects of Market Mavenism and Value Consciousness on Price-Quality Perception Accuracy" at the 1989 Association for Consumer Research Conference.

Presented a paper entitled "The Relationship Between Perceived and Objective Price-Quality" at the Working Series at the University of Georgia and also for the University of Colorado Marketing Department Faculty (1989).

Presented a paper entitled "The Role of Specific-Item Causal Dispersion in Attribution Focus and Confidence Determination" at the 1987 Association for Consumer Research Conference.

Presented a paper entitled "The Measurement and Moderating Role of Confidence in Attributions" at the 1987 Association for Consumer Research Conference.

Presented a paper entitled "Measurement and Structure of Kelley's Covariance Theory: A Replication" at the 1988 American Marketing Association Summer Educators Conference.

Presented a paper entitled "Using a Theoretical Perspective to Examine the Psychological Construct of Coupon Proneness" at the 1990 Association for Consumer Research Conference.

Presented a paper entitled "A Multidimensional View of Price Salience: A Field Study" at the Sharing Scholarship Series at the University of South Carolina and also for the University of Colorado College of Business Faculty (1991).

Made a presentation entitled "Consumer Price-Quality Perceptions" to the University of Colorado Alumni Directors' Summer Conference (1991).

Presented a paper entitled "Price Perceptions and Consumer Shopping Behavior: A Field Study" at Colorado State University (1992).

Presented a paper entitled "Assessing the Domain Specificity of Deal Proneness: A Field Study" at the University of Florida and also for the University of Colorado College of Business Faculty (1992). Presented revisions of this paper at Louisiana State University (1994), the University of South Carolina (1994), the University of Arkansas (1995), the University of Georgia (1995), Georgia State University (1995).

Presented a paper entitled "Psychological Correlates of Deal Proneness: A Domain-Specific Analysis at the Association of Consumer Research Conference" (1996).

Presented a paper entitled "Toward an Understanding of Inefficient Consumer Mutual Fund Investment Decisions: Implications for Public Policy" at the University of Colorado (1997).

Presented a paper entitled "A Range Theory of Price Perception" at the University of Florida, Emory University, and the University of North Carolina (1998).

Made a presentation entitled "Trends in Pricing Research" at the 1999 Albert Haring Symposium at the University of Indiana (1999).

Made a presentation entitled "Teaching the Large Class" as part of a roundtable discussion at the American Marketing Association's Summer Educator's Conference (1999).

Made a presentation entitled "Increasing Customer-Corporation Identification by Partnering with Nonprofits: Beneficial Effects for Customer, Corporation, and Nonprofit" at the University of Colorado, the University of Florida, and Duke University (2000). Also presented a later version of this paper entitled "Perceptions of Corporate Giving on Customer-Corporation Identification: Beneficial Effects for Customer, Corporation, and Nonprofit" at the Marketing Science Institute Conference on Marketing, Corporate Social Initiatives, and the Bottom Line in 2001, to the University of Colorado Division of Marketing in 2002, to the University of South Carolina Marketing Department, to the University of Virginia McIntire School of Commerce, to London Business School (2003), to the University of North Carolina (2004), and to the Duke University MBA Student Social Impact and Marketing Clubs (2004).

Presented a paper entitled "The Influence of Travel Configuration on Consumer Trip-Chained Store Choice" Duke University (2004).

Made an invited presentation entitled "Price Perceptions, Merchant Incentives, and Consumer Welfare" at the 2004 Fordham Pricing Conference.

Made a presentation entitled "Is Organizational Identification Infectious?: The Effect of Manager-, Employee-, and Customer-Company Identification on Company Financial Performance" at Duke University (2005).

### **INDUSTRY EXPERIENCE**

August 1978 to August 1980                      Distribution Services, Western Electric Company, Atlanta, Georgia

### **APPLIED RESEARCH EXPERIENCE**

Miller-Penniman, Inc.- Developed a sales plan for the introduction of satellite dishes to John Deere dealers in Louisiana (1985).

Traq Technologies, Inc.- Evaluated the viability of the Traq Technology marketing plan for entry into the point-of-sale computer market, and also performed an economic impact analysis for the location of Traq in Denham Springs, Louisiana (1986).

Picadilly Cafeterias- Participated in a management training seminar (1987).

Louisiana Association of Business and Industry- Developed territorial boundaries for its salespeople (1987).

Zigarelli and Associates- Evaluated the company's data collection procedures (1988); served as a consultant for the designing of a survey and specification of a sampling procedure for a study on public perception of a proposed sales tax to support the construction of a baseball stadium in Denver (1990).

May Company- Served as a consultant regarding a legal suit (alleging deceptive price advertising) filed against the company by the Colorado State Attorney General (1989).

Westin Hotels & Resorts- Participated in an educational seminar and made a presentation to sales and marketing executives entitled "Pricing for Profit" (1990).

Arnold & Porter and Shook, Hardy, and Bacon Law Firms- served as a consultant (and potential expert witness) regarding the effect of advertising on product use decisions (1991-1992, 1996).

Sutherland, Asbill & Brennan- Served as a consultant for brand infringement litigation (1993).

Hydrosphere, Inc.- Served as a consultant (and potential expert witness) for brand infringement litigation (1995-1996).

Dunlap & Coddling, P.C.- Served as a consultant (and potential expert witness) for brand infringement litigation (1998).

Competition Bureau, Canada – Served as an expert witness for deceptive advertising litigation (1998, 2002-2004).

Attorney General, State of Colorado – Served as an expert in deceptive advertising litigation (2000-2001).

Attorney General, State of Colorado – Served as an expert in deceptive marketing practice litigation (2004).

Attorney General, State of Colorado – Served as an expert in deceptive marketing practice litigation (2007).

Mastbaum & Moffat, P.C.- Served as a consultant (and potential expert witness) for brand infringement litigation (2002).

Fegre & Benson – Served as consultant (and potential expert witness) in a deceptive marketing case (2005).

Storage Tek – Served as a marketing consultant (2005).

Akin, Gump, Strauss, Hauer, & Feld – served as an expert in a deceptive marketing case (2006).

Frie, Arndt & Danborn, P.C. – served as an expert in a deceptive marketing case (2006).

Holland & Hart – served as a consulting expert on a brand infringement case (2007, 2009).

Overturf McGath Hull & Doherty, P.C. – served as an expert in a deceptive marketing case (2007-08).

Levine Sullivan Koch & Schulz, L.L.P. – served as an expert in a deceptive marketing case (2007-08).

Fagre & Benson – Served as an expert witness in a deceptive marketing case (2009).

Fish and Richardson, PC, and Fee, Smith, Sharp & Vitullo, LLP – Served as an expert in a deceptive marketing case (2009).

Olivas & Silverman, PC – Served as an expert in a deceptive marketing case (2009).

Montgomery, Kolodny, Amatuzio & Dusbabek, LLP – Served as an expert in a deceptive marketing case for arbitration (2010).

Hutchinson, Black and Cook, LLC – Served as an expert in a brand infringement case (2010).

Hill & Robbins, P.C. – Served as an expert in a case involving “fair notice” to consumers (2010).

#### **NONREFEREED PUBLICATIONS**

Lichtenstein, Donald R. (1997), “To Buy or Not to Buy? Consumer Responsibility,” in CU Business Portfolio, (Spring), p. 4.

Netemeyer, Richard G., Scot Burton, and Donald R. Lichtenstein (1999), “Vanity,” in Peter Earl and Simon Kemp (eds.), The Elgar Companion to Consumer Research and Economic Psychology, Northampton, MA: Edward Elgar Publishing, Inc., 605-609.

Lichtenstein, Donald R. (2005), “Price Perceptions, Merchant Incentives, and Consumer Welfare,” Journal of Product and Brand Management, Vol 14, 357-361.

#### **NATIONALLY REFEREED PROCEEDINGS**

Bearden, William O., Donald R. Lichtenstein, and Jesse E. Teel (1983), "Reassessment of the Dimensionality, Internal Consistency, and Validity of the Consumer Alienation Scale," in Murphy et al. (Eds.), 1983 Educators' Conference Proceedings, Chicago: American Marketing Association, 35-40.

Lichtenstein, Donald R. and William B. Simmons (1985), "The Role of Confidence in Consumer Attributions: An Exploratory Analysis," in B. Hartman and J. Rinqest, (Eds.), Proceedings of the American Institute for Decision Sciences, Las Vegas, NV, 508-510.

Lichtenstein, Donald R., Daniel L. Sherrell, and Joseph F. Hair (1986), "Advertising Message Effects on Attitude Towards the Ad and the Deal," in S.M. Lee, L. Digman, and M.J. Schniederjans, (Eds.), Proceedings of the Decision Sciences Institute, 831.

Lichtenstein, Donald R. (1988), "The Role of Specific-Item Causal Dispersion in Attribution Focus and Confidence Determination," in Michael J. Houston (Ed.), Advances in Consumer Research, Provo, UT: Association for Consumer Research, Vol. 15, 89-95.

Lichtenstein, Donald R. and Scot Burton (1988), "The Measurement and Moderating Role of Confidence in Attributions," in Michael J. Houston (Ed.), Advances in Consumer Research, Provo, UT: Association for Consumer Research, Vol. 15, 468-475.

Burton, Scot and Donald R. Lichtenstein (1988), "The Reliability of Measures of the Latitude of Price Acceptance," in Gary Frazier et al. (Eds.), Proceedings of the 1988 AMA Summer Educators Conference, Chicago, IL: American Marketing Association, 320-325.

O'Hara, Bradley S. and Donald R. Lichtenstein (1988), "Measurement and Structure of Kelley's Covariance Theory: A Replication," in Gary Frazier et al. (Eds.), Proceedings of the 1988 AMA Summer Educators Conference, Chicago, IL: American Marketing Association, 117-122.

Burton, Scot, Donald R. Lichtenstein, and Edward Blair (1988), "Cognitive Processes Used to Answer Expenditure Questions," in American Statistical Association 1988 Proceedings of the Section of Survey Research Methods, Alexandria, VA: American Statistical Association, 155-160.

Lichtenstein, Donald R. and Scot Burton (1990), "An Assessment of the Moderating Effects of Market Mavinism and Value Consciousness on Price-Quality Perception Accuracy," in Goldberg et al. (Eds.), Advances in Consumer Research, Provo, UT: Association for Consumer Research, Vol 17, 53-59.

Burton, Scot and Donald R. Lichtenstein (1990), "Assessing the Relationship Between Perceived and Objective Price-Quality: A Replication," in Goldberg et al. (Eds.), Advances in Consumer Research, Provo, UT: Association for Consumer Research, Vol 17, 715-722.

Lichtenstein, Donald R., Richard G. Netemeyer, and Scot Burton (1991), "Using a Theoretical Perspective to Examine the Psychological Construct of Coupon Proneness," in Rebecca H. Holman and Michael R. Solomon (Eds.), Advances in Consumer Research, Provo, UT: Association for Consumer Research, Vol. 18, 501-508.

Rao, Akshay, Donald R. Lichtenstein, and Scot Burton (1991), "The Influence of Objective Price-Quality Variations on Price Acceptability, Price Predictions and Price-Quality Judgments," in the Proceedings of the 1991 American Marketing Association Winter Educators Conference.

Lichtenstein, Donald R., Scot Burton, and Richard G. Netemeyer (1997), "Psychological Correlates of a Proneness to Deals: A Domain-Specific Analysis," in Merrie Brucks and Deborah J. MacInnis (Eds.), Advances in Consumer Research, Provo, UT: Association for Consumer Research, Vol. 24, 274-280.

Minette E. Drumwright, Donald R. Lichtenstein, and Bridgette Braig (2001), "Corporate Volunteerism" in "The Role of Marketing in the Development and Distribution of Social Capital," Marketing & Public Policy Conference Proceedings, Ronald Paul Hill and Charles R. Taylor, eds., Chicago: American Marketing Association, 57-59.

Janiszewski, Chris, Donald R. Lichtenstein, and Julia Belavsky (2004), "Advertised Reference Prices as Anchors," presented at the Association for Consumer Research meetings in Portland, abstract.

### **REFEREED JOURNAL PUBLICATIONS**

Bearden, William O., Donald R. Lichtenstein, and Jesse E. Teel (1984), "Comparison of Price, Coupon, and Brand Effects on Consumer Reactions to Retail Newspaper Advertisements," Journal of Retailing, 60 (Summer), 11-34.

Shuptrine, F. Kelly and Donald R. Lichtenstein (1985), "Measuring Readability Levels of Undergraduate Marketing Textbooks," Journal of Marketing Education, 7 (Fall), 38-45.

Lichtenstein, Donald R. and William O. Bearden (1986), "Measurement and Structure Kelley's Covariance Theory," Journal of Consumer Research, 13 (September), 290-296.

Burton, Scot and Donald R. Lichtenstein (1988), "The Effects of Ad Claims and Ad Context on Attitude Toward the Advertisement," Journal of Advertising, 17, 3-11. (\*Finalist for the Best Article Award)

Lichtenstein, Donald R. (1988), "At What Level of Abstraction Should Attributions Be Operationalized and Conceptualized?" Basic and Applied Social Psychology, 9 (June), 85-97.

Lichtenstein, Donald R. and William O. Bearden (1988), "An Investigation of Consumer Evaluations of Reference Price Discount Claims," Journal of Business Research, 17, 189-200.

Lichtenstein, Donald R., Peter H. Bloch, and William C. Black (1988), "Correlates of Price Acceptability," Journal of Consumer Research, 15 (September), 243-252.

Lichtenstein, Donald R., Scot Burton, and Bradley S. O'Hara (1989), "The Effect of Marketplace Attributions on Consumer Evaluations of Reference Price Discount Claims," Psychology & Marketing, Vol 6, No 3, 163-180.

Bloch, Peter H., William C. Black, and Donald R. Lichtenstein (1989), "Involvement with the Equipment Component of Sport: Links to Recreational Commitment," Leisure Sciences, 11, 187-200.

Lichtenstein, Donald R. and William O. Bearden (1989), "Contextual Influences on Perceptions of Merchant-Supplied Reference Prices," Journal of Consumer Research, 16 (June), 55-66.

Lichtenstein, Donald R. and Scot Burton (1989), "The Relationship Between Perceived and Objective Price-Quality," Journal of Marketing Research, 26 (November), 429-443.

Lichtenstein, Donald R., Richard G. Netemeyer, and Scot Burton (1990), "Distinguishing Coupon Proneness From Value Consciousness: An Acquisition-Transaction Utility Theory Perspective," Journal of Marketing, 54 (July), 54-67.

Netemeyer, Richard G., Srinivas Durvasula, and Donald R. Lichtenstein (1991), "A Cross-National Validation of the Concept and Measure of Consumer Ethnocentrism," Journal of Marketing Research, 28 (August), 320-327.

Lichtenstein, Donald R., Scot Burton, and Eric Karson (1991), "The Effect of Semantic Cues on Consumer Perceptions of Reference Price Advertisements," Journal of Consumer Research, 18 (December), 380-391.

Lichtenstein, Donald R., Nancy M. Ridgway, and Richard G. Netemeyer (1993), "Price Perceptions and Consumer Shopping Behavior: A Field Study," Journal of Marketing Research, 30 (May), 234-245. (\*Synopsis reprinted in Stores Magazine.)

Burton, Scot, Donald R. Lichtenstein, and Paul M. Herr (1993), "An Examination of the Effects of Information Consistency and Distinctiveness in a Reference Price Advertisement Context," Journal of Applied Social Psychology, 23 (December), 2074-2092.

Low, George M. and Donald R. Lichtenstein (1993), "The Effect of Double Deals on Consumer Attitudes," Journal of Retailing, 69 (Winter), 453-466.

Burton, Scot, Donald R. Lichtenstein, Abhijit Biswas, Katerine Fraccostoro (1994), "The Role of Attributions in Consumer Perceptions of Retail Advertisements Promoting Price Discounts," Marketing Letters, 5 (April), 131-140.

Netemeyer, Richard G., Scot Burton, and Donald R. Lichtenstein (1995), "Trait Aspects of Vanity: Measurement and Relevance to Consumer Behavior," Journal of Consumer Research, 21 (March), 612-626.

Burton, Scot, Richard G. Netemeyer, Donald R. Lichtenstein (1995), "Gender Differences for Appearance-Related Attitudes and Behaviors: Implications for Consumer Welfare," Journal of Public Policy & Marketing, 14 (Spring), 60-75.

Lichtenstein, Donald R., Richard G. Netemeyer, and Scot Burton (1995), "Assessing the Domain Specificity of Deal Proneness: A Field Study," Journal of Consumer Research, 22 (December), 314-326.

Tepper, Kelly, Donald R. Lichtenstein, and Corliss Green (1996), "Influences on Consumer Response to Preferred Customer Programs," Pricing Strategy and Practice, 4, 14-24.

Lichtenstein, Donald R., Scot Burton, and Richard G. Netemeyer (1997), "An Examination of Deal Proneness Across Sales Promotion Types: A Consumer Segment Analysis," Journal of Retailing, Vol. 73 (2), 283-297.



Burton, Scot, Donald R. Lichtenstein, Judith Garretson, and Richard G. Netemeyer (1998), "A Scale for Measuring Attitudes Toward Private Label Products and an Examination of its Psychological and Behavioral Correlates," Journal of the Academy of Marketing Science, Vol 26, No. 4, 293-306.

Janiszewski, Chris and Donald R. Lichtenstein (1999), "A Range Theory Account of Price Perception," Journal of Consumer Research, 25 (March), 353-368.

Lichtenstein, Donald R., Patrick J. Kaufmann, and Sanjai Bhagat (1999), "Why Consumers Choose Managed Mutual Funds Over Index Funds: Hypotheses from Consumer Behavior," Journal of Consumer Affairs, Vol 33, No. 1, 187-205.

Burton, Scot, Donald R. Lichtenstein, and Richard G. Netemeyer (1999), "Exposure to Sales Flyers and Increased Purchases in Retail Supermarkets," Journal of Advertising Research, (September/October 1999), 7-14.

Loroz, Peggy Sue and Donald R. Lichtenstein (2004), "The Moderating Role of Perceived Behavior-Outcome Covariation on Consumer Estimates of Health Risk," Journal of Public Policy & Marketing, 23 (Spring), 54-64.

Brooks, Charles M., Patrick J. Kaufmann, and Donald R. Lichtenstein (2004), "The Influence of Travel Configuration on Consumer Trip-Chained Store Choice," Journal of Consumer Research, 31 (September), 241-248. (Lead Article)

Lichtenstein, Donald R., Minnette Drumwright, and Bridgette Braig (2004), "The Effect of Corporate Social Responsibility on Customer Donations to Corporate-Supported Nonprofits," Journal of Marketing, 68 (October), 16-32.

Amir, On, Dan Ariely, Alan Cooke, David Dunning, Nicholas Epley, Uri Gneezy, Botond Koszegi, Donald Lichtenstein, Nina Mazar, Sendhil Mullainathan, Drazen Prelec, Eldar Shafir, and Jose Silva (2005), "Psychology, Behavioral Economics, and Public Policy," Marketing Letters, 16, 443-454.

Maxham, James G. III, Richard G. Netemeyer, and Donald R. Lichtenstein (2008), "The Retail Value Chain: Linking Employee Perceptions to Employee Performance, Customer Evaluations, and Store Financial Performance," Marketing Science, 27 (March-April), 147-167. (Lead Article)

Brooks, Charles M., Patrick J. Kaufmann, and Donald R. Lichtenstein (2008), "Trip Chaining Behavior in Multi-Destination Shopping Trips: A Field Experiment," Journal of Retailing, 84 (April), 29-38.

Janiszewski, Chris, Donald R. Lichtenstein, and Julia Belyavsky (2008), "Judgments about Judgments: The Dissociation of Consideration Price and Transaction Commitment Judgments," Journal of Experimental Psychology: Applied, Vol. 14, No. 2, 151-164.

Suk, Kwanho, Song Oh Yoon, Donald R. Lichtenstein, and Sie Yeoun Song, "The Effect of

Reference Point Diagnosticity on Attractiveness and Intentions Ratings,” forthcoming at the *Journal of Marketing Research*.

Netemeyer, Richard G., James G. Maxham III, and Donald R. Lichtenstein, “Do Managers “Set the Tone” for Performance?: The Effects of Store Managers Attitudes and Behaviors on Store Employees, Store Customers, and Store Performance,” forthcoming at the *Journal of Applied Psychology*.

Lichtenstein, Donald R., Richard G. Netemeyer, James G. Maxham III, “The Relationship Between Manager-, Employee-, and Customer-Company Identification: Implications for Retail Store Financial Performance,” forthcoming at the *Journal of Retailing*.

### **Manuscripts Under Review or Revision**

### **Work in Progress**

“The Moderating Effect of Product Feature Overlap on Consumer Response to Advertised Reference Prices,” with Sue Jung Grant.

Mohr, Gina Slejko, Donald R. Lichtenstein, and Chris Janiszewski, “The Effect of Marketer-Suggested Serving Size on Consumer Responses.”