UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
OFFICE OF ADMINISTRATIVE LAW JUDGES
WASHINGTON, D.C.

FEDERAL TRADE COMMISSION
RECEIVED DOCUMENTS
NOV 23 2005
SECRETARY

In the Matter of BASIC RESEARCH, LLC A.G. WATERHOUSE, LLC KLEIN-BECKER USA, LLC NUTRASPORT, LLC SOVAGE DERMALOGIC LABORATORIES, LLC BAN LLC d/b/a BASIC RESEARCH LLC OLD BASIC RESEARCH, LLC BASIC RESEARCH, A.G. WATERHOUSE, KLEIN-BECKER USA, NUTRA SPORT, and SOVAGE DERMALOGIC LABORATORIES DENNIS GAY DANIEL B. MOWREY d/b/a AMERICAN PHYTOTHERAPY RESEARCH LABORATORY, and MITCHELL K. FRIEDLANDER, Respondents	PUBLIC Docket No. 9318

RESPONDENTS' MOTION TO EXCLUDE COMPLAINT COUNSEL WITNESS MICHAEL B. MAZIS

All Respondents, by counsel and pursuant to Rule 3.22, hereby move the Presiding Officer to exclude Complaint Counsel's witness, Michael B. Mazis, Ph.D.[1] Dr. Mazis testifies to some of the same substantive points as Complaint Counsel witness Geoffrey D. Nunberg, Ph.D. Compare Exhibit A at 6 to Exhibit B at 3. Consequently Dr. Mazis should be prohibited from testifying on PediaLean (and his expert report must be excised to remove discussion of

[1] In their Final List of Proposed Witnesses, Complaint Counsel state that Dr. Mazis shall testify "about respondents' marketing of the challenged products, the representations, and depictions in the promotional materials for the challenged products, the meaning of those representations and depictions, consumer response to promotional materials, and the scientific bases for his conclusions." This motion to exclude is submitted as Respondents' objection to that identification in accordance with the Second Revised Scheduling Order, and extended by the Court's November 21, 2005 order, requiring that objections to witness lists be filed on November 23, 2005. In addition to the reasons stated above, Respondents object to Dr. Mazis' testimony to the extent to which it goes beyond that offered in his expert report.

PediaLean) in light of the unnecessary duplication. Alternatively, Dr. Nunberg must be prohibited from testifying. In addition, Dr. Mazis impermissibly bases his opinions on subjective belief and unsupported speculation lacking any empirical evidence. That testimony is not expert and is excluded under Fed. R. Evid. 702. His testimony should therefore be deemed inadmissible under FTC Rule 3.31, Fed. R. Evid. 403 and 702 and Daubert v. Merrell Dow Pharmaceuticals, Inc., 113 S.Ct. 2786 (1993)(which rules FTC regards as persuasive, see, In re Herbert R. Bigson, Jr., 1978 FTC LEXIS 375 at *2, n.1 (May 3, 1978)(attached as Exhibit C)). Respondents request a Daubert hearing on this motion.

I. THE FACTS

A. Background

FTC brought this action against Respondents alleging that the advertisements attached to the Complaint as exhibits A-L for the products Leptoprin, Anorex, Cutting Gel, Tummy Flattening Gel, Dermalin-APg, and PediaLean were unfair or deceptive acts or practices and the making of false advertisements under Sections 5(a) and 12 of the Federal Trade Commission Act. See Complaint. Leptoprin and Anorex were a combination of ephedrine, caffeine, and aspirin sold in a pill form to facilitate general weight loss for persons considered significantly overweight. Id. Cutting Gel, Tummy Flattening Gel, and Dermalin APg were topical gels containing aminophylline sold to facilitate weight loss in targeted areas where the product was applied. Id. PediaLean was a fiber-containing product sold in a pill form to facilitate general weight loss in overweight children. Id.

B. Testimony and Report of Dr. Mazis

In his report, Dr. Mazis summarizes his credentials and expertise stating that as a marketing research analyst for the Warner-Lambert Pharmaceutical Company he designed marketing research surveys and focus group studies. Exhibit A at 3. Dr. Mazis also states that he has spoken before national associations and the Better Business Bureau on "designing consumer perception surveys." Exhibit A at 3.

Dr. Mazis states in his report that his "anticipated testimony will focus on a facial analysis of respondents' advertisements..." Exhibit A at 2. Dr. Mazis further states, "the facial analysis that I have conducted is based on my knowledge, experience, and training in understanding consumer perceptions of advertising and product labels." It is not based on a single confirmatory study or other relevant empirical basis. Id. at 4.

At his deposition Dr. Mazis confirmed that he had no "consumer tests, copy test, penetration studies, focus groups or similar research that [he] conducted, directed, supervised or assisted in connection with this matter." Exhibit E at 20. He stated then that he was not doing any empirical research in this case and that there were no plans for any. Id. at 25, 26.

Dr. Mazis cited no authority or published article, indeed no citation at all, that recognized his "facial analysis" of advertising as an accepted method or procedure in the profession to measure consumer perception of weight loss advertising. See Exhibit A at 4, 6. He cited no empirical evidence for his opinion that select statements were "strongly implied despite the fact that they do not appear on the face of the advertisements he evaluated. Id. at 6-10, 14, 16. He cites no empirical evidence for his proposition that the topical gel advertising section entitled "So What's the Catch" lacks prominence and lacks "wording...likely to have an impact on consumers' processing of the message." Id. at 11-12. He cites no empirical evidence for the proposition that "Consumers are much more likely to read the promotional messages than the 'caveats.'" Id. at 12. He cites no empirical evidence for the proposition that "words such as 'redeposited' and 'help' used in the first 'caveat' are confusing and...likely to be interpreted in multiple ways by consumers." Id. at 12. He cites no empirical evidence for the proposition that consumers would be unfamiliar with the term "excess body weight" and that the term "overall body weight" is more familiar to them. Id. at 16. He cites no empirical evidence for the proposition that "Most consumers would be unable to decipher the meaning of the statistical information provided." Id. at 17. He cites no empirical evidence for the proposition that "the data are particularly confusing because the numbers are not expressed in pounds." Id.

Dr. Mazis cites three published articles in his report and includes a fourth in attachments to his report. See Exhibit C to Exhibit A (LMS00738-766). Not one provides support for use of a facial analysis in determining consumer perception of advertising. Exhibit A at 15, n.35, and 18, n.43 and 44. Not one examined advertising in the weight loss industry or dietary supplement industry examined. Exhibit A at LMS00739 (clothing detergent); LMS00745 (a variety of consumer goods); and LMS00752-3 (LMS00760 not included because it measured price, brand name, and store name on buyer's perception). All articles measured the hypothesis stated in a clinical test of human subjects. See generally, Harris et al. Exhibit A at LMS00738; Harris, id. at LMS00743; Searleman et al, id. at LMS00750; Rao et al., id. at LMS00760 (a meta-analysis of - previous experimental research). All presented empirical evidence to support their conclusions and thus did not involve a "facial" analysis. See generally, id.

Dr. Stephen M. Nowlis, the AT&T Distinguished Research Professor of Marketing in the W. P. Carey School of Business at Arizona State University (Nowlis Statement attached hereto as Exhibit F) finds fault, *inter alia*, with the "facial analysis" and the conclusions drawn therefrom by Dr. Mazis. Dr. Nowlis finds "facial analysis" nothing more than unsubstantiated opinion, not recognized in the profession as an accepted method for analysis of consumer perception of advertising. Id. at 3-9. Dr. Nowlis finds advertising research, such as copy tests, the proper empirical basis for an opinion concerning consumer perception, not the uncorroborated opinion of one person. Id. In light of the frequently differing perceptions of consumers as to the meaning of ad copy and light of persuasive skepticism about weight loss advertising in particular, Dr. Nowlis finds the "facial analysis" approach of Dr. Mazis unreliable. Id. at 9-11.

II. THE LAW

Under FTC Rule 3.31, Fed. R. Evid. 702, and the Daubert standard witnesses must be competent to testify as experts. See, 113 S.Ct. 2786. Competence is measured by education, training, and experience in the subject addressed and by the acceptance and reliability of the methodology used for assessment. Dr. Mazis bases his opinion entirely on a "facial analysis," i.e., on one man's opinion (his own) and not on any empirical evidence. As such, he lacks a competent and reliable foundation for assessment. His opinion is not derived from the generally accepted testing method (survey research or copy tests) used to discern consumer perception. Fed. R. Evid. 702 states:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if:
> (1) the testimony is based upon sufficient facts or data,
> (2) the testimony is the product of reliable principles and methods, and
> (3) the witness has applied the principles and methods reliably to the facts of the case.

The Federal Rules of Evidence are persuasive authority in FTC adjudicative hearings in determining evidentiary issues. See, In re Herbert R. Gibson, Jr., 1978 FTC LEXIS 375, at *2, n.1 (May 3, 1978)(Federal Rules of Evidence are "persuasive authority" in FTC adjudicative hearings)(Exhibit C). The party proffering the testimony has the burden of establishing the admissibility of expert testimony and the qualifications of the expert witness by a "preponderance of proof." Meister v. Medical Engineering Corp., 267 F.3d 1123, (D.C.Cir. 2001)(citing Daubert, 509 U.S. at 592 n.10 (citing Bourjaily v. U.S., 483 U.S. 171, 175-176 (1987)).

The application of Fed. R. Evid. 702 is qualified by the Daubert standard. Under Daubert, two questions must be addressed before proffered expert testimony can be accepted by the trier of fact: (1) whether the expert's testimony is based on 'scientific knowledge,' and (2) whether the testimony "will assist the trier of fact to understand or determine a fact in issue." 509 U.S. at 592. "'Scientific' implies a grounding in the methods and procedures of science" and "'knowledge' connotes more than subjective belief or unsupported speculation." Id. at 590.

The Daubert test is applicable to any expert, not just one whose expertise is "scientific." Kumho Tire Company, Ltd. v. Carmichael, 526 U.S. 137, 141 (1999). The question before the trial court is whether "this particular expert [has] sufficient specialized knowledge to assist the [trier of fact] 'in deciding the particular issues in the case.'" Id. at 156 (citing 4 J. McLaughlin, Weinstien's Federal Evidence p702.05[1], p. 702-33 (2d ed. 1998)(citations omitted)). "Nothing in Daubert of the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert." Id. at 157 (citing Joiner, 522 U.S. at 146). "A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." Joinder, 522 U.S. at 146 (citations omitted). Where there is no indication in the record that experts in the industry recognized as reliable the methodology of the proffering expert and no articles or papers validate that approach, then exclusion of the expert's testimony is appropriate. Id.

Scientific Knowledge. The first prong requires that the Court focus on "principles and methodology, not on the conclusions that they generate," Daubert at 595, "and thus demands a grounding in the methods and procedures of science, rather than subjective belief or unsupported speculation." Id. at 590; see also Meister v. Medical Engineering Corp., 267 F.3d 1123, 1126 (D.C.Cir. 2001) citing Ambrosini v. Labarraque, 101 F.3d 129, 133 (D.C.Cir. 1996). "In order to qualify as 'scientific knowledge,' an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation – i.e., 'good grounds,' based on what is known." Daubert, 509 U.S. at 590. Under Daubert, courts must still regulate the subjects and theories of expert testimony, and "the word 'knowledge' connotes more than subjective belief or unsupported speculation." Ambrosini, 101 F.3d at 134 citing Joy v. Bell Helicopter Textron, Inc., 999 F.2d 549, 569-570 (D.C.Cir. 1993)(citations omitted).

Four factors are considered in evaluating scientific validity: (1) whether the theory or technique can be and has been tested; (2) whether the theory or technique has been subjected to peer-review and publication; (3) the method's known or potential rate of error; and (4) whether the theory or technique finds general acceptance in the relevant scientific community. Id. at 593-94; see also Ambrosini, 101 F.3d at 134.

Expert testimony that rests solely on 'subjective belief or unsupported speculation' is not reliable. Daubert, 509 U.S. at 590. The court's inquiry must "focus on the principles and methodology [used] rather than on the conclusions they generate." 509 U.S. at 595. "A court may refuse to admit expert testimony if it concludes that 'there is simply too great an analytical gap between the data and the opinion proffered." Groobert v. President and Directors of Georgetown College, 219 F.Supp. 2d 1 (D.D.C. 2002) citing General Electric v. Joiner, 522 U.S. 136, 146 (1997).

Aiding the trier of fact. The second prong of Daubert primarily concerns relevance. Id. at 591. The court must determine whether the proffered expert testimony is "sufficiently tied to the facts of the case that it will aid the [trier of fact] in resolving a factual dispute." Id. (citation omitted). This factor is also described as "fit," meaning whether the testimony fits the factual dispute. "'Fit' is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes." Ambrosini, 101 F.3d at 134 citing Daubert, at 591.

Duplicative testimony. Under Rule 403 of the Federal Rules of Evidence, a court may exclude relevant evidence which is otherwise cumulative, a waste of time, misleading, or confusing to the trier of fact, or which causes undue delay or unfair prejudice. See id; see also, Secretary of Labor v. DeSisto, 929 F.2d 789, 795 (1st Cir. 1991)(Rule 403 of the Federal Rules of Evidence enables a trial judge to exclude needlessly cumulative evidence); compare to id. at 796 (where trial court's limitation on witnesses was an abuse of discretion because limitation was arbitrary).

II. ANALYSIS

Dr. Mazis' proffered testimony on the PediaLean advertising should be excluded because it is duplicative of the testimony offered by Complaint Counsel's witness Dr. Geoffrey Nunberg. Both offer testimony on consumer perception of those advertisements. Moreover, Dr. Mazis' proffered testimony as to all products identified in the Complaint should be excluded as subjective belief and unsupported speculation, lacking an authoritative basis, inadmissible under FTC Rule 3.31, Fed. R. Evid. 403 and 702, and the Daubert standard.

Dr. Mazis' Proffered Testimony on PediaLean Is Duplicative

Dr. Mazis offers the opinion that,

> [T]he facial analysis for PediaLean revealed that ads for PediaLean strongly imply that the product causes substantial weight loss in overweight or obese children. Ads promise 'hope for you and your overweight child." The advertising for PediaLean also

communicates to consumers that clinical testing proves that PediaLean causes substantial weight loss in overweight or obese children.

Exhibit A at 6. In comparison, Dr. Nunberg offers the following conclusions in his expert report:

(1) The PediaLean advertisements "represent that PediaLean is an effective weight loss product for fat or obese children, which will lead to 'significant weight loss' for the consumer's child."
(2) The PediaLean advertisements "represent that the consumer can expect results like those in the clinical tests it reports; it is a 'clinically proven solution.'"
(3) In the context of the PediaLean advertisements, "significant can only be interpreted as having the sense 'of a noticeably or measurably large amount,' rather than its sense in statistics, where it applies to observations that cannot be ascribed to chance."
(4) "In the use of the word [significant], there are no material differences between speaking of a significant weight loss and speaking of a substantial weight loss: no weight loss could qualify under one description and not under the other. This point is supported by examination of the uses of both terms in press stories and on the Web."
(5) "More generally, the [PediaLean] Advertisements characterized PediaLean as 'effective' and as a 'solution' for the problems of children who are substantially overweight ('fat' or 'obese'), from which it can only follow that the product will cause substantial loss of weight."

Exhibit B at 3. Thus, those two experts are analyzing the same materials and proffering the same opinions. Their testimony is duplicative and, therefore, under Fed. R. Evid. 403 either Dr. Nunberg must be excluded from testifying or Dr. Mazis' testimony limited to products other than PediaLean.

Dr. Mazis' Proffered Testimony Is Subjective Belief and Unsupported Speculation

Dr. Mazis' proferred testimony is based on subjective belief and unsupported speculation. It is thus inadmissible under FTC Rule 3.31, Fed. R. Evid. 702, and the Daubert standard.

Scientific knowledge. Dr. Mazis' proffered testimony is not based upon scientific knowledge and will not assist the trier of fact to understand or determine a fact in issue. As stated by Dr. Nowlis, Dr. Mazis' proposed testimony cannot be validated based on published authority and lacks evidentiary reliability. See Exhibit F. The opinions expressed in Dr. Mazis' report are not backed by any peer-reviewed scientific publication or research based on accepted methodologies. See Exhibit F

Dr. Mazis' report is based entirely on his purported "facial analysis" that, as Dr. Nowlis explains, is solely the opinion of one individual (Dr. Mazis' own) and contrary to the empirical methodologies accepted in the community of experts studying consumer behavior. See Exhibit F. Furthermore, as Dr. Nowlis explains, Dr. Mazis' report also contains erroneous assumptions contrary to published material on pragmatic implications. Id. Dr. Mazis ignored consumer skepticism towards advertising. Finally, he erroneously conveys the impression that the "caveats" that appear in the topical gel advertising are in a smaller typesize and differing font than the "main" claims (see Exhibit A). Exhibit F at 11-12. That is not the case and there is no authority supporting Dr. Mazis' proposition that consumers would not read those caveats. See Exhibit F at 11. In short, Dr. Mazis lacks an appropriate, recognized, empirical basis for any opinion, let alone an expert opinion on consumer perception of the advertising at issue.

Fitness. Dr. Mazis offers no appropriate assistance to the trier of fact. He does not follow recognized methodologies of experts in the field to arrive at his opinions and thus they are of no greater value to the trier of fact than any single lay opinion. Moreover, since the accepted methodology is to measure consumer perception by recognized experimental methods (Exhibit F), use of opinion statements such as those of Dr. Mazis' are highly prejudicial. Dr. Mazis' opinions fail to rise above the level of subjective belief and unsupported explanation, thus failing to satisfy FTC Rule 3.31, Fed. R. Evid. 403 and 702, and the Daubert standard. Thus, Dr. Mazis should be excluded because his testimony is incompetent opinion evidence lacking any accepted scientific foundation.

III. CONCLUSION

For the foregoing reasons, Respondents respectfully request that his Honor exclude the testimony of Complaint Counsel's witness, Dr. Mazis.

Respectfully submitted,

Jonathan W. Emord
Emord & Associates, P.C.
1800 Alexander Bell Drive
Suite 200
Reston, VA 20191
Tel. (202) 466-6937
Fax (202) 466-6938

Counsel for Basic Research, LLC
A.G. Waterhouse, LLC
Klein-Becker USA, LLC
Nutrasport, LLC
Sovage Dermatologic Laboratories, LLC,
BAN, LLC

Stephen E. Nagin
Nagin, Gallop & Figueredo, P.A.
18001 Old Cutler Road
Miami, Florida 33157
Tel. (305) 854-5353
Fax (305) 854-5351

Counsel for Basic Research, LLC

Richard Burbidge, Esq.
Burbidge & Mitchell
215 South State Street
Suite 920
Salt Lake City, Utah 84111

Counsel for Dennis Gay

Ronald F. Price
PETERS SCOFIELD PRICE

A Professional Corporation
340 Broadway Centre
111 East Broadway
Salt Lake City, Utah 84111
Telephone: (801) 322-2002
Facsimile: (801) 322-2003

Counsel for Respondent Daniel B. Mowrey

Mitchell K. Friedlander
5742 West Harold Gatty Drive
Salt Lake City, Utah 84111,

Pro se.

Dated: November 23, 2005

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
OFFICE OF ADMINISTRATIVE LAW JUDGES
WASHINGTON, D.C.

In the Matter of **BASIC RESEARCH, LLC** **A.G. WATERHOUSE, LLC** **KLEIN-BECKER USA, LLC** **NUTRASPORT, LLC** **SOVAGE DERMALOGIC LABORATORIES, LLC** **BAN LLC d/b/a BASIC RESEARCH LLC** **OLD BASIC RESEARCH, LLC** **BASIC RESEARCH, A.G. WATERHOUSE,** **KLEIN-BECKER USA, NUTRA SPORT, and** **SOVAGE DERMALOGIC LABORATORIES** **DENNIS GAY** **DANIEL B. MOWREY d/b/a AMERICAN** **PHYTOTHERAPY RESEARCH** **LABORATORY, and** **MITCHELL K. FRIEDLANDER,** **Respondents.**	**PUBLIC** **Docket No. 9318**

CERTIFICATION

I, Andrea G. Ferrenz, hereby certify that the electronic copy of the document accompanying this certification is a true and correct copy of the paper original and that a paper copy with an original signature is being filed with the Secretary of the Commission on November 23, 2005 by other means.

Respectfully submitted,

Andrea G. Ferrenz

Dated: November 23, 2005

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
OFFICE OF ADMINISTRATIVE LAW JUDGES
WASHINGTON, D.C.

In the Matter of **BASIC RESEARCH, LLC** **A.G. WATERHOUSE, LLC** **KLEIN-BECKER USA, LLC** **NUTRASPORT, LLC** **SOVAGE DERMALOGIC LABORATORIES, LLC** **BAN LLC d/b/a BASIC RESEARCH LLC** **OLD BASIC RESEARCH, LLC** **BASIC RESEARCH, A.G. WATERHOUSE,** **KLEIN-BECKER USA, NUTRA SPORT, and** **SOVAGE DERMALOGIC LABORATORIES** **DENNIS GAY** **DANIEL B. MOWREY d/b/a AMERICAN** **PHYTOTHERAPY RESEARCH** **LABORATORY, and** **MITCHELL K. FRIEDLANDER,** **Respondents**	**Docket No. 9318**

CERTIFICATE OF SERVICE

I hereby certify that on this 23rd day of November, 2005, I caused Respondents' Motion To Exclude Complaint Counsel Witness Michael B. Mazis to be filed and served as follows:

1) an original and one paper copy filed by hand delivery and one electronic copy in PDF format filed by electronic mail to

Donald S. Clark
Secretary
U.S. Federal Trade Commission
600 Pennsylvania Avenue, N.W.
Room H-159
Washington, D.C. 20580
Email: secretary@ftc.gov

2) two paper copies delivered by hand delivery to:

The Hon. Stephen J. McGuire
Chief Administrative Law Judge
U.S. Federal Trade Commission
600 Pennsylvania Avenue, N.W.
Room H-112
Washington, D.C. 20580

3) one paper copy by first class U.S. Mail to:

James Kohm
Associate Director, Enforcement
U.S. Federal Trade Commission
601 New Jersey Avenue, N.W.
Washington, D.C. 20001

4) one paper copy by first class U.S. mail and one electronic copy in PDF format by electronic mail to:

Laureen Kapin
Joshua S. Millard
Laura Schneider
Walter C. Gross III
Lemuel W.Dowdy
Edwin Rodriguez
U.S. Federal Trade Commission
600 Pennsylvania Avenue, N.W.
Suite NJ-2122
Washington, D.C. 20580
Email: lkapin@ftc.gov
jmillard@ftc.gov
lschneider@ftc.gov
wgross@ftc.gov
ldowdy@ftc.gov
erodriguez@ftc.gov

Stephen E. Nagin
Nagin, Gallop & Figueredo, P.A.
3225 Aviation Avenue
Third Floor
Miami, FL 33133-4741
Email: snagin@ngf-law.com

Richard D. Burbidge
Burbidge & Mitchell

215 South State Street
Suite 920
Salt Lake City, UT 84111
Email: rburbidge@burbidgeandmitchell.com

Ronald F. Price
Peters Scofield Price
340 Broadway Center
111 East Broadway
Salt Lake City UT 84111
Email: rfp@psplawyers.com

Mitchell K. Friedlander
c/o Compliance Department
5742 West Harold Gatty Drive
Salt Lake City, UT 84116
Email: mkf555@msn.com

Andrea G. Ferrenz

EXHIBIT A

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION

In the Matter of BASIC RESEARCH, L.L.C., A.G. WATERHOUSE, L.L.C., KLEIN-BECKER USA, L.L.C., NURTASPORT, L.L.C., SOVAGE DERMALOGIC LABORATORIES, L.L.C., BAN, L.L.C., DENNIS GAY, DANIEL B. MOWREY, and MITCHELL K. FRIEDLANDER, Respondents	DOCKET NO. 9318

Expert Report of Michael B. Mazis, Ph.D.

October/ 2004

Respondents' Hearing Exhibit
Docket No. 9318
RX-064

LMS00701

EXPERT REPORT OF MICHAEL B. MAZIS

1. I have been asked by the Federal Trade Commission ("FTC") to provide expert testimony in the FTC matter of Basic Research, LLC, et al. (Docket No. 9318). The matter concerns allegations about the advertising and labeling for Dermalin-APg, Sovage Tummy Flatting Gel, Cutting Gel, Anorex, Leptoprin, and PediaLean. My anticipated testimony will focus on a facial analysis of respondents' advertisements in newspapers and tabloids, in magazines, in television and radio commercials, on Internet websites, and on product labels. A summary of my qualifications and anticipated testimony follows.

SUMMARY OF QUALIFICATIONS AND EXPERIENCE

Credentials and Expertise

2. I am a Professor of Marketing at the Kogod School of Business, American University. I have been a faculty member at American University for 25 years, serving over 10 years as chair of the Department of Marketing. During my teaching career at American University, I have taught undergraduate and graduate marketing courses, including courses in consumer behavior, marketing research, principles of marketing, marketing management, and Internet marketing. Attached to this report is a current copy of my curriculum vitae, which contains a complete description of my professional background. (See Appendix A.)

3. I received my B.S. degree in Economics from the University of Pennsylvania, my M.B.A. degree from New York University, and my Ph.D. degree in Business Administration from Pennsylvania State University.

4. From 1976 to 1979, I served as an in-house marketing expert at the Food and

Drug Administration ("FDA") and at the FTC. I have served as a consultant on advertising issues and consumer behavior for the FTC, FDA, Consumer Product Safety Commission, Department of Justice, U. S. Mint, Bureau of Alcohol, Tobacco, and Firearms, and the State of California. (See Appendix B for a list of cases in which I have testified.)

5. I have also worked as a marketing research analyst for the Warner-Lambert Pharmaceutical Company. In this position, I designed marketing research surveys and focus group studies.

6. I am a member of the American Marketing Association and a member and former director of the Association for Consumer Research. I was editor of the *Journal of Public Policy & Marketing* from 1992 to 1995, and I was Associate Editor of *The Journal of Consumer Affairs* from 1998 to 2001.

7. I have published over 60 articles in academic journals and conference proceedings. My research has been published in the *Journal of Marketing, Journal of Consumer Research, Journal of Marketing Research, Journal of Public Policy & Marketing, The Journal of Consumer Affairs, Journal of Personality and Social Psychology, Journal of Experimental Social Psychology*, and *Journal of the American Medical Association*. I was principal investigator on a three-year grant from the National Institute on Alcohol Abuse and Alcoholism to study consumer perception of alcohol warning labels. In addition, I have spoken on designing consumer perception surveys at conferences sponsored by the American Marketing Association, American Bar Association, and Better Business Bureaus (National Advertising Division).

8. Based on my knowledge, experience, education, and training, I consider myself to be an expert in consumer behavior, in marketing research, in consumer response to advertising and other promotional materials, and in measuring advertising deception.

Materials Considered

9. The documents that I considered in forming my opinions include the FTC complaint and attached exhibits and other advertising materials supplied by the FTC (including print advertisements, radio commercials, television commercials, transcripts of radio and television commercials, promotional materials, and product packages). I have also cited academic articles that I have considered. (See Appendix C). I reserve the right to modify my opinions based on other materials that I may receive in the future.

Compensation

10. For my work in this case, I am being paid $200 per hour.

SUMMARY OF EXPERT OPINION

11. The facial analysis that I have conducted is based on my knowledge, experience, and training in understanding consumer perceptions of advertising and product labels. I have also relied on the psychological research conducted on pragmatic implications. Pragmatic implications occur when statements in an advertisement strongly suggest something that is not explicitly asserted. In the advertising disseminated by respondents, I have found numerous examples of claims that are not directly asserted but that are communicated to consumers because they are strongly implied. Such pragmatic implications occur because many of the advertisements include strong efficacy statements, reports of clinical testing, vivid

visual images, discussions about the high prices charged, and evocative product names.

12. The facial analysis focused on three product categories: topical products, weight-loss products for adults, and weight-loss products for children. The facial analysis of advertising for the topical products (Dermalin-APg, Cutting Gel, and Tummy Flattening Gel) revealed that the advertising and product packaging strongly implies that using these products results in (1) rapid fat loss, (2) visibly obvious fat loss, and (3) rapid and visibly obvious fat loss in the areas to which the products are applied. Ads for these products include statements such as "watch them [waist and abdomen] shrink in size within a matter of days," "fat literally melts away," "penetrating gel for visible reduction of surface body fat," "targeted fat loss," and "spot-reducing gel." Also, the names Cutting Gel and Tummy Flattening Gel strongly suggest that use of the products produces visibly obvious fat loss. Moreover, the use of visual images, such as slim models and models with well-defined muscles, further strengthens the verbal statements made in the advertising. In addition, phrases such as "a double-blind clinical trial" and "clinically proven," strongly suggest to consumers that claims in the ads are supported by published, clinical testing.

13. The facial analysis of advertising for Leptoprin and Anorex found that ads for these products strongly implied that product use results in substantial weight loss and fat loss in significantly overweight adult users. Ads stated that these products were developed for "significantly overweight" individuals who need to lose at least 20 or 30 pounds. Ads also provided reports from testimonialists who reported losing between 31 and 216 pounds using Leptoprin. Retail brochures

also strongly suggest that diet and exercise are unnecessary for the products to achieve claimed results. In addition, references to "two published clinical trials" strongly suggest to consumers that the claims in the ads for Leptoprin are supported by published, clinical testing.

14. Finally, the facial analysis of ads for PediaLean revealed that ads for PediaLean strongly imply that the product causes substantial weight loss in overweight or obese children. Ads promise "hope for you and your overweight child." The advertising for PediaLean also communicates to consumers that clinical testing proves that that PediaLean causes substantial weight loss in overweight or obese children

FACIAL ANALYSIS OF ADVERTISING

Advertising for Topical Products

15. Advertisements for Dermalin-APg, Cutting Gel, and Tummy Flattening Gel strongly imply that using these products cause (1) rapid fat loss, (2) visibly obvious fat loss, and (3) rapid and visibly obvious fat loss in the areas to which the topical product is applied. These representations are made though efficacy statements ("penetrating gel emulsifies fat on contact" and "goes to work directly on your abs, biceps, glutes, pecs, or anywhere else you rub it in"), statements about clinical testing ("clinically proven" and "double-blind clinical trial"), and through visual images (slim models with flat abdomens and muscular models with well-defined muscles).

Rapid Fat Loss

16. Advertisements for Dermalin-APg strongly imply that using the product results in rapid fat loss. For example, ads state that the "Penetrating Gel Emulsifies Fat

on Contact." Moreover, ads state "Just apply Dermalin-APg's transdermal gel to your waist and tummy and watch them shrink in size within a matter of days." In describing the "story" of Dermalin-APg's development, ads mention that although a "fat-dissolving ingredient" was discovered in 1993 it took seven more years to produce a base formula that would enable it to "work quickly on all parts of the body." The advertising strongly implies that the Dermalin-APg formulation enabled this "discovery" to work quickly on all parts of the body. Advertisements also describe a "scientific" experiment: "Put Dermalin-APg™ in a culture dish with fat cells and you can literally watch them deflate – similar to sticking a pin into a balloon."[1] This description strongly implies that Dermalin-APg acts in a similar manner when applied topically; fat cells start to deflate instantly. In addition, a retail brochure contained a section of "frequently asked questions." In answer to the question "When can I expect to see results?," the brochure stated "You will begin to see an improvement within ten days. After 30 days, you can expect substantial results."[2] Thus, there are numerous examples in ads for Dermalin-APg that consumers are likely to perceive as claims for rapid fat loss.

17. Advertisements for Cutting Gel make similar representations. Ads claim that Cutting Gel "dissolves stubborn body fat on contact" and "dissolves surface body fat on contact." Further, ads maintain that as a result of using Cutting Gel "fat literally melts away." In addition, ads assert that users will obtain the desired results in "about ten days." Advertisements also state "Put Cutting Gel™ in a culture dish with fat cells and you can literally watch them deflate – similar to

[1] Statements mentioned in this paragraph appear in ads shown in Exhibit A and Exhibit B to FTC Complaint
[2] R0012259

sticking a pin into a balloon."[3] As stated previously, this statement strongly implies that when Cutting Gel is applied topically fat cells start to deflate instantly. Therefore, there are many instances of strongly implied claims in ads for Cutting Gel that consumers are likely to perceive as communicating rapid fat loss.

18. Advertisements for Tummy Flattening Gel also strongly imply that product use causes rapid fat loss. For example, ads declare that "when beta adrenergic stimulants such as Epidril™ are added to a culture dish with adipose (fat) cells, the cells deflate as they release their stored fat – very similar to the way a balloon deflates when stuck with a pin." Such a description strongly implies that Tummy Flattening Gel, which contains Epidril, will start working quickly when applied topically. In addition, ads state that "...Epidril-containing gels have been proven to emulsify fat on contact..." and that users will "see dramatic, visible results in approximately 19 days."[4] As a result, consumers reading ads for Tummy Flattening Gel are likely to "take away" the message that using the product results in rapid fat loss.

Visibly Obvious Fat Loss

19. Advertisements for Dermalin-APg also strongly imply that use of the product leads to visibly obvious fat loss. Ads assert that the product "...reduces the accumulation of 'age-related' body fat around your waist and abdomen" and it "...not only helps reduce dimpled appearance of your cellulite-afflicted areas, but also has the distinct ability to actually reduce the size of 'saddlebag' thighs'."[5]

[3] Exhibit D to FTC Complaint
[4] Exhibit F and Exhibit G to FTC Complaint
[5] Exhibit A to FTC Complaint

Also, the Dermalin-APg package indicates that the product will "reduce appearance of problem area fat accumulation and visible cellulite deposits."[6] Similarly, the Cutting Gel package states that it is "penetrating gel for the visible reduction of surface body fat" and that it leaves "pure, ripped muscle behind!"[7] Ads for Cutting Gel maintain "You will see the difference (and so will everyone else)!"[8] and "Cutting Gel™ reduces surface fat and exposes the toned muscle beneath!"[9] Use of words such as "ripped" and "tighter" in conjunction with words such as abs, thighs, and glutes convey the impression to consumers that Cutting Gel reduces fat and such a reduction is visibly obvious.[10] Of course, the names "Cutting Gel" and "Tummy Flattening Gel" strongly imply that the products produce visibly obvious effects. In addition, ads for Tummy Flattening Gel promise "dramatic, visible results in approximately 19 days" and refer to a "perfectly sculpted midsection."[11] Also, the visual images shown in advertisements for the three topical products convey the impression that use of the products leads to visibly obvious fat loss. For example, slim female models are shown in the ads for Dermalin-APg and Tummy Flattening gel, and well-muscled male models and "tight" female models are shown in the ads for Cutting Gel. Consequently, consumers are likely to perceive that advertising for Dermalin-APg, Cutting Gel, and Tummy Flattening Gel communicates that using the product will result in visibly obvious fat loss.

---

[6] R0009252
[7] Exhibit C to FTC Complaint
[8] Exhibit D to FTC Complaint
[9] R0006757
[10] Exhibit D and Exhibit E to FTC Complaint
[11] Exhibit F to FTC Complaint

Visibly Obvious Spot Fat Loss

20. Advertisements for Dermalin-APg, Cutting Gel, and Tummy Flattening Gel strongly imply that visibly obvious fat loss occurs in the areas to which the topical product is applied. For example, ads state that "Dermalin-APg™ permits you to spot reduce. Put it on your thighs – slimmer thighs."[12] Other ads for Dermalin-APg assert "Finally! Targeted Fat Loss. Helps reduce deep-stored body fat wherever applied."[13] The Cutting Gel package directs users to "Focus on one targeted area at a time (i.e., abs, quads, triceps, etc.) until you achieve desired results" and suggests that users "...apply Cutting Gel™ topically, directly to the specific areas that need extra definition" [14] Ads indicate that "Cutting Gel goes to work directly on your abs, biceps, glutes pecs, or anywhere else you rub it in."[15] Ads for Tummy Flattening Gel declare "This new, highly concentrated formula allows for precise, targeted delivery...making it the first true spot-reducing gel capable of effective reduction of dense abdominal fat." Of course, the name "Tummy Flattening Gel" itself strongly suggests that the gel when applied to the abdominal area causes a reduction of "tummy" fat. Therefore, consumers are likely to perceive that ads for Dermalin-APg, Cutting Gel, and Tummy Flattening Gel communicate that using these products will cause visibly obvious fat loss in the areas to which the products are applied.

[12] Exhibit A to FTC Complaint
[13] R0009316
[14] Exhibit C to FTC Complaint
[15] Exhibit D to FTC Complaint

Clinical Testing

21. Ads for Cutting Gel claim that it is a "clinically proven, patented formula"[16] and that "published clinical trials prove Cutting Gel's™ power."[17] Ads for Tummy Flattening Gel mention that it is "clinically proven" and that its effects have been "verified by two published clinical trials."[18] As a result, advertising for Cutting Gel and Tummy Flattening Gel likely communicates to consumers that published, clinical testing supports claims that these products cause rapid and visibly obvious fat loss in areas of the body to which they are applied.

"So What's The Catch?"or "The 'Fine Print'"

22. Many of the advertisements for Dermalin-APg, Cutting Gel, and Tummy Flattening Gel include a section entitled "So What's The Catch?" or "The 'Fine Print'" with "two caveats." In the first part of the section, consumers are informed that the advertised product releases fat into the blood stream and that they have to "help" burn off the fat by increasing physical activity or decreasing caloric activity to prevent the fat from being redeposited. In the second part of the section, consumers are cautioned to avoid using the advertised product "all over your body at the same time" because there is "simply no way for your body to utilize all the newly released fat."[19]

23. The relative lack of prominence and wording of these "caveats" are likely to have an impact on consumers' processing of the message. First, the "caveats" are much less prominent than the provocative headlines – "Penetrating Gel Emulsifies

---

[16] Exhibit E to FTC Complaint
[17] R0006757 and R0006792
[18] Exhibit F and Exhibit G to FTC Complaint
[19] Exhibit A to FTC Complaint

Fat on Contact," "Ripped Abs Ripped Pecs Ripped Glutes Ripped Everything," and "Reduces Tummy Fat." Consumers are much more likely to read the promotional messages than the "caveats." Second, words such as "redeposited" and "help" used in the first "caveat" are confusing, and they are likely to be interpreted in multiple ways by consumers. For example, if consumers fail to exercise or reduce calorie intake, will the fat that is forced into the blood stream be "redeposited" in the same spot that the gel has been applied or will it be "redeposited" in other areas of the body? In addition, while increased physical activity and calorie reduction "help" to prevent fat from being "redeposited," are such changes in behavior required for effective spot reduction? Respondents' retail brochure indicates that Dermalin-APg will "work faster" with an increase in physical activity, a decrease in caloric intake, or a metabolism-enhancing dietary supplement.[20] Thus, consumers are likely to read this brochure and conclude that the advertised product will still be effective without additional physical activity and reduced calorie consumption. Finally, the second "caveat" conflicts, in part, with the first "caveat." The first caveat appears designed to communicate to consumers a limitation on the potential effectiveness of the topical product by mentioning the benefits of increased physical activity and reduced caloric intake. However, the second "caveat" reinforces the products' effectiveness by focusing on the idea that "there is simply no way for your body to deal with that much released fat."[21]

[20] R0012259
[21] Exhibit F to FTC Complaint

Advertising for Leptoprin and Anorex

Substantial Weight Loss in Significantly Overweight Users

24. The advertisements for Leptoprin and Anorex strongly imply that product use leads to substantial weight loss in significantly overweight users. Ads indicate that the products have been developed for "significantly overweight" individuals who need to lose "20 or more pounds" or "more than 30 pounds of excess body weight"[22] In addition, television and radio commercials for Leptoprin provide testimonials from individuals who claim to have lost 31 pounds, 38 pounds, 50 pounds, 60 pounds, 80 pounds, 147 pounds, and 216 pounds using Leptoprin.[23] The potency of Leptoprin and Anorex also has been extolled in statements such as "If you're one of those people who constantly worry about five or six vanity pounds, Leptoprin is not for you. Leptoprin is much too expensive and much too powerful for the casual dieter."[24] Moreover, because the name "Anorex" is similar to the word "anorexia," it is likely to communicate to consumers the idea of substantial weight loss. Also, consumer brochures for Leptoprin and Anorex suggests that diet and exercise are unnecessary to achieve the claimed results: "The clinical studies proving Leptoprin's (Anorex's) effectiveness were conducted without caloric restriction or an exercise regimen."[25] Therefore, ads for Leptoprin and Anorex likely communicate to consumers that use of the products results in substantial weight loss in significantly overweight users, even without dieting or exercise.

---

[22] Exhibits H, I, and J to FTC Complaint and R0000224
[23] Exhibit H to FTC Complaint and R0012334-R0012346
[24] Exhibit H to FTC Complaint and R0012310
[25] R0029768 and R0006551

Substantial Fat Loss in Significantly Overweight Users

25. Advertising for Leptoprin and Anorex declares that use of the products results in substantial fat loss:

> However, if substantial, excess body fat is adversely affecting your health and self-esteem, then it's time for you to discover Leptoprin™ [Anorex] – the first comprehensive weight-loss compound designed specifically to overcome your genetic predisposition.[26]

The advertising goes on to state that Leptoprin (and Anorex) "dramatically interferes with the process of converting calories to fat," that "it 'mobilizes' stored fat, moving it out of the fat cell and thereby reducing the size of the fat cell mass," and that it "inhibits the creation of new fat cells."[27] Thus, ads for Leptoprin and Anorex strongly imply that use of the products results in substantial fat loss in significantly overweight users.

Clinical Testing

26. The advertising for Leptoprin indicates that the weight loss and fat loss claims are supported by clinical testing. For example, a television commercial for Leptoprin trumpets that the product is "…backed by …two published clinical trials"[28] In addition, a radio commercial describes the clinical studies in greater detail:

> The first study that was done on it was actually published in the International Journal of Obesity and the second study was published in the Journal of The American College of Nutrition.[29]

---

[26] Exhibit I and Exhibit J to FTC Complaint and R0012310 and R0000244
[27] *Ibid.*
[28] Exhibit H to FTC Complaint
[29] R0012336

Thus, advertising for Leptoprin likely communicates to consumers that the weight loss and fat loss claims discussed in paragraphs 24 and 25 are supported by published, clinical testing.

High Price

27. Advertising for Leptoprin and Anorex also highlight the products' high price ($153 a bottle). Advertisements ask the question: "When is a diet pill worth $153 a bottle?" The answers provided include: Because "Leptoprin is simply the most powerful, clinically proven weight control compound available"[30] and "When it works. Really works."[31] This theme is echoed in other ads for Leptoprin and Anorex.[32] High price is also emphasized in ads for Dermalin-APg: "At $135.00 a jar it better be good…"[33] and "At that price, it better be good…"[34] Academic research has shown that consumers associate a higher prices with higher quality products.[35] Therefore, ads for Leptoprin, Anorex, and Dermalin-APg that refer to the high price are likely to reinforce consumers' perceptions about product efficacy.

[30] Exhibit H to FTC Complaint
[31] R0012338 and R0012346
[32] R0012310. R0012335, and R0000257
[33] Exhibit A and Exhibit B to FTC Complaint
[34] R0009252
[35] Akshay R. Rao and Kent B. Monroe, "The Effect of Price, Brand Name, and Store Name on Buyers' Perceptions of Product Quality: An Integrative Review," *Journal of Marketing Research*. Vol.26, August 1989, pp. 351-357.

LMS00715

Advertising for PediaLean

28. The advertisements for PediaLean strongly imply that product use leads to substantial weight loss in overweight or obese children. Ads show a picture of what appears to be a mother comforting her significantly overweight child. Ads indicate that PediaLean gives "hope for you and your overweight child" and discuss the "pain and embarrassment" that is suffered by "more than 11 million overweight and obese school-aged children in the United States."[36] Advertising also emphasizes that PediaLean resulted in "significant weight loss in virtually every child studied."[37] In addition, the name "PediaLean" is likely to communicate to consumers the idea of substantial weight loss because most consumers are likely to associate "Pedia" with children and "Lean" with thin, slim, or slender. Therefore, the advertising and the product name suggest that overweight and obese children will lose an extensive amount of weight from using PediaLean.

29. Ads for PediaLean also indicate that "Children who used PediaLean along with a healthy, but not calorie-reduced diet and modest exercise lost an incredible 20% of their excess body weight."[38] Many consumers have only rudimentary levels of numerical literacy,[39] and they would be unlikely to discern that the 20% refers to "excess body weight" (an unfamiliar term) rather than overall body weight (a more familiar term). Other ads for PediaLean provide more detail about the clinical study and supply a complex discussion of the study's results. This

---

[36] Exhibit K and Exhibit L to FTC Complaint
[37] Exhibit L to FTC Complaint
[38] Exhibit K to FTC Complaint
[39] National Center for Educational Statistics. "Adult Literacy in America: Overview of 1992 Results," 1992 at http://nces.ed.gov/naal/resources/92results.asp

discussion reports, for example, that "...children showed a drop of excess body weight from 51±16% to 41.3±15% ($p<0.0005$)."[40] Most consumers would be unable to decipher the meaning of the statistical information provided. The data presented are particularly confusing because the numbers are not expressed in pounds. Also likely confusing to consumers is the phrase "significant weight loss."[41] Although the reported study may refer to a "statistically significant" weight loss, most consumers, who are unfamiliar with statistical concepts, would be likely to equate the "significant weight loss" described in the PediaLean ads with a substantial, extensive, or considerable weight loss.

30. Finally, ads for PediaLean refer to the clinical trial discussed above. The advertising includes phrases such as "clinically proven," "clinically proven safe and effective," "clinically proven solution," "published medical studies don't lie...clinically proven safe and effective," and "well-controlled double-blind clinical trial."[42] Therefore, the advertising for PediaLean likely communicates to consumers that clinical testing proves that that PediaLean causes substantial weight loss in overweight or obese children.

---

[40] Exhibit L to FTC Complaint
[41] Exhibit L to FTC Complaint
[42] Exhibit K and Exhibit L to FTC Complaint

CONCLUSION

31. In conducting a facial analysis, it is important to assess the overall impression conveyed by each advertisement. Thus, my opinions are based on an evaluation about what is the likely consumer perception of each of respondents' ads taken as a whole. In reaching my conclusions, I have relied, in part, on the psychological research on pragmatic implications. Pragmatic implications occur when statements strongly suggest something that is not explicitly asserted, thereby leading the person receiving the message (receiver) to make an inference. Pragmatic implications are likely to occur when a message is structured so as to lead the receiver to use information stored in memory in a manner that causes the receiver to make assumptions not expressly conveyed in the message.

> For example, on hearing "The clumsy waiter dropped the delicate glass teacup," we may infer that the teacup broke but it may not in fact have done so.[43]

Such inferences are common because people learn that language communicates far more than what is directly asserted by a communicator. However, pragmatic implications are more troubling in advertising. Sometimes advertisements do not directly assert a proposition, but such propositions may be pragmatically or strongly implied, thereby encouraging consumers to make inferences. Research has shown that there is little difference in consumers' processing of directly asserted (express) advertising claims and claims that are pragmatically implied.[44]

---

[43] Richard Jackson Harris, Julia C. Pounds, Melissa J. Maiorelle, and Maria Mermis. "The Effect of Type of Claim, Gender, and Buying History on the Drawing of Pragmatic Inferences from Advertising Claims," *Journal of Consumer Psychology*, Vol. 2 (No. 1). 1993, p. 84.

[44] Richard J. Harris, "Comprehension of Pragmatic Implications in Advertising," *Journal of Applied Psychology*, Vol.62 (No. 5), 1977, pp. 603-608.

In my facial analysis of Basic Research's advertising, I provide numerous examples of claims that are not directly asserted but that are likely communicated to consumers because such claims are strongly implied. These pragmatic implications occur because many of respondents' advertisements include persuasive efficacy statements and testimonials, accounts of clinical tests, conspicuous visual images, references to high prices, and suggestive brand names.

Michael B. Mazis
Michael B. Mazis, Ph.D.

20 October 2004
Date

Attachment A

LMS00720

December 2003

MICHAEL B. MAZIS

WORK ADDRESS

Kogod School of Business
The American University
27 Kogod School of Business
4400 Massachusetts Avenue, N.W.
Washington, D.C. 20016-8044
(202) 885-1972
(202) 885-2691 (FAX)
e-mail address: mmazis@american.edu

EDUCATION

B.S. in Economics, June, 1964
University of Pennsylvania, Wharton School

Master of Business Administration (M.B.A.) June 1966
New York University, Graduate School of Business Administration

Ph.D. in Business Administration, December 1971
The Pennsylvania State University
Major Field: Marketing
Minor Fields: Social Psychology/Quantitative Business Analysis

CURRENT POSITION

Professor of Marketing, August 1981 - present
Chair, Department of Marketing, June 1980 - August 1989; May 1998 - May 1999
Associate Professor of Marketing, September 1979 - August 1981
The American University
Kogod School of Business
Washington, D.C.

PREVIOUS POSITIONS

Chief, Marketing and Consumer Research, July 1977 - August 1979
Office of Policy Planning and Evaluation
Federal Trade Commission
Washington, D.C.

Resident Consultant, February 1977 - July 1977
Division of National Advertising
Bureau of Consumer Protection
Federal Trade Commission
Washington, D.C.

Economist, June 1976 - February 1977
Division of Drug Advertising
Bureau of Drugs
Food and Drug Administration
Rockville, Maryland

Assistant Professor of Marketing, September 1971 - August 1974
Associate Professor of Marketing, September 1974 - June 1976
University of Florida
Gainesville, Florida

Marketing Research Analyst, September 1965 - August 1968
Warner-Lambert Pharmaceutical Company
Morris Plains, New Jersey

EDITORSHIPS

Editor, *Journal of Public Policy & Marketing*, 1992-1995

Michael B. Mazis., ed., *Journal of Public Policy & Marketing*, Vol. 10 (Number 1, 1991), special conference issue

Associate Editor, *The Journal of Consumer Affairs*, 1998-2001.

Michael B. Mazis, ed., Proceedings of 1982 American Psychological Association Conference, Division 23 (Consumer Psychology).

Louis Morris, Michael Mazis and Ivan Barofsky, eds., *Product Labeling and Health Risks*, Banbury Center, Cold Spring Harbor Laboratory, New York, 1980, 328 pages.

GRANTS

Michael B. Mazis, "Evaluating Health Warning Labels for Alcoholic Beverages," National Institute on Alcohol Abuse and Alcoholism, September 1989-September 1992 ($700,000) and grant supplement, 1990-1992 ($65,000).

Michael B. Mazis, "Marketing and Public Policy: Issues for the 1990's," American Marketing Association, to fund workshop in Washington, D.C., August 1990 ($500).

PROFESSIONAL PUBLICATIONS

1. Stephen Miller, Michael B. Mazis and Peter L. Wright, "Perceptual Distortion in the Development of Brand Attitudes: A Cognitive Model," in David L. Sparks (ed.), ***Broadening the Concept of Marketing***, American Marketing Association, 1970, p. 119 (abstract).

2. Michael B. Mazis and Robert Green, "Implementing Social Responsibility," ***MSU Business Topics***, Vol. 13 (Winter 1971), pp. 68-76 (Reprinted in W. P. Anthony, J.B. Haynes and P. L. Wilkens (eds.) ***Social Responsibility of Business***, General Learning Press, 1972 and A.B. Carroll (ed.), ***Managing Corporate Social Responsibility*** Little, Brown and Company, 1977).

3. Stephen Miller, Michael B. Mazis, and Peter L. Wright, "The Influence of Brand Ambiguity on Brand Attitude Development," ***Journal of Marketing Research***, Vol. 8 (November 1971), pp. 447-9.

4. Michael B. Mazis, "Decision-Making Role and Information Processing," ***Journal of Marketing Research***, Vol. 9 (November 1972), pp. 447-9.

5. Michael B. Mazis, and Timothy W. Sweeney, "Novelty and Personality with Risk as a Moderating Variable," in Boris W. Becker and Helmut Becker (eds.) ***Marketing Education and the Real World***, American Marketing Association, 1972, pp. 406-11.

6. Michael B. Mazis and R. Eugene Klippel, "Variable Modular Testing: A New Method for Increasing Student Motivation and Learning in Large Classes," in Boris W. Becker and Helmut Becker (eds.), ***Marketing Education and the Real World***, American Marketing Association, 1972.

7. Michael B. Mazis and Robert B. Settle, "Consumer Reaction to Restriction of Choice Alternatives," in M. Venkatesan (ed.), ***Proceedings***, Third Annual Association for Consumer Research Conference, 1972, pp. 417-27.

8. Michael B. Mazis and Marilyn Beutenmuller, "Attitudes Toward Women's Liberation and Perception of Advertisements," in M. Venkatesan (ed.), ***Proceedings***, Third Annual Association for Consumer Research Conference, 1972, pp. 428-35.

9. Michael B. Mazis, "Cognitive Tuning and Receptivity to Novel Information," ***Journal of Experimental Social Psychology***, Vol. 9 (July 1973), pp. 307-19.

10. Michael B. Mazis, Robert B. Settle and Dennis C. Leslie, "Elimination of Phosphate Detergents and Psychological Reactance," ***Journal of Marketing Research***, Vol. 10 (November 1973), pp. 390-5.

11. Michael B. Mazis, Dan M. Smith and Kenneth C. Cosgrove, "The Influence of Personality, Interviewer Race and Respondent Race on Responses to a Racially-Oriented Questionnaire," in Thomas V. Greer (ed.), ***Combined Proceedings***, American Marketing Association, 1973, pp. 309-13.

12. Michael B. Mazis and Dan M. Smith, "A Comparison of General and Product Specific Risk Measures in the Prediction of Gasoline Purchases," in Robert L. King (ed.), ***Advances in Consumer Proceedings***, American Marketing Assoc., 1973, pp. 309-13.

13. Michael B. Mazis and R. Eugene Klippel, "Instrumentality Theories and Consumer Attitudes: Comparing Alternative Models," in Peter L. Wright (ed.), ***Advances in Consumer Research***, Vol. 1, Association for Consumer Research, 1973, pp. 346-7 (abstract).

14. Michael B. Mazis and John Faricy, "Consumer Response to the Meat Boycott," in Ronald C. Curhan (ed.), ***Combined Proceedings***, American Marketing Association, 1974, pp. 329-33.

15. Michael B. Mazis, "Anti-Pollution Measures and Psychological Reactance: A Field Experiment," ***Journal of Personality and Social Psychology***, Vol. 31 (April 1975), pp. 654-60. (Abstract published in ***Psychology Today*** and ***Human Behavior***; conducted radio interview on Canadian Broadcasting Corporation's "As It Is" concerning the article. Reprinted in ***Exploring Social Psychology: The Readings***, Steve L. Ellyson and Amy Halberstadt, editors, McGraw-Hill, 1994.)

16. Michael B. Mazis, Review of David A. Aaker and George S. Day eds., ***Consumerism: Search for the Consumer Interest, Journal of Marketing***, Vol. 39 (April 1975), p. 113.

17. Michael B. Mazis, Olli T. Ahtola and R. Eugene Klippel, "A Comparison of Four Multi-Attribute Models in the Prediction of Consumer Attitudes," ***Journal of Consumer Research***, Vol. 2 (June 1975), pp. 38-52.

18. John Faricy and Michael B. Mazis, "Personality and Consumer Dissatisfaction: A Multivariate Approach," in Edward M. Mazze (ed.), ***Combined Proceedings***, American Marketing Association, 1975, pp. 202-5.

19. Dan M. Smith and Michael B. Mazis, "Racial Self-Identification and Self-Concept by Means of Unobtrusive Measures," ***The Journal of Social Psychology***, Vol. 98 (1976), pp. 221-8.

20. Michael B. Mazis and Janis Adkinson, "An Experimental Evaluation of a Proposed Corrective Advertising Remedy," ***Journal of Marketing Research***, Vol. 13 (May 1976), pp. 178-83 (Reprinted in Richard J. Lutz, editor, ***Contemporary Perspectives in Consumer Research***, Kent Publishing Company, 1981).

21. Michael B. Mazis and John H. Faricy, "Teaching the Consumer Behavior Course: A Proper Blend of Theory, Applications and Presentation," for Special Education Issue of ***Marketing News*** (July 30, 1976).

22. Joel B. Cohen, Olli T. Ahtola, Michael B. Mazis and Lawrence J. Severy, "Extended Expectancy-Value Approach to Contraceptive Alternatives" in ***Proceedings of the 84th Annual American Psychological Association Convention***, American Psychological Association, 1976 (abstract).

23. Peter H. Rheinstein and Michael B. Mazis, "Regulation of OTC Advertising: The FDA 'Prescription'," ***Journal of the American Pharmaceutical Association***, Vol. 16 (September 1976), pp. 505-6, 524-5.

24. Louis A. Morris, Michael B. Mazis and Evelyn Gordon, "A Survey of the Effects of Oral Contraceptive Patient Information," ***Journal of the American Medical Association***, Vol. 238 (December 5, 1977), pp. 2504-8.

25. Michael B. Mazis, Louis A. Morris and Evelyn Gordon, "Patient Recall and Attitudes about Two Forms of Oral Contraceptive Patient Information," ***Medical Care***, Vol. 16 (December 1978), pp. 1045-54.

26. Albert Wildt and Michael B. Mazis, "Determinants of Scale Response: Label vs. Position," ***Journal of Marketing Research***, Vol. 15 (May 1978), pp. 261-7.

27. Michael B. Mazis and Dennis McNeill, "The Use of Marketing Research in FTC Decision making," Subhash C. Jain (ed.), ***Research Frontiers in Marketing: Dialogues and Directions***, American Marketing Association, 1978, pp. 308-11.

28. Michael B. Mazis, "Overview of 'Can and Should the FTC Restrict Advertising to Children's Workshop'," in William L. Wilkie (ed.), ***Advances in Consumer Research***, Vol. 6, Association for Consumer Research, 1978, pp. 3-6.

29. Kenneth L. Bernhardt and Michael B. Mazis, "Evaluating Consumer Protection Programs," in Thomas C. Kinnear, et. al. (eds.), ***Public Policy Issues in Marketing***, Division of Research, Graduate School of Business Administration, University of Michigan, 1979, pp. 48-62.

30. Michael B. Mazis, "Effects of Information on Product-Related Perceptions," in Jerry C. Olson, ed., ***Advances in Consumer Research***, Vol. 8, Ann Arbor, Michigan: Association for Consumer Research, 1980, pp. 538-40.

31. Michael B. Mazis and Louis A. Morris, "Evaluation of the Food and Drug Administration's Patient Package Insert Program," ***Proceedings***, 1980 American Psychological Association, Division 23.

32. Michael B. Mazis, "The Future of Consumer Protection Regulation" in Kent B. Monroe, ed., ***Advances in Consumer Research***, Vol. 9, Ann Arbor, Michigan: Association for Consumer Research, 1981, pp. 455-7.

33. Kenneth Bernhardt, Thomas Kinnear, Michael Mazis and Bonnie B. Reece, "Impact of Publicity on Corrective Advertising Effects," in Kent B. Monroe, ed., ***Advances in Consumer Research***, Vol. 9, Ann Arbor, Michigan: Association of Consumer Research, 1981, pp. 414-15.

34. Michael B. Mazis, "An Overview of Product Labeling and Health Risks," in Louis Morris, Michael Mazis and Ivan Barofsky, eds:, ***Labeling and Health Risks***, Banbury Center, Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, 1980, pp. 1-9.

35. Michael B. Mazis, Richard Staelin, Howard Beales and Steven Salop, "A Framework for Evaluating Consumer Information Regulation," ***Journal of Marketing***, Vol. 45 (Winter 1981), pp. 11-21.

36. Howard Beales, Michael B Mazis, Steven C. Salop and Richard Staelin, "Consumer Search and Public Policy," ***Journal of Consumer Research***, Vol. 8, (June 1981), pp. 11-22.

37. Michael B. Mazis and Richard Staelin, "Information Processing Principles for Public Policy Making," ***Journal of Public Policy & Marketing***, Vol. 1 (1982), pp. 3-14.

38. Michael B. Mazis, "Effectiveness of Required Information Disclosures to Consumers," in Paul N. Bloom, ed., ***Consumerism and Beyond: Research Perspectives on the Future Social Environment***, Cambridge, Mass.: Marketing Science Institute, 1982, pp. 75-8.

39. Michael B. Mazis, Dennis McNeill and Kenneth Bernhardt, "Day-After Recall of Listerine Corrective Commercials," ***Journal of Public Policy & Marketing***, Volume 2 (1983), pp. 29-37.

40. William L. Wilkie, Dennis McNeill and Michael Mazis, "Marketing's 'Scarlet Letter': The Theory and Practice of Corrective Advertising," ***Journal of Marketing***, Vol. 48 (Spring 1984), pp. 11-31.

41. Michael B. Mazis, "Analysis of Medical Consumer Behavior," in Thomas Kinnear, ed., ***Advances in Consumer Research***, Vol. 11, Ann Arbor, Michigan: Association for Consumer Research, 1984, pp. 235-7.

42. Ronald Hill and Michael B. Mazis, "Measuring Emotional Responses to Advertising," in Richard Lutz, ed., ***Advances in Consumer Research***, Vol. 13, Association for Consumer Research, 1986, pp. 164-69.

43. Kenneth Bernhardt, Thomas Kinnear, and Michael Mazis, "A Field Study of Corrective Advertising Effectiveness," ***Journal of Public Policy & Marketing***, Vol. 5, (1986), pp. 146-62.

44. Michael Mazis, "Overlooked Mechanisms for Conveying Information to Consumers" in E. Scott Maynes, ed. ***The Frontier of Research in the Consumer Interest***, Columbia, Missouri: American Council on Consumer Interests, 1988, pp. 225-230.

45. Louis A. Morris, Michael B. Mazis and David Brinberg, "Risk Disclosures in Televised Prescription Drug Advertising to Consumers," ***Journal of Public Policy & Marketing***, Vol. 8 (1989), 64-80.

46. Michael B. Mazis, "The Marketing of Alcohol: A Spirited Debate," in William L. Wilkie and Patrick E. Murphy, eds., ***The Federal Trade Commission in the 1990's***, University of Notre Dame Press, 1990, 221-233.

47. Michael B. Mazis, "Priority Public Policy Research Needs for the 1990's," in William L. Wilkie and Patrick E. Murphy, eds., ***The Federal Trade Commission in the 1990's***, University of Notre Dame Press, 1990, 369-373.

48. Michael B. Mazis, Louis A. Morris and John L. Swasy, "An Evaluation of the Alcohol Warning Label: Initial Survey Results," ***Journal of Public Policy & Marketing***, Vol. 10 (Spring, 1991), 229-41.

49. Michael B. Mazis, Review of Jef I. Richards, ***Deceptive Advertising: Behavioral Study of a Legal Concept, Journal of the Academy of Marketing Science***, Vol. 20 (Winter 1992), 99-100.

50. Michael B. Mazis, Debra Jones Ringold, Elgin S. Perry, and Daniel W. Denman, "Perceived Age and Attractiveness of Models in Cigarette Advertisements," ***Journal of Marketing***, Vol. 56 (January 1992), 22-37.

51. Louis A. Morris, John L. Swasy, and Michael B. Mazis, "Accepted Risk and Alcohol Use During Pregnancy," ***Journal of Consumer Research***, Vol. 21 (June 1994), 135-144.

52. Manoj Hastak, Romana L. Horst, and Michael B. Mazis, "Consumer Perceptions About and Comprehension of Environmental Terms: Evidence From Survey Research Studies" in Debra Jones Ringold, ed., ***Proceedings of the Marketing and Public Policy Conference***, Vol. 4, Baltimore, MD, May, 1994, 94-108.

53. Michael B. Mazis, "The Cellular Telephone Cancer Scare," in ***When Lightning Strikes: A How-To Crisis Manual with Classic Case Studies***, Wayne L. Pines, ed., Washington, DC: Washington Business Information, Inc., 1994, 279-290.

54. Michael B. Mazis, "Conducting Research on Nontraditional Media in the Marketing of Alcoholic Beverages," Susan Martin, ed., ***The Effects of the Mass Media on the Use and Abuse of Alcohol***, Research Monograph No. 28, NIH Publication 95-3743, Washington, DC: U. S. Department of Health and Human Services, 1995, 239-244.

55. Louis A. Morris, Manoj Hastak, and Michael B. Mazis, "Consumer Comprehension of Environmental Advertising and Labeling Claims," ***Journal of Consumer Affairs***, Vol. 29 (Winter 1995), 328-350.

56. Gary T. Ford and Michael B. Mazis, "Informing Buyers of Risks: An Analysis of the Marketing and Regulation of All-Terrain Vehicles," ***Journal of Consumer Affairs***, Vol. 30 (Summer 1996), 90-123.

57. Michael B. Mazis, "Copy-Testing Issues in FTC Advertising Cases," in Ronald Paul Hill and Charles R. Taylor, eds., ***Proceedings of the Marketing and Public Policy Conference***, Vol. 6, Chicago, IL: American Marketing Association, 1996, 122-130.

58. Michael B. Mazis, Louis A. Morris and John L. Swasy, "Longitudinal Study of Awareness, Recall, and Acceptance of Alcohol Warning Labels," ***Applied Behavioral Science Review***, 4 (1996, Number 2), 111-120.

59. Michael B. Mazis and Mary Anne Raymond, "Consumer Perceptions of Health Claims in Advertisements and on Food Labels," ***Journal of Consumer Affairs***, Vol. 31 (Summer 1997), 10-26.

60. Michael B. Mazis, "Marketing and Public Policy: Prospects for the Future," ***Journal of Public Policy & Marketing***, Vol. 16 (Spring, 1997), 139-143.

61. Michael B. Mazis and Louis A. Morris, "The Channel," in Michael S. Wolgalter, John W. Brelsford, David M. DeJoy, and Kenneth R. Laughery, eds., ***Warnings and Risk Communication***, London, England: Taylor & Francis, 1999, pp. 99-122.

62. Michael B. Mazis, "*FTC v. Novartis*: The Return of Corrective Advertising?," ***Journal of Public Policy & Marketing***, Vol. 20 (Spring, 2001), 114-122.

63. Manoj Hastak, Michael B. Mazis, and Louis A. Morris, "The Role of Consumer Surveys in Public Policy Decision Making," ***Journal of Public Policy & Marketing***, Vol. 20 (Fall 2001), 170-185. (Recipient of Thomas C. Kinnear/*Journal of Public Policy & Marketing* Outstanding Article Award presented by American Marketing Association for articles published 1999-2001.)

LMS00729

PROFESSIONAL ACTIVITIES

Editorial Review Board, ***Journal of Public Policy & Marketing***, 1982-present.
Editorial Review Board, ***The Journal of Consumer Affairs***, 1998-present.
Editorial Review Board, ***Journal of Current Issues & Research in Advertising***, 2002-present
Editorial Review Board, ***Journal of Marketing***, 1991-1996.

Board of Directors, Association for Consumer Research (ACR), 1979-81.

Leadership Board, "Marketing and Society," American Marketing Association (AMA) Special Interest Group, 2003-present.

Manuscript reviewer for AMA Educator's Conferences, 1976-2003; ACR Conference, 1978-1996; Marketing and Public Policy Conference, 1992-2003; Academy of Marketing Science Conference, 1994; American Academy of Advertising Conference, 1994; ***Journal of Consumer Research***, 1980, 1985-1990, 2000; ***Decision Sciences***, 1977 and 1980; ***Journal of Marketing***, 1981, 1987, 1990-1991, 1999, 2001-2003; ***Journal of*** Advertising, 2002; Journal ***of Marketing Research***, 1985-1987, 1992; ***Journal of Consumer Affairs***, 1989, 1991-1992, 1995, 1997; ***Psychology and Marketing***, 1990 and 1997; ***Journal of Business Research***, 1991; ***Journal of the Academy of Marketing Science***, 1991; ***International Journal of Research in Marketing***, 1992; ***Safety Science***, 1992; ***Alcoholism: Clinical and Experimental Research***, 1994; ***Journal of Business Ethics***, 1997; ***American Business Law Journal***, 1998.

Conference Co-chair, Marketing and Public Policy Conference, Washington, DC, 2003.

Conference Director, AMA Workshop, "Marketing and Public Policy: Issues for the 1990's," Washington, D.C., August 1990..

Proposal reviewer for the National Science Foundation, 1978. Discussant at AMA Educators' Conference, 1976 and ACR Conference, 1979, 1981, and 1983. Session Chair, AMA Educators' Conference, 1981 and 1988. Discussant at International Conference on Research in the Consumer Interest, 1987 and at American Psychological Association Conference, 1986.

Invited lecturer at University of Kentucky, University of South Carolina, Duke University, University of Maryland, George Washington University, Penn State University, Georgetown University, and Queen's University.

Presented papers at AMA Educators' Conference, 1970, 1975, 1978, 1988, 1992, and 1994; ACR Conference, 1972-1973, 1977, 1979-1980, 1983, 1985, 1992, and 1994; Marketing and Public Policy Conference, 1990, 1992-2003; American Public Health Association Conference, 1991; Southern Marketing Association Conference, 1972 and 1973; American Psychological Association Conference, 1976 and 1980; Academy of Marketing Science Conference, 1992; AMA Doctoral Consortium, 1992 and 1993; AMA

Faculty Consortium on Ethics and Social Responsibility, 1995; AMA mini-conference on Environmental Issues, 1996; AMA mini-conference on Teaching of Public Policy, 1997.

Presented papers at American Assembly of Collegiate Schools of Business, 1979; Association of National Advertisers' Annual Meeting, 1979; J.C. Penney Consumer Affairs Forum, 1979; American Marketing Association (Washington Chapter), 1979; U.S. Regulatory Council's Innovative Techniques Workshop, 1980; MSI Conference: "Consumerism and Beyond: Research Perspectives on the Future Social Environment," 1982; American Advertising Federation Spring Government Affairs Conference, 1989; "The Federal Trade Commission in the 1990's," University of Notre Dame, 1989; Federal Trade Commission Marketing Symposium, 1991 and 1992; Drug Information Association, 1992; American Bar Association Conference: "How to Launch or Defend Against Competitive Challenges to Advertising Claims," 1995; National Advertising Division Workshop on Consumer Perception Communications Surveys, Council of Better Business Bureaus, 1996.

Organized special sessions at ACR Conference on children's advertising regulation, 1978, and on corrective advertising, 1980. Organized pre-conference workshop "Current Developments at the FTC and FDA" for 2000 Marketing and Public Policy Conference. Organized panel on disclosure research at FTC/NAD Conference "Disclosure Exposure," 2001.

Participated in writing, "Review of the Research Literature on the Effects of Health Warning Labels: A Report to the United States Congress," June 1987.

Wrote "The Effects of the FTC's Listerine Corrective Advertising Order" for Federal Trade Commission, 1981; "An Analysis of Homeowner Experiences with Ward-Corporation-Built Homes" for Federal Trade Commission, 1983; "An Analysis of All-Terrain Vehicle Advertising 1980-87" for Consumer Product Safety Commission, 1988; and "Summary and Analysis of Consumer Surveys on Environmental Claims in Advertising and Labeling" for Federal Trade Commission, 1992 (with Manoj Hastak and Romana Horst); "Consumers' Interpretation of Alternative Environmental Claims" for Federal Trade Commission, 1996 (with Manoj Hastak and Thomas J. Maronick).

Member of Advertising and Marketing Panel of the Surgeon General's workshop on Drunk Driving, 1989; Member of Working Group on the Effects of the Mass Media on the Use and Abuse of Alcohol, 1992.

CONSULTANCIES

Served as the FTC's principal marketing witness in *FTC vs. Novartis* in 1997 and in *FTC vs. Trans Union* in 1998. Served also as a consultant on marketing issues for Federal Trade Commission, Food and Drug Administration, Department of Justice, Consumer Product Safety Commission, and the State of California.

HONORS

The American University Award as Outstanding Faculty Administrator (1985) and for Academic Program Development (1984)
Nominated for Teacher-Scholar Award (1983, 1985, 1989, and 1993)
Kogod College Award for Scholarship (1991)
Beta Gamma Sigma and Phi Kappa Phi
AACSB Federal Faculty Fellow, 1976-77

COURSES TAUGHT

Undergraduate: Consumer Behavior, Advanced Consumer Behavior, Marketing Research, and Principles of Marketing.

Graduate: Consumer Behavior, Marketing Research, Marketing Management, Doctoral Seminar in Consumer Research, Marketing and Public Policy, and Internet Marketing.

UNIVERSITY SERVICE

Elected to University Senate, 1980-1986, 1994-95.

University Senate Vice Chair, 1982-83, Parliamentarian, 1981-82, Nominating Committee, 1982-83, Executive Committee, 1981-83, Chair, Summer Sessions Committee, 1984-85, Secretary, The American University Club, 1988-89, Finance Committee, 1991-93.

AU 85 Committee on Faculty Utilization and Development, 1981-82
AU 100 Ad Hoc Committee, 1987; AU Smoking Task Force, 1988-92

Kogod College of Business Administration Faculty Evaluation Committee, 1979-80, Strategic Planning Committee, 1984-85, Chair, M.B.A. Committee, 1984-85, Rank and Tenure Committee, 1989-91 (chair), 2001-2003, Chair, Educational Policy Committee, 1991, MBA Task Force, 1991-1992 (chair) and 1994-96, Research Committee, 1993, 1996-98 (chair), MBA Oversight Committee, 1994-95, Member, Graduate Educational Policy Committee, 1996-1997, Member, Dean Search Committee, 1995-1996, Member, MBA Admissions Committee, 1995-98, Member, Search Committee for IT Center Director, 2001, Dean's Committee on Communication, 2001-2002.

Developed "Marketing Week," 1981-1983.

Developed "Marketing Career Extravaganza," a networking event for students at five Washington, DC area universities, 2001.

Attachment B

DEPOSITION AND TRIAL TESTIMONY FOR MICHAEL B. MAZIS

- FTC Rulemaking for Antacid Advertising, 1979
- FTC v. Southwest Sunsites, 1981
- FTC Rulemaking for Funeral Industry Practices, 1989
- Ingredient Communication Council, Inc. v. State of California, 1989
- Robinson v. McNeill, et al., 1990
- Feris v. Honda, 1990
- Bittner v. Honda, 1991
- Rangel v. Honda, 1991
- Larsen v. Honda, 1991
- USA v. Vit-a-Drops, 1992
- Tracy v. Ford, 1993
- Robson v. Jeep, 1994
- Bardsley v. Ford, 1995
- Glaxo Warner-Lambert v. Johnson & Johnson, 1996
- Ameritech v. MCI, 1996
- FTC v. Novartis Corp. (Doan's), 1997 – administrative proceeding (deposition and trial) – deceptive advertising case
- Abbott Laboratories v. Gerber Products and Novartis Corp., 1997 (deposition and trial – U.S. District Court for the Western District of Michigan (979 F.Supp. 569) – Lanham Act case
- FTC v. Trans Union, 1998 – administrative proceeding (deposition and trial) – Fair Credit Reporting Act case – consumer privacy interests
- Shannon Davis v. American Home Products, 1998 – Texas state court (deposition) –

products liability case

- FTC v. United Industries (Spectracide Terminate), 1999 – U.S. District Court for the District of Maryland (MJC 98-3455) (deposition) – deceptive advertising case
- U.S. (FTC) v. Alpine Industries, 1999 – U.S. District Court for the Eastern District of Tennessee (deposition) – deceptive advertising case
- S. C. Johnson v. The Clorox Company, 19992000 (trial) – U. S. District Court for the Southern District of New York (99 Civ. 11079) – Lanham Act case
- The Working Group on Carcinogens and Immune Suppressing Chemicals (CISC) v. Baxter Healthcare Corp (Proposition 65 – IV Sets), 2000 (deposition) – products liability case
- Bartholdi Cable Co., Inc. v. Time Warner Inc. et al., 2001 – U. S. District Court for the Eastern District of New York (Civ. No. 96-2687) (deposition) – antitrust case
- Fernandez v. Honda Motor Company, 2001 – New Mexico state court (D-0117-CV-9802730) (deposition) – products liability case
- Mary Beth Rohrer, et al. v. Yamaha Motor Corporation and Town & Country Yamaha, 2001 – Kentucky state court, Graves Circuit Court (Civil Action No. 99-CI-361) (deposition) – products liability case
- Digital Performance Rights in Sound Recordings and Ephemeral Recordings – Docket No. 2000-9 (CARP DTRA 1 & 2), U. S. Copyright Office, Library of Congress, 2001 (hearing) – hearing to set royalty rates for digital transmission of sound recordings
- PBM Products, Inc. v. Mead Johnson & Company, 2001 – U.S. District Court for the Eastern District of Virginia (Case No. 3:01CV199) (deposition) – Lanham Act case
- Bell South v. Supra Telecommunications, 2001 – U.S. District Court for the Southern District of Florida (Civil Action No. 004205-CIV) (deposition and trial) – Lanham Act case
- Gibson v. Nissan Motor Company, et al., 2002 – U.S. District Court for the District of Colorado (Civil Action No. 00-M-1819) (deposition) – products liability case
- FTC v. Stephen Patrick Garvey, et al., 2002 – U.S. District Court for the Central District of California (Civil Action No. 00-09358) (trial) – deceptive advertising case

- FTC v. Speedway Motorsports, Inc. and Oil-Chem Research Corp., 2002 – U.S. District Court for the Middle District of California (Civil Action No. 1:00CV00126) (deposition) – deceptive advertising case

- Victoria Stuart v. Consumers Paint Factory, et al., 2002 – Superior Court of the State of California in and for the County of San Luis Obispo (Civil Action No. CV 980999) (deposition and trial) – Proposition 65 case (warnings)

- Maui Pineapple Company v. Del Monte Fresh Produce, et al., 2002 – United States District Court Northern District of California (San Francisco Division) (Case No. C 01-1449 CRB) (deposition) – Lanham Act case

- Michael DiPirro v. Macy's West, Inc. and J.C. Penney Company, Inc., 2002 – Superior Court of the State of California in and for the County of San Francisco (Case Nos. 407150 and 407058) (deposition and trial) – Proposition 65 case (warnings)

- FTC v. Mercury Marketing, et al., 2003 – U.S. District Court for the Eastern District of Pennsylvania (Civil Action No. 00-CV-3281) (deposition and trial) – deceptive advertising case

- Monsanto Company v. Oakhurst Dairy, Inc., 2003 – U.S. District Court for the Eastern Division of Massachusetts (Civil Action No. 03-11273 RCL) (deposition) – Lanham Act case

- McNeil-PPC, Inc. and Johnson & Johnson Hemisferica S.A. v. Merisant Company and Merisant Puerto Rico, Inc., 2004 – U.S. District Court for the District of Puerto Rico (Civil Action No. 04-1090 JAG) (trial) – Lanham Act case

- FTC v. Telebrands, et al., 2004 – Federal Trade Commission proceeding (Docket No. 9313) (deposition and trial) – deceptive advertising case

- Robert P. Heffner, et al. v. Blue Cross Blue Shield of Alabama, 2004 – U.S. District Court for the Middle District of Alabama, Northern Division (deposition) – class action suit

- The Steak n Shake Company v. Burger King Corporation, 2004 – U.S. District Court for the Eastern District of Missouri (Case No. 4:04CV00525TCM) (trial) – Lanham Act case

- Kathleen McCormack, et al. v. Wyeth, et al., 2004 – Superior Court of the District of Columbia (Civil No. 02-CA-6082) (deposition) – products liability case

- Pilot Corporation of America v. Fisher-Price, Inc. and Mattel, Inc., 2004 – U.S. District Court for the District of Connecticut (Civil Case No. 3:04CV977 JBA) (trial) – Lanham Act case

Attachment C

LMS00737

The Effect of Type of Claim, Gender, and Buying History on the Drawing of Pragmatic Inferences From Advertising Claims

Richard Jackson Harris, Julia C. Pounds,
Melissa J. Maiorelle, and Maria Mermis
Kansas State University

Research in cognition has shown that people frequently draw pragmatic inferences that go beyond what is stated directly in the text (e.g., understanding that *Sparkle fights cavities* implies that it prevents cavities). This study examines the effects of directly asserted claims and five different types of implied claims (hedge words, deleted comparatives, juxtaposed imperatives implying causality, statistical abuses, and negative questions) on the ratings of the truth value of a related claim and on the rated likelihood of purchasing that product. The different types of implied claims that produced the highest truth rating were not the most convincing in the sense of purchase likelihood. Directly asserted claims were no more true or convincing than many of their weaker implied counterparts. Overall, women rated test claims more true than men, regardless of which type of claim they had read. Subjects who were frequent users of a particular product class tended to rate both truth and purchase likelihood higher than nonusers but the effect was significant only for some products. Results are discussed in terms of methodological concerns and general applications.

It is well-known from research in cognition that people naturally and typically make inferences that go beyond the material directly present in the text (for reviews, see Graesser & Bower, 1990; Harris, 1981; Rickheit & Strohner, 1985). Many inferences are pragmatic (i.e., suggested by the hearer's knowledge

Requests for reprints should be sent to Richard Jackson Harris, Department of Psychology, 492 Bluemont Hall, 1100 Mid-Campus Drive, Kansas State University, Manhattan, KS 66506–5302.

the test sentence being the only part of the ad that was changed. The rest of the ad's text remained the same for all ads. The five types of implied claims were:

1. *Statistical abuses,* which use incomplete or inadequate reporting of the test or survey results.
2. *Hedge words,* which weaken the assertion.
3. *Deleted comparatives,* which make comparisons without stating the basis of the comparison.
4. *Juxtaposed imperatives,* two imperatives side-by-side pragmatically implying a causal relation.
5. *Negative questions,* which negate a question and thus imply an affirmative answer.

See Table 1 for examples of advertisements and test sentences.

Six counterbalanced lists were constructed by assigning the ads to create List 1 in a sequential manner as follows: Ad 1, direct assertion; Ad 2, statistical abuse; Ad 3, hedge word; Ad 4, deleted comparative; Ad 5, juxtaposed imperative; and Ad 6, negative question. The rest of the list was completed with Ads 7 through 12 following the same order of ad type as occurred in Ads 1 to 6. List 2 was then made by putting Ad 1 in the statistical-abuse form, Ad 2 in the hedge-word form, Ad 3 in deleted-comparative form, and so on in order until Ad 6, the direct assertion; Ads 7 to 12 repeated this pattern. The remaining lists were created in the same way so that each ad was presented as one of the six different ad types in each of the six lists.

TABLE 1
Examples of the Six Claim Types for One Ad and the Critical and Control Test Sentences

Direct assertion
"The power to get clothes clean. *Clean-All laundry detergent removes even the toughest stains.* Try our new formula. You will love the fresh smell it leaves behind."

Statistical abuse
"The power to get clothes clean. *Over half of the people we asked said they preferred Clean-All laundry detergent to remove even the toughest stains.* Try our new formula. You will love the fresh smell it leaves behind."

Hedge word
"The power to get clothes clean. *Clean-All laundry detergent battles even the toughest stains.* Try our new formula. You will love the fresh smell it leaves behind."

Deleted comparative
"The power to get clothes clean. *Clean-All laundry detergent removes tough stains better.* Try our new formula. You will love the fresh smell it leaves behind."

Juxtaposed imperative
"The power to get clothes clean. *Remove even the toughest stains. Use Clean-All laundry detergent.* Try our new formula. You will love the fresh smell it leaves behind."

Negative question
"The power to get clothes clean. *Doesn't Clean-All laundry detergent remove even the toughest stains?* Try our new formula. You will love the fresh smell it leaves behind."

Test sentence
"Clean-All laundry detergent gets rid of stains."

False control sentence
"Clean-All laundry detergent is only used to clean floors."

Note. Italicized portions did not appear in italics for subjects.

Each ad was directly followed on the same page by three questions pertaining to it. The first—"*Based on this ad,* would you want to try this product or service?"—was followed by a model of the 7-point rating scale ranging from *probably no* (1) to *probably yes* (7), with the symbol *?* appearing at the midpoint (4). The qualifier *probably* was used in the scale anchors because of the simulation nature of the experiment. It was felt that subjects would be reluctant to respond that they would *definitely* purchase a fictitious product they had no knowledge of except for this ad.

Questions 2 and 3 were preceded by a model of a 7-point rating scale ranging from *definitely false* (1) to *definitely true* (7), with *?* appearing at the midpoint (4). Subjects were asked to rate the truth value of two following statements. Question 2 presented a paraphrased restatement of the test claim contained in the ad and Question 3 was either a false or indeterminate control statement about the ad. These control statements were included to insure that subjects used the entire scale. False items were directly contradicted by information in the ad, whereas the indeterminate items dealt with material never even mentioned in the ad. Examples of these test items appear at the end of Table 1.

Each subject received a list of 12 ads (one of the six lists) and an answer sheet. Each list of ads contained 2 ads per page, with each ad followed by its three questions. The first page of the answer booklet asked for demographic information and contained the 12 buyer questions to assess buying behavior for the different products. The second page of the answer booklet listed Ad 1 through Ad 12 with three spaces for the subject's responses to the questions on each ad.

Procedure and Design

Subjects were randomly assigned into six different groups during each session, determined by which list they received. All six lists were equally, but randomly, distributed at each session. The subjects were then instructed to answer the demographic and buyer questions on the first page of the answer sheet. The subjects were told to read each ad, which appeared in bold type, and to respond to the three questions following each ad; they were instructed to proceed at their own pace through the task.

LMS00739

interact with the claim-type variable is of some concern but in this study five of the six claim types involved some sort of pragmatic inference. It may have been that the task overall did not evoke a sufficiently high level of attention to produce this interaction. Results do suggest, however, that gender is a useful variable to include in inference research. It has traditionally been ignored in most cognitive research.

Buyer–Nonbuyer Differences

Subjects who used a product class regularly usually gave higher ratings to the truth of the claim about a product in that class and predicted a greater likelihood of purchasing that product, based on reading the ad, than did nonusers and infrequent users of that product class, although the differences were often modest and not always significant. However, no differences were found as a function of whether the subjects had read the asserted or implied claims, nor did the type of implied claim have any effect. Thus, the tendency to interpret implied advertising claims as having been stated more strongly is apparently a general phenomenon not dependent on the subject's experience with that product class. This is consistent with findings of Harris et al. (1981), who found that farmers rated the truth of both asserted and implied claims in ads for farm equipment higher than nonfarmers did, but they did not discriminate asserted and implied claims any better than nonfarmers did.

It seems reasonable that a greater knowledge and use of a product-class would either (a) sensitize one to potentially deceptive claims or (b) cause one to process advertising claims more deeply. Either case should result in a greater difference in the truth ratings for asserted and implied claims and in ratings of intent to purchase that product. However, no evidence for such an effect was obtained. The only effect seems to be a very nonspecific elevation of both truth and purchase-likelihood ratings overall among buyers.

Conclusions

Methodologically, several conclusions may be drawn. First, the results argue for the use of multiple dependent measures. Ratings of truth judgment and purchase intent were only weakly correlated and frequently showed an effect on one that was not replicated on the other. Second, the variable of knowledge or buyer experience is very tricky to operationalize and test. Several pilot studies in the authors' laboratory using different ways of measuring this variable have shown inconsistent results, sometimes largely null and often idiosyncratic for different products and ads. Is it best measured by buying experience, by product-class knowledge, by self-rating of knowledge, by the elusive factor of "involvement," or by some combination of these ways or some other way not yet identified? There may in fact be several underlying correlated variables at work here, as well as possible important interactive variables that have not yet been examined in this context (e.g., durable vs. nondurable goods, products vs. services).

Certainly our study is a very different situation from that of the actual consumer in the marketplace. In particular, two concerns highlight the divergence of the experience of our subjects from that of an actual consumer processing an ad: (a) the lack of pictorial content in the ad, and (b) the artificial situation of reading a list of ads and doing the required rating tasks. Both these constraints, should they have any effect at all, would presumably predict greater-than-normal attention, and, consequently, deeper processing, of the semantic content of the ad copy by our subjects, compared to real-life consumers in a natural context. That there was no stronger effect of the buyer variable and that the directly asserted claims did not differ on either measure from most of the classes of implied claims suggest that such a difference would be very unlikely in the more complex real-world situation. Any real difference should show up with our procedure. It is, of course, possible that the modest effects of gender, ad type, and buyer knowledge obtained in this study would lessen or disappear in a more realistic situation, but that awaits further research.

In terms of applications to advertising, results suggest that stating a claim very strongly and directly is no more effective in persuasion than stating a weaker version of the claim. In fact, subjects generally rated the truth of the implied claim just as strongly as for a direct assertion, although this varied somewhat depending on the type of claim. What then, is the incentive to directly assert advertising claims? There seems to be very little, with considerable incentive to imply the claim instead.

Not only may implying, versus asserting, a claim have some psychological advantage and no disadvantage, but it may also be legally advantageous. The question of the legal and behavioral status of implied claims in advertising has been the subject of considerable study and litigation (Craswell, 1985; Ford & Calfee, 1986; Gardner & Leonard, 1990; Preston, 1989; Preston & Richards, 1986; Richards, 1990). Although it is clear that an advertiser may be held legally accountable for falsehoods directly asserted, the possible culpability of the act of implying a falsehood is less clear. Does the legal responsibility of comprehending false information about a product lie with the advertiser for implying such information or with the consumer for inaccurately inferring such an interpretation from the ad?

ACKNOWLEDGMENTS

Melissa Maiorelle is now at the University of Alaska–Anchorage.

We thank Robin Wessels DeMott of Pittsburg State University, Mark Helt of the University of Freiburg, and Tina Rathbun and Todd Kern of Kansas State University for work on pilot studies leading to this research.

REFERENCES

Bruno, K. J., & Harris, R. J. (1980). The effect of repetition on the discrimination of asserted and implied claims in advertising. *Applied Psycholinguistics, 1,* 317–321.

Burke, R. R., DeSarbo, W. S., Oliver, R. L., & Robertson, T. S. (1988). Deception by implication: An experimental investigation. *Journal of Consumer Research, 14,* 483–494.

Chiesi, H. L., Spilich, G. J., & Voss, J. F. (1979). Acquisition of domain-related information in relation to high and low domain knowledge. *Journal of Verbal Learning and Verbal Behavior, 18,* 257–274.

Craswell, R. (1985). Interpreting deceptive advertising. *Boston University Law Review, 65,* 657–732.

Ford, G. T., & Calfee, J. E. (1986). Recent developments in FTC policy on deception. *Journal of Marketing, 50,* 82–103.

Gardner, D. M., & Leonard, N. H. (1990). Research in deceptive and corrective advertising: Progress to date and impact on public policy. *Current Issues and Research in Advertising, 12,* 275–309.

Geis, M. (1982). *The language of television advertising.* New York: Academic.

Graesser, A. C., & Bower, G. H. (Eds.). (1990). *Inferences and text comprehension.* San Diego: Academic.

Harris, R. J. (1981). Inferences in information processing. In G. H. Bower (Ed.), *The psychology of learning and motivation* (Vol. 15, pp. 81–128). New York: Academic.

Harris, R. J., Dubitsky, T. M., & Bruno, K. J. (1983). Psycholinguistic studies of misleading advertising. In R. J. Harris (Ed.), *Information processing research in advertising* (pp. 241–262). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Harris, R. J., Dubitsky, T. M., Connizzo, J., Letcher, L. E., & Ellerman, C. S. (1981). Training consumers about misleading advertising: Transfer of training and effects of specialized knowledge. *Current Issues and Research in Advertising, 3,* 105–122.

Harris, R. J., Sturm, R. E., Klassen, M. L., & Bechtold, J. I. (1986). Language in advertising: A psycholinguistic approach. *Current Issues and Research in Advertising, 9,* 1–26.

Harris, R. J., Trusty, M. L., Bechtold, J. I., & Wasinger, L. (1989). Memory for implied versus directly stated advertising claims. *Psychology & Marketing, 6,* 87–96.

Jacoby, J., & Hoyer, W. D. (1987). *The comprehension and miscomprehension of print communications.* New York: Advertising Educational Foundation, Inc.

Meyers-Levy, J., & Maheswaran, D. (1991). Exploring differences in males' and females' processing strategies. *Journal of Consumer Research, 18,* 63–70.

Meyers-Levy, J., & Sternthal, B. (1991). Gender differences in the use of message cues and judgments. *Journal of Marketing Research, 28,* 84–96.

Preston, I. L. (1989). The Federal Trade Commission's identification of implications as constituting deceptive advertising. *University of Cincinnati Law Review, 57,* 1243–1310.

Preston, I. L., & Richards, J. I. (1986). Consumer miscomprehension as a challenge to FTC prosecutions of deceptive advertising. *The John Marshall Law Review, 19,* 605–635.

Richards, J. I. (1990). *Deceptive advertising: Behavioral study of a legal concept.* Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Rickheit, G., & Strohner, H. (Eds.). (1985). *Inferences in text processing.* Amsterdam: North-Holland.

Russo, J. E., Metcalf, B. L., & Stephens, D. (1981). Identifying misleading advertising. *Journal of Consumer Research, 8,* 119–131.

Searleman, A., & Carter, H. (1988). The effectiveness of different types of pragmatic implications found in commercials to mislead subjects. *Applied Cognitive Psychology, 2,* 265–272.

Snyder, R. (1989). Misleading characteristics of implied-superiority claims. *Journal of Advertising, 18*(4), 54–61.

Spilich, G. J., Vesonder, G. T., Chiesi, H. L., & Voss, J. F. (1979). Text-processing of domain-related information for individuals with high and low domain knowledge. *Journal of Verbal Learning and Verbal Behavior, 18,* 275–290.

Vestergaard, T., & Schroder, K. (1985). *The language of advertising.* Oxford, England: Basil Blackwell.

Yekovich, F. R., Walker, C. H., Ogle, L. T., & Thompson, M. A. (1990). The influence of domain knowledge on inferencing in low-aptitude individuals. In A. C. Graesser & G. H. Bower (Eds.), *Inferences and text comprehension* (pp. 259–278). San Diego: Academic.

Accepted by Thomas K. Srull during his editorship.

LMS00741

LMS00742

knowledge in a controlled
; must be designed. Our
;uccessful in this sense.

rence Notes

aling policy feedback (Suppl.
Davis, Calif.: National Council
quency Research Center, 1971.
fredson, D. M., Robison, J. O.
formation selection and use in
king. Davis, Calif.: National
nd Delinquency Research Cen.

eferences

, J. W. The psychology of the
ess: A joint application of at-
d information-processing psy-
Carroll & J. W. Payne (Eds.),
ial behavior. Hillsdale, N.J.:
Associates, 1976.
nary justice: A preliminary in-
University of Illinois Press,

of variance and the magnitude
eral approach. Psychological
'31-737.
ousness of offenses: An evalua-
and nonoffenders. Journal of
Criminology, 1975, 66, 189-200.
cAnany, P. O. (Eds.). Con-
ent. Notre Dame, Ind.: Uni-
me Press, 1972.
on of parole outcomes from
ories. Journal of Criminology,
Police Science, 1961, 52, 145-

ology of interpersonal relations.
1958.
, J. P., Senderowitz, S. J., &
tencing by parole board: An
of Criminal Law and Criminol-

glit, H. Parole release decision-
tion, expertise, and the demise
erican University Law Review,

tan, H. T. Attribution of re-
basis for sanctioning behavior.
Social and Clinical Psychology,

e, I. H. Stability of causal at-
diator in changing expectations
of Personality and Social Psy-
579-587.
nt motivation as conceptualized
theorist. In B. Weiner (Ed.),
ation and attribution theory.
General Learning Press, 1974.

Received January 7, 1977

Journal of Applied Psychology
1977, Vol. 62, No. 5, 603–608

Comprehension of Pragmatic Implications in Advertising

Richard J. Harris
Kansas State University

A methodology for testing consumers' interpretations of advertisements was developed and used to test understanding of implied claims about products. College student subjects heard 20 brief commercials on tape and later evaluated statements about the products as true, false, or of indeterminate truth value, based on the advertisement. The independent variables were type of claim (asserted or implied), temporal relation of advertisement and test (test while hearing and reading advertisement, test immediately after hearing, or test 5–10 minutes later), and type of instructions (presence or absence of specific instructions discriminating between assertions and implications). Results showed that discrimination of asserted and implied claims was very poor under the most real-life conditions but was vastly improved by the explicit instructions discriminating assertions and implications and by a reduction in the time between hearing the advertisement and receiving the test. Ramifications for information processing, consumer education, and the empirical determination of deceptive advertising are discussed.

The question of what constitutes deception in advertising is a complex question from either a legal (e.g. Gellhorn, 1969) or linguistic (e.g. Garfinkel, in press a, in press b) point of view. Although Federal Trade Commission (FTC) decisions in deceptive advertising cases have until recently typically been based more on subjective criteria than on unbiased empirical research (Brandt & Preston, 1977), the usefulness of social scientists' testing consumers' understandings of advertisements has been suggested, even though it has seldom been implemented (Gardner, 1975; Russo, 1976). For example, Gardner (1975) offers a "conceptual" approach to understanding, categorizing, and measuring deception in advertising. He presents three categories of deception: the unconscionable lie, the totally false claim that could not be truthful even with considerable qualification; the claim-fact discrepancy, which can be made true by proper qualification; and the claim-belief interaction, by which the advertisement "interacts with the accumulated attitudes and beliefs of the consumer in such a manner as to leave a deceptive belief or attitude about the product or service being advertised, without making either explicit or implicit deceptive claims" (p. 42). It is this claim–belief interaction that the present study examined.

Gardner (1975) suggests several research methods for assessing consumers' understandings of advertisements. One approach involves showing advertisements to the consumer and then asking questions to determine their understanding of them. This information could then be compared to the advertised claim and objective fact to determine if the advertiser's claim and the consumer's belief interacted in such a way as to make the total advertisement deceptive. It is this methodology that was developed and tested in the present study.

The particular problem examined is the interpretation of implied claims about a product as asserted and unquestioned facts. Language communicates far more than what is

Some of these data were presented at the Fifth Annual Conference on New Ways of Analyzing Variation, Etc., Georgetown University, Washington, D.C., October 1976.

The author expresses his thanks to Faith Hall, Linda Peterson, and Pat Martin for data collection and analysis, to Kris Bruno, and Ross Teske for assistance in writing materials, and to Greg Monaco and Karen Perch for helpful comments on the manuscript.

Requests for reprints may be sent to Richard J. Harris, Department of Psychology, Kansas State University, Manhattan, Kansas 66506.

directly asserted by an utterance. One type of indirect meaning frequently communicated is pragmatic implication, which leads the hearer to believe something that is neither explicitly stated nor logically implied. Most often such "leading" comes through the interaction of the linguistic input and the hearer's stored knowledge. For example, for most people *The hungry python caught the mouse* pragmatically implies that the mouse was eaten, whereas the same sentence with *dog* substituted for *python* would carry no such implication, presumably because of the difference in our knowledge about dogs and pythons. Pragmatic implications are constructed as inferences by the hearer in real-life situations and stored in memory along with other directly and indirectly interpreted information.

Several psycholinguistic studies (reviewed in Harris & Monaco, in press) have shown that subjects remember directly asserted and pragmatically implied information in the same way and typically do not discriminate that the implied information was not directly stated in the input. This has been shown using a variety of memory tasks in both laboratory and quasi-applied settings (e.g., Brewer, in press; Brewer & Lichtenstein, 1975; Harris, 1974; Johnson, Bransford, & Solomon, 1973; Preston, 1967; Preston & Scharbach, 1971) and is a phenomenon extremely difficult to alter by prior instructions calling attention to the assertion–implication difference (Harris, Teske, & Ginns, 1975).

The present study examined the comprehension and memory of asserted and implied claims in commercial advertising. The laboratory finding that subjects cannot discriminate asserted and implied claims could have important ramifications for this area, since it is not clearly illegal to imply false or misleading information in advertising pragmatically. If such information is interpreted and remembered equivalently to directly asserted falsehoods, then both should be equally illegal.

There are many ways in which an advertisement can pragmatically imply a false claim. One method is through the use of hedge words, which weaken an assertion but may leave a strong implication (e.g., the statement that *Zap Pills may help relieve pain* does not guarantee relief). Also, comparative adjectives may be used without ever specifying the subject of the deleted clause in the underlying syntactic structure (e.g., *Chore gives you a whiter wash* would not be false if the deleted clause were *than washing with coal dust*). Imperatives may be perniciously juxtaposed in such a way as to imply a causal connection between two activities (e.g., *Get through a whole winter without colds; take Eradicold Pills* does not ensure that taking the pills will produce the healthful effect). Asking a negative question is a useful device for implying an affirmative answer that may not be true (e.g., *Isn't quality the most important thing to consider in buying aspirin?*).

Inappropriate, incomplete, or inadequate reporting of survey or test results may also easily mislead the consumer. Reporting only the number of respondents answering a given way and not the percentage or sample size, or vice versa, can be highly misleading. Inappropriate sampling techniques or incompletely specifying the competition in comparative tests are similar flaws, as is reporting only the number responding to a survey, when the number questioned may have been much larger. The reporting of piecemeal results to imply an unwarranted general conclusion is also a misuse of test results (e.g., stating *A Crampo Leprechaun has more front seat headroom than a Datsun B-210, more rear-seat hiproom than a Chevette, and a larger trunk than a Ford Pinto* to imply that the car has more interior room by all measures than the three competitors).

Commercial excerpts such as the examples above were used in the present study as experimental items to examine subjects' comprehension of implied claims in advertising, in an effort to develop a methodology to test Gardner's (1975) conceptual approach to deception in advertising and to extend laboratory studies of memory to the applied problem of consumer information processing. It was predicted that in spite of generally failing to discriminate asserted and implied claims, subjects would discriminate better if they received explicit instructions about the pitfalls of interpreting implications as assertions and if they evaluated the claims under conditions of a lesser memory load.

Table 1
Sample Experimental Materials

Item
Assertion commercial: Aren't you tired of the sniffles and runny noses all winter? Tired of always feeling less than your best? Taking Eradicold Pills as directed will get you through a whole winter without colds.
Implication commercial: Aren't you tired of sniffles and runny noses all winter? Tired of always feeling less than your best? Get through a whole winter without colds. Take Eradicold Pills as directed.
Test sentence (critical): If you take Eradicold Pills as directed, you will not have any colds this winter.
Test sentence (indeterminate filler): Eradicold Pills have been proven more effective in laboratory tests than Anacin or Bayer.
Assertion commercial: Ladies, don't you really want to look your very best? Women who use Roy G. Biv Hair Color really care about looking their very best. Think of yourself in any one of Roy G. Biv's seven beautiful and natural shades of hair color. Don't you deserve such rich and vibrant color?
Implication commercial: Ladies, don't you want to really look your very best? Women who really care about looking their best use Roy G. Biv Hair Color. Think of yourself in any one of Roy G. Biv's seven beautiful and natural shades of hair color. Don't you deserve such rich and vibrant color?
Test sentence (critical): If a woman uses Roy G. Biv Hair Color, she must really want to look her very best.
Test sentence (false filler): Roy G. Biv Hair Color comes in three colors: red, brown, and silver gray.

Method

Subjects

The subjects were 180 undergraduate psychology students from Kansas State University. All were native English speakers and received course credit for participation. They were run in small groups.

Materials

Twenty advertisements of between 20 and 87 words ($M = 49$ words) were written. All were for fictional products and were of the type frequently heard on radio and television. Each commercial had two versions, one in which a critical claim about the product was directly asserted and the other in which the same claim was pragmatically implied. Also for each advertisement, two test statements were written. The first was a paraphrase or restatement of the information asserted or implied in the critical claim of the commercial. The second statement was a control item of either false (for 10 items) or clearly indeterminate (for 10 items) truth value. Sample commercials and test sentences appear in Table 1. There were thus two lists of stimulus items, each with 10 implication and 10 assertion commercials, in random order, with any given item appearing in each form on one list. In addition, there was one list of 40 test sentences, 20 testing the critical material either asserted or implied to be true in the commercial, 10 sentences always false, and 10 always of indeterminate truth value. The 20 fictional products advertised were Knockout Sleep Capsules, Brimstone Radial Tires, Eradicold Pills, Roy G. Biv Hair Color, Tipsi-Cola, Crampo Leprechaun compact car, Fifi's Fashion Boutique, Crust Fluoride Toothpaste, Tingle Mouthwash, Fake-o-late Snack, Jones-Corolla Typewriter, St. Abraham's Aspirin, Armadillo Hatchback car, Gargoil Antiseptic, Moon Shoes, Tarzan After Shave, Cornies Cereal, Killoweed Herbicide, Biceptennial Cream Rub, and Dippy Chips.

Design and Procedure

One third of the subjects (the immediate group) were told that this was a study in how well they understood information presented in commercials. They were told to listen to 20 commercials on the tape recorder and, after each commercial, rate the two sentences related to that commercial as true, false, or of indeterminate truth value, based on what they had heard in the commercial. The concept of *indeterminate* was carefully explained with examples to show that the test statement could be either true or false based on the input commercial. The subjects were also told to accept what they heard as true, to avoid the natural skepticism set many people bring to advertising. After each of the 20 commercials in the list, the experimenter stopped the recorder and waited until all subjects had rated both sentences for that item. Each pair of sentences for a given advertisement was on a separate page, and subjects were instructed not to turn the page until after they had heard the relevant commercial.

Another 60 subjects were run under identical conditions except that they received a written transcript of each advertisement that they could read as they heard it on the tape and/or read as they evaluated the test sentences (the concurrent group). This group was used to establish a baseline response rate with no effects due to memory errors.

The last 60 subjects (the delayed group) heard the same list of 20 advertisements after being told that this was an experiment in how people under-

Table 2
Mean Number of "True" Responses to Critical Items (out of 10)

Temporal condition	Type of claim: Assertion	Type of claim: Implication
Delayed		
No instructions	8.13	8.07
Instructions	8.10	7.43
Immediate		
No instructions	8.80	7.80
Instructions	7.27	5.33
Concurrent		
No instructions	9.67	8.17
Instructions	8.10	5.40

stand and react to commercials. This time the list was played straight through without stopping the recorder. At the end of the list, they were given the same answer sheet the other two groups received, with the same instructions to judge the sentences as true, false, or of indeterminate truth value, this time from long-term memory. They were also told that, if they did not remember anything about the product mentioned, they should simply place an X over the number of the test sentence and not judge its truth value. They were given as long as necessary to judge the 40 sentences. To reduce confusion of product names, the delayed subjects were given a list of the 20 products in the order in which they were presented in the commercials.

Half of the subjects in each of the three conditions heard only the instructions given above (the no-instructions group). The other 30 subjects in each of the three groups heard the following additional initial instructions explicitly warning them not to interpret implied claims as asserted:

> As you listen to these commercials, be careful that you do not interpret implied information as fact. Sometimes people, including advertisers trying to sell products, will not state a claim directly as asserted fact but rather will only strongly *imply* that the particular claim is true. You may infer that the advertiser has said something about his product which in fact he has only suggested, but he has suggested it in such a way that it is very easy for you to naturally, obviously, and normally expect the claim to be true.
>
> For example, consider the commercial "MooMoo Milk tastes great. Keep your family feeling healthy. Buy MooMoo Milk." What claim does this commercial imply about the product but not definitely state as fact? Write this down on the bottom of your informed consent sheet. (Experimenter repeats the sample commercial and waits for subjects to respond and asks someone to volunteer his/her answer). The commercial did not directly state that MooMoo Milk keeps your family healthy; it only implied that. Does everybody understand that? Sometimes, however, a commercial or other piece of information *does* directly assert a fact without uncertainty. Consider this example: MooMoo Milk tastes great and it keeps your family feeling healthy. Buy MooMoo Milk." In this case it directly states that MooMoo Milk keeps your family healthy; it is more than merely implied. Any questions?

The study was thus a 3 × 2 × 2 design, with between-subjects variables of temporality (concurrent, immediate, or delayed) and instructions and the within-subjects variable of claim type (assertion or implication). Half of the subjects in each condition heard each of the two lists of materials; all subjects received the same list of sentences in the same order on the response task.

At the conclusion of the evaluation of the test sentences, subjects in the concurrent group were given a list of the 20 products advertised and were asked to check the 10 they would be most likely to buy after hearing the taped commercials. This additional task was given to the concurrent group, where any real effect of claim type or instructions would be most likely to show up, in order to test for transfer effects from the sentence-evaluation task to purchase decisions.

Results

The mean numbers of true responses to critical test sentences, those paraphrasing the asserted or implied claims, appear in Table 2. Because such a response indicates a processing of that particular claim as fact, the number of trues was the major dependent variable to be analyzed. The large majority of the non-true responses were indeterminate, with the very few false responses presumably representing random error. The number of responses in the delayed group in the fourth response category indicating no memory of the product was less than 1%.

The numbers of true responses to critical items were analyzed by a 3 × 2 × 2 analysis of variance, treating both subjects and test sentences as random factors (Clark, 1973). The conservative F'_{min} estimates revealed several significant main effects and interactions. As predicted, more true responses occurred in the no-instructions than the instructions group, $F'_{min}(1, 104) = 25.33$, $p < .01$. Also, there were more trues to assertions than implications, $F'_{min}(1, 28) = 16.44$, $p < .01$. Most critical, however, were the interactions. Although the temporality main effect was not significant, its double interactions with in-

structions typ
193) = 4.28,
6.14, $p <$ .01
trues to impl
instructions c
concurrent gr
type interactic
(1, 39) = 3.
greater attem
tions on imp
triple interac
cance.

A 2 × 2 an
on the mean
implied-claim
tions or no-in
cision task
group. The m
type checked
vious, there w
interactions,
there is no rea
that a produc
for purchase
plied as if it

In examini
striking effect
are, that is, v
implication an
true under all
12 cells (5.33
siderably belo
reflect over
as true. Thus
other studies
process and r
very much lik
to discrimina
chase decision
however, refle
(Harris & M
unique to the
advertisement
type of mate
Scharbach, 19
The claim
trues to im
overall, whicl
almost all of

structions type and claim type were, $F'_{\min}(2, 193) = 4.28$, $p < .05$, and $F'_{\min}(2, 106) = 6.14$, $p < .01$, respectively, reflecting fewer trues to implications than assertions in the instructions condition of the immediate and concurrent groups. The instructions × claim type interaction approached significance, $F'_{\min}(1, 39) = 3.57$, $.05 < p < .10$, reflecting a greater attenuation of trues by the instructions on implications than assertions. The triple interaction did not approach significance.

A 2 × 2 analysis of variance was performed on the mean numbers of asserted-claim and implied-claim products checked under instructions or no-instructions on the purchase decision task performed by the concurrent group. The mean numbers of products of each type checked appear in Table 3. As is obvious, there were no significant main effects or interactions, the largest F being .15. Thus there is no reason to reject the null hypothesis that a product is just as likely to be selected for purchase if the advertising claim is implied as if it is asserted.

Table 3
Mean Number of Items Selected for Purchase (Out of 10) by Concurrent Group

Group	Type of claim: Asserted	Type of claim: Implied
No instructions	5.00	5.00
Instructions	4.90	5.10

Discussion

In examining Table 2, probably the most striking effect is just how high all the means are, that is, what a large proportion of both implication and assertion items were answered true under all conditions. The lowest 2 of the 12 cells (5.33 and 5.40 out of 10) were considerably below the other 10 means but still reflect over half of the items responded to as true. Thus, the general finding of several other studies was supported, in that subjects process and remember pragmatic implications very much like direct assertions. This failure to discriminate is also reflected in the purchase decision data (Table 3). This confusion, however, reflects a general cognitive principle (Harris & Monaco, in press) that is not unique to the advertising situation, although advertisements may be an especially difficult type of material (Bruno, 1977; Preston & Scharbach, 1971).

The claim type main effect reflects fewer trues to implication than assertion items overall, which is hardly surprising, although almost all of this asymmetry occurs in the instructions conditions, indicating that the instructions warning the subjects not to treat pragmatic implications as direct assertions did actually have some salutary effect, especially in the immediate and concurrent conditions. Thus, under optimal conditions subjects were often able to discriminate that the advertising claims in the experimental implication items were only implied.

The fact that there were fewer true responses to implication items in the immediate and concurrent than the delayed condition clearly supports Harris (1974), who obtained the same finding in a study using the same response task with lists of syntactically complex sentences. Thus, if subjects do not have to rely on their long-term memory and still have some verbatim representation or surface structure of the input, they are able to discriminate pragmatically implied material from that which is directly asserted.

The relevance of the present study to the areas of advertising and consumer education is straightforward. The large number of true responses to implication items suggests that consumers listening to commercial advertising often process implied claims as assertions of fact. The experimental condition most nearly approximating the position of the consumer listening to commercials is the delayed-no-instructions condition, where the mean number of true responses was virtually identical for assertions and implications. If people remember implied claims as asserted fact, then it is perhaps appropriate that the FTC proscribe the implication of false claims as vigorously as the assertion of such claims. Preston (in press) already notes such a trend in recent FTC deceptive advertising claims involving implications.

Interestingly enough, one of the experimental items to have the greatest number of trues overall (74 and 83 out of 90 for implications and assertions, respectively) was a verbatim excerpt from a real Listerine commercial recently in the process of litigation for deceptive advertising. Research such as the present study could ultimately be valuable input for FTC and judicial decisions concerning alleged deception.

Of course, defining exactly what constitutes false implication in either legal or industry-wide guidelines is a formidable task. Clearly however, this is a worthy objective of future research in this area, namely to determine exactly what sorts of implications are functionally, that is, psychologically, equivalent to assertions. Upon such clarification, it would certainly be appropriate to make such false implications in advertising legally equivalent to false assertions as well.

Another promising research avenue to be explored lies in the area of developing methods of teaching consumers to recognize when a product claim is merely implied and not asserted. The instructions used in the present study had a significant effect under certain conditions, though there is clearly room for improvement. Bruno (1977) has developed a 20-minute training session involving written exercises and teacher–student interaction; this technique has been successful in teaching adults and junior high school students to discriminate implied from asserted claims in commercials. Clearly, such education has potential for improving consumer information processing.

References

Brandt, M. T., & Preston, I. L. The Federal Trade Commission's use of evidence to determine deception. *Journal of Marketing*, 1977, *41*, 54–62.

Brewer, W. F. Memory for the pragmatic implications of sentences. *Memory & Cognition*, in press.

Brewer, W. F., & Lichtenstein, E. H. Recall of logical and pragmatic implications in sentences with dichotomous and continuous antonyms. *Memory & Cognition*, 1975, *3*, 315–318.

Bruno, K. J. *Training the distinction of pragmatic implications and direct assertions in adolescents.* Unpublished master's thesis, Kansas State University, 1977.

Clark, H. H. The language-as-fixed-effect fallacy: A critique of language statistics in psychological research. *Journal of Verbal Learning and Verbal Behavior*, 1973, *12*, 335–359.

Gardner, D. M. Deception in advertising: A conceptual approach. *Journal of Marketing*, 1975, *39*, 40–46.

Garfinkel, A. Linguistic aspects of truth in advertising. In *Proceedings of the Fourth Annual Conference on New Ways of Analyzing Variation, Etc.* Washington, D.C.: Georgetown University Press, in press. (a)

Garfinkel, A. Truths, half-truths, and deception in advertising. *Papers in Linguistics*, in press. (b)

Gellhorn, E. Proof of consumer deception before the FTC. *Kansas Law Review*, 1969, *17*, 559–572.

Harris, R. J. Memory and comprehension of implications and inferences of complex sentences. *Journal of Verbal Learning and Verbal Behavior*, 1974, *13*, 626–637.

Harris, R. J., & Monaco, G. E. The psychology of pragmatic implication: Information processing between the lines. *Journal of Experimental Psychology: General*, in press.

Harris, R. J., Teske, R. R., & Ginns, M. J. Memory for pragmatic implications from courtroom testimony. *Bulletin of the Psychonomic Society*, 1975, *6*, 494–496.

Johnson, M. K., Bransford, J. D., & Solomon, S. K. Memory for tacit implications of sentences. *Journal of Experimental Psychology*, 1973, *98*, 203–205.

Preston, I. L. Logic and illogic in the advertising process. *Journalism Quarterly*, 1967, *44*, 231–239.

Preston, I. L. The FTC's handling of puffery and other selling claims made "by implication." *Journal of Business Research*, in press.

Preston, I. L., & Scharbach, S. E. Advertising: More than meets the eye. *Journal of Advertising Research*, 1971, *11*(3), 19–24.

Russo, J. E. When do advertisements mislead the consumer: An answer from experimental psychology. In B. B. Anderson (Ed.), *Advances in consumer research* (Vol. 3). Cincinnati, Ohio: Association for Consumer Research, 1976.

Received December 23, 1976 ■

LMS00749

APPLIED COGNITIVE PSYCHOLOGY, VOL. 2, 265–272 (1988)

The Effectiveness of Different Types of Pragmatic Implications found in Commercials to Mislead Subjects

ALAN SEARLEMAN and HELEN CARTER

St. Lawrence University, New York, U.S.A.

SUMMARY

Statements concerning the truthfulness of claims made in 16 tape-recorded commercials about fictitious products were judged by 40 college students. In half of the commercials a claim was directly asserted while in the other half the claims were pragmatically implied. Pragmatic implications are statements that lead a person to believe something that is neither explicitly stated nor necessarily implied. As expected based upon previous research, subjects often responded to implied claims as if they had been directly asserted (particularly by subjects in the short delay group). In addition, differences were found in the effectiveness of four different types of pragmatic implications for misleading subjects.

Considerable research has shown that making inferences, whether they are correct or incorrect, plays an important role in language comprehension (Clark and Clark, 1977; Grice, 1967; Howard, 1983). This is because much of the underlying message is often not explicitly stated but must be inferred. Our propensity to make such inferences about what we hear or read, while usually quite beneficial, can under certain circumstances lead us to draw unwarranted conclusions (e.g. Bartlett, 1932; Bransford, Barclay and Franks, 1972; Bransford and Johnson, 1973). One method for examining how people fall prey to making false inferences has been to use sentences involving pragmatic implications.

Pragmatic implications are statements that lead a person to believe something that is neither explicitly asserted nor necessarily implied (Brewer, 1977; Harris, 1974, 1977; Harris and Monaco, 1978). This presumably occurs because of an interaction between the actual input of the message and the person's knowledge of the world. For example, the statement 'The karate champion hit the cinder block' pragmatically implies that the block was broken (Brewer, 1977). However, this unwarranted inference would not have happened if the word 'swimming' was substituted for the word 'karate'. This is in contrast to a logical implication in which information is *necessarily* implied. An example of a logical implication is 'John forced Bill to rob the bank', which necessarily implies that Bill robbed the bank (Harris and Monaco, 1978).

A copy of the complete text of each commercial and the accompanying test statements can be obtained from the first author. A shorter version of this paper was presented as a poster at the 55th Annual Meeting of the Eastern Psychological Association, Baltimore, 1984. Reprint requests should be sent to Dr. Alan Searleman, Dept. of Psychology, St. Lawrence University, Canton, NY 13617, U.S.A.

0888–4080/88/040265–08$05.00

Received 1 March 1987
Revised 25 July 1987

In a study designed to examine the effectiveness of pragmatic implications in advertising, Harris (1977) tape-recorded 20 fictitious commercials which he then presented to college students. In one half of the commercials a critical claim about a product was directly asserted while in the remaining commercials the same claim was pragmatically implied. The subjects were then asked to evaluate statements about the advertised products as being either true, false, or of indeterminate truth value. The general findings of the study were that subjects tended to process and remember the pragmatic implications as if they were direct assertions, and that this was most evident when they were required to make their evaluations after a short delay period rather than immediately after the commercial's presentation.

The present study sought to determine if there were individual differences in the effectiveness of different types of pragmatic implications for causing subjects to make false inferences about fictitious products, and if this effectiveness would vary as a function of the amount of time elapsed between the initial presentation of the information and the judging of its truthfulness. Since there are numerous ways to pragmatically imply a false claim, it was necessary to limit the number of different types of pragmatic implications investigated. We decided to select four different types of pragmatic implications that are commonly found in real commercial advertising. The four pragmatic implications studied were as follows:

1. Juxtaposing imperative statements (e.g. 'Get a good night's sleep. Buy Dreamon Sleeping Pills.'). The juxtaposition of the two imperative statements can erroneously imply that the sleeping pills were responsible for the good night's sleep.
2. Using comparative adjectives without stating the qualifier (e.g. 'Lackluster Floor Polish gives a floor a *brighter* shine.'). This may lead to the false implication that this floor polish produces brighter shines than do other floor polishes. Instead, the floor polish may only give a brighter shine 'than using only water'.
3. Using hedge words (e.g. 'Ty-One-On pain reliever *may* help get rid of those morning-after headaches'.). The use of the hedge word *may* should weaken the assertion but still can leave a strong implication that the product will in fact relieve headaches.
4. Reporting of piecemeal survey results (e.g. 'John Doe Jeans are available in more colors than Gloria Vanderbilt's, are more sleekly styled than Sergio Valenti's, and are less expensive than Cheryl Tiegs' '). In this case an unwarranted general conclusion could be reached that John Doe Jeans are better in all ways than the other jeans.

METHOD

Subjects

The subjects were 40 undergraduate volunteers from St. Lawrence University who were all native speakers of English. They were tested in small groups ranging from five to eight people.

Materials

There were 32 commercials written about fictitious products. The commercials were tape-recorded (using a male voice) and ranged from 30 to 67 words in length ($M = 44$). There were two versions prepared for each commercial: one that explicitly asserted a claim about a product and one that only pragmatically implied the same claim. Two tape-recordings were made such that each tape contained 16 randomly ordered commercials, half of which were assertion commercials and half that were implication commercials. If a commercial asserted a claim on one tape, it implied the claim on the second tape. The eight implication commercials on each tape were divided into four groups: two commercials used juxtaposed imperative statements, two used comparative adjectives without a qualifier, two used hedge words, and two used piecemeal survey results.

Following the methodology used by Harris (1977), there were two test statements written for each commercial. One statement was a paraphrase of the implied or asserted claim heard in the commercial, and one was either a clearly false statement or a statement indeterminate in truth value based upon the information presented in the commercial. Therefore, for each tape there were 32 test statements to be judged: 16 were restatements of the implied or asserted claim, 8 were clearly false statements, and 8 were statements of indeterminate truth value. Examples of each of the four types of pragmatic implication commercials examined in the study and their corresponding assertion versions are shown in Table 1 (along with the accompanying test statements).

PROCEDURE

The subjects were randomly divided into two groups of 20, an immediate group and a short-delay group. The subjects were told that the purpose of the study was to investigate how information in commercials was understood. They were instructed to accept the fact that the commercials would be making accurate statements with respect to their products. Directly after listening to each tape-recorded commercial (each of which lasted 15 to 20 seconds), the subjects in the immediate group judged the two test statements for that commercial as being either true, false or of indeterminate truth value. This was accomplished by marking either a 'T', an 'F', or an 'I', respectively, on the blank line in front of each statement. The two test statements for each commercial were on the same page of a 16-page test booklet. The subjects were instructed not to turn the page until the next commercial had been presented. Subjects in the short-delay group listened to all 16 commercials before they judged any of the test statements. For these subjects the test statements were presented on a single page in the order in which the commercials were presented on the tape. Although there was no set time limit for responding, subjects typically answered each test statement very quickly (on the order of 5 to 10 seconds).

Half of the subjects in each group heard the first tape and half heard the second tape, so that one half of each group heard the assertion version of the commercial and the other half heard the pragmatic implication version. All subjects were given explicit instructions and examples on how to differentiate between false and

Table 1. Examples of each commercial type and the accompanying test statements

Juxtaposed imperative

Assertion version Tossing and turning again? Having trouble getting to sleep? Take Dreamon Sleeping Pills to get a good night's sleep and feel refreshed in the morning. Dreamon Sleeping Pills, the ones in the purple package.

Implication version Tossing and turning again? Having trouble getting to sleep? Get a good night's sleep and feel refreshed in the morning. Buy Dreamon Sleeping Pills. The ones in the purple package.

Critical test statement Dreamon Sleeping Pills will make you get a good night's sleep and feel refreshed in the morning.

False test statement Dreamon Sleeping Pills are sold in a blue package.

Comparative adjective without a qualifer

Assertion version Kitchen floors can pick up a lot of dirt. Just plain damp mopping doesn't give a floor shine, and waxing takes too much effort. So I use Lackluster No-Wax Floor Polish. Lackluster gives the floor a brighter shine than any other no-wax floor polish. I recommend Lackluster No-Wax Floor Polish.

Implication version Kitchen floors can pick up a lot of dirt. Just plain damp mopping doesn't give a floor shine, and waxing takes too much effort. So I use Lackluster No-Wax Floor Polish. Lackluster gives the floor a brighter shine. I recommend Lackluster No-Wax Floor Polish.

Critical test statement Lackluster Floor Polish gives a floor a brighter shine than any other no-wax floor polish.

False test statement Damp mopping floors gives them a terrific shine.

Hedge words

Assertion version Did you have a hard night last night? Facing a long day today? Ty-one-on Pain Reliever will get rid of those morning-after headaches. Take Ty-one-on Pain Reliever, sold in drugstores everywhere.

Implication version Did you have a hard night last night? Facing a long day today? Ty-one-on Pain Reliever may help get rid of those morning-after headaches. Take Ty-one-on Pain Reliever, sold in drugstores everywhere.

Critical test statement Ty-one-on Pain Reliever will cure morning after headaches.

Indeterminate test statement Ty-one-on Pain Reliever is aspirin-free.

Piecemeal survey results

Assertion version There's something new in the world of fashion—John Doe Jeans! These jeans are available in more colors, are more sleekly styled, and are less expensive than Gloria Vanderbilt's, Sergio Valenti's, or even Cheryl Tiegs'. John Doe Jeans are the latest.

Implication version There's something new in the world of fashion—John Doe Jeans! These jeans are available in more colors than Gloria Vanderbilt's, more sleekly styled than Sergio Valenti's, and are less expensive than Cheryl Tiegs'. John Doe Jeans are the latest.

Critical test statement John Doe Jeans are available in more colors, are more sleekly styled, and are less expensive than Gloria Vanderbilt's, Sergio Valenti's, or Cheryl Tiegs'.

Indeterminate test statement John Doe Jeans are available at K-Mart, Ames, and Caldor Stores.

indeterminate statements. None of the four types of pragmatic implications examined in the present study were used in the instructions or examples.

RESULTS

The mean number of 'true' responses to the 16 critical test statements (i.e. restatements of the implied or asserted claim) was used as the dependent variable. If a subject correctly recognized the probabilistic nature of an implied claim, the correct response would be to judge the critical test statement as being indeterminate in truth value. Similar to Harris (1977), the vast majority of non-true responses were indeterminate, and we agree with Harris that the few false responses made were presumably due to random error. However, if the subject processed the implied claim as if it had been asserted, he or she would have incorrectly judged the critical test statement as being true. The correct response to the critical test statements for commercials that made explicitly asserted claims would, of course, be to judge them as being true.

A 2 × 2 ANOVA (time of testing × commercial type) using the mean number of 'true' responses to critical test statements was performed. As expected (Harris, 1977), a significant main effect was found for commercial type ($F(1,38) = 29.11$, $p < .001$), showing that there was a higher percentage of true responses for assertion commercials (85.0 per cent) than for implication commercials (62.5 per cent). There was also a significant main effect for time of testing ($F(1,38) = 6.51$, $p < .01$). A greater percentage of true responses was made by subjects in the short-delay group (79.7 per cent) than by their counterparts in the immediate group (67.8 per cent). A significant interaction between time of testing and commercial type ($F(1,38) = 6.89$, $p < .01$) indicated that this increase was for implication commercials only. Simple main effect analyses (Newman–Keuls) indicated that there was a significantly higher percentage ($p < .01$) of true responses for the assertion commercials than for the implication commercials for the immediate group (85.0 vs. 50.6 per cent, respectively) but no significant difference for the short-delay group (85.0 vs. 74.4 per cent, respectively).

To determine the individual effectiveness of each of the four types of pragmatic implications for misleading the subjects, a 2 × 4 ANOVA (time of testing × implication type) was performed. A significant main effect for time of testing ($F(1,38) = 9.81$, $p < .01$) indicated that a higher percentage of true responses was made by subjects in the short-delay group. As seen in Table 2, each of the implication types was associated with a higher percentage of true responses when the subjects had to rely upon long-term memory.

Table 2. The percentage of 'true' responses as a function of commercial type and time of testing

	Juxtaposed imperatives	Comparative adjectives	Hedge words	Piecemeal survey	Asserted claims
Immediate group	62.50	22.50	62.50	55.00	85.00
Short-delay group	87.50	55.00	75.00	80.00	85.00
All subjects	75.00	38.75	68.75	67.50	85.00

Of greater interest, however, was the finding of a significant main effect for type of pragmatic implication ($F(3,114) = 10.72$, $p < .001$). For both the immediate and short-delay groups, the comparative adjective without a qualifier was the least successful implication type for misleading subjects. A post-hoc test (Newman–Keuls), collapsed over the time of testing, confirmed the fact that using the comparative adjective without a qualifier was significantly less effective ($p < .01$) than the other three types of pragmatic implications in misleading subjects to accept the implied claim as being true. Additional tests indicated that, for the short-delay group, only the comparative adjective without a qualifier implication type had a significantly lower percentage of true responses ($p < .01$) when compared with the assertion commercials. There was no significant interaction between time of testing and implication type ($F(3,114) = .67$, n.s.).

DISCUSSION

The present results support and extend earlier research showing that the use of pragmatic implications in commercial advertising is an effective way in which to mislead a person without having actually to assert a false claim (Bruno and Harris, 1980; Harris, 1977; Harris, Dubitsky and Bruno, 1983; Harris, Dubitsky, Perch, Ellerman and Larson, 1980). For instance, similar to what Harris (1977) reported, the current results showed that even though there was a significantly smaller percentage of 'true' responses made to implication commercials than to assertion commercials, more than 50 per cent of the implied claims were still accepted as being true *immediately* after hearing the commercial.

Perhaps even more remarkable is that after only about a 5-minute delay (for subjects in the short-delay group), there was no significant difference in the percentage of true responses made to implied and asserted claims. We agree with Harris (1977) that this probably indicates that only if subjects still have available the verbatim representation or surface structure of the original statements will they be able to differentiate (to some extent) between pragmatic implications and direct assertions.

The major focus of the study was to determine if there were differences in the effectiveness of different types of pragmatic implications for causing false inferences to be made. There was clear evidence that such differences did exist. For instance, it was observed that comparative adjectives without qualifiers were significantly less likely to cause subjects to regard an implied claim as being true than were the use of juxtaposed imperatives, hedge words, or piecemeal survey results. These latter three pragmatic implications were not significantly different from each other in their effectiveness to mislead subjects. One reason why the comparative adjective without a qualifier may be the least effective type of pragmatic implication is that it may cause the subject to immediately speculate about the nature of the missing qualifier. For example, the sentence 'Lackluster gives the floor a brighter shine' may beg the question 'Brighter than what?' This may lead the subject to scrutinize this particular type of pragmatic implication to a greater extent than is usual for other types of pragmatic implications and therefore subjects are less likely to fall prey to drawing an unwarranted conclusion.

For subjects in the short-delay group it was also found that, except for the comparative adjective without a qualifier, each of the other three types of pragmatic implications was statistically indistinguishable from assertion commercials in the percentage of true responses made to critical test statements. It should be remembered, however, that this is only a *relative* decrease in effectiveness to mislead subjects, since 55 per cent of the critical test statements for commercials with comparative adjectives without qualifiers were still considered as true by the subjects in the short-delay group.

Monaco and Kaiser (1983) have shown that individual differences in preferences can affect the type of inferences drawn from commercials. It would be interesting to determine if there are subject variables (e.g. cognitive style or sex differences) which interact with the effectiveness of different types of pragmatic implications to mislead people.

The study of pragmatic implications and their ability to cause people to draw faulty inferences has important practical consequences for the field of commercial advertising (as well as in other applied areas such as courtroom testimony (Harris, 1978; Harris, Teske and Ginns, 1975)). Harris (1977) found that when subjects were asked to make hypothetical purchase decisions concerning fictitious products, there was no difference in the likelihood of making such a purchase as a function of whether or not the claims about the product had been directly asserted or pragmatically implied. It has also been demonstrated in more naturalistic settings (e.g. using real products in real commercials embedded into real television programs) that subjects judge the truthfulness of implied claims no differently than if they were directly asserted (Harris *et al.*, 1980). The Federal Trade Commission (FTC) does not allow advertisers to make false claims or to use *deceptive* advertising. With regard to deceptive advertising, the FTC bases its legal decisions primarily upon whether or not the advertisement has the 'capacity to deceive' (Preston, 1977, 1983; Rotfeld and Preston, 1981). Research showing that the use of pragmatic implications in commercial advertising often leads to misconceptions should be valuable ammunition for regulators to distinguish between 'fair' and 'unfair' advertisements.

REFERENCES

Bartlett, F. C. (1932). *Remembering: A study in experimental and social psychology*. London: Cambridge University Press.

Bransford, J. D., Barclay, J. R. and Franks, J. J. (1972). Sentence memory: A constructive versus interpretive approach. *Cognitive Psychology*, 3, 193–209.

Bransford, J. D. and Johnson, M. K. (1973). Considerations of some problems of comprehension. In W. Chase (Ed.), *Visual information processing*. New York: Academic Press.

Brewer, W. F. (1977). Memory for the pragmatic implications of sentences. *Memory and Cognition*, 5, 673–678.

Bruno, K. J. and Harris, R. J. (1980). The effect of repetition on the discrimination of asserted and implied claims in advertising. *Applied Psycholinguistics*, 1, 307–321.

Clark, H. H. and Clark, E. V. (1977). *Psychology and language*. New York: Harcourt, Brace, Jovanovich.

Grice, H. P. (1967). *Logic and conversation*. The William James Lectures, Harvard University (cited in Howard, 1983).
Harris, R. J. (1974). Memory and comprehension of implications and inferences of complex sentences. *Journal of Verbal Learning and Verbal Behavior*, 13, 626–637.
Harris, R. J. (1977). Comprehension of pragmatic implications in advertising. *Journal of Applied Psychology*, 62, 603–608.
Harris, R. J. (1978). The effect of jury size and judge's instructions on memory for pragmatic implications from courtroom testimony. *Bulletin of the Psychonomic Society*, 11, 129–132.
Harris, R. J., Dubitsky, T. M. and Bruno, K. J. (1983). Psycholinguistic studies of misleading advertising. In R. J. Harris (Ed.), *Information processing research in advertising*. Hillsdale, NJ: Erlbaum.
Harris, R. J. Dubitsky, T. M., Perch, K. L., Ellerman, C. S. and Larson, M. W. (1980). Remembering implied advertising claims as facts: Extensions to the 'real world'. *Bulletin of the Psychonomic Society*, 16, 317–320.
Harris, R. J. and Monaco, G. E. (1978). Psychology of pragmatic implications: Information processing between the lines. *Journal of Experimental Psychology: General*, 107, 1–22.
Harris, R. J., Teske, R. R. and Ginns, M. J. (1975). Memory for pragmatic implications from courtroom testimony. *Bulletin of the Psychonomic Society*, 6, 494–496.
Howard, D. V. (1983). *Cognitive psychology: Memory, language, and thought*. New York: Macmillan.
Monaco, G. E. and Kaiser, D. (1983). Effects of prior preference, inferences, and believability in consumer advertising. In R. J. Harris (Ed.), *Information processing research in advertising*. Hillsdale, NJ: Erlbaum.
Preston, I. L. (1977) The FTC's handling of puffery and other selling claims made 'by implication'. *Journal of Business Research*, 5, 155–181.
Preston, I. L. (1983). Research on deceptive advertising: Commentary. In R. J. Harris (Ed.), *Information processing research in advertising*. Hillsdale, NJ: Erlbaum.
Rotfeld, H. J. and Preston, I. L. (1981). The potential impact of research on advertising law. *Journal of Advertising Research*, 21, 9–17.

WI
J05

Journal of
Applied Psychology

OCTOBER 1977 VOLUME 62 NUMBER 5

Published bimonthly by the
AMERICAN PSYCHOLOGICAL ASSOCIATION
ISSN 0021-9010

ɪfiche. To
ican Psy-

LMS00759

AKSHAY R. RAO and KENT B. MONROE*

The authors integrate previous research that has investigated experimentally the influence of price, brand name, and/or store name on buyers' evaluations of product quality. The meta-analysis suggests that, for consumer products, the relationships between price and perceived quality and between brand name and perceived quality are positive and statistically significant. However, the positive effect of store name on perceived quality is small and not statistically significant. Further, the type of experimental design and the strength of the price manipulation are shown to significantly influence the observed effect of price on perceived quality.

The Effect of Price, Brand Name, and Store Name on Buyers' Perceptions of Product Quality: An Integrative Review

Since Leavitt (1954) examined buyers' tendencies to use price as an indicator of quality, numerous studies have examined the price-quality relationship with little consensus as to its magnitude, generalizability, or statistical significance. Various qualitative reviews of the evidence conclude that there seems to be a positive relationship between price and perceptions of quality for certain products and within certain price ranges; however, these effects are moderated by methodological deficiencies, a variety of contextual and situational factors, and a weak underlying theoretical explanation (Monroe 1973, 1977; Monroe and Dodds 1988; Monroe and Krishnan 1985; Olson 1977; Peterson and Wilson 1985; Rao and Monroe 1988; Zeithaml 1988).

The tradition in this research stream has evolved from considering the effect of only price on buyers' perceptions of product quality to including other intrinsic and extrinsic cues. To begin to unravel some issues and address some questions in the area, we integrate previous research that has examined the effects of price, brand name, and store name on product quality perceptions. In addition, we examine certain methodological differences among price–perceived quality research studies to determine whether those differences are associated with variations in *outcomes* among the studies. An examination of the criticisms in previous commentaries on the research stream generated hypotheses about four methodological variables to explain outcome variation across studies. We test these hypotheses using meta-analytic procedures on the results of previous research studies.

OVERVIEW OF THE RESEARCH DOMAIN

When suggesting that people may judge quality by price, Scitovsky (1945) pointed out that such behavior is not irrational; it simply reflects a belief that the forces of supply and demand would lead to a "natural" ordering of products on a price scale, leading to a strong positive relationship between price and product quality. Empirical attempts to verify this strong *actual* correlation have concluded that, generally, there is a positive correlation; however, though statistically significant, this correlation varies considerably across product-markets, producing an average correlation of $r = .27$ (Tellis and Wernerfelt 1987).

We examine another research stream that has attempted to determine whether buyers *perceive* a positive price-quality relationship. The statistical results across previous studies have been inconsistent and the com-

*Akshay R. Rao is Assistant Professor of Marketing, The Curtis L. Carlson School of Management, University of Minnesota. Kent B. Monroe is the Robert O. Goodykoontz Professor of Marketing, The R. B. Pamplin College of Business, Virginia Polytechnic Institute and State University.

The authors gratefully acknowledge helpful comments on previous drafts of the article by William Dodds, Edward Fern, George John, R. Krishnan, Diane Schmalensee, Raghu Tadepalli, Orville Walker, John Wheatley, and Valarie Zeithaml.

Journal of Marketing Research
Vol. XXVI (August 1989), 351–7

mentaries on past research have been rather critical. Possible methodological explanations for the inconsistent statistical results include the type of product, experimental procedures used, and uncontrolled or unmeasured individual response variations (Monroe 1977; Olson 1977). Focusing on the experimental procedures used produces four methodological issues that may explain why previous studies have generated such inconsistent results: number of cues, experimental design, price manipulation, and price level.

Number of Cues

Olson (1973) argued that consumers use a variety of cues to infer product quality. These cues include *extrinsic* cues that are not related directly to product performance and *intrinsic* cues that are derived directly from the physical product and, if changed, would change the product itself. For example, price, brand name, and store name (extrinsic cues) as well as nutrition content (intrinsic cue) would be used by consumers in their assessment of the quality of a breakfast cereal. Therefore, because numerous cues affect quality perceptions, the use of multiple *independent variables* in addition to the price cue is necessary for valid empirical tests.

Further, single-cue price-quality studies have been considered somewhat artifactual; in the absence of any other information, subjects should naturally exhibit a positive price-quality effect (Enis and Stafford 1969). Therefore, the implicit inference is that single-cue price–perceived quality studies should manifest larger effects than multicue studies.

Experimental Design

Conceptually, it has been argued that the hypothesis of people using price as an indicator of quality is studied best by an idiothetic approach—that is, repeated measures over several prices—as the experimental situation created is analogous to a real-world situation of examining several different choices at different prices (Monroe and Dodds 1988). However, the use of a repeated-measures design (within subjects) has been criticized as being potentially artifactual as subjects responding to several prices sequentially may guess the true intent of the researcher and respond accordingly (Sawyer 1975). Further, because variability due to individual difference is controlled in a within-subjects design, thus reducing error variance, within-subjects designs are likely to produce larger effects than between-subjects designs. For both of these reasons, price–perceived quality studies having within-subjects designs should show larger effects than studies having between-subjects designs.

Price Manipulation

In experimental research, generally the strength of the independent variable manipulation has an important bearing on whether statistically significant differences in the dependent variable occur. Price perception research suggests that people's perceptions of relative and not absolute differences in prices lead to differential responses (Monroe 1973; Monroe and Petroshius 1981). Therefore, we expect that the greater the relative difference between the prices used as levels of an independent variable in a given study, the larger will be the observed effect on subjects' perceptions of quality, and, *ceteris paribus*, the better the chance of detecting a statistically significant effect.

Price Level

Finally, it has been suggested that people are more likely to use price as an indicator of quality for relatively expensive products (Olson 1977). As the price level increases, the risk of an incorrect assessment increases and buyers often are less familiar with the product because of the infrequency of purchases. In such situations, simple learned heuristics based on folk wisdom such as "you get what you pay for" are likely to be used.

In sum, the conventional wisdom in the literature suggests that the magnitude of the price–perceived quality effect is influenced by at least four methodological factors: number of cues used, type of design, size of the price manipulation, and relative price level of the stimulus. Several other substantive factors have been proposed to influence the magnitude of the price–perceived quality effect (Monroe and Dodds 1988; Peterson and Wilson 1985; Zeithaml 1988), but our review focuses on the four methodological criticisms of previous price–perceived quality studies.

Hypotheses

The preceding commentary suggests four hypotheses about the impact of methodological variables on the observed price–perceived quality effect.

The price–perceived quality effect size will:

- H_1: vary positively with the price level of the test products,
- H_2: vary positively with the strength of the price manipulation,
- H_3: be smaller for multicue studies than for single-cue studies, and
- H_4: be smaller for between-subjects designs than for within-subjects designs.

REVIEW PROCEDURES

To find relevant research studies, we examined the references of previous review articles and conducted a computer bibliographic search. Because the hypotheses pertain to methodological variations across laboratory experiments, only laboratory studies involving one or more of price, brand, and store cues were used in the review. Further, when the results of a study were reported in multiple outlets, the study was included only once. A final set of 36 studies that collectively report 85 effects of price, brand name, or store name on perceptions of quality were used in the analysis and tests.

We computed the effect size index η^2 for all main effects by using

LMS00761

$$\eta^2 = F(df_b)/[F(df_b) + df_{error}] \tag{1}$$

where F is the ratio reported from relevant ANOVA summary tables, df_b is degrees of freedom associated with the treatment effect, and df_{error} is degrees of freedom associated with the error term. Further, r^2 is a special case of η^2 when the F-ratio has only one degree of freedom associated with the numerator and is an effect size indicator for studies comparing only two groups. Cohen's (1977) d effect size indicator was used for one study and converted to r^2 by using

$$r^2 = d^2/(d^2 + 1/p \cdot q) \tag{2}$$

where p and q are the proportions of the sample that each mean represents (Rosenthal 1984). For studies using MANOVA the effect size used was (Bray and Maxwell 1984)

$$\eta^2(\text{mult}) = \text{Pillai's trace}/s, \tag{3}$$

where Pillai's trace is $\Sigma\, \lambda_i/(1 + \lambda_i)$, λ_i is the eigenvalue of the i^{th} variable, and s is min(number of variables, hypothesis degrees of freedom).

The design of the study (within or between) and number of cues used (single or multiple) were coded as 0,1 dummy variables. Price level was determined by calculating the mean of the highest and lowest price treatments in each study [(high − low)/2]. The strength of the price manipulation was determined by computing a proportion variation between the highest and lowest price treatments for each product studied [(high − low)/high] and ranged from 0 to 1.

The dependent variable measured in a study was determined by examining the indicators used. Perceived quality as the dependent variable was indicated by such terms as "durability," "reliability," "workmanship," "quality," "goodness," and "excellence."

RESULTS AND ANALYSIS

Description of the Data

The spectrum of products used as stimuli ranged from consumer nondurable products (e.g., butter, margarine) to capital equipment. However, for a preponderance of consumer goods, prices ranged from $.11 (table salt) to $400 (stereo receivers). Only four consumer products exceeded $100 in price and 60% cost less than $30. The strength of the price manipulations ranged from .18 to .86. Twelve of the 54 price–perceived quality results stemmed from a single-cue presentation and 19 results were obtained with a within-subjects design. Table 1 provides a stem and leaf plot, which is a data display technique analogous to a histogram (Rosenthal 1984), and a statistical summary of all price–perceived quality effect sizes. Table 2 provides a stem and leaf plot and a statistical summary of all brand– and store–perceived quality effect sizes. (A complete list of studies coded and their characteristics is available from the authors.)

Comparing Results Across Studies

Studies investigating the effect of price, brand, or store on buyers' product evaluations have tested whether there is a degree of association between these variables and buyers' evaluations. As these relationships have been studied several times, three questions should be addressed (Fleiss 1981):

1. Is there evidence that the degree of association is consistent across studies?
2. If consistent, is the common degree of association statistically significant?
3. What is the best estimate of the association, its standard error, and confidence interval?

Essentially, the first question seeks to determine whether the studies to be integrated have produced effect sizes that are from the same underlying population of effect sizes. A homogeneity of effect size test using an approximate chi square with (K results − 1) degrees of freedom addresses this issue. If the test fails to accept the null hypothesis of no significant differences, the conclusion is that the variation in results across the studies is not explained simply by sampling error and that systematic differences are present across the studies. Acceptance of the null hypothesis is evidence of homoge-

Table 1

STEM AND LEAF PLOTS[a] AND STATISTICAL SUMMARY: PRICE-PERCEIVED QUALITY EFFECTS

η^2 Stem	Leaf
.8	7
.7	0
.6	3
.5[a]	0 0 5
.4	—
.3	0 8
.2	0 1 3 5 5 6 8
.1	0 0 0 1 1 1 1 1 4 4 4 7 9
.0	0 0 0 0 0 0 0 1 1 1 1 1 1 1 2 2 3 4 5 6 6 6 6 7 7 8
	(K = 54)

Summary statistics (all results)	
Weighted mean, $\bar{\eta}^2$	.12
Weighted standard deviation, s	.148
Standard error	.017
95% confidence limit	±.033
χ^2 (53)	79.22

[a]To read the plot, note that three effects are ≥ .5 but < .6: .50, .50, .55.

LMS00762

Table 2

STEM AND LEAF PLOTS AND STATISTICAL SUMMARY OF PERCEIVED QUALITY EFFECTS: BRAND AND STORE

η^2 Stem	Leaf	Summary statistics	
Brand			
.6	0	Weighted mean, $\bar{\eta}^2$	.142
.5	7	Weighted standard deviation, s	.122
.4	—	Standard error	.027
.3	4	95% confidence limit	±.053
.2	5 5	$\chi^2(14)$	19.9
.1	0 1 1 2 4		
.0	3 3 5 5 7		
	(K = 15)		
Store			
.6	—	Weighted mean, $\bar{\eta}^2$	.052
.5	—	Weighted standard deviation, s	.171
.4	3 4	Standard error	.030
.3	—	95% confidence limit	±.058
.2	—	$\chi^2(16)$	6.13
.1	2		
.0	0 0 0 1 1 2 2 3 3 4 6 7 8 8		
	(K = 17)		

neity or consistency of the degree of association across studies and the results then can be integrated and analyzed. The statistic used to test the homogeneity of effect sizes was adapted from Fleiss (1981, p. 163):

$$\chi^2_k = \sum_{i=1}^{K} w_i(\eta_i^2 - \bar{\eta}^2)^2 \tag{4}$$

where:

η_i^2 is the individual effect size for each result,
$\bar{\eta}^2$ is the weighted estimator of effect size,
w_i is the weight of each result, and
K is the number of results being compared.

When results are compared across studies, substantial variation in average effect size can occur depending on whether individual effect sizes are weighted by sample size. Further, if sample sizes differ, the estimates of the larger sample studies will be more precise. Therefore, a weighting procedure that gives more weight to the more precise estimates is adapted from Fleiss (1981, p. 161):

$$W_i = (1/v_i) \Big/ \sum_{i=1}^{K} (1/v_i), \qquad i = 1, \ldots, K, \tag{5}$$

where:

$v_i = N_i/B_i + (\eta_i^2)^2/2N_i$,
$N_i = n_{i,E} + n_{i,C}$,
$B_i = (n_{i,E})(n_{i,C})$, and
$n_{i,E}$ and $n_{i,C}$ are the sample sizes of the experimental and control groups, respectively.

This procedure minimizes the variances of the weighted estimates and produces an asymptotically efficient weighted estimator.

The homogeneity test for the price–perceived quality results using all 54 datapoints shows that the data are not homogeneous ($\chi^2(53)$ = 79.22; Table 1), implying some systematic variation across these studies. The effect sizes for both the brand ($\chi^2(14)$ = 19.9) and store ($\chi^2(16)$ = 6.13) results are homogeneous; therefore these results can be integrated. As shown in Table 2, the association between brand and perceived quality is significant at the 95% confidence level and the best estimate of the association is the weighted mean of $\bar{\eta}^2$ = .142. However, though the association between store and perceived quality is consistent, it is not significant at the 95% confidence level because the confidence interval for the weighted mean includes zero.

Residual Analysis

The price–perceived quality dataset was examined for outliers and influential datapoints and a no-intercept regression model based on the hypotheses stated before was assessed for collinearity. Forty of the 54 results were used in this analysis as the other 14 results did not provide sufficient detail for coding of all four independent variables.

An examination of R-Student (t_i) values (an externally standardized residual) revealed four datapoints that were more than the conventional 1.5 standard deviations away from the centroid of the data cluster (Myers 1986). These four datapoints therefore were classified as outliers. Outliers are errors in the y direction caused by a large random error component in the response, producing a large residual. Datapoints also may be extreme in the x direction. Such datapoints tend to have a large influence on the regression, producing large hat diagonal (h_{ii}) values. Using the traditional cutoff of $2p/n$ (=.20) for hat diagonal values (Myers 1986), we identified three datapoints as influential. These three datapoints represent relatively high priced industrial products and therefore have a large influence on the slope of the regression line. Thus, seven results were segregated for the meta-analysis, leaving 33 datapoints for the tests of the hypotheses.

For the reduced set of 33 price–perceived quality datapoints used in the regression analysis, a homogeneity analysis indicated that the data were homogeneous ($\chi^2(32) = 37.64$). This dataset had weighted mean $\bar{\eta}^2 = .117$, weighted $s = .147$, standard error $= .025$, and 95% confidence interval $\pm.049$. Thus, for this reduced set of 33 results, 3632 additional studies with a zero average effect size would be needed to reduce the statistical significance below the .05 level. Next, the 14 datapoints that had been eliminated for the regression analysis were retrieved and added to the 33 datapoints used in the regression analysis, producing a set of 47 homogeneous results ($\chi^2(46) = 49.73$) with weighted mean $\bar{\eta}^2 = .116$, weighted $s = .125$, standard error $= .018$, and 95% confidence interval $\pm.035$. These summary results are very robust; an additional 8897 studies with an average zero effect size would be needed to reduce the statistical significance of the price–perceived quality relationship below the .05 level. This result lends confidence to the claim that the overall results are not due to sampling bias in the studies selected for review (Rosenthal 1984).

Multicollinearity Diagnostics

The possibility of linear dependencies in the regressor variables was investigated and a summary of the multicollinearity diagnostics is included in Table 3. The relatively low variance inflation factors are indicative of low multiple correlations among the independent variables. Further, the relatively high minimum eigenvalue (λ_{min}) and low condition number ($\phi = \lambda_{max}/\lambda_{min}$) confirm the absence of any significant multicollinearity. Thus, we have little concern about multicollinearity being a problem in this model.

Table 3
SUMMARY OF REGRESSION ANALYSIS: PRICE-PERCEIVED QUALITY EFFECTS
(33 homogeneous results)

Collinearity	
VIF_{max}	7.51
λ_{min}	0.09
ϕ	32.88
Model	
R^2	.85
R^2_{adj}	.83
PRESS	1870.32
Parameters	
Price level	−.01 ($p < .11$)
Standardized estimate	−.30
Manipulation	14.51 ($p < .01$)
Standardized estimate	1.19
Design	4.69 ($p < .08$)
Standardized estimate	.77
Cues	1.17 ($p < .66$)
Standardized estimate	.19

Regression Analysis and Findings

To test the four hypotheses, we performed a multiple regression analysis on the dataset using the *weighted* price–perceived quality effect sizes as the dependent variable. The regression model tested the relationship between price–perceived quality effects and price level, size of price manipulation, number of cues, and research design. As is evident from Table 3, the model performed well. The preceding theoretical argument suggests a positive coefficient for price level and price manipulation and a negative coefficient for number of cues. Also, within-subjects studies were expected to produce larger effects than between-subjects studies. The results of the regression run are reported in Table 3.

Support for the hypotheses was determined by examining the sign and significance of the coefficients for the reduced dataset comprising the 33 homogeneous results. As shown in Table 3, price level is not significantly related to size of effect (H_1). However, the relative strength of price manipulation is associated significantly and positively with effect size (H_2). Though there is no statistically significant difference, multicue studies produced marginally larger effect sizes ($\bar{\eta}^2 = .124$) than single-cue studies ($\bar{\eta}^2 = .115$) (H_3). Finally, within-subjects designs (repeated measures) generated larger effects ($\bar{\eta}^2 = .20$) than between-subjects designs ($\bar{\eta}^2 = .10$) (H_4).

DISCUSSION

Single Versus Multiple Cues

Using criteria suggested by Cohen (1977), the price effect on perceived quality for consumer products (.12) is moderately large and statistically significant. The effect of brand name on perceived quality is slightly larger (.14) and statistically significant, but the effect of store name on perceived quality is small (.05) and not statistically significant. Moreover, though statistically not significant, multicue studies generated slightly larger effects (.124) than single-cue studies (.115). Taken together, these results suggest that a price–perceived quality main effect generated from a multicue study is not necessarily smaller than that generated from a single-cue study. This conclusion supports an earlier observation by Monroe and Krishnan (1985) that price–perceived quality effects actually increased in the presence of brand information. Thus, rather than brand name or other cues suppressing price as an indicator of product quality, a reinforcing effect is likely if the multiple cues are consistent in their signaling of quality. This finding is also consistent with the covariation literature (Nisbett and Ross 1980).

Price Manipulations

The regression analysis indicates that the relative strength of the price manipulations had a significant effect on the observed price–perceived quality relationship. Methodologically, this finding is an important explanation for some of the inconsistency in statistical findings across previous price–perceived quality research and therefore is of significance in designing price perception research in the future; strong manipulations are more likely to produce large effects, thereby enhancing the chance of a statistically significant effect.

When buyers do infer a positive relationship between price and product quality, they are likely to compare the price of the product against another price (price in memory or price of an alternative option). If the actual price is perceived as significantly different from this reference price, the higher priced option is likely to be perceived as being of higher quality. The key point is that judgments of quality based on price information are necessarily comparative and *perceived differences in prices* lead to relative judgments that product quality varies significantly. In the research reviewed here, the greater the ratio between the highest and lowest experimental prices, the greater is the price–perceived quality association. Regardless of whether a between-subjects or within-subjects design is used, the greater the difference in the price treatments, the more likely individuals are to perceive differences in prices and begin to make quality inferences. Thus, weak price manipulations are a possible explanation for previous price–perceived quality studies' failure to find a statistically significant price main effect.

Research Design

The finding that within-subjects designs generated significantly larger effects than between-subjects designs (.20 vs. .10) does not necessarily mean that use of such designs in price research is incorrect or artifactual. It does mean that researchers must be aware that within-subjects designs generally are more powerful and should consider this point when designing their studies and developing their conclusions. The choice of the appropriate design and price operationalization should be consistent with the particular research question being studied. For instance, Monroe and Dodds (1988) make the point that between-subjects designs are more appropriate for price present/absent studies that examine the marginal impact of price information.

Further, a managerial implication consistent with the reference price argument mentioned before is evident here. Multiple responses to different prices (as in walking down an aisle in a store) are a more powerful means of generating price-quality inferences than exposures to single prices (as in television commercials). For the latter case, the cognitive effort involved in retrieving a reference price and using it for comparative purposes may result in weaker effects.

Price Level

One obvious implication of the lack of a significant association between price level and size of effect is the dearth of studies using products that are relatively higher priced and less frequently purchased. Indeed, for four results for consumer products priced at more than $100, the weighted mean effect is $\bar{\eta}^2 = .39$. Two of the results classified as outliers are for products priced above $100 with an average effect size of .57. (The other two outliers have effect sizes of .00.) Clearly, more research using moderately priced and relatively expensive products is necessary to establish whether the price–perceived quality relationship differs by relative price level and whether it differs by the general nature of the product.

CONCLUSIONS

Meta-analyses often have been criticized for two reasons. First, the "file drawer" problem prevents publication of many studies that do not show significant effects. Second, the notion of statistical significance is considered moot when a census of results is being considered. In our review, we attempt to address the first issue by estimating the number of nonsignificant (and thus "filed away") studies required to negate the values computed from published results. The evidence suggests that the findings are relatively robust. Second, the notion of statistical significance is an important one, as the findings are being generalized to a population of effects. In other words, the studies considered represent a sample of effects of the phenomenon under consideration. The interested reader will find considerable information on this issue in books by Fleiss (1981), Hedges and Olkin (1985), Hunter, Schmidt, and Jackson (1982), and Rosenthal (1984).

Our review, in addition to providing estimates of the size of the effect of price, brand name, and store name on quality perceptions, investigates four possible explanations for the lack of consistent results across studies. Two methodological variables—type of research design and strength of price manipulations—provide some explanation for the inconsistent findings from previous price–perceived quality research. The review also indicates the relative narrowness of previous price–perceived quality research. At this point in time the phenomenon has been shown to be present at a moderate level of association for relatively lower priced, frequently purchased goods, but whether the strength of the association increases for higher priced, less frequently purchased goods has not been documented adequately. The quality perception research domain should be extended also to services and purchases made by business and institutional buyers.

Though our integrative review answers some questions about the effects of price, brand name, and store name on buyers' perceptions of product quality, it also isolates important issues that warrant further investigation. Still needed is research on how quality perceptions are formed and how these quality perceptions influence perceptions of value, product or service benefits, and eventual choice. Further, the interactive effect of brand name, store name, and price on quality perceptions should be investigated. Finally, the effect of consumers' prod-

:t knowledge may moderate the price–perceived qual-
y effect.

REFERENCES

ray, James H. and Scott E. Maxwell (1985), *Multivariate Analysis of Variance*. Beverly Hills, CA: Sage Publications, Inc.

:ohen, Jacob C. (1977), *Statistical Analysis for the Behavioral Sciences*. New York: Academic Press, Inc.

:nis, Ben and James E. Stafford (1969), "Influence of Price and Store Information Upon Product Quality Perception," *Southern Journal of Business*, 4 (April), 90–9.

leiss, J. L. (1981), *Statistical Methods for Ratios and Proportions*, 2nd ed. New York: John Wiley & Sons, Inc.

ledges, Larry V. and Ingram Olkin (1985), *Statistical Methods for Meta-Analysis*. Orlando, FL: Academic Press, Inc.

lunter, John E., Frank L. Schmidt, and Gregg B. Jackson (1982), *Meta-Analysis: Cumulating Research Findings Across Studies*. Beverly Hills, CA: Sage Publications, Inc.

.eavitt, Harold J. (1954), "A Note on Some Experimental Findings About the Meaning of Price," *Journal of Business*, 27 (July), 205–10.

Monroe, Kent B. (1973), "Buyers' Subjective Perceptions of Price," *Journal of Marketing Research*, 10 (February), 70–80.

——— (1977), "Objective and Subjective Contextual Influences on Price Perceptions," in *Consumer and Industrial Buying Behavior*, Arch G. Woodside, Jagdish N. Sheth, and Peter D. Bennett, eds. New York: North Holland Publishing Company, 267–86.

——— and William B. Dodds (1988), "A Research Program for Establishing the Validity of the Price-Quality Relationship," *Journal of the Academy of Marketing Science*, 16 (Spring), 151–68.

——— and R. Krishnan (1985), "The Effect of Price on Subjective Product Evaluations," in *Perceived Quality: How Consumers View Stores and Merchandise*, Jacob Jacoby and Jerry Olson, eds. Lexington, MA: Lexington Books, Inc., 209–32.

——— and Susan M. Petroshius (1981), "Buyers' Perceptions of Price: An Update of the Evidence," in *Perspectives in Consumer Behavior*, 3rd ed., Harold H. Kassarjian and Thomas S. Robertson, eds. Glenview, IL: Scott, Foresman and Company, 43–55.

Myers, Raymond H. (1986), *Classical and Modern Regression With Applications*. Boston, MA: Duxbury Press.

Nisbett, Richard and Lee Ross (1980), *Human Inference: Strategies and Shortcomings of Social Judgment*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Olson, Jerry C. (1973), "Cue Properties of Price: Literature Review and Theoretical Considerations," paper presented at 83rd Annual Convention of the American Psychological Association, Montreal, Canada (August).

——— (1977), "Price as an Informational Cue: Effects on Product Evaluations," in *Consumer and Industrial Buying Behavior*, Arch G. Woodside, Jagdish N. Sheth, and Peter D. Bennett, eds. New York: North Holland Publishing Company, 267–86.

Peterson, Robert A. and William R. Wilson (1985), "Perceived Risk and Price-Reliance Schema as Price-Perceived Quality Mediators," in *Perceived Quality: How Consumers View Stores and Merchandise*, Jacob Jacoby and Jerry C. Olson, eds. Lexington, MA: Lexington Books, Inc., 247–67.

Rao, Akshay R. and Kent B. Monroe (1988), "The Moderating Effect of Prior Knowledge on Cue Utilization in Product Evaluations," *Journal of Consumer Research*, 15 (September), 253–64.

Rosenthal, Robert (1984), *Meta-Analytic Procedures for Social Research*. Beverly Hills, CA: Sage Publications, Inc.

Sawyer, Alan G. (1975), "Demand Artifacts in Laboratory Experimentation," *Journal of Consumer Research*, 1 (March), 20–30.

Scitovsky, Tibor (1945), "Some Consequences of the Habit of Judging Quality by Price," *Review of Economic Studies*, 12 (32), 100–5.

Tellis, Gerard J. and Birger Wernerfelt (1987), "Competitive Price and Quality Under Asymmetric Information," *Marketing Science*, 6 (Summer), 240–53.

Zeithaml, Valarie A. (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence," *Journal of Marketing*, 52 (July), 2–22.

Reprint No. JMR263108

LMS00767

Overview Of 1992 Results

A 1992 survey by the U.S. Department of Education's National Center for Education Statistics estimated that about 21 percent of the adult population — more than 40 million Americans over the age of 16 — had only rudimentary reading and writing skills. Most adults in this "level one" category could pick out key facts in a brief newspaper article, for example, but could not draft a letter explaining an error on their credit card bill. A subgroup in this category — representing roughly 4 percent of the total adult population, or about 8 million people — was unable to perform even the simplest literacy tasks.

For more detailed results, see the following sections:

Defining three literacies

The 1992 National Adult Literacy Survey adopted the following definition of literacy: *Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.* This definition goes beyond simply decoding and comprehending text to include a broad range of information-processing skills that adults use in accomplishing the range of tasks associated with work, home, and community contexts. This definition has been mostly accepted by the policy community. For example, the U.S. Congress incorporated a similar definition into the National Literacy Act of 1991, in which literacy was defined as *"an individual's ability to read, write, and speak in English and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and to develop one's knowledge and potential."*

While literacy is not a single skill suited to all types of texts, neither is it a large number of skills each associated with a given type of text or document. The National Adult Literacy Survey measured literacy along three dimensions—prose literacy, document literacy, and quantitative literacy—designed to capture an ordered set of information-processing skills and strategies that adults use to accomplish a diverse range of literacy tasks.

Measuring prose literacy

Prose literacy. Expository prose consists of printed information in the form of connected sentences and longer passages that define, describe, or inform, such as newspaper stories or written instructions. Narrative prose tells a story, but is less frequently used by adults in everyday life than by school children. Prose varies in its length, density, and structure (e.g. use of section headings or topic sentences for paragraphs). Literacy with prose implies that people can locate information, find all the information, integrate information from various parts of a passage of text, and write new information related to the text. Prose literacy tasks vary in the difficulty of the demands they place on readers.

The prose literacy scale. People can be measured using literacy tasks to indicate their degree of prose literacy. The scale adopted in the 1992 National Adult Literacy Survey ranges from 0 to 500. Five ranges along the scale were created by cutpoints 50 points apart along the continuous scale. Adults included in Level 1 consist of those who could consistently succeed[1] with Level 1 prose literacy tasks, but not Level 2 tasks, as well as those who could not consistently succeed with Level 1 tasks and those who were not literate enough in English to take the test at all. Adults in Levels 2 through 4 are consistently able to succeed with tasks at their level, but not succeed consistently with the next more difficult level of tasks. Adults in Level 5 are consistently able to succeed with Level 5 tasks.

21%

Level 1 (0-225). Prose literacy tasks at Level 1 require the reader to locate a single piece of information that is identical to or synonymous with the information given in the question, when the text is short; or when plausible but incorrect information is either not present, or is present but located away from the correct information. Twenty-one percent — or 40 million of the 191 million adults in this country — performed in the lowest level of prose literacy. A subgroup in this category — representing roughly 4 percent of the total adult population, or about 8 million people— was unable to perform even the simplest literacy tasks.

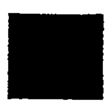
27%

Level 2 (225-275). Prose literacy tasks at Level 2 require the reader to locate a single piece of information in the text, compare and contrast easily identifiable information based on a criterion provided in the question, or integrate two or more pieces of information, when distractors are present; or when low level inferences are required. Twenty-seven percent — or 52 million of the 191 million adults in this country — performed in the second lowest level of prose literacy.

32%

Level 3 (275-325). Prose literacy tasks at Level 3 require the reader to match literal or synonymous information in the text with that requested by the task, integrate multiple pieces of information, or generate a response based on information that can be easily identified in the text, when the text is dense or lengthy or contains no headings or other organizational aids; when distracting information is present, but is not located near the correct information; or when low-level inferences are needed. Thirty-two percent — or 61 million of the 191 million adults in this country — performed in the middle level of prose literacy.

17%



Level 4 (325-375). Prose literacy tasks at Level 4 require the reader to search text and match on multiple features, integrate or synthesize multiple pieces of information, or generate new information by combining the information provided with common knowledge, when the passages are complex or lengthy; when conditional information is requested by the task; or when more complex inferences are needed. Seventeen percent — or 33 million of the 191 million adults in this country — performed in the fourth level of prose literacy.

3%

Level 5 (375-500). Prose literacy tasks at Level 5 require the reader to search text and match on multiple features, compare and contrast complex information, or generate new information by combining the information provided with common knowledge, when the passages are dense and contain a number of plausible distractors; when high-level, text-based inferences are needed; or when specialized background knowledge is required. Three percent — or 6 million of the 191 million adults in this country — performed in the top level of prose literacy.

Measuring document literacy

Document literacy. Documents consist of structured prose and quantitative information, in complex arrays arranged in rows and columns, such as tables, data forms, and lists (simple, nested, intersected, or combined), in hierarchical structures such as tables of contents or indexes, or in two-dimensional visual displays of quantitative information, such as graphs, charts, and maps. Literacy with documents means that people can locate information, repeat the search as many times as needed to find all the information, integrate information from various parts of a document, and write new information as requested in appropriate places in a document. Document literacy tasks vary in the difficulty of the demands they place on readers.

The document literacy scale. People can be measured using literacy tasks to indicate their degree of document literacy. The scale adopted in the 1992 National Adult Literacy Survey ranges from 0 to 500. Five ranges along the scale were created by cutpoints 50 points apart along the continuous scale. Adults included in Level 1 consist of those who could consistently succeed[2] with Level 1 document literacy tasks, but not Level 2 tasks, as well as those who could not consistently succeed with Level 1 tasks and those who were not literate enough in English to take the test at all. Adults in Levels 2 through 4 are consistently able to succeed with tasks at their level, but not to succeed consistently with the next more difficult level of tasks. Adults in Level 5 are consistently able to succeed with Level 5 tasks.

Level 1 (0-225). Document literacy tasks at Level 1 require the reader to locate a piece of information based

LMS00771

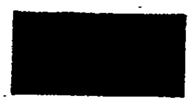
on a literal match, or enter information onto a document, when little, if any, distracting information is present, or when the information requested is personal. Twenty-three percent — or 44 million of the 191 million adults in this country — performed in the lowest level of document literacy. A subgroup in this category — representing 2.5 percent of the total adult population, or about 5 million people— was unable to perform even the simplest literacy tasks.

23% 

Level 2 (225-275). Document literacy tasks at Level 2 require the reader to match a single piece of information, cycle through information in a document, integrate information from various parts of a document, or generate written information by entering requested information in the proper place, when several distractors are present, or when the match requires low-level inferences. Twenty-eight percent — or 54 million of the 191 million adults in this country — performed in the second lowest level of document literacy.

28% 

Level 3 (275-325). Document literacy tasks at Level 3 require the reader to cycle through the information, integrate multiple pieces of information from one or more documents, or generate new information by entering requested information in the proper place, when complex tables or graphs contain irrelevant information; or when the match requires inferences. Thirty-one percent — or 59 million of the 191 million adults in this country — performed in the middle level of document literacy.

31% 

Level 4 (325-375). Document literacy tasks at Level 4 require the reader to match on multiple features, cycle through the information, integrate multiple pieces of information from one or more documents, or generate new information by entering requested

15% 

information in the proper place, when conditional information is present in the document; when a greater degree of inferencing is needed; or when numerous (but unspecified) responses are needed. Fifteen percent — or 29 million of the 191 million adults in this country — performed in the fourth level of document literacy.

3% 

Level 5 (375-500). Document literacy tasks at Level 5 require the reader to match on multiple features, cycle through the information, or integrate multiple pieces of information from one or more documents, or generate new information by entering requested information in the proper place, when information displays are complex and contain multiple distractors; when high-level, text-based inferences are needed; or when specialized knowledge is required. Three percent — or 6 million of the 191 million adults in this country — performed in the top level of document literacy.

Measuring quantitative literacy

Quantitative literacy. Quantitative information may be displayed visually in graphs or charts or it may be displayed in numerical form using whole numbers, fractions, decimals, percentages, or time units (hours and minutes). These quantitites may appear in both prose and document form. Quantitative literacy means that people can locate quantities, repeat the search as many times as needed to find all the numbers, integrate information from various parts of a document, infer the necessary arithmetic operation, and perform arithmetic operations. Quantitative literacy tasks vary in the difficulty of the demands they place on readers.

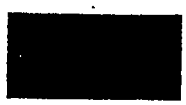
The quantitative literacy scale. People can be measured using literacy tasks to indicate their degree of quantitative literacy. The scale adopted in the 1992 National Adult Literacy Survey ranges from 0 to 500. Five ranges along the scale were created by cutpoints 50 points apart along the continuous scale. Adults included in Level 1 consist of those who could consistently succeed[3] with Level 1 quantitative literacy tasks, but not Level 2 tasks, as well as those who could not consistently succeed with Level 1 tasks and those who were not literate enough in English to take the test at all. Adults in Levels 2 through 4 are consistently able to succeed with tasks at their level, but not succeed consistently with the next more difficult level of tasks. Adults in Level 5 are consistently able to succeed with Level 5 tasks.

22% 

Level 1 (0-225). Quantitative literacy tasks at Level 1 require the reader to perform a single, relatively simple arithmetic operation, such as addition, when the numbers to be used are provided and the arithmetic operation to be performed is specified. Twenty-two percent — or 42 million of the 191 million adults in this country — performed in the lowest level of quantitative literacy. A subgroup in this category — representing 5.5 percent of the total adult population, or about 11 million people— was unable to perform even the simplest literacy tasks.

25% 

Level 2 (225-275). Quantitative literacy tasks at Level 2 require the reader to locate numbers by matching the needed information with that given, infer the necessary arithmetic operation, or perform a single arithmetic operation, when the numbers and the operation to be performed are stated in the task; when the quantities are easily located in the text or document; or when the operation is easily determined from the format of the material. Twenty-five percent — or 48 million of the 191 million adults in this country — performed in the second lowest level of quantitative literacy.

31% 

Level 3 (275-325). Quantitative literacy tasks at Level 3 require the reader to locate numbers by matching the needed information with that given, infer the necessary arithmetic operation, or perform arithmetic operations on two or more numbers or solve a problem, when the numbers must be located in the text or document; or when the operation(s) needed can be determined from the arithmetic-relation terms used in the question.

LMS00774

Thirty-one percent — or 59 million of the 191 million adults in this country — performed in the middle level of quantitative literacy.

17%

Level 4 (325-375). Quantitative literacy tasks at Level 4 require the reader to locate numbers by matching the needed information with that given, infer the necessary arithmetic operation, perform two or more sequential operations or a single arithmetic operation, when the the quantities are found in different types of displays, or when the operations must be inferred from semantic information given or drawn from prior knowledge. Seventeen percent — or 33 million of the 191 million adults in this country — performed in the fourth level of quantitative literacy.

4%

Level 5 (375-500). Quantitative literacy tasks at Level 5 require the reader to locate numbers by matching the needed information with that given, infer the necessary arithmetic operation, or perform multiple arithmetic operations sequentially, when the features of the problem must be disembedded from text; or when background knowledge is required to determine the quantities or operations needed. Four percent — or 8 million of the 191 million adults in this country — performed in the top level of quantitative literacy.

[1,2,3] "Succeed consistently" means that a person at or above a given level of literacy has at least an 80 percent chance of correctly responding to a particular task. This 80 percent criterion is more stringent than the 65 percent standard used in the National Assessment of Educational Progress for measuring what school children know and can do. If the same standard had been used, the proportions in the lower literacy levels would decrease and the proportions in the higher levels would increase.

National Center for Education Statistics
Institute of Education Sciences, U.S. Dept. of Education
(map) 1990 K Street, NW, Washington, DC 20006, USA, Phone: (202) 502-7300

LMS00776

Executive Summary Of Adult Literacy In America: A First Look At The Results Of The National Adult Literacy Survey

by Irwin S. Kirsch, Ann Jungeblut, Lynn Jenkins, and Andrew Kolstad

Table of Contents

Introduction

This report provides a first look at the results of the National Adult Literacy Survey, a project funded by the U.S. Department of Education's National Center for Education Statistics and administered by Educational Testing Service, in collaboration with Westat, Inc. It provides the most detailed portrait that has ever been available on the condition of literacy in this nation -- and on the unrealized potential of its citizens.

Many past studies of adult literacy have tried to count the number of "illiterates" in this nation, thereby treating literacy as a condition that individuals either do or do not have. We believe that such efforts are inherently arbitrary and misleading. They are also damaging, in that they fail to acknowledge both the complexity of the literacy problem and the range of solutions needed to address it.

The National Adult Literacy Survey is based on a different definition of literacy, and therefore follows a different approach to measuring it. The aim of this survey is to profile the English literacy of adults in the United States based on their performance across a wide array of tasks that reflect the types of materials and demands they encounter in their daily lives.

To gather the information on adult literacy skills, trained staff interviewed nearly 13,600 individuals aged 16 and older during the first eight months of 1992. These participants had been randomly selected to represent the adult population in the country as a whole. In addition, about 1,000 adults were surveyed in each of 12 states that chose to participate in a special study designed to provide state-level results that are comparable to the national data. Finally, some 1,100 inmates from 80 federal and state prisons were interviewed to gather information on the proficiencies of the prison population. In total, over 26,000 adults were surveyed.

Each survey participant was asked to spend approximately an hour responding to a series of diverse literacy tasks as well as questions about his or her demographic characteristics, educational background, reading practices, and other areas related to literacy. Based on their responses to the survey tasks, adults received proficiency scores along three scales which reflect varying degrees of skill in prose, document, and quantitative literacy. The scales are powerful tools which make it possible to explore the proportions of adults in various subpopulations of interest who demonstrated successive levels of performance.

This report describes the types and levels of literacy skills demonstrated by adults in this country and analyzes the variation in skills across major subgroups in the population. It also explores connections between literacy skills and social and economic variables such as voting, economic status, weeks worked, and earnings. Some of the major findings are highlighted here.

The literacy skills of America's adults

- Twenty-one to 23 percent -- or some 40 to 44 million of the 191 million adults in this country -- demonstrated skills in the lowest level of prose, document, and quantitative proficiencies (Level 1). Though all adults in this level displayed limited skills, their characteristics are diverse. Many adults in this level performed simple, routine tasks involving brief and uncomplicated texts and documents. For example, they were able to total an entry on a deposit slip, locate the time or place of a meeting on a form, and identify a piece of specific information in a brief news article. Others were unable to perform these types of tasks, and some had such limited skills that they were unable to respond to much of the survey.

Many factors help to explain why so many adults

- demonstrated English literacy skills in the lowest proficiency level defined (Level 1). Twenty-five percent of the respondents who performed in this level were immigrants who may have been just learning to speak English. Nearly two-thirds of those in Level 1 (62 percent) had terminated their education before completing high school. A third were age 65 or older, and 26 percent had physical, mental, or health conditions that kept them from participating fully in work, school, housework, or other activities. Nineteen percent of the respondents in Level 1 reported having visual difficulties that affect their ability to read print.
- Some 25 to 28 percent of the respondents, representing about 50 million adults nationwide, demonstrated skills in the next higher level of proficiency (Level 2) on each of the literacy scales. While their skills were more varied than those of individuals performing in Level 1, their repertoire was still quite limited. They were generally able to locate information in text, to make low-level inferences using printed materials, and to integrate easily identifiable pieces of information. Further, they demonstrated the ability to perform quantitative tasks that involve a single operation where the numbers are either stated or can be easily found in text. For example, adults in this level were able to calculate the total cost of a purchase or determine the difference in price between two items. They could also locate a particular intersection on a street map and enter background information on a simple form.
- Individuals in Levels 1 and 2 were much less likely to respond correctly to the more challenging literacy tasks in the assessment -- those requiring higher level reading and problem-solving skills. In particular, they were apt to experience considerable difficulty in performing tasks that required them to integrate or synthesize information from complex or lengthy texts or to perform quantitative tasks that involved two or more sequential operations and in which the individual had to set up the problem.
- The approximately 90 million adults who performed in Levels 1 and 2 did not necessarily perceive themselves as being "at risk." Across the literacy scales, 66 to 75 percent of the adults in the lowest level and 93 to 97 percent in the second lowest level described themselves as being able to read or write English "well" or "very well." Moreover, only 14 to 25 percent of the adults in Level 1 and 4 to 12 percent in Level 2 said they get a lot of help from family members or friends with everyday prose, document, and quantitative literacy tasks. It is therefore possible that their skills, while limited, allow them to meet some or most of their personal and occupational literacy needs.
- Nearly one-third of the survey participants, or about 61 million adults nationwide, demonstrated performance in

LMS00779

Level 3 on each of the literacy scales. Respondents performing in this level on the prose and document scales were able to integrate information from relatively long or dense text or from documents. Those in the third level on the quantitative scale were able to determine the appropriate arithmetic operation based on information contained in the directive, and to identify the quantities needed to perform that operation.

- Eighteen to 21 percent of the respondents, or 34 to 40 million adults, performed in the two highest levels of prose, document, and quantitative literacy (Levels 4 and 5). These adults demonstrated proficiencies associated with the most challenging tasks in this assessment, many of which involved long and complex documents and text passages.
- The literacy proficiencies of young adults assessed in 1992 were somewhat lower, on average, than the proficiencies of young adults who participated in a 1985 literacy survey. National Adult Literacy Survey participants aged 21 to 25 had average prose, document, and quantitative scores that were 11 to 14 points lower than the scores of 21- to 25-year-olds assessed in 1985. Although other factors may also be involved, these performance discrepancies are probably due in large part to changes in the demographic composition of the population -- in particular, the dramatic increase in the percentages of young Hispanic adults, many of whom were born in other countries and are learning English as a second language.
- Adults with relatively few years of education were more likely to perform in the lower literacy levels than those who completed high school or received some type of postsecondary education. For example, of each of the three literacy scales, some 75 to 80 percent of adults with 0 to 8 years of education are in Level 1, while fewer than 1 percent are in Levels 4 and 5. In contrast, among adults with a high school diploma, 16 to 20 percent are in the lowest level on each scale, while 10 to 13 percent are in the two highest levels. Only 4 percent of adults with four year college degrees are in Level 1; 44 to 50 percent are in the two highest levels.
- Older adults were more likely than middle-aged and younger adults to demonstrate limited literacy skills. For example, adults over the age of 65 have average literacy scores that range from 56 to 61 points (or more than one level) below those of adults 40 to 54 years of age. Adults aged 55 to 64 scored, on average, between middle-aged adults and those 65 years and older. These differences can be explained in part by the fact that older adults tend to have completed fewer years of schooling than adults in the younger age groups.
- Black, American Indian/Alaskan Native, Hispanic, and Asian/Pacific Islander adults were more likely than White adults to perform in the lowest two literacy levels. These

performance differences are affected by many factors. For example, with the exception of Asian/Pacific Islander adults, individuals in these groups tended to have completed fewer years of schooling in this country than had White individuals. Further, many adults of Asian/Pacific Islander and Hispanic origin were born in other countries and were likely to have learned English as a second language.

- Of all the racial/ethnic groups, Hispanic adults reported the fewest years of schooling in this country (just over 10 years, on average). The average years of schooling attained by Black adults and American Indian/Alaskan Native adults were similar, at 11.6 and 11.7 years, respectively. These groups had completed more years of schooling than Hispanic adults had, on average, but more than a year less than either White adults or those of Asian/Pacific Islander origin.
- With one exception, for each racial or ethnic group, individuals born in the United States outperformed those born abroad. The exception occurs among Black adults, where there was essentially no difference (only 3 to 7 points). Among White and Asian/Pacific Islander adults, the average differences between native-born and foreign-born individuals range from 26 to 41 points across the literacy scales. Among Hispanic adults, the differences range from 40 to 94 points in favor of the native born.
- Twelve percent of the respondents reported having a physical, mental, or other health condition that kept them from participating fully in work or other activities. These individuals were far more likely than adults in the population as a whole to demonstrate performance in the range for Levels 1 and 2. Among those who said they had vision problems, 54 percent were in Level 1 on the prose scale and another 26 percent were in Level 2.
- Men demonstrated the same average prose proficiencies as women, but their document and quantitative proficiencies were somewhat higher. Adults in the Midwest and West had higher average proficiencies than those residing in either the Northeast or South.
- Adults in prison were far more likely than those in the population as a whole to perform in the lowest two literacy levels. These incarcerated adults tended to be younger, less well educated, and to be from minority backgrounds.

Literacy and social and economic characteristics

- Individuals demonstrating higher levels of literacy were more likely to be employed, work more weeks in a year, and earn higher wages than individuals demonstrating

LMS00781

lower proficiencies. For example, while adults in Level 1 on each scale reported working an average of only 18 to 19 weeks in the year prior to the survey, those in the three highest levels reported working about twice as many weeks -- between 34 and 44. Moreover, across the scales, individuals in the lowest level reported median weekly earnings of about $230 to $245, compared with about $350 for individuals performing in Level 3 and $620 to $680 for those in Level 5.

- Adults in the lowest level on each of the literacy scales (17 to 19 percent) were far more likely than those in the two highest levels (4 percent) to report receiving food stamps. In contrast, only 23 to 27 percent of the respondents who performed in Level 1 said they received interest from a savings or bank account, compared with 70 to 85 percent in Levels 4 or 5.
- Nearly half (41 to 44 percent) of all adults in the lowest level on each literacy scale were living in poverty, compared with only 4 to 8 percent of those in the two highest proficiency levels.
- On all three literacy scales, adults in the higher levels were more likely than those in the lower levels to report voting in a recent state or national election. Slightly more than half (55 to 58 percent) of the adults in Level 1 who were eligible to vote said they voted in the past five years, compared with about 80 percent of those who performed in Level 4 and nearly 90 percent of those in Level 5.

Reflections on the results

In reflecting on the results of the National Adult Literacy Survey, many readers will undoubtedly seek an answer to a fundamental question: Are the literacy skills of America s adults adequate? That is, are the distributions of prose, document, and quantitative proficiency observed in this survey adequate to ensure individual opportunities for all adults, to increase worker productivity, or to strengthen America s competitiveness around the world?

Because it is impossible to say precisely what literacy skills are essential for individuals to succeed in this or any other society, the results of the National Adult Literacy Survey provide no firm answers to such questions. As the authors examined the survey data and deliberated on the results with members of the advisory committees, however, several observations and concerns emerged.

Perhaps the most salient finding of this survey is that such large percentages of adults performed in the lowest levels (Levels 1 and 2) of prose, document, and quantitative literacy. In and of itself, this may not indicate a serious problem. After all, the majority of adults who demonstrated limited skills described themselves as reading or writing English well, and relatively few said they get a lot of assistance from others in performing everyday literacy tasks. Perhaps these individuals are able to meet most of the literacy demands they encounter currently at work, at home, and in their communities.

Yet, some argue that lower literacy skills mean a lower quality of life and more limited employment opportunities. As noted in a recent report from the American Society for Training and Development, "The association between skills and opportunity for individual Americans is powerful and growing. ... Individuals with poor skills do not have much to bargain with; they are condemned to low earnings and limited choices."[1]

The data from this survey appear to support such views. On each of the literacy scales, adults whose proficiencies were within the two lowest levels were far more likely to receive food stamps and to be in poverty. Moreover, they were far less likely than their more literate peers to be employed full-time, to earn high wages, to rely on print sources (such as newspapers and magazines) for information about current events, public affairs, and government, and far less likely to vote.

Literacy is not the only factor that contributes to how we live our lives, however. Some adults who displayed limited skills reported working in professional or managerial jobs, earning high wages, and participating in various aspects of our society, for example, while others who demonstrated high levels of proficiency reported being unemployed or out of the labor force. Thus, having advanced literacy skills does not necessarily guarantee individual opportunities.

Still, literacy can be thought of as a currency in this society. Just as adults with little money have difficulty meeting their basic needs, those with limited literacy skills are likely to find it more challenging to pursue their goals -- whether these involve job advancement, consumer decision making, citizenship, or other aspects of their lives. Even if adults who performed in the lowest literacy levels are not experiencing difficulties at present, they may be at risk as the nation s economy and social fabric continue to change.

Beyond these personal consequences, what implications

Educational Testing Service.

4. National Center on Education and the Economy. (1990, June). *America's Choice: High Skills or Low Wages! The Report of The Commission on the Skills of the American Workforce.*

National Center for Education Statistics
Institute of Education Sciences, U.S. Dept. of Education
(map) 1990 K Street, NW, Washington, DC 20006, USA, Phone: (202) 502-7300

Educational Testing Service.

4. National Center on Education and the Economy. (1990, June). *America's Choice: High Skills or Low Wages! The Report of The Commission on the Skills of the American Workforce.*

National Center for Education Statistics
Institute of Education Sciences, U.S. Dept. of Education
(map) 1990 K Street, NW, Washington, DC 20006, USA, Phone: (202) 502-7300

The Effect of Type of Claim, Gender, and Buying History on the Drawing of Pragmatic Inferences From Advertising Claims

Richard Jackson Harris, Julia C. Pounds,
Melissa J. Maiorelle, and Maria Mermis
Kansas State University

Research in cognition has shown that people frequently draw pragmatic inferences that go beyond what is stated directly in the text (e.g., understanding that *Sparkle fights cavities* implies that it prevents cavities). This study examines the effects of directly asserted claims and five different types of implied claims (hedge words, deleted comparatives, juxtaposed imperatives implying causality, statistical abuses, and negative questions) on the ratings of the truth value of a related claim and on the rated likelihood of purchasing that product. The different types of implied claims that produced the highest truth rating were not the most convincing in the sense of purchase likelihood. Directly asserted claims were no more true or convincing than many of their weaker implied counterparts. Overall, women rated test claims more true than men, regardless of which type of claim they had read. Subjects who were frequent users of a particular product class tended to rate both truth and purchase likelihood higher than nonusers but the effect was significant only for some products. Results are discussed in terms of methodological concerns and general applications.

It is well-known from research in cognition that people naturally and typically make inferences that go beyond the material directly present in the text (for reviews, see Graesser & Bower, 1990; Harris, 1981; Rickheit & Strohner, 1985). Many inferences are pragmatic (i.e., suggested by the hearer's knowledge

Requests for reprints should be sent to Richard Jackson Harris, Department of Psychology, 492 Bluemont Hall, 1100 Mid-Campus Drive, Kansas State University, Manhattan, KS 66506-5302.

and/or the context) but do not necessarily have to be drawn to contruct a meaningful reading. For example, on hearing *"The clumsy waiter dropped the delicate glass teacup,"* we may infer that the teacup broke but it may not in fact have done so. Even though such inferences may not be obligatory for comprehension, they are routinely made in natural language comprehension of either speech or writing. Although they frequently are appropriate and useful, at times they are not and in fact they may be one source of the frequent miscomprehension of language (Jacoby & Hoyer, 1987).

One important application of the study of inferences is in the area of advertising, where, incidentally, language is an important domain for study in regard to many issues (Geis, 1982; Harris, Sturm, Klassen, & Bechtold, 1986; Vestergaard & Schroder, 1985). Previous research on inferences in advertising has shown that subjects frequently have difficulty discriminating advertising claims that were pragmatically implied from those that were directly asserted (Bruno & Harris, 1980; Burke, DeSarbo, Oliver, & Robertson, 1988; Harris, Dubitsky, & Bruno, 1983; Harris, Trusty, Bechtold, & Wasinger, 1989; Russo, Metcalf, & Stephens, 1981; Searleman & Carter, 1988; Snyder, 1989). There is some evidence that this inference drawing occurs in initial comprehension and even more evidence that the asserted–implied distinction is increasingly difficult to make over time, as memory increasingly becomes a factor.

Our research further investigates the phenomenon of pragmatically inferring stronger claims from advertising than what was directly stated. Our studies focus on basic comprehension of the ads, not on memory for them, an emphasis suggested by Richards (1990) to be most appropriate. One variable of interest involves the different linguistic classes of implications, which have been used in prior studies but, except for Searleman and Carter (1988), have not been systematically examined. Two dependent measures, intent to purchase and truth judgment of an implied claim, are examined, to tap into both the cognitive and behavioral consequences of viewing implied claims.

A second variable examined is the subject's experience with and knowledge of the product class. In studies of text, subjects with greater knowledge about a content domain frequently have drawn more inferences in comprehension than subjects with lesser knowledge (Chiesi, Spilich, & Voss, 1979; Harris, Dubitsky, Connizzo, Letcher, & Ellerman, 1981; Spilich, Vesonder, Chiesi, & Voss, 1979; Yekovich, Walker, Ogle, & Thompson, 1990). Specifically for advertising, this knowledge variable is assumed to be reasonably accurately tapped by assessing the subjects' buying history for that product class.

A final variable examined is the subject's gender. Meyers-Levy and Maheswaran (1991; see also Meyers-Levy & Sternthal, 1991) found that, under some circumstances, women tend to engage in detail-sensitive processing and elaboration of information from the media whereas men use a more schema-based

strategy. This gender difference occurs, however, only in a fairly narrow range of situations: ones that do not unambiguously demand either detail-based or schema-driven processing. Although Meyers-Levy and collaborators found this difference using a very different type of material (television talk shows), it seems reasonable to predict in the present task that either (a) men would draw more pragmatic inferences from ads than women, due to their greater use of schema-based processing, or (b) women would draw more pragmatic inferences than men, due to their greater use of elaboration strategies during a high-attention task. In either case, gender might also interact with either knowledge or type of advertising claim.

METHOD

Subjects

The subjects for this study were 283 undergraduate students enrolled in a general psychology class. They received course credit for voluntary participation.

Materials

One ad was used for each of 12 fictitious products. For purposes of this study, *products* were defined as either tangible goods or provided services. The products represented 12 different product classes (detergent, toothpaste, pens, pizza, chewing gum, textbooks, pain medication, deodorant, groceries, shoes, ice cream, and answering machines). We chose types of products that would likely be purchased and used by undergraduate college students. Each of the 12 product classes had a corresponding question to assess the subjects' buying behaviors by asking them to compare their purchases of the type of product to those for other college students. For example, in the buying-frequency question corresponding to the ad for Cinnimini chewing gum, subjects were asked to respond to this question: "Compared to other college students, how often do you buy chewing gum?" All the product-class buyer questions appeared together on the first sheet of the answer booklet. They were accompanied by a model of the response scale that subjects were expected to use when answering these questions; it ranged from *seldom* (1) to *frequently* (7).

Each advertisement was initially constructed to contain a claim that directly asserted some characteristic or attribute of the product. Each of these directly asserted ads was then rewritten into five different implied claims with the test sentence being the only part of the ad that was changed. The rest of the ad's text remained the same for all ads. The five types of implied claims were:

1. *Statistical abuses*, which use incomplete or inadequate reporting of the test or survey results.
2. *Hedge words*, which weaken the assertion.
3. *Deleted comparatives*, which make comparisons without stating the basis of the comparison.
4. *Juxtaposed imperatives*, two imperatives side-by-side pragmatically implying a causal relation.
5. *Negative questions*, which negate a question and thus imply an affirmative answer.

See Table 1 for examples of advertisements and test sentences.

Six counterbalanced lists were constructed by assigning the ads to create List 1 in a sequential manner as follows: Ad 1, direct assertion; Ad 2, statistical abuse; Ad 3, hedge word; Ad 4, deleted comparative; Ad 5, juxtaposed imperative; and Ad 6, negative question. The rest of the list was completed with Ads 7 through 12 following the same order of ad type as occurred in Ads 1 to 6. List 2 was then made by putting Ad 1 in the statistical-abuse form, Ad 2 in the hedge-word form, Ad 3 in deleted-comparative form, and so on in order until Ad 6, the direct assertion; Ads 7 to 12 repeated this pattern. The remaining lists were created in the same way so that each ad was presented as one of the six different ad types in each of the six lists.

TABLE 1
Examples of the Six Claim Types for One Ad and the Critical and Control Test Sentences

Direct assertion
"The power to get clothes clean. *Clean-All laundry detergent removes even the toughest stains.* Try our new formula. You will love the fresh smell it leaves behind."
Statistical abuse
"The power to get clothes clean. *Over half of the people we asked said they preferred Clean-All laundry detergent to remove even the toughest stains.* Try our new formula. You will love the fresh smell it leaves behind."
Hedge word
"The power to get clothes clean. *Clean-All laundry detergent battles even the toughest stains.* Try our new formula. You will love the fresh smell it leaves behind."
Deleted comparative
"The power to get clothes clean. *Clean-All laundry detergent removes tough stains better.* Try our new formula. You will love the fresh smell it leaves behind."
Juxtaposed imperative
"The power to get clothes clean. *Remove even the toughest stains. Use Clean-All laundry detergent.* Try our new formula. You will love the fresh smell it leaves behind."
Negative question
"The power to get clothes clean. *Doesn't Clean-All laundry detergent remove even the toughest stains?* Try our new formula. You will love the fresh smell it leaves behind."

Test sentence
"Clean-All laundry detergent gets rid of stains."
False control sentence
"Clean-All laundry detergent is only used to clean floors."

Note. Italicized portions did not appear in italics for subjects.

Each ad was directly followed on the same page by three questions pertaining to it. The first—"*Based on this ad*, would you want to try this product or service?"—was followed by a model of the 7-point rating scale ranging from *probably no* (1) to *probably yes* (7), with the symbol ? appearing at the midpoint (4). The qualifier *probably* was used in the scale anchors because of the simulation nature of the experiment. It was felt that subjects would be reluctant to respond that they would *definitely* purchase a fictitious product they had no knowledge of except for this ad.

Questions 2 and 3 were preceded by a model of a 7-point rating scale ranging from *definitely false* (1) to *definitely true* (7), with ? appearing at the midpoint (4). Subjects were asked to rate the truth value of two following statements. Question 2 presented a paraphrased restatement of the test claim contained in the ad and Question 3 was either a false or indeterminate control statement about the ad. These control statements were included to insure that subjects used the entire scale. False items were directly contradicted by information in the ad, whereas the indeterminate items dealt with material never even mentioned in the ad. Examples of these test items appear at the end of Table 1.

Each subject received a list of 12 ads (one of the six lists) and an answer sheet. Each list of ads contained 2 ads per page, with each ad followed by its three questions. The first page of the answer booklet asked for demographic information and contained the 12 buyer questions to assess buying behavior for the different products. The second page of the answer booklet listed Ad 1 through Ad 12 with three spaces for the subject's responses to the questions on each ad.

Procedure and Design

Subjects were randomly assigned into six different groups during each session, determined by which list they received. All six lists were equally, but randomly, distributed at each session. The subjects were then instructed to answer the demographic and buyer questions on the first page of the answer sheet. The subjects were told to read each ad, which appeared in bold type, and to respond to the three questions following each ad; they were instructed to proceed at their own pace through the task.

RESULTS

The results concerning two variables, type of claim and buyer knowledge, are presented and discussed separately. The effect of the subject's gender is considered in both.

Types of Advertising Claims

These results were analyzed by a series of analyses of variance (ANOVAs), using various factors. Data from the truth rating and purchase-intent ratings were analyzed separately. These first sets of analyses did not consider whether the subject was a regular buyer of the product or not. This dimension was examined in a subsequent set of analyses. A significance level of $p = .05$ was used for all analyses. Mean truth rating and purchase-intention ratings for the different types of claims appear in Table 2.

Truth ratings of target sentences. A two-way ANOVA with the between-subjects factor of gender and the within-subject factor of type of claim (direct assertion, statistical abuse, hedge word, deleted comparative, juxtaposed imperative, negative question) was conducted on the truth ratings of the target sentences. Results showed a main effect of claim type, $F(5, 1{,}400) = 23.42$, $MS_e = 0.68$. Post hoc Scheffé tests between pairs of claim types using the mean truth ratings for the target claims showed significant differences between several pairs. The juxtaposed imperatives were rated as significantly truer than the direct assertions, statistical abuses, deleted comparatives, and negative questions. Ads using the hedge-word claim type were rated as significantly truer than those using the direct assertion, statistical abuse, deleted comparative, and negative question. Finally, the direct assertion was rated as significantly truer than the negative-question claim type. There was also a main effect of gender, $F(1, 280) = 7.68$, $MS_e = 7.28$, with women ($M = 5.22$) rating test

TABLE 2
Mean Truth-Judgment Ratings for Critical Claims, Purchase-Intent Ratings, and Correlations by Claim Type

Type of Claim	*Truth Rating*	*Purchase Intent*	*Pearson-r*
Direct assertion	5.02	4.52	.29
Statistical abuse	4.92	4.84	.36
Hedge word	5.26	4.69	.30
Deleted comparative	4.90	4.96	.31
Juxtaposed imperative	5.41	4.76	.37
Negative question	4.79	5.15	.44
M	5.05	4.82	

Note. Truth ratings ranged from *false* (1) to *true* (7), and purchase-intent ratings ranged from *probably no* (1) to *probably yes* (7).

sentences overall as truer than men ($M = 4.85$) did. The Gender × Claim Type interaction was not significant.

Examined as a manipulation check, the mean ratings of the control sentences were 1.62 for the false sentences and 2.96 for the indeterminate sentences on the 7-point scale. Thus the lack of difference between the directly asserted and the five pragmatically implied claims, taken as a group, cannot be due to a general failure to read the material or take the task seriously.

Purchase intent. A 2 (Gender) × 6 (Type of Claim) ANOVA was also conducted on the purchase-intent ratings. Results showed a main effect of claim type, $F(5, 1{,}400) = 12.90$, $MS_e = 1.06$; the means appear in Table 2. Post hoc Scheffé tests between pairs of claim types were computed using the mean purchase-intent ratings. Results showed the negative-question claim type to be more persuasive than the statistical abuses, juxtaposed imperatives, hedge words, or direct assertions. The direct assertions were significantly less persuasive than the statistical-abuse or deleted-comparative claim types. There was no main effect of gender, although the trend showed a generally greater likelihood of women purchasing ($M = 4.91$) than men ($M = 4.71$).

Pearson product–moment correlations between the truth and purchase-intent ratings were figured separately for each product and appear in the last column of Table 2. These are discussed later.

Buyer–Nonbuyer Differences

To investigate whether product experience influenced the truth rating of ad claims, subjects were divided into high and low buyer groups for each product, based on their reported frequency of purchase for that product class. Determination of what responses to include in the "high" and "low" buyer categories varied for the different products because of different distributions on the user scale; however, assignment to high or low groups was made with the constraint that neither the high nor low buyer group would extend beyond the scale midpoint of 4. Based on these criteria, 9 of the 12 product classes had distributions that could be successfully divided into high and low buyer groups. The three product classes that had unusable distributions were shoes, ice cream, and answering machines.

A one-way ANOVA was conducted separately for each of the remaining nine product classes, to determine the effect of buyer (high vs. low) on the truth ratings of the target sentences. Overall, the high buyers rated all but one of the target ad claims as truer than the low buyers did, although only three of the means (for toothpaste, pizza, and gum) differed significantly. Means appear in Table 3.

A similar one-way ANOVA was conducted for the effects of buyer (high vs. low) on purchase-intent rating. Five of the nine ads showed significantly higher purchase-intent ratings by high-buyer subjects. For the other four ads, the high buyers of the product class showed an intent to purchase equal to (in two ads)

TABLE 3
Mean Truth Ratings for High and Low Buyers

Ad	Low Buyers	High Buyers
1 (Detergent)	4.86	5.03
3 (Toothpaste)	4.63*	5.16
4 (Pen)	4.81	5.04
6 (Pizza)	4.74*	5.06
7 (Chewing gum)	4.79*	5.20
8 (Textbooks)	4.96	4.91
9 (Pain medication)	4.85	5.01
10 (Deodorant)	4.86	4.99
12 (Groceries)	4.92	4.94

Note. Truth ratings ranged from *false* (1) to *true* (7).
*Difference between high and low buyers significant at $p < .05$.

or nonsignificantly greater than that for the low-frequency buyers. Means appear in Table 4.

DISCUSSION

Each variable is treated separately in the discussion, followed by some general conclusions and applications.

Ad-Type Differences

One of the major independent variables of interest was the type of implication. Perhaps the most notable and counterintuitive finding was that, overall, the claims carried by the five classes of pragmatic implications were not seen to be any weaker than that carried by the directly asserted version. On the truth-

TABLE 4
Mean Purchase-Intent Ratings for High and Low Buyers

Ad	Low Buyer	High Buyer
1 (Detergent)	3.61	3.61
3 (Toothpaste)	3.12*	3.72
4 (Pen)	4.12	4.82
6 (Pizza)	5.11*	5.49
7 (Chewing gum)	3.42*	4.51
8 (Textbooks)	6.07	6.07
9 (Pain medication)	2.98*	3.97
10 (Deodorant)	4.49	4.72
12 (Groceries)	5.33*	5.83

Note. Purchase-intent ratings ranged from *probably no* (1) to *probably yes* (7).
*Difference between high and low buyers significant at $p < .05$.

rating task, mean ratings of the different claim types varied from [illegible] with the direct assertions about in the middle at 5.00. The differences among the various classes of implications were in many cases far greater than those between any of those classes and the asserted claim.

On the purchase-intent measure, the pattern of results was somewhat different but equally unexpected. On this measure, the stated likelihood of purchase was actually lower for the directly asserted claim than for any of the implied claim classes. Why this finding was obtained is not entirely clear. One possibility is that the implied claims may be more typical of ads. If claims in actual ads are less often stated as directly as they were in the directly asserted case in this experiment, those may have seemed less persuasive simply by virtue of being "different" and less like real ads. Because the truth-judgment task did not show the asserted claims to be rated as any truer, one would not expect them to be more or less persuasive due to the strength of the claim. It is also possible that the very strength of the asserted claims made them less believable. A second possible interpretation is that the implied claims required the reader to become more cognitively engaged in the comprehension process by drawing an inference. It may be that this is more satisfying in some way than the more straightforward comprehension of the direct assertion. Such a finding would be consistent with both cognitive response theory and depth of processing.

Examining the mean ratings on the two measures across the different implication classes reveals some other puzzling results. At first glance, there appears to be a rough inverse relation between ratings on the two scales. The implication types rated the truest (construable as potentially the most deceptive) were the hedge words and juxtaposed imperatives, the two classes evoking the lowest likely-to-purchase ratings. On the other hand, the three classes evoking the highest likelihood of purchase (statistical abuse, deleted comparative, and negative question) were those where the claim was rated the least true.

To further explore the relation of the truth-rating and purchase-intent measures, Pearson product–moment correlations were figured separately for each product. The mean correlations across the six claim types appear in the last column of Table 2. All were positive and in the significant-but-modest range of .29 to .44. Thus, within each claim type, the two dependent measures were neither totally independent nor highly redundant, and neither predicted the other well. This suggests that it is worthwhile to obtain both cognitive (truth judgment) and behavioral (purchase intent) measures in studies of this nature. Neither by itself presents a complete picture.

Gender Differences

The only significant gender difference found was the fact that, overall, women rated all sorts of claims as truer than men did. This finding is consistent with Meyers-Levy and Maheswaran's (1991) conclusion that women attend more to detail and elaborate more during on-line processing. The fact that this did not interact with the claim-type variable is of some concern but in this study five of the six claim types involved some sort of pragmatic inference. It may have been that the task overall did not evoke a sufficiently high level of attention to produce this interaction. Results do suggest, however, that gender is a useful variable to include in inference research. It has traditionally been ignored in most cognitive research.

Buyer–Nonbuyer Differences

Subjects who used a product class regularly usually gave higher ratings to the truth of the claim about a product in that class and predicted a greater likelihood of purchasing that product, based on reading the ad, than did nonusers and infrequent users of that product class, although the differences were often modest and not always significant. However, no differences were found as a function of whether the subjects had read the asserted or implied claims, nor did the type of implied claim have any effect. Thus, the tendency to interpret implied advertising claims as having been stated more strongly is apparently a general phenomenon not dependent on the subject's experience with that product class. This is consistent with findings of Harris et al. (1981), who found that farmers rated the truth of both asserted and implied claims in ads for farm equipment higher than nonfarmers did, but they did not discriminate asserted and implied claims any better than nonfarmers did.

It seems reasonable that a greater knowledge and use of a product class would either (a) sensitize one to potentially deceptive claims or (b) cause one to process advertising claims more deeply. Either case should result in a greater difference in the truth ratings for asserted and implied claims and in ratings of intent to purchase that product. However, no evidence for such an effect was obtained. The only effect seems to be a very nonspecific elevation of both truth and purchase-likelihood ratings overall among buyers.

Conclusions

Methodologically, several conclusions may be drawn. First, the results argue for the use of multiple dependent measures. Ratings of truth judgment and purchase intent were only weakly correlated and frequently showed an effect on one that was not replicated on the other. Second, the variable of knowledge or buyer experience is very tricky to operationalize and test. Several pilot studies in the authors' laboratory using different ways of measuring this variable have shown inconsistent results, sometimes largely null and often idiosyncratic for different products and ads. Is it best measured by buying experience, by product-class knowledge, by self-rating of knowledge, by the elusive factor of "involvement," or by some combination of these ways or some other way not yet identified? There may in fact be several underlying correlated variables at work here, as well

as possible important interactive variables that have not yet been examined in this context (e.g., durable vs. nondurable goods, products vs. services).

Certainly our study is a very different situation from that of the actual consumer in the marketplace. In particular, two concerns highlight the divergence of the experience of our subjects from that of an actual consumer processing an ad: (a) the lack of pictorial content in the ad, and (b) the artificial situation of reading a list of ads and doing the required rating tasks. Both these constraints, should they have any effect at all, would presumably predict greater-than-normal attention, and, consequently, deeper processing, of the semantic content of the ad copy by our subjects, compared to real-life consumers in a natural context. That there was no stronger effect of the buyer variable and that the directly asserted claims did not differ on either measure from most of the classes of implied claims suggest that such a difference would be very unlikely in the more complex real-world situation. Any real difference should show up with our procedure. It is, of course, possible that the modest effects of gender, ad type, and buyer knowledge obtained in this study would lessen or disappear in a more realistic situation, but that awaits further research.

In terms of applications to advertising, results suggest that stating a claim very strongly and directly is no more effective in persuasion than stating a weaker version of the claim. In fact, subjects generally rated the truth of the implied claim just as strongly as for a direct assertion, although this varied somewhat depending on the type of claim. What then, is the incentive to directly assert advertising claims? There seems to be very little, with considerable incentive to imply the claim instead.

Not only may implying, versus asserting, a claim have some psychological advantage and no disadvantage, but it may also be legally advantageous. The question of the legal and behavioral status of implied claims in advertising has been the subject of considerable study and litigation (Craswell, 1985; Ford & Calfee, 1986; Gardner & Leonard, 1990; Preston, 1989; Preston & Richards, 1986; Richards, 1990). Although it is clear that an advertiser may be held legally accountable for falsehoods directly asserted, the possible culpability of the act of implying a falsehood is less clear. Does the legal responsibility of comprehending false information about a product lie with the advertiser for implying such information or with the consumer for inaccurately inferring such an interpretation from the ad?

ACKNOWLEDGMENTS

Melissa Maiorelle is now at the University of Alaska–Anchorage.

We thank Robin Wessels DeMott of Pittsburg State University, Mark Hell of the University of Freiburg, and Tina Rathbun and Todd Kern of Kansas State University for work on pilot studies leading to this research.

REFERENCES

Bruno, K. J., & Harris, R. J. (1980). The effect of repetition on the discrimination of asserted and implied claims in advertising. *Applied Psycholinguistics, 1,* 317–321.

Burke, R. R., DeSarbo, W. S., Oliver, R. L., & Robertson, T. S. (1988). Deception by implication: An experimental investigation. *Journal of Consumer Research, 14,* 483–494.

Chiesi, H. L., Spilich, G. J., & Voss, J. F. (1979). Acquisition of domain-related information in relation to high and low domain knowledge. *Journal of Verbal Learning and Verbal Behavior, 18,* 257–274.

Craswell, R. (1985). Interpreting deceptive advertising. *Boston University Law Review, 65,* 657–732.

Ford, G. T., & Calfee, J. E. (1986). Recent developments in FTC policy on deception. *Journal of Marketing, 50,* 82–103.

Gardner, D. M., & Leonard, N. H. (1990). Research in deceptive and corrective advertising: Progress to date and impact on public policy. *Current Issues and Research in Advertising, 12,* 275–309.

Geis, M. (1982). *The language of television advertising.* New York: Academic.

Graesser, A. C., & Bower, G. H. (Eds.). (1990). *Inferences and text comprehension.* San Diego: Academic.

Harris, R. J. (1981). Inferences in information processing. In G. H. Bower (Ed.), *The psychology of learning and motivation* (Vol. 15, pp. 81–128). New York: Academic.

Harris, R. J., Dubitsky, T. M., & Bruno, K. J. (1983). Psycholinguistic studies of misleading advertising. In R. J. Harris (Ed.), *Information processing research in advertising* (pp. 241–262). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Harris, R. J., Dubitsky, T. M., Connizzo, J., Letcher, L. E., & Ellerman, C. S. (1981). Training consumers about misleading advertising: Transfer of training and effects of specialized knowledge. *Current Issues and Research in Advertising, 3,* 105–122.

Harris, R. J., Sturm, R. E., Klassen, M. L., & Bechtold, J. I. (1986). Language in advertising: A psycholinguistic approach. *Current Issues and Research in Advertising, 9,* 1–26.

Harris, R. J., Trusty, M. L., Bechtold, J. I., & Wasinger, L. (1989). Memory for implied versus directly stated advertising claims. *Psychology & Marketing, 6,* 87–96.

Jacoby, J., & Hoyer, W. D. (1987). *The comprehension and miscomprehension of print communications.* New York: Advertising Educational Foundation, Inc.

Meyers-Levy, J., & Maheswaran, D. (1991). Exploring differences in males' and females' processing strategies. *Journal of Consumer Research, 18,* 63–70.

Meyers-Levy, J., & Sternthal, B. (1991). Gender differences in the use of message cues and judgments. *Journal of Marketing Research, 28,* 84–96.

Preston, I. L. (1989). The Federal Trade Commission's identification of implications as constituting deceptive advertising. *University of Cincinnati Law Review, 57,* 1243–1310.

Preston, I. L., & Richards, J. I. (1986). Consumer miscomprehension as a challenge to FTC prosecutions of deceptive advertising. *The John Marshall Law Review, 19,* 605–635.

Richards, J. I. (1990). *Deceptive advertising: Behavioral study of a legal concept.* Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Rickheit, G., & Strohner, H. (Eds.). (1985). *Inferences in text processing.* Amsterdam: North-Holland.

Russo, J. E., Metcalf, B. L., & Stephens, D. (1981). Identifying misleading advertising. *Journal of Consumer Research, 8,* 119–131.

Searleman, A., & Carter, H. (1988). The effectiveness of different types of pragmatic implications found in commercials to mislead subjects. *Applied Cognitive Psychology, 2,* 265–272.

Snyder, R. (1989). Misleading characteristics of implied-superiority claims. *Journal of Advertising, 18*(4), 54–61.

Spilich, G. J., Vesonder, G. T., Chiesi, H. L., & Voss, J. F. (1979). Text-processing of domain-related information for individuals with high and low domain knowledge. *Journal of Verbal Learning and Verbal Behavior, 18,* 275–290.

Vestergaard, T., & Schroder, K. (1985). *The language of advertising.* Oxford, England: Basil Blackwell.

Yekovich, F. R., Walker, C. H., Ogle, L. T., & Thompson, M. A. (1990). The influence of domain knowledge on inferencing in low-aptitude individuals. In A. C. Graesser & G. H. Bower (Eds.), *Inferences and text comprehension* (pp. 259–278). San Diego: Academic.

Accepted by Thomas K. Srull during his editorship.

EXHIBIT B

Expert Report of Geoffrey Nunberg

In the matter of Basic Research et al., Docket No. 9318

Scope of Retention

1. I have been retained in this matter to opine on the question of whether the language of the advertisements and promotional material used by Basic Research et al. ("BR") For PediaLean ("the Advertisements") supports the allegations made by the Complaint in this matter that BR has represented that "PediaLean causes substantial weight loss in overweight or obese children" (Complaint, §37) and that BR has "represented, expressly or by implication, that clinical testing proves that PediaLean causes substantial weight loss in overweight or obese children."
2. In the course of preparing this report, I have reviewed the Complaint in this matter, the advertisements and promotional materials for PediaLean included here as Attachment C, and records from various dictionaries and databases, as referenced in this report and as included in Attachment B.
3. I am being compensated for my work on this matter at an hourly rate of $375 for preparing this report and for deposition and trial testimony.
4. As I continue to receive and review additional information, I reserve the right to supplement, revise, or further explain the opinions set forth in this report.

Qualifications

5. I hold a B.A. from Columbia College, an M.A. in Linguistics from the University of Pennsylvania and a Ph.D. in Linguistics from the City University of New York. I am currently a Senior Research Fellow at the Center for the Study of Language and Information at Stanford University and a Consulting Full Professor in the Department of Linguistics at Stanford, where I have taught courses in semantics and pragmatics, lexicography, the structure of written language, and in other language-related areas. I have held teaching posts at the City University of New York, UCLA, the University of California at Berkeley, and

Respondents' Hearing Exhibit Docket No. 9318 RX-067

EXHIBIT Solan-7 12-8-04

Stanford University. I have held visiting lectureships at the University of Naples, the University of Texas, the Frei Universität of Berlin, and Princeton University.

6. I have published numerous papers in peer-refereed journals and other publications on various aspects of linguistics. I am the author of books and articles dealing with syntax and semantics, language variation and use, and the structure of written language. I am a regular contributor of commentaries on language to the National Public Radio program "Fresh Air" and write a regularly appearing feature on language for *The New York Times* in its Sunday Week in Review section.
7. I serve as usage editor and Chair of the Usage Panel of the *American Heritage Dictionary* and have for many years been a consultant to the dictionary regarding matters of definition, usage, and other lexicographical questions. I have taught graduate-level courses in lexicography and related topics at Stanford University and at the Summer Institute of the Linguistic Society of America.
8. For a number of years I worked as a Principal Scientist at the Xerox Palo Alto Research Center. I worked among other things on the design systems for the of statistical analysis of language, automatic summarization, and automatic text classification. I have authored several publications describing this work and am named as an inventor on several American and European patents and patent applications, all of which are listed on my vita, attached as Attachment A.
9. I have written a number of articles on language and the law, chiefly for *American Lawyer* and *California Lawyer*, including articles on the use of dictionaries and linguistic evidence in legal proceedings. I delivered an invited talk on linguistics and trademark law at the Midwest IP Institute in 2003.
10. I have worked in a consulting capacity with marketing firms, branding firms, and advertising agencies in developing and evaluating product and corporate names, slogans, and on other linguistic matters, often making use of techniques derived from statistical analysis of text databases to ascertain features of word meaning. The clients for whom I have done work include Nvidia, Monsanto, AXA Insurance, Pennzoil, Bank of America, and the Martin Company.
11. I have served as an expert witness in a number of cases, including several trademark cases. I have been qualified as an expert witness in a number of cases, both as regards matters of word meaning and digital search and classification technologies.
12. I have attached as Attachment A my curriculum vitae, which includes a list of my publications and the cases I have worked on as an expert witness.

Summary of Opinions

13. On the basis of my review of the documents mentioned above, my examination of the citational evidence, and several other considerations described below, I have reached the following conclusions:

14. The Advertisements represent that PediaLean is an effective weight-loss product for fat or obese children, which will lead to "significant weight loss" for the consumer's child.

15. The Advertisements represent that the consumer can expect results like those in the clinical tests it reports; it is a "clinically proven solution."

16. In the context of the Advertisements, *significant* can only be interpreted as having the sense "of a noticeably or measurably large amount," rather than its sense in statistics, where it applies to observations that cannot be ascribed to chance.

17. In this use of the word, there are no material differences between speaking of a significant weight loss and speaking of a substantial weight loss: no weight loss could qualify under one description and not under the other. This point is supported by examination of the uses of both terms in press stories and on the Web.

18. More generally, the Advertisements characterize PediaLean as "effective" and as a "solution" for the problems of children who are substantially overweight ("fat" or "obese"), from which it can only follow that the product will cause substantial loss of weight.

Background

19. Linguistic expertise can contribute in two ways to the understanding of the language used in ordinary discourse. The subfield of lexical semantics is concerned with characterizing the meanings of the words and expressions of a language and the relations among the senses of words (lexicography should be considered a specific application of this field). Lexical analyses can be made on the basis of examinations of the treatments of words in existing dictionaries, but all such treatments are ultimately based on systematic examinations of the use of words in context. In recent years, lexical semanticists and lexicographers have also relied on quantitative analyses of the use of words in various databases and on the World Wide Web.

20. The subfield of lexical pragmatics is concerned with the use of language in context: in particular, with explaining how listeners determine which sense of a word is intended on a given occasion of use, and what inferences the use gives rise to. Or to put it another way, lexical semantics is concerned with the elucidation of literal meaning (or what people

sometimes call "dictionary meaning"), whereas lexical pragmatics is concerned with elucidating conveyed meaning.

For example, suppose we are interested in determining whether the phrase "You may request an X" entails that such a request will be automatically granted. A lexical pragmatic analysis will tell us in which contexts such an inference will be justified (e.g., in a sign at an airport check-in that says "If you do not want to go through the metal detector, you may request a personal search") and when such an inference may not be justified (e.g., "You may request an extension by filling out the enclosed form").

The Advertisements

21. The Advertisements differ in specific details, but taken together they contain several basic themes that are repeated from one advertisement to the next.

A. The Advertisements indicate that PediaLean is intended for seriously overweight children whose problem cannot be redressed by diet and exercise alone:.

> When your child needs more than diet or exercise (heading, 5050072, 5050080, etc. passim)[1]

B. The Advertisements underscore the seriousness of childhood obesity as the source of social stigma for both parents and children and as correlating with problems in later life:

> • Your Child is Overweight. And It's Destroying Both Your Lives. (5050072, 5050077, 5050080, 5050009))
>
> • Your Child is Fat. And It's Destroying Both Your Lives (5050007)
>
> The pain and rejection our children feel every day is real... and it hurts. Years of published research confirm that an overweight child will grow up to earn less money, be less likely to marry, more likely to be divorced, complete fewer years of school, and more likely to become a burden to an ageing [sic] parent (even if that child becomes leaner in adulthood). (505067 etc.)

C. The Advertisements represent that PediaLean is an effective weight-loss product proven in clinical trials. It is described as "a 100% natural, completely stimulant-free compound proven to cause significant, effortless weight loss in actual clinical trials" (5050059. etc.); as "the first and only clinically proven, safe, and effective weight-control compound designed for overweight children and adolescents" (Complaint Exhbit L, 5050054, 5050058, etc.); or as "a

---

[1] The numbers here and below refer to the numbers stamped on the Advertisements.

revolutionary approach to children's weight control that, simply stated, cannot and will not fail." (5050012, etc.)

D. Many of the Advertisements describe the clinical trial, and go on to say:

> "What does this mean in plain English? Children who used PediaLean™ along with a healthy, but not calorie-restricted, diet and modest exercise lost an incredible 20% of their excess body weight. Those who followed the same diet and exercise program but did not take PediaLean™, failed to lose any significant excess weight at all. (Complaint Exhbit L, 5050054, 5050058, 505067, etc.)

E. The Advertisements indicate that the results of the clinical trial entail that PediaLean will be an effective obesity treatment for the reader's children:

> "Does PediaLean™ work? You bet it does! In a well-controlled double-blind clinical trial, each and every child who used PediaLean™ as directed lost a significant amount of excess body weight... a success rate of 100% (Complaint Exhibit K, 5050054, 5050058, 505066, etc.)

> "'It's just baby fat.' 'She'll grow out of it,' and 'Oh, he's just a growing boy'... these are the traditional excuses parents use to justify their child's overweight condition. The old excuses can no longer stand... especially now that there is a safe, natural weight-loss control compound designed and developed specifically for children. Combined with a proactive program specifically created to support both parent and child -- this natural weight-control program resulted in significant weight loss in virtually every child studied. For your child's sake, for your sake, you must take advantage of this clinically proven solution." Dr. Nathalie Chevreau, Ph.D., R.D. Director of Women's Health, Klein-Becker usa. (Complaint Exhibit L, 5050011 etc.) [ellipses in original]

> "Published Medical Studies Don't Lie... Clinically Proven Safe and Effective." (Complaint Exhibits K and L, 5050027, etc.)

The Advertisements promise that PediaLean causes substantial weight loss in overweight or obese children.

22. The statements in D draw a close connection between the results of the clinical trial and the results promised to PediaLean customers. The trial is described as proving that PediaLean will work. And Dr. Chevreau's statement clearly indicates that the fact that the product resulted in weight loss in the trial leaves parents with no excuses for allowing their child to maintain his or her overweight condition and describes the product as a "clinically proven" solution. The phrase "Clinically proven safe and effective" appears in numerous advertisements, again drawing a connection between the results of clinical trials and the results that the consumer can expect.

23. The Advertisements also represent that clinical testing proves that PediaLean causes substantial weight loss in overweight or obese children, as indicated by phrases like "resulted in significant weight loss" and the statement that "each and every and every child who used PediaLean™ as directed lost a significant amount of excess body weight... a success rate of 100%." (Complaint Exhibit L, 5050054, 5050058, etc.)

24. These claims are also repeated on the PediaLean packaging, which states that "There is nothing more effective than PediaLean in helping your child lose weight. European research confirms it and medical studies don't lie." (5050001).

The Meaning of *Significant*

25. Amost all the Advertisements use the word *significant* to describe the effects of PediaLean, which is described as having "resulted in significant weight loss in every child studied" (Complaint Exhibit L, 5050004, 5050007, 5050009, 5050011, 5050021, etc.). Since, as we saw, the results of clinical trials are offered as a model for the consumer's expectations of the product, this amounts to a claim that consumers can expect to see significant weight loss in their own children. In these contexts, phrases like "significant weight loss" can only be understood as entailing the same results as "substantial weight loss," as an examination of the meanings of *significant* and *substantial* demonstrates

26. It is true that *significant* has several senses in English. Among other things, it can mean "notable or important," as in "a significant contribution to the literature on language acquisition" or "a significant security threat"; or "meaningful," as in "a significant glance." And it can have a statistical sense to apply to observations that are too closely correlated to be explained by chance. The senses of the word are given in the *American Heritage Dictionary*, 4th edition (2000) as follows:

> 1. Having or expressing a meaning; meaningful. 2. Having or expressing a covert meaning; suggestive: *a significant glance*. See synonyms at expressive. 3. Having or likely to have a major effect; important: *a significant change in the tax laws*. 4. Fairly large in amount or quantity: *significant casualties; no significant opposition*. 5. Statistics Of or relating to observations or occurrences that are too closely correlated to be attributed to chance and therefore indicate a systematic relationship.

Merriam-Webster's *Eleventh Collegiate Dictionary* (2003) defines the word as follows:

> 1 : having meaning; especially : SUGGESTIVE <a significant glance>

> 2 a : having or likely to have influence or effect : IMPORTANT <a significant piece of legislation>; also : of a noticeably or measurably large amount <a significant number of layoffs> <producing significant profits> b : probably caused by something other than mere chance <statistically significant correlation between vitamin deficiency and disease>

For these purposes, we need to consider only the senses that the *American Heritage* defines as (4) and (5), and that Merriam-Webster's defines as "of a noticeably or measurably large amount" or "probably caused by something other than mere chance." These are the only possible interpretations of *significant* in the phrase "significant weight loss," which entails a change in a measurable value.

27. As used in an advertisement for a children's weight loss product appearing in a consumer magazine or similar source, however, the phrase "significant weight loss" could be given only the "considerable" interpretation. The reason for this is that the statistical sense of the word is extremely rare in the general press, and when it does occur it is invariably prefaced by "statistically."

Examination of the use of *significant* and *substantial* in press stories

28. To demonstrate this point, I did a search in the Nexis database for all occurrences of the word *significant* in three major papers over the second half of September, 2004. The papers were *The New York Times*, the *Washington Post*, and the *Los Angeles Times*, chosen because these were sources in which the statistical sense of the word was deemed more likely to appear than in most other dailies. The search turned up a total of 853 occurrences of the word for this period. Of these, 153 occurrences (18%) involved the use of significant to mean "measurably large," as in "gave up significant yardage," "significant nurse vacancies," or "a significant increase in the voter roll."[2] By contrast, there were only 8 occurrences of *significant* in its statistical sense, and each these was modified by *statistically*, as in the following:

> This finding applied to any one percentage point increase, not just increases over the 5 percent level. The results were similar in Type 1 diabetes, but not statistically significant. *The New York Times*, September 21, 2004

[2] Most of the rest involved phrases like "significant threat" and "significant impact," where the word was used to mean "important."

> Furthermore, the correlations between message board postings, volume and volatility are not only statistically significant, they are quite large compared with the magnitude of correlation one typically observes in financial markets. *The New York Times*, September 23, 2004
>
> Not surprisingly, those not at the Pentagon that day reported less psychological distress or psychiatric illness. The effect of indirect exposure -- through at least three hours of television coverage of the destruction there and in New York -- was no longer measurably statistically significant after two years. *The Washington Post*, September 15, 2004
>
> The data are based on an annual national survey of about 800,000 households. Statistically, the bureau says, there is no significant difference among the Top 10, which also includes Montgomery and Fairfax counties. *The Washington Post* September 19, 2004

29. The fact that these newspapers invariably qualify *significant* by *statistically* when the word is used in its statistical sense demonstrates that they are aware that readers would otherwise take it to mean "considerable." The principle here is no different from that which leads newspapers to refer to "London, Ontario" when they are referring to a city in Canada.

The statistical sense of *significant* is rare in the general press, as well as being poorly understood

30. What is more, it is fair to conclude that the statistical sense of *significant* (or *significance*) is virtually never seen in sources like those in which the PediaLean advertisements appeared, such as *Redbook* or *Cosmopolitan*, much less the *Enquirer* or the *Star*. While online records of these particular sources are not available, I note that *significant* and *significance* have never appeared in a statistical sense in the roughly comparable *People* magazine for as far back as online records are available (a total of more than 100 issues), whether or not preceded by *statistical(ly)*.
31. In fact it is certain that a large proportion of consumers are unaware of the statistical use of the term. For this reason, anyone who saw the phrase "significant weight loss" in an advertisement in a consumer magazine could reasonably conclude only that *significant* meant "considerable" or "measurably large." Even a reader who happens to be aware of the statistical use of the term will realize that this sense is not likely to be foremost in the mind of the typical reader, and that it would be unreasonable for a writer to use it in this sense in the context without explicitly qualifying it by *statistically*.
32. Note moreover that even consumers who are aware that *significant* is used in a statistical sense very often misunderstand its meaning, and are unaware that even a difference of .001 percent in two values might be "statistically significant." In fact people often use "statistically

significant" in a way that demonstrates that they are mistaken about its meaning. For example, Google Groups postings turn up 2650 hits for postings containing "statistically significant sample(s)," a locution that makes no sense statistically -- a result can be statistically significant, but not a sample itself.

> In summary, large, statistically significant samples of a variety of fossil organisms (from trilobites to mammals) have been examined, and NO large, systematic gaps have been found.[3]

> I've long forgotten the math for calculating the size of a "statistically significant sample" but I'm pretty sure we'd need at least 40 or 50 in each group.[4]

And "statistically significant" is often used on the Web in a way that seems to mean simply "big, and there are precise figures to prove it." For example:

> Between 1999 and 2001/2, all [British Crime Survey] crime fell by 14 per cent, which is a statistically significant reduction. The figure includes statistically significant falls in domestic burglary (down 23 per cent), vehicle thefts (down 14 per cent) and common assaults (down 28 per cent).[5]

That is, even if some readers of the advertisements were tempted, unreasonably, to assume that *significant* had a statistical sense in the phrase "significant weight loss," a large number of them would assume that the word entailed "large," with an implication that there were statistics to support the claim.

---

[3] See http://groups.google.com/groups?q=%22statistically+significant%22+large&hl=en&lr=&safe=off&selm=9q444t%24qm0%241%40hydra.bigsky.net&rnum=5

[4] http://groups.google.com/groups?q=%22statistically+significant+sample%22+OR+%22statistically+significant+samples%22&hl=en&lr=&safe=off&selm=6dbddb9.0309211858.2d6fac2a%40posting.google.com&rnum=29

[5] See http://groups.google.com/groups?q=%22statistically+significant%22&start=100&hl=en&lr=&safe=off&selm=87smz5c6ym.fsf%40happy.sherilyn.org.uk&rnum=138

The use of *significant* in the Advertisements is not consistent with a statistical interpretation

33. Note moreover that as used in the Advertisements, *significant* is not consistent with a statistical interpretation. Consider the frequently repeated statement "this natural weight-control program resulted in significant weight loss in virtually every child studied." True, the statement is not quite accurate on whatever interpretation we give to significant, since the children who were "studied" included the control group, strictly speaking. But if we take "every child studied" here to refer to the experimental group and we take *significant* to mean "noticeably large," then the statement is straightforward. If, however, we tried to take *significant* in its statistical sense, the statement makes no sense. Even if one accepts that the clinical trial demonstrated a (statistically) significant difference between the experimental and control groups, it obviously did not demonstrate a statistically significant weight loss for every child in the experimental group. Statistically speaking, that would entail that children were being compared to themselves, which was clearly not the procedure in the trial as described in the Advertisements.[6]

Note also that inasmuch as the statement is attributed in the Advertisements to Dr. Chevreau, it is not reasonable to assume that in the phrase "significant weight loss in virtually every child studied," the word *significant* is being used in a sloppy version of its statistical sense. A PhD who is the director of women's health for a pharmaceutical company would presumably have knowledge of statistics to be able to accurately describe the results of the clinical trials. The fact that this use of *significant* is attributed to someone with Dr. Chevreau's credentials, accordingly, adds further weight to the conclusion that the word is being used in its ordinary sense of "noticeably large."

When applied to phrases like "weight loss," *significant* and *substantial* are functionally equivalent

34. Like *significant*, *substantial* has a number of senses -- we can speak of a "substantial breakfast" (i.e., one that is ample and sustaining), a "substantial roof" (i.e. "solid and strong") or a "substantial merchant" (i.e., one who is well-to-do). In the phrase "substantial weight

---

[6] One could imagine a very different experiment, in which every child was observed over a period of time in which he or she did not use the product, and then observed for a period of time in which he or she used the product, with no control group. In that case we might reasonably speak of a particular child losing a significant amount of weight. But that is clearly not the procedure followed in the Advertisements.

loss," as used in the Complaint, however, *substantial* can have only the sense that the *American Heritage* defines as "5. Considerable in importance, value, degree, amount, or extent" and that Merriam-Webster's Eleventh Collegiate defines as "considerable in quantity : significantly great."

35. Relative to the "quantity" senses of each word, *substantial* and *significant* can be regarded as "cognitive synonyms." While they differ slightly in connotation or emphasis, each word entails the other. That is, if a reduction in a value can be described as "significant," it can also be described as "substantial," and vice-versa. In this connection it is notable that Merriam-Webster's defines this sense of *substantial* as "significantly great," and that the *Encarta College Dictionary* (2001) defines the relevant sense of *significant* as "SUBSTANTIAL: relatively large in amount." The tendency to interdefine these words implies that they are essentially interchangeable in this sense.

Press usage demonstrates the equivalence of *significant* and *substantial*

36. In fact in actual usage, which is the basis for dictionary definitions of words like these, *significant* and *substantial* have the same quantitative implications.

37. To demonstrate this point, I looked at all the citations from the Nexis major newspapers database from the year ending on October 15, 2004, in which *significant* and *substantial* were used to modify *reduction*, *loss*, or *decrease* in the vicinity (within 10 words) of an explicit mention of a percentage, then hand-filtered those in which the percentages provided an indication of the specific change in value referred to.[7] That is, I included examples like the first of the following, but not the second:

> (included) The new regulations will require significant reductions - a 46 per cent cut from 1994 sulphur dioxide levels, and 21 per cent for nitrogen oxide - over six years and will become stricter over time. *Toronto Star*, June 22, 2004

> (not included) Since America consumes 45 percent of the world's gasoline, a significant reduction here would bring down the world price. *The Washington Post*, May 21, 2004

Printouts of the pages are provided in Attachment B. Table 1 summarizes the results of these searches.

---

[7] For these purposes, I included adverbial uses, as well; i.e., "substantially reduce," "significantly decrease," and so forth.

PHRASE	SUBJECT	PERCENT CHANGE IN VALUE
substantial reduction	difference in muscle and tendon strength between older and younger people	10 percent
substantial reduction	salt levels in breakfast cereals	16 percent
substantial reduction	mercury emissions	greater than 40 percent
substantially reduce	insurance premiums	15 to 30 percent
substantial decrease	shipping injuries	18.7 percent
substantial loss	retail trade	30-40 percent
substantial loss	student attendance	27 percent
significant decrease	hormone prescriptions	25 percent
significant decrease	surveyors reporting price declines	62 percent
significant decrease	cap on property tax increases	60 percent
significant reduction	nutrient emissions from treatment plants	60 percent
significant reduction	mortality rates	greater than 15 percent
significant reductions	Sulphur dioxide levels	21 and 46 percent
significant reduction	acreage covered by wetlands	7 percent
significant reduction	proportion of young smokers	27 percent
significant reductions	mercury emissions	up to 70 percent
significant reductions	commercial rents	17.6-32.7 percent
significantly reduce	greenhouse gases	60 percent
significantly reduce	fatal accidents	35 percent
significantly reduce	paved surfaces	52 percent
significantly reduce	traffic fatalities	11 percent
significantly reduce	road injuries	61 percent
significant loss	gross personal income	10 percent
significant loss	manufacturing jobs	21 percent
significant loss	farm revenue	30-50 percent

Table 1: Use of *significant* and *substantial* to Describe Explicit Changes of Value in Major Newspapers, Year Ending 10/15/04

38. Several points are clear from this table. First, the overall range of percentages that are described as "significant" in press stories is not systematically different from the percentage range of reductions that are described as a "substantial." For example, a 9 percent reduction in

greenhouse gas is described as substantial in one article, while in another article a 60 percent reduction in greenhouse gases is described as significant. A 40 percent reduction in mercury emissions is described in one article as substantial, while a 70 percent reduction in mercury emissions is described in another article as significant. One article describes an 18.7 percent reduction in work injuries as substantial while another describes a 61 reduction in road injuries as significant. Clearly any change in value that could be described as "significant" could be described as "substantial," and vice-versa, a point I will return to below.

39. Second, the question of what counts as a "significant" or "substantial" change in value in a given case depends to some extent on the particular quantities being compared. In election polls, for example, a shift of 6 percent in the support for a particular candidate might be described as significant or substantial, as might a 4 percent drop in the mortality rate. Whereas if a baseball player goes from hitting 50 home runs in a season to 48 in the next -- also a 4 percent drop -- we would presumably not describe that as a significant or substantial drop.

40. It would be wrong to conclude on this basis, however, that the words *significant* and *substantial* are "too vague" to have any meaning in a given context. It is true that we cannot provide an absolute percentage threshold that a change in value must cross before it can be described by one of these words. But relative to a particular context, both words are applied to changes in value or amount that are sufficient to suggest an important qualitative difference, however that is understood relative to the topic in question. Thus a 4 percent drop in the mortality rate from a disease might be taken as evidence that new treatments or prevention measures are working, and a 6 percent decrease in poll support for a candidate might suggest an important qualitative difference in his or her chances of winning the election. Whereas a 4 percent decrease in a player's home-run production from one year to the next would not suggest a qualitative change in his hitting ability -- no one would take that as grounds for arguing, say, that he was not the hitter he was last year.

41. Note also that whether a change in quantity counts as either "substantial" or "significant" often depends on how far the original value of the quantity departs from a generally established mean or normal range for the quantity in question. A 5 percent ($650) drop in the $12,965 base sticker price of the Ford Focus would be more readily described as substantial or significant than a proportional 5 percent reduction in the base sticker price of a Rolls Royce Phantom from $325,000 to $309,000, for example -- with good reason, since the

reduction in the price of the Focus would presumably have a far greater impact on the number of cars sold.

42. For this reason, a promise of "significant weight loss" can only be interpreted relative to the starting point of the subject relative to the normal range. A loss of 5 percent of body weight might very well count as significant for a 130 pound woman 5'6" tall who feels she could "stand to lose a few pounds," since a reduction to 123 pounds would make her feel that she was at a "normal" weight. But for a woman of the same height who weighs 225 pounds, a 5 percent (11 pound) weight loss would be less likely to count as significant or substantial, since it wouldn't materially affect her self-perception as "obese" or "fat." That is, a promise of "significant weight loss" or "substantial weight loss" implies a far greater percentage loss for obese people than for those who are merely slightly overweight.

Uses of *significant* and *substantial* in phrases demonstrate their functional equivalence

43. While *significant* and *substantial* are cognitively or truth-conditionally synonymous in this sense (that is, one cannot be true while the other is false), they differ slightly in connotation, as I noted above. In particular, to speak of "a significant reduction" suggests that the change in value of a quantity is meaningful or noticeable, whereas *substantial* does not have this express entailment.

44. For this reason, people often combine the two words by way of emphasizing the size of a change in the value of some quantity, as in speaking of a "significant and substantial increase." Such phrases are widely encountered in the Web pages indexed by Google. By contrast, the phrases "significant but not substantial" rarely occurs in Web pages before words like *increase* and *decrease*, as Table 2 shows:

Phrase	Number of Google Hits
significant and substantial reduction(s) OR substantial and significant reduction(s)	276
significant and substantial decrease(s) OR substantial and significant decrease(s)	190
significant and substantial increase(s) OR significant and substantial increase(s)	499
significant but not substantial increase(s)	0
substantial but not significant increase(s)	1
significant but not substantial decrease(s)	2
substantial but not significant decrease(s)	2
significant but not substantial reduction(s)	0
substantial but not significant reduction(s)	1

Table 2: Collocation of *substantial* and *significant*

45. Note moreover that every one of the instances of the phrases "substantial but not significant" or "significant but not substantial" occurs in scientific publications in which *significant* is clearly being used in its statistical sense. For example:

> The mean values for systolic and diastolic blood pressure as well as the plasma cholesterol level of the original cohort were found to be significantly lower than 10 years previously. There was a substantial, but not significant reduction in the percentage of male smokers in the age group 20 to 64 years, but no change in the percentage of female smokers.[9]
>
> A substantial but not significant decrease in serum levels of 7{alpha}-hydroxycholesterol was found, but no relevant changes occurred in 27-hydroxycholesterol levels.[10]
>
> Significant, but not substantial, increases in M. dubius dry weight were observed as the dietary fructose concentration was raised to 12% (w/w).[11]

That is, in its sense of "noticeably large," *significant* is never used in a way that implies a contrast with *substantial* as applied to reductions or increases in a quantity.

---

[9] See http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=2588592&dopt=Abstract

[10] http://www.jlr.org/cgi/content/full/42/3/437

[11] See http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=6835700&dopt=Abstract

46. Thus a reader who sees the phrase "significant weight loss" in the PediaLean advertisements, where *significant* is clearly not used in a statistical sense, could only conclude that it is equivalent in meaning to "substantial weight loss."

Other Indications show that the Advertisements promise substantial weight loss

47. The implication that PediaLean will produce substantial weight loss does not rest exclusively on the use of *significant*, but is implicit in the rest of the advertising copy, as well. As I noted, PediaLean is marketed as benefiting children who are "fat" or "obese," in advertisements that repeatedly stress the pain, embarrassment, social consequences and health risks of severe obesity. Note also that the Advertisements promise that PediaLean will be "effective" (5050054, 5050058, 505067, etc.), and make numerous other claims that promise that the product will remedy the consequences of obesity -- i.e., it promises a "solution" to the problem (505004, 505009, etc.):

> "Does PediaLean™ work? You bet it does! (5050054, 5050058, 505067, etc.)
>
> The PediaLean program delivers results that will thrill you and your child (5050069)
>
> PediaLean will work for your child, just as it has for thousands around the globe. You will be thrilled by the results. (R0035568)

48. Claims like these will inevitably be interpreted as offering more than just modest weight loss, which would hardly "thrill" a parent or child. They promise a dramatic qualitative change: your child will no longer be ridiculed, will no longer be at risk of earning less money, not getting married, becoming a burden to aging parents, and so forth. And if the child at whom the product is directed is "fat," "obese," or "needs more than diet or exercise" then the child is substantially overweight by any understanding of the term. (The *American Heritage Dictionary*, for example, defines *obese* as "Extremely fat; grossly overweight." Obviously we would not say that someone was "grossly but not substantially overweight.")

49. But in that case, there can be no "solution" to the problem that does not involve substantial weight loss. In other words, the Advertisements are saying, in effect, "If your child is substantially overweight, we offer a solution." There is no way to interpret that statement except as a promise that your child will lose substantial amounts of weight.

Signed [signature] Date 10/19/04

Attachment A

Geoffrey D. Nunberg

Curriculum Vitae
January, 2004

Center for the Study of Language and Information
Ventura Hall
Stanford University
Stanford, CA 94305
Telephone: (650) 723-8260
Fax: (415) 282-1633
nunberg@csli.stanford.edu
http://www-csli.stanford.edu/~nunberg/

Born: June 1, 1945
U. S. citizen

Education:

1972-1977	Department of Linguistics, Graduate Center, City University of New York. January 1978: Ph.D. awarded
1971-1972	Department of Linguistics, Graduate School of Arts and Sciences, University of Pennsylvania. 1972: M.A. awarded
1969-1971	School of General Studies, Columbia University. 1971: B.A. awarded
1962-1964	Columbia College, Columbia University

Positions:

2004-	Visting Lecturer, School of Information Management and Systems, University of California at Berkeley
2002-2003	Marta Sutton Weeks Fellow, Stanford Humanities Center
2001-	Senior Researcher, Center for the Study of Language and Information, Stanford University
1986-2001	Xerox Corporation, Corporate Research and Technology. 1995-2002, Principal Scientist, Xerox Palo Alto Research Center 1993-1995. Senior Research Scientist, Rank Xerox Research Centre, Grenoble 1993-1995, Research scientist, Xerox Palo Alto Research Center
1988-present	Consulting Full Professor, Department of Linguistics, Stanford University
1980-1985	Stanford University. Visiting Assistant Professor, Department of Linguistics Researcher, Center for the Study of Language and Information
1979-1980	Assistant Professor, Department of Linguistics, U.C.L.A.
1978-1979	Fulbright Lecturer, University of Rome
1977-1978	Postdoctoral Fellow, Institute for Human Learning, University of California at Berkeley
1976-1977	Instructor, Department of English, Brooklyn College of C.U.N.Y.
1975-1976	Instructor, Department of Anthropology, Hunter College of C.U.N.Y.

Other Affiliations:

1984-2001	Associate, Center for the Study of Language and Information, Stanford University
1992-present	Membre Associé, Institut Jean Nicaud (Centre de Recherche en Epistémologie Appliquée) (CNRS), Paris
1991	Member of Faculty, Linguistic Society of America Summer Institute, University of California at Santa Cruz
1999-present	Member of Board of Trustees, Center for Applied Linguistics
1999-2002	Member of Steering Committee, Coalition for Networked Information
1998-present	Member of Scientific Board, Unversità degli Studi, San Marino
1998-2002	Member of Advisory Board, Ecole Nationale des Sciences de l'Information et des Bibliothèques, Lyon.
1987-1995	Affiliated Research Scientist, Institute for Research on Learning, Palo Alto, California

Areas of Specialization

Linguistics and Natural Language:
- Semantics and pragmatics, lexical semantics and lexicography
- Structures and genres of written language
- Normative grammar and language criticism
- Language policy (US and comparative)
- Text classification technologies

Technology and communication (history and theory)

Courses Taught

Graduate and undergraduate courses in semantics and pragmatics, language policy, discourse analysis, structure and history of English, language and literature, language and politics

Grants, Awards, and Special Lectureships:

2002-03	Martha Sutton Weeks fellow, Stanford Humanities Center.
2002	Fellow. Council of the Humanities, Princeton University.
1999	Language and the Public Interest Prize, Linguistic Society of America
1998-99	Fulbright Distinguished Chair, University of Naples
1998	Harry Ransom Distinguished Visiting Humanities Professorship, University of Texas
1989	Xerox Corporate Research Group Award for Excellence in Science and Technology
1979-1980	Fulbright Lectureship, University of Rome,
1977-78	NIMH Postdoctoral Fellowship, Institute for Human Learning, University of California, Berkeley
1976-77	NSF Dissertation Grant

Books and Monographs:

After Information (with Paul Duguid) in prep.

Talking Right: How Conservatives Hijacked the Language of Politics, forthcoming from Public Affairs, 2005

Going Nucular: Language, politics, and culture in a confrontational age, Public Affairs, 2004

The Way We Talk Now. Houghton Mifflin, 2001.

The Future of the Book. (ed.). University of California Press. 1996.

Punctuation: An Exercise in the Linguistics of Written Language. CSLI and University of Chicago Press, 1990. Reprinted 1995. Second edition, forthcoming 2001.

The Pragmatics of Reference (dissertation) Indiana University Linguistics Club, 1978.

Scholarly Articles, Research, and Shorter Publications:

Technological Determinism and the Digital Future (with Paul Duguid), to appear in as-yet untitled Cambridge University Press collection on the influence of Elisabeth Eisenstein, 2004, Eric N. Lindquist, ed.

Indexical Descriptions and Descriptive Indexicals, in *Descriptions and Beyond: An Interdisciplinary Collection of Essays on Definite and Indefinite Descriptions and Other Related Phenomena*, Marga Reimer and Anne Bezuidenhout, eds., Oxford University Press, 2004.

The Liberal Label, *The American Prospect*, September, 2003.

The Pragmatics of Deferred Reference, article in *The Handbook of Pragmatics*, Laurence Horn and Gregory Ward, eds. Blackwell, 2003.

Authoritativeness Grading, Estimation and Sorting (with Francine Chen and Ayman Farahat), in Procedings of the Twenty-Fifth Annual International ACM-SIGIR Conference on Research and Development in Information Retrieval, 2002.

Do You Know What it Means to Miss New Orleans? Philology and Semantics: *Linguistics and Philosophy*, 25, 5-6, December, 2002.

Punctuation and Text-Category Indicators (with Edward Briscoe and Rodney Huddleston), chapter of *The Cambridge Grammar of English*, Rodney Huddleston and Geoffrey K. Pullum, eds., Cambridge University Press. 2002.

The Internet Filter Farce. *The American Prospect*, January 1, 2001.

Will the Internet Speak English? *The American Prospect*, March 27, 2000.
Reprinted in the *Guardian*, November 2000.
Reprinted in *The Economics of Language*, ed. D, Lamberton, Edward Elgar Publishing, to appear.

Usage in the *American Heritage Dictionary*, introductory essay to the *American Heritage Dictionary*, Fourth Edition, 2000.

The Persistence of English, introductory essay to the *Norton Anthology of English Literature*, Seventh edition, M. H. Abrams and Stephen Greenblatt, eds., Norton Publishing,1999.

Les Enjeux Linguistiques d'Internet, *Critique Internationale*, 1999, 4.
Reprinted in *Le Multilinguisme et le Traitement de L'information*, F. Segond, ed., Editions Hermes, 2002.
Reprinted in D. Lacorne, ed., *La Politique de Babel*, PUF, 2002.

Will Libraries Survive? *The American Prospect*, November-December, 1998.

L'Avenir des Bibliothèques Numériques. Actes du Colloque, "Le livre a-t-il un avenir?," Doc Forum, Lyon, 1998

Double Standards [the Ebonics controversy] *Natural Language and Linguistic Theory*, 15, 3. 1997.

Lingo jingo: Why English-only is a mistake. *The American Prospect*, July, 1997.
Reprinted in Fred Pincus and Howard Erlich, eds., *Race and Ethnic Conflict: Contending Views on Prejudice, Discrimination, and Ethnoviolence*, Westview Press, 1988.
Reprinted in Rebecca Wheeler, ed., *Language Alive*, Praeger, 1998.
Reprinted in Barbara Mori, ed. *STAND: Race and Ethnicity*, CourseWise Publishing, Bellevue, Ia, 1999.

Automatic Classification of Genre (with Hinrich Schütze and Brett Kessler), Procedings of The Annual Meeting, Association for Computational Linguistics, 1997.

L'Amérique par la Langue. *Cahiers de Médiologie*, April, 1997.

The View from Section Z [Linguistics as a science] Natural Language and Linguistic Theory, 14, 2. 1996.

Snowblind [On linguistic relativism]. *Natural Language and Linguistic Theory*, 14, 1. 1996

Farewell to the Information Age, in *The Future of the Book*, Geoffrey Nunberg, ed., University of California Press, 1996.

Gimcrack nation [Electronic discussion lists] *Natural Language and Linguistic Theory*, 13, 4. 1995.
Reprinted (as "To Delete or Not to Delete") in *Lingua Franca*, January, 1996.

The Future of Multilingualism and Multilingual Technologies (with Annie Zaenen). In *Computational Linguistics in the Netherlands*, 1995.

Les Langues du Discours Electronique. In Actes du colloque "Langues et Sciences en Europe", Roger Chartier and Pietro Corsi, eds., Ecole des Hautes Etudes en Sciences Sociales, Paris, November 1994.
Reprinted in *Alliages*, December 1995.
Reprinted (in Italian, as Impiglati nella rete). *Sapere*, June, 1995.

Angels in America [Linguistic nativism], *Natural Language and Linguistic Theory*, 13, 2. 1995.

Meanings and Theories. In J.Klavans, ed., Procedings of AAAI Symposium on the Lexicon, March 1995.

A Touch of Crass: The popularizers we deserve, *Natural Language and Linguistic Theory*, 13, 1, 1995.

Transfers of Meaning. *Journal of Semantics*, Winter, 1995.

Les Téléthèques. In Actes du Colloque "Va-t-on vivre par l'écran interposé?", Institut National de l'Audiovisuel, Paris, 1994, ed. Régis Debray.

Idioms (with Ivan Sag and Thomas Wasow). *Language*, 70: 3, September, 1994.

The Places of Books in the Age of Electronic Reproduction. *Representations* 24, Spring, 1993.
Reprinted in *Future Libraries*, R. Howard Bloch and Carla Hesse, eds., University of California Press, 1994.

Indexicality and Deixis. *Linguistics and Philosophy*, 16: 1, 1993.

Text, Form, and Genre. Screening Words: Proceedings of 8th Annual Conference of Waterloo Center for the New OED, University of Waterloo, 1992

Systematic Polysemy in Lexicology and Lexicography (with Annie Zaenen). Hannu Tommola, Krista Varantola, Tarja Salmi-Tolonen and Jürgen Schopp, eds., Proceedings of Euralex II, University of Tampere, Tampere, Finland, 1992.
Reprinted in French translation in Linguistique Française, June, 1996

Two Kinds of Indexicality. Chris Barker and David Dowty, eds. Semantics and Linguistic Theory II, Ohio State, 1992.

Usage in the Dictionary. Introduction to the *American Heritage Dictionary*, Third Edition. Houghton Mifflin, 1992.

Reimagining America. James Crawford, ed. *Language Loyalties. A Sourcebook on the Official-Language Movement*. The University of Chicago Press, 1992.

The Official-English Movement. Karen Adams and Daniel Brink, eds., *Perspectives on Official English*, New York: Mouton, 1990.

From Criticism to Reference. *International Journal of Lexicography*, 3:1. 1990.

The Field of Linguistics. Publication of the Linguistic Society of America, 1990.

Indexicality in Contexts. Xerox PARC Tech Report, 1990.

What the Usage Panel Thinks. L. Michaels and C. Ricks, eds., *The State of the Language. University of California Press*, 1990.

Linguists and the Official Language Movement. Language, 66:3, September, 1989.

Common-Sense Semantics and the Lexicon. Proceedings of the Third Conference on Theoretical Issues in Natural-Language Processing, 1987.

Prosaic and Poetic Metaphors. Proceedings of the Third Conference on Theoretical Issues in Natural-Language Processing, 1987.

Contextualizing Individuation: "The same F." Papers from the Third West Coast Conference on Formal Linguistics, CSLI Publications, Stanford University, 1984.

Idioms: An Interim Report (with Thomas Wasow and Ivan Sag). Proceedings of the Plenary Sessions, XIII^th International Congress of Linguists. Tokyo, 1982.

English and Good English. Introduction to *The American Heritage Dictionary*, Second College Edition. Boston: Houghton-Mifflin, 1982.

Validating Pragmatic Explanations. P. Cole, ed., *Radical Pragmatics*. New York: Academic Press, 1981.

The Reversal of a Reported Merger in Eighteenth-Century English. W. Labov, ed., *Locating Language in Space and Time*. New York: Academic Press, 1980.

Upper-class Speech in New York City. T. Shopen, ed., *Variation in the Structure and Use of English*. Boston: Newbury, 1980.

The Non-uniqueness of Semantic Solutions: Polysemy. *Linguistics and Philosophy*, 3:1, 1979.

Slang, Usage-conditions and l'Arbitraire du Signe. Papers from the Parasession on the Lexicon. Chicago: Chicago Linguistics Society, 1978.

Inferring Quantification in Generic Sentences (with Chiahua Pan). Proceedings of the Eleventh Annual Meeting, Chicago Linguistic Society. Chicago: Chicago Linguistics Society, 1975.

Syntactic Relations in Types and Tokens, in Proceedings of the Tenth Annual Meeting, Chicago Linguistic Society. Chicago: Chicago Linguistics Society, 1974.

Two Problematic Mergers (with William Labov). W. Labov, M. Yaeger, and R. Steiner, *The Quantificational Study of Sound Change in Progress*. Philadelphia: U.S. Regional Survey, 1974.

Selected Book Reviews:

Review of *The Power of Babel*, by John McWhorter, the Los Angeles *Times* Book Review, February 24, 2002.

Review of *Language and the Internet*, by David Crystal. *Nature*, January 15, 2002..

Review of *The Scientific Voice*, by Scott Montgomery, *Science*, September 20,1996. Reprinted in Katherine Livingstone, ed., *Scientifically Yours*. Groupe Lavoisier, Paris, 1997.

Story time (commentary on "About Design," by J. S. Brown and Paul Duguid). *Human-Computer Interaction*, Winter, 1994.

Review of *Language of the Underworld*, by David Maurer. *The New York Times Book Review*, April 9, 1982.

Review of *The Psychology of Literacy*, by Sylvia Scribner and Michael Cole. *The New York Times Book Review*, December 13, 1981.

Review of *Beyond the Letter*, by Israel Scheffler. *The Philosophical Review*, 1981:2.

Review of *Forms of Talk*, by Erving Goffman. *The New York Times Book Review*, March 10, 1981.

Electronic Publications:

Time line of the history of information, for the Encyclopedia Britannica, CD-ROM version.

The Field of Linguistics: Web project for the Linguistic Society of America. Co-editor, with Thomas Wasow. See http://www.lsadc.org/flxtitlepg.html

General-Interest Articles and Regularly Appearing Features:

Bi- or triweekly commentaries on language and politics, Sunday *New York Times* Week in Review section, 2002-

Regular language commentaries, "Fresh Air," National Public Radio, 1989-present. Individual "Fresh Air" pieces published in various magazines in US and Europe.

Bimonthly features on language and the law for *California Lawyer*, 2000-2002

"Topic... Comment." Quarterly column, *Natural Language and Linguistic Theory*. 1994-1998.

Other commentaries and opinion pieces in the *Washington Post*, the *Los Angeles Times*, the *San Jose Mercury News*, *Newsday*, the *San Francisco Chronicle*, and the *Chicago Tribune*.

General interest articles in *The Atlantic*, *Forbes ASAP*, *Fortune*, *American Lawyer*, the *Harvard Business Review* and *The American Prospect*.

A number of these articles and commentaries are available at my Web pages at http://www-csli.stanford.edu/~nunberg

Patents and Patent Applications:

A method of determining the authoritativeness of texts using surface features of untagged texts, with Francine Chen and Ayman Farahat. US Patent application, 2002. (3 separate patents)

A method of automatically determining text genres using surface features of untagged texts, with Hinrich Schuetze. US Patent application, 1997.

Processing natural-language text using autonomous punctuational structure (first-named applicant, with Curtis Abbott and Brian Smith). US patent application 07/274,158 (1990) (Patent granted March 1991).

A method for manipulating digital data [natural-language structure editor] (first-named applicant, with Tayloe Stansbury, Curtis Abbott, and Brian Smith). European patent application 89312093.1-. (1989).

Selected Presentations:

The Shadow Cast by Language upon Truth, keynote talk, Western Humanities Conference, UC Santa Cruz, Oct. 22, 2004

Linguistic Issues in Trademark Law, invited talk at Midwest Intellectual Property Institute, Sept. 19, 2003.

The Future of Propaganda, McClatchy Lecture, Stanford University Department of Communication, May 10, 2003.

Building the Democratic Brand, presentation to U.S. Senate Democratic Caucus, Democratic Leadership Conference, May 1, 2003.

Language in the Public Eye, plenary talk, American Association of Applied Linguistics, Washington, D.C., March, 2003.

Language Questions and Questions of Language (two lectures), Princeton Humanities Council, November, 2002.

Why "Literacy"? Keynote talk, Conference on "Reading Literacy," Harvard Humanities Center, April 12, 2002.

Can There be an Electronic Dictionary?, invited talk, ATLAN conference, Paris, January 24, 2002.

The Future of Paper, invited talk, Conference on "The Future of Paper as a Communications Medium," Stockholm, March 20-22, 2001.

What Language for the Internet?, Keynote Address, Voice and Technology Forum, Santa Clara, CA December 12, 2000

En Quête de l'Ordre des Livres Numériques, Annual UNESCO Lecture, University of Grenoble, May 10, 2000.

The Order of Electronic Discourse, Invited Address, Victoria Library Association, Melbourne Australia, February 2000.

Languages in a Wired World. Conference on "La politique de la langue," Centre d'Etudes et Recherches Internationales, Paris, October 2, 1998.

The Future of Academic Publishing. Conference on "The Endangered Monograph," Berkeley Humanities Center, April 12, 1998.

Le Papier et les Nouvelles Technologies de l'Impression. Conference on "Le devenir du papier moderne," Bibliotheque Nationale de France, December, 1997.

L'Avenir de la Bibliothèque, DocForum, Lyon, November, 1997.

Individual and Collective Semantics, Conference on the future of semantics, San Marino, November, 1997.

The Compositionality of Idioms, International Congress of Linguists, Paris, July, 1997.

Does Cyberspace have Boundaries? Panel on cyberspace and community. University of Indiana, 1997.

Automatic Classification of Genre (with Hinrich Schütze and Brett Kessler), Annual Meeting, Association for Computational Linguistics, Madrid, 1997.

Variation in Written-Language Category Structure, keynote talk, ACL Workshop on punctuation and written language, Santa Cruz, CA, June 28, 1996.

Does the Book have a Future? Commonwealth Club of San Francisco, (broadcast on C-SPAN) June 4, 1996.

Regular Polysemy and Lexical Representation, plenary talk, Conference on the Lexicon, Courmayeur, Italy, September 6, 1996.

Underdetermination in the Lexicon, invited talk, conference on Lexical Underdetermination, Berlin, October 27, 1996.

Are there Universal Language Rights? Invited talk, Conference on Language Legislation and Linguistic Rights, University of Illinois, to be held March 20-23, 1996.

Language Standards and Language Science. Session on Language Standards and Language Science, Annual Meeting, American Association for the Advancement of Science. To be held February 28, 1996.

The Technologies of Reputation, Keynote talk, Conference on Literature and Libraries, Columbia University, October 27, 1995.

Maux d'Archive: Preservation and access in electronic collections, CARL conference on "Retooling Academic Libaries for the Digitial Age," San Francisco, October 21, 1995.

Les Langues du Discours Electronique. Colloquium on *Sciences et Langues en Europe*, Ecole des Hautes Etudes en Sciences Sociales, Paris, November 14, 1994.

The once and Future Dictionary. Conference on Dictionaries and Information Technology, Grenoble, October 17-19, 1994.

Farewell to the Information Age. Conference on the Future of the Book, San Marino, July 28, 1994.

The Future of the Book. Keynote talk, Annual Meeting, American Association of University Presses, Washington, D. C., June 23, 1994.

Information in its Place. Plenary talk, Annual meeting, American Society of Information Science, Portland, May 22, 1994.

Remarques sur les Téléthèques, Conference "Va-t-on vivre par l'ecran interposé?," University of the Sorbonne, Paris, April 15, 1994.

Transferts de Signification, Cognitive Science Seminar, Centre de Recherche en Epistémologie Appliquée, CNRS, Paris, Jan 20, 1994.

The Future of Information, Conference on The Electronic Book: A New Medium?, Grenoble, September 9, 1993.

Meaning and Metaphor, Invited address, Association for Computational Linguistics, Columbus, Ohio, June 20, 1993.

Taking Usage Seriously, Invited talk, Dictionary Society of North America, Las Vegas, May, 1993.

On Predicate Transfer, Invited talk, Conference on Lexical Universals, Dagstuhl, Germany, April, 1993.

Indexicality and Direct Reference, Conference on Context and Interpretation, Berkeley, March, 1993.

Dirty Words. Paper given at Special Session of Dickens Society on "Dirt," Modern Language Association, New York City, December, 1992.

Polysemy in Lexical Description. Conference on Computational Approaches to the Lexicon, Las Cruces, New Mexico; November 2, 1992.

Text, Form, and Genre, 8th Annual Conference of Waterloo Center for the New OED, Waterloo, Ontario, October, 1992.

The Shadow of Rruth, Conference on "Inscribing Grammar on Culture," Clark Library, Los Angeles, October, 1992.

The Compositionality of Phrasal Idioms (with Ivan Sag and Thomas Wasow), Conference on Idioms, Tilburg, Netherlands, September 1992.

Systematic Polysemy in Lexicology and Lexicography (with Annie Zaenen), Annual Meeting of the European Association of Lexicography (Euralex), Tampere, Finland, August, 1992.

Indexicality and Deixis, Conference on the Pragmatics of What is Said, Centre de la Recherche en Epistémologie Appliquèe, Paris, June, 1992.

The Places of Books in the Age of Electronic Reproduction, Conference on Future Libraries, University of California, Berkeley, April, 1992.

Two Kinds of Indexicality, Conference on Semantics and Linguistic Theory, Columbus, Ohio, April, 1992.

Good Grammar and Good Taste: Eighteenth-century prescriptivism and theories of aesthetics, Annual Meeting, North American Association for the History of Linguistic Science, Philadelphia, January, 1992.

Le Varietà della Metafora, Conference on Topics in Semantic Theory, Università degli Studi, San Marino, December, 1991.

The Teaching of Grammar: a historical overview, Special session on Linguistics in the K-12 Curriculum. Annual Meeting, Linguistic Society of America, Chicago, December 28, 1991.

On Document Genres. Xerox Corporation Symposium on the Document, Stamford, CT, April 15, 1991.

Usage and Naturalism, Meeting of American Dialect Society, Atlanta, October, 1990.

Indexicality in Context, CNRS conference on Philosophie et les Sciences Cognitives, Cérisy-la-Salle, France, 1990.

A survey of Prescriptive Attitudes (with Kristin Hanson), Annual Meeting, Linguistic Society of America, New Orleans, 1988.

Linguistic Nationalism in the English tradition, Conference on Language Rights and Public Policy, Stanford University April 17-18, 1988.

American Attitudes toward Second-Language Learning, Annual Meeting, Advocates for Language Learning, San Francisco, 1988.

What the 'English-only' People are After, Colloquium on the Official Language movement, Roundtable Conference on Languages and Linguistics, Georgetown University, 1987.

Common-Sense Semantics and Lexical Information, Third Conference on Theoretical Issues in Natural-Language Processing, Las Cruces, NM, 1987.

Prosaic and Poetic Metaphors, Third Conference on Theoretical Issues in Natural-Language Processing, Las Cruces, NM, 1987.

What we talk about when we talk about grammar, Annual Meeting, National Council of Teachers of English; Detroit, Michigan, 1985.

Some Difficulties for Direct-Reference Theories. Conference on "Themes from Kaplan," Stanford University, April, 1984.

Individuation in Context, Conference on Semantic Theory, Centro Di Studi Linguistici e Semiotici, Urbino, Italy, 1983.

Why there is no syntax of words, Conference on Morphology and Linguistic Theory, Stanford University, 1983.

Idiomaticity in Argumentation for Transformational Grammar, (with Ivan Sag and Thomas Wasow), U.C.L.A. Conference on the Extended Standard Theory, 1982.

'The same F,' NSF-CNRS Seminar on Discourse Comprehension, Cadarache, France, June, 1982.

The Compositionality of Idioms, (with Ivan Sag and Thomas Wasow), Annual Meeting, Linguistic Society of America, New York City, 1981.

The Case for Prescriptive Grammar, Conference on New Ways of Analyzing Linguistic Variation, Ann Arbor, 1981.

Langue and Competence: The bases of idealization in linguistics," Colloquium on the Object of Linguistic Theory, Annual Meeting, Linguistic Society of America, San Antonio, 1980.

What do We Mean by 'The Same Language'? Annual Meeting, Berkeley Linguistics Society, 1980.

Deferred Interpretation and Direct Reference, Sloan Workshop on Semantics, Asilomar, California, 1980.

Idealization in syntax and semantics, Conference on Pragmatics, Centro di Studi Linguistici e Semiotici, Urbino, 1979.

La Metafora nel Lessico, Conference on Metaphor, D.A.M.S., University of Bologna, 1979.

Methodology and Explanation in Sociolinguistics, First Berkeley Conference on Sociolinguistics, 1978.

Sociolinguistics and Social History, Conference on Linguistic Variation, S.U.N.Y. at Binghamton, 1976.

Lexical Ambiguity and Referential Indeterminacy, Annual Meeting, Linguistic Society of America, San Francisco, 1975.

The Semantics of Parenthetical Verbs, Annual Meeting, Linguistic Society of America, New York City, 1974.

English Pro-Complementizers, Annual Meeting, Linguistic Society of America, San Diego, 1973.

The Quantificational Study of a Sound Change in Progress: Social and linguistic setting, Summer Meeting, Linguistic Society of America, Ann Arbor, 1973.

Invited Lectures:

LINGUISTICS DEPARTMENTS

University of Arizona, 1988, 1997

University of British Columbia, 1992

Cambridge University, 1994, 1998

University of California, Berkeley, 1979, 1987, 1993, 1997

Edinburgh University 2002

Georgetown University, 1985, 2003

University of Grenoble, 1994

University of Illinois, 1989, 1995

University of Kentucky, 1991

University of California at Los Angeles, 1981, 1989

University of California at San Diego, 1997

Massachusetts Institute of Technology, 1986

University of Naples, 1999
California State University at Northridge, 2003
Ohio State University, 1993
University of Pennsylvania, 1986, 1992
Pitzer College, 1995
Princeton University, 2002
San Jose State, 1995
University of California, Santa Cruz, 1984, 1991
University of Southern California, 1987
Stanford University, numerous colloquia
University of Strasbourg, 1993
University of Texas at Austin, 1987. 1998
University of Washington, 2004

OTHER DEPARTMENTS AND PROGRAMS

Max-Plank-Gesellschaft, Arbeitsgruppe Strukturelle Grammatik, Berlin 1996
Cognitive Science Program, University of Illinois, 1989
Cognitive Science Program, University of Edinburgh, 1994
Cognitive Science (ICSC), University of Pennsylvania, 1996
Computer Science, Yale University, 1988
Computer Science, University of Brighton, 1998
Computer Science, University of Pennsylvania, 1992
Communications, University of Grenoble, 2000
Communications, University of California at San Diego, 2002
Digital Libraries program, University of California, Berkeley, 1996
Digital Libraries program, Stanford University, 1996
English and Rhetoric, University of Southern California, 1987
English, Frei Universität, Berlin
English, University of California at Irvine, 1985
English, University of British Columbia, 1992
English, University of Michigan, 1986
English, Graduate Center of C.U.N.Y., 1998
English, University of California, Santa Cruz, 1984
English, University of Minnesota, 1979
Informatics, University of Edinburgh, 2002
Library Science, University of Texas, 1998
Library Science, University of Arizona, 1997
Library Science, University of California at Berkeley, 1992
Library Science, University of California at Los Angeles, 1999
Library Science, San Jose State, 1994
Library, Stanford University, 1992
School of Information Management and Systems, U. C. Berkeley, 1999, 2003

National Foreign Language Center, Washington D.C., 1988
Natural Language Group, Bell Laboratories, 1985
Philosophy, Stanford University, 1983, 1990
Philosophy, University of California at Berkeley, 1980
Philosophy, University of Bologna, 1980
Psychology, The American University, 1996
Istituto di Psicologia, CNR, Rome, 1979, 1983
CNRS, Groupe de Recherche sur la Cognition, Paris, 1992, 1994, 1998
CNRS, Groupe de Recherche sur les Orthographes et Systèmes d'Ecriture, Paris, 1992
American Association of University Presses, 1994, 1998
DAMS, University of Bologna, 1999

Conferences, Conference Sessions, and Workshops Organized:

The future of academic publishing. Workshop at annual meeting of American Association of University Presses, Berkeley, CA, October 14, 1998.

Does the book have a future? University of California, San Francisco, April 23, 1996.

Genre in Digitial Documents. Track of Hawaii International Conference on Systems Science, Maui, Jan 5-7, 1997. Also organized this session for 1998, 1999.

Fencing off the Public Sphere (Envelope technologies and fair use). Xerox PARC, May 5, 1996.

Language Standards and Linguistic Science. Conference session, Annual Meeting, American Association for the Advancement of Science. To be held February 28, 1996.

Conference on the Future of the Book, San Marino, July 28-30, 1994. Co-sponsored by Rank Xerox European Research Centre, Grenoble, and the Center for Cognitive and Semiotic Studies, San Marino. (Co-organizer with Patrizia Violi, University of Bologna.)

Conference on The Electronic Book: A New Medium?, Grenoble, September 9-10, 1993. Co-sponsored by Rank Xerox European Research Centre and the Bibliothèque de France. Also subject of seminar presentation at RXRC inaguration, October 15, 1993.

NSF Conference on Digital Libraries, Xerox Palo Alto Research Center, March 10-11, 1992. (Co-organizer, with David Levy, Xerox PARC, and Y. T. Chien, NSF.)

Workshop on Linguistics and Lexicography, Center for the Study of Language and Information, Stanford University, April 18-19, 1991.

Special session on Linguistics in the K-12 curriculum, Annual Meeting, Linguistic Society of America, Chicago, January 11, 1991. (Co-Organizer with Penelope Eckert, Institute for Research on Learning.)

Conference on Language Rights and Public Policy, Stanford University, April 17-18, 1988. Sponsored by Californians United, ACLU, and NEA. (Co-organizer with Edward Chen, American Civil Liberties Union, and Martha Jimenez, MALDEF.)

Expert Testimony:

U.S. District Court, Northern District of California, 2004. Monster Cable Products Inc. vs. Discovery Communications, Inc. Expert report for plaintiff. Cooper, White, and Cooper, attorneys. (Trademark case)

U.S. District Court, Southern District of California, 2004. Rudolph International Inc. v. Realys, Inc. Expert report for defendant. Heller and Edwards, attorneys. (Trademark case)

California Court of Appeals, Sixth Appellate District, 2004. Janet Gray Hayes v. Security National Insurance Company. Expert report for plaintiff. McManis, Faulkner, and Morgan, Attorneys. (Language of insurance policy)

U.S. District Court, District of Northern California, 2004. Verisign Inc. v. Visa USA Inc. Expert report for plaintiff, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, Attorneys. (Trademark case).

Superior Court of the State of California, 2003, Horn v. UnumProvident, Expert report for plaintiff, Hersh and Hersh, Attorneys. (Language of insurance policy)

U.S. District Court for the District of Delaware, 2003, Verizon Wireless v. Nextel Communications. Expert report and research for defendant. Fitch, Even, Tabin & Flannery, Attorneys. (Trademark case)

Superior Court of the State of California, 2003, Webster Bivens v. CSK Auto, Inc. aka Kragen Auto Parts. Michael A. Vacchio, attorney. (Language of advertisements)

Superior Court of the State of California, 2003, Annette Friskopf v. Sharon Silverstein, Expert report for defandant, Gray Cary Ware & Friedrich, Attorneys. (Defamation case)

Superior Court of the State of California, 2003, Paul and Myra Bogdan v. Noble Broadcast Group, Expert report for defendant. Gray Cary Ware & Friedrich, Attorneys. (Defamation case)

Superior Court of the State of California, 2003, Garza et al. v. GMAC. Expert report and trial testimony for defendant. Severson and Werson, Attorneys. (Language of statutory notice)

U.S. District Court, District of Oregon, 2002. Matthew Rausch et al. v. Hartford Financial Services. Expert report for defendant. Bullivant Houser Bailey, Attorneys. (Language of statutory notice)

U.S. District Court, Northern District of Illinois, 2002. Sears, Roebuck and Co. v. Menard, Inc. Expert report for defendant. Fish and Richardson, Attorneys. (Trademark case)

U.S. District Court, Eastern District of Pennsylvania, 2001. American Library Association v. U.S. Expert report and trial testimony for plaintiff, Jenner & Block, attorneys. (Constitutional challenge to Children's Internet Protection Act)

U.S. District Court, Central District of California, 2000; More Online v. More.com. Expert statement for defendant. Fenwick & West, attorneys. (Trademark case)

California Court of Appeals, First Appellate District, Division 3, 2000. People v. Johnny Ralph Fanin. Expert statement for defendant. Zanzinger & Johnston, attorneys. (Criminal proceeding)

Superior Court of the State of California, 1999. California Consumers v. Columbia House Company. Expert statement for defendant. Heller Ehrman White & McAuliffe, attorneys. (Contract interpretation)

Trademark Trial and Appeals Board, Patent and Trademark Office, 1998-99; Harjo v. Pro-Football, Inc. Expert statement and trial depositions for petitioners (pro bono) Dorsey and Whitney, attorneys. (Trademark cancellation petition)

U.S. District Court, Southern District of New York, 1998; Raine v. CBS Inc., Expert statement and deposition for defendant. CBS Inc. legal department, attorneys. (Contract interpretation)

Superior Court of the State of California, 1997; Bertolucci v. Ananda Church of God. Expert statement for defendant. Rockhill, Schaiman, and Carr, attorneys. (civil action)

Other Professional and Public Activities:

Member of Board of Trustees, Center for Applied Lingistics, 1999-2004

Member of Steering Committee, Coalition for Networked Information, 1999-2003

Referee of articles or manuscripts: *Language, Linguistic Inquiry, General Linguistics, Linguistics and Philosophy, Recherches Linguistiques, Natural Language and Linguistic Theory, Philosophical Review, Synthese,* Yale University Press, Cambridge University Press, Stanford University Press, Oxford University Press, University of Chicago Press, MIT Press, D. Reidel, Sage Publishing.

Perennial reviewer for various program committees (WCCFL, SALT, etc.),

Referee of grant proposals: National Science Foundation (sections on linguistics, computer science, AI and robotics, psychology); National Foreign Language Center; National Institute of Mental Health, National Endowment for the Humanities.

Executive Committee, National Coalition for Language Rights (co-founder).

Committee on Political and Social Concerns, Linguistic Society of America, 1990-1997

Usage Editor, *The American Heritage Dictionary*, second edition.

Usage Editor and Chair of Usage Panel, *The American Heritage Dictionary*, third and fourth editions. Ongoing consultancy with Houghton Mifflin.

Host of programs for City Arts and Lectures, San Francisco (broadcast on NPR), 2001-: Interviewees include Eavan Boland, A. S. Byatt, Robert Hass, Maxine Hong Kingston, Michael Ondaatje, Simon Winchester, Tobias Wolff, Terry Gross.

Attachment B

Records of all uses of *substantial* and *significant* modifying *reduction*, *decrease*, or *loss*:

Nexis Newspaper Database, year ending Oct. 15, 2004

Records of all articles are included up to the relevant. use of *significant* or *substantial*

The Scotsman

October 6, 2004, Wednesday

SECTION: Pg. 1

LENGTH: 713 words

HEADLINE: BUDGET PLANS WILL PUSH UP COUNCIL TAX SAYS ADVISER

BYLINE: Andrew Denholm, Political Correspondent

BODY:
COUNCIL tax payers will be hit by an above-inflation rise as a direct result of the Scottish Executive's spending plans, one of Scotland's leading financial experts warned yesterday.

Professor Arthur Midwinter, a consultant to Holyrood's finance committee, said the squeeze on local authority finances announced last week would almost certainly lead to council tax hikes over the next three years.

Prof Midwinter went on to pour scorn on claims by Jack McConnell that the Executive would outdo Westminster in public sector efficiency savings.

Last month, the First Minister made great play of insisting he would go further than the savings from public sector budgets drawn up for the Treasury by Sir Peter Gershon.

However, Prof Midwinter told MSPs yesterday savings south of the Border were proportionally three times greater than the GBP 650 million identified in Scotland because they amounted to 7.2 per cent of overall spend, compared with just 2.6 per cent here.

Tom McCabe, appearing before the committee on his first day as finance minister, immediately appeared to back down over Mr McConnell's earlier claims, saying: "I would like people to judge us on what we achieve and look back.

"If, at that time, people wish to make comparisons between what we achieve here and what's done down south, that's their business."

Last night, opposition politicians launched a vociferous attack on the Executive spending plans, claiming hard-pressed council tax payers would once again have to tighten their belts.

David McLetchie, leader of the Scottish Conservatives, said: "We warned when the spending announcement was made that council tax was set to soar once again.

"We would use planned increases in the budget to make substantial reductions in council tax of up to 45 per cent."

The Irish Times

September 16, 2004

SECTION: Opinion; Opinion; Pg. 16

LENGTH: 850 words

HEADLINE: We will pay for carbon emissions

BODY:
One group surely delighted with Charlie McCreevy at the moment must be Ireland's SUV drivers, writes Mary Raftery

The owners of these monstrous polluters rapidly taking over our city streets have been saved from having to pay more for their gas-guzzling activities by the Minister for Finance's scrapping of the proposed carbon tax.

SUVs (sports utility vehicles, or big 4X4 jeeps) are one of the more obscene manifestations of new wealth in Ireland. Sales have increased enormously over the past few years (up 35 per cent this year alone), with uncertainty over rising fuel prices providing no deterrent. Most new SUV drivers are not in rural areas, where they might need the extra height and power for off-road driving. The largest growth in sales is in fact to city dwellers, particularly in Dublin, making the SUV the latest, and supremely redundant, status symbol for the middle classes.

Vehicle emissions are identified as one of the major causes of the greenhouses gases currently changing our climate. Carbon-dioxide (CO_2) is the most significant of these, and how much is released into the atmosphere depends on the amount of fuel used. With their huge petrol consumption (as high as 24 litres per 100km in some cases), SUVs are increasingly being targeted internationally as an important contributor to global warming. Studies have indicated that they emit up to four times more CO_2 than ordinary cars. As a result, several European countries are planning action against SUVs, including banning them from city areas.

France and Sweden are leading the way, and there have even been moves in the US, particularly California, to penalise those who insist on pumping such vast amounts of CO_2 into the atmosphere. London's mayor, Ken Livingstone, is particularly determined. Calling SUV owners "complete idiots", he said earlier this year that 4x4 vehicles were totally unnecessary and bad for London.

In a world becoming more concerned at the effects of climate change, one might imagine that people would now think twice before buying these enormous CO_2-spewing vehicles. But not the Dublin middle classes. It seems keeping up with the Jones family is still far more important than the environment.

And why not, when you have the Minister for Finance on your side?

The most effective way of altering polluting and profligate behaviour is to penalise it. The now defunct carbon tax was to apply across the board, from industry and agriculture to transport and domestic fuel use. Bodies such as the ESRI and the OECD were of the view that a carbon tax in Ireland was necessary in order to alter behaviour throughout society, and so limit the growing damage to our environment. Even the Department of Finance's tax strategy group stated that taxation "represents the least cost and most efficient method of achieving the required reduction in emissions on an economy wide basis, and it is already widely used across the EU and elsewhere in the OECD specifically to target greenhouse gas emissions".

Business interests, however, have been intensively lobbying the Government against such a tax since it was proposed by Charlie McCreevy in his 2002 budget speech. He embarked on a consultation process and received 117 submissions.

One of the reasons he gave last week for abolishing the carbon tax was that a majority of these submissions opposed the measure. While this is technically accurate, the exact figure given by himself earlier this year in the Dail was that 51 per cent were in opposition, hardly an overwhelmingly negative response.

Also last week, the Government was peddling the line that the carbon tax would have meant only a tiny reduction in our CO_2 emissions of half a million tonnes, about 5 per cent of our total target.

However, figures again given in the Dail by Minister McCreevy (March 2004) do not support this. With the generally accepted tax level of EUR 20 per tonne of CO_2, the reduction in emissions would have in fact amounted to more than two millions tonnes, bringing us much closer to our stated commitment to reduce emissions under the Kyoto protocol.

The ESRI has repeatedly pointed out that a carbon tax need not have a negative effect either on households or on competitiveness in industry. It argues that the money raised should be used to offset any hardship caused and also encourage the development of low-pollution alternatives. The experience of Denmark, which has had such a tax for well over a decade with no negative economic impact and a substantial reduction of 9 per cent in greenhouse gas emission, supports the contention that if carefully applied, a carbon tax would ultimately benefit the Irish economy rather than harm it.

Chicago Sun-Times

August 10, 2004 Tuesday

SECTION: EDITORIALS; Pg. 39

LENGTH: 744 words

HEADLINE: U.S. trading partners keep fingers crossed for Bush;
Consumers in the United States could be relieved of the cost of farm subsidies

BYLINE: Michael Barone

BODY:

Amid all the coverage of the Democratic National Convention, and of the fact that John Kerry seems to have gotten little or no bounce from it, slight attention has been given to the most important development in trade policy in the last four years. That is the Aug. 1 agreement at the World Trade Organization talks in Geneva on a framework for advancing the Doha Round of negotiations.

The Doha Round was launched in November 2001 but seemed at an impasse at last September's WTO meeting in Cancun when Latin American, African and Asian nations rejected the approach of the United States and the European Union. The WTO rules require consensus.

But in Geneva a consensus emerged. The United States and the EU agreed to eliminate agricultural export subsidies and to make a "substantial reduction," starting with a 20 percent cut, in domestic farm supports. Developing countries, led by Brazil and India, agreed to lower barriers to manufactured goods and to services. This is not a final agreement, which everyone agrees cannot be reached by the original deadline of December. But there is a good chance of a deal by the December 2005 meetings in Hong Kong.

THE DAILY TELEGRAPH(LONDON)

June 19, 2004, Saturday

SECTION: News Pg. 11

LENGTH: 543 words

HEADLINE: Food firms are adding more salt to meals for children

BYLINE: By David Derbyshire Science Correspondent

BODY:

SALT levels in some children's foods have risen in the past year despite protests from the industry that it is making junk food healthier.

A Food Commission survey found that some manufacturers were adding more salt to their products, despite concerns about the long-term health risks. Even where salt content had stayed the same, levels were "worringly high" in many foods, the pressure group said.

A small can of HP Action Man pasta in tomato sauce, for instance, had more salt than the recommended daily maximum for a six-year-old.

Food companies were involved in a row with the Government this week after Melanie Johnson, the public health minister, said plans to cut salt did not go far enough.

In a letter to 27 companies, including Heinz, Nestle, Northern Foods, United Biscuits, Waitrose, Asda, Marks & Spencer and Sainsbury, she said industry proposals would leave half of all products such as pizzas and ready meals with "unacceptably high levels of salt".

The industry accused the Government of "inept political spin" and claimed significant reductions.

But the year-long survey suggests progress has been limited in food meant for children. It found salt levels rose in two out of 20 products.

Aunt Bessie's Tidgy Toads - small sausages in batter - had 12 per cent more salt than a year ago, while Iceland's Kids Crew pizzas had 15 per cent more. Another 15 products had exactly the same salt content as a year ago.

Only three foods had less salt: Marks & Spencer's Tweenies chicken nugget, chips and yoghurt meal for one, Cheesestring Attack a Snack chicken snack and Dairylea Lunchables Yummy Ham Stack 'ems.

Kath Dalmeny, a spokesman for the independent commission, said the food industry had made progress in cutting salt from soups and sauces. But it needed to do more in products aimed directly at children.

Food Standards Agency guidelines say children aged one to three should have no more than 2g of salt a day, while those aged four to six should have a maximum of 3g.

Most children's food labels describe sodium levels rather than salt. To calculate the salt content, sodium levels have to be multiplied by 2.5.

A small can of HP Barney pasta in tomato would provide a three-year-old with 2.75g of salt - almost one and half times their recommended daily intake. A small can of HP Action Man pasta has 3.75g - almost twice the recommended level.

"Some companies have pledged to reduce salt levels which is to be welcomed," said Miss Dalmeny. "However levels of salt are still far too high in children's food.

"There is no reason why Action Man pasta needs that much salt. HP have other cans of pasta with far less."

A Food and Drink Federation spokesman said the industry had cut salt in soups and meal sauces by 10 per cent in 2003 and was committed to another 10 per cent this year.

Between 1998 and 2004, salt levels had fallen by 16 per cent in breakfast cereals.

"These are substantial reductions," he said. "These were the areas identified by the Food Standards Agency because they contributed most to children's diet.

July 10, 2004, Saturday

SECTION: Features; Body & Soul 3

LENGTH: 127 words

HEADLINE: Pension power

BYLINE: John Naish

BODY:
EXERCISING in your eighties can keep you as fit as a twentysomething (albeit a lazy one), Manchester Metropolitan University researchers report.

They compared groups of 20 unfit young people with 20 unfit older people, and asked the older group to do half-hour exercise sessions with light weights, three times a week for six weeks. The older group, aged 65 to 92, had started off with 30 per cent less muscle and tendon strength than the 18 to 35-year-olds. After six weeks, the difference was down to 10 per cent. "That is a substantial reduction," says Costios Maganaris, who presented the study at this week's Royal Society Summer Science Exhibition. "Next we'll see what moderate exercise can achieve with sedentary middle-aged people."

Buffalo News (New York)

January 11, 2004 Sunday, FINAL EDITION

SECTION: VIEWPOINTS, Pg.H5

LENGTH: 772 words

HEADLINE: STATE'S EFFORT TO HELP UNINSURED IS LAUDABLE/

BYLINE: MURRAY LIGHT

BODY:

What exactly is this Healthy New York program that Gov. George Pataki is constantly promoting on his television spots? I've been curious, so I assume you are, too. The governor is proud of this plan and is doing his best to get New Yorkers involved. He never gives any details about Healthy New York in his television appearances, and I've now ascertained the reason -- it's a complex insurance program that's not easy to explain.

But now, after hours of Internet searches, I do have some answers. Healthy New York actually consists of three parts -- one for firms with 50 or fewer employees, one for low-income, uninsured individuals who work and a third for independent contractors and self-employed individuals. The eligibility criteria vary for the various categories.

The program was approved by the State Legislature in 2000 and is designed to provide assistance to New Yorkers without health insurance. It offers health insurance benefits that are made more affordable through sponsorship by the state so that more uninsured small employers and uninsured employed individuals can purchase health insurance coverage.

In order to keep costs down, Healthy New York provides fewer coverage benefits than traditional plans. It does not cover mental health care, home health care, chiropractic care and outpatient treatment for alcoholism and substance abuse. Additionally, many of the design features of

Healthy New York work to substantially reduce premiums. For example, premiums for qualified individuals are from 30 to 50 percent less than those in the individual market and from 15 to 30 percent less than in the small group classification.

The Business Times Singapore

March 22, 2004 Monday

SECTION: SHIPPING TIMES; Dockyard

LENGTH: 787 words

HEADLINE: Salvage industry may face the crunch as workload shrinks

BYLINE: David Hughes

BODY:

AFTER another year of frantic political activity in some quarters, aimed at making the shipping industry and the world's oceans safer, the International Salvage Union's (ISU) latest annual Pollution Prevention Survey would probably come as a surprise to the man on the street.

As has been the case for many years, the number of casualties continued on its general downward trend in 2003. That poses a big problem for the salvage industry which has to maintain expensive resources and a unique pool of expertise on which there are fewer calls.

Nevertheless, the members of the ISU did recover over 605,000 tonnes of potential pollutants during salvage operations last year. Put simply, that means a lot of beaches did not get polluted in 2004 because of the salvage industry.

Given the current row over the Tasman Spirit and the refusal of the Pakistani authorities to allow the salvage master to leave the country, it should be noted that even in that case the salvors managed to prevent a large portion of the ship's crude oil cargo from spilling.

The Tasman Spirit was one of 218 instances of cargoes and bunkers threatening pollution where emergency assistance was provided worldwide in 2003. But, as the ISU highlights, the equivalent figure in 2002 was 268 ships. That represent a significant decline in the earnings base of the global salvage industry.

The results of the latest ISU survey show that oils, chemicals, other pollutants and bunker fuel recovered last year totalled 605,677 tonnes, against 957,122 tonnes in 2002. This amounts to a decrease of nearly 37 per cent.

ISU president Joop Timmermans says: 'ISU salvors have recovered over 11 million tonnes of potential pollutants in the 10 years to end-2003. While the volume of pollutants recovered in 2003 is down on 2002, it represents a figure more in keeping with the trend of recent years, with total annual recoveries at around half-a-million tonnes. In 2001, for example, the total recovery was 539,000 tonnes. In 2002, the figure was inflated by a laden VLCC - the first such case to appear in the ISU caseload for several years. There were no laden VLCC cases involving ISU salvors in 2003.'

Forty-three of the ISU's 50 members contributed data for the latest annual survey. In 2003, ISU salvors responsible for the 218 salvage assistances recovered the following:

50% crude oil and diesel oil, 303,486 tonnes against 603,736 tonnes in 2002;

10% chemicals, 61,177 tonnes against 8,179 tonnes in 2002;

28% other pollutants (eg gasoline, slops, dirty ballast, etc; 169,181 tonnes against 272,556 tonnes in 2002;

12% bunkers, 71,833 tonnes against 72,651 tonnes in 2002Mr Timmermans adds: 'Last year there was a substantial decrease of 18.7 per cent in the number of casualties assisted. This suggests continued shrinkage in the salvage industry's workload.

The Gazette (Montreal, Quebec)

March 26, 2004 Friday Final Edition

SECTION: Business; Pg. B1 / BREAK

LENGTH: 515 words

HEADLINE: Prescriptions rise by 7.9%: $15.9 billion spent on drugs in 2003: study: Most-frequently prescribed in Quebec is a remedy for hyperthyroidism

SOURCE: The Gazette

BYLINE: SHEILA MCGOVERN

BODY:

Canadians bought a record number of prescription drugs in 2003, and Quebecers are most likely to walk out of their pharmacy with a brand-name drug, not a cheaper generic substitute.

IMS Health, and industry research group, said Canadian retail pharmacies filled 361 million prescriptions during the year - a jump of 7.9 per cent over 2002, the largest gain in the last decade.

Taking into account the cost of drugs and any mark-ups and dispensing fees, Canadians shelled out $15.9 billion, which represents an average 11 prescriptions per person at $44 per prescription.

Quebecers outstripped the national average, buying 18 prescriptions per person, but that doesn't mean we took more drugs. Sue Cavallucci, spokesperson for IMS Health, said Quebec doctors tend to write shorter prescriptions - such as one month's supply, instead of three. As a result, the average price per prescription was also lower, at $32.44. Quebecers spent a total of $4.4 billion on 136 million prescriptions.

The most-frequently prescribed drug in Canada, by brand, was Pfizer's Lipitor, for high cholesterol. Second place went to Abbott's Synthroid, for hypothyroidism.

In Quebec, the drugs reversed order, with Synthroid coming first.

By category, and across Canada, medications for cardiovascular disease were the most frequently prescribed, with drugs for high blood pressure leading the group.

Psychotherapeutics, most notably anti-depressants, came second.

Hormones took third place, but IMS said they were the only major class of drugs to have a significant decrease in 2003. Prescriptions for estrogen and progestin dropped 25 per cent.

The Observer

November 9, 2003

SECTION: Observer Cash Pages, Pg. 27

LENGTH: 466 words

HEADLINE: Cash: Property: Finishib touches

BYLINE: Helen Monks

BODY:

First-time buyers in the UK now need to borrow almost four times their salary, compared with 2.5 times 10 years ago, according to Datamonitor. In London, average first-time buyer deposits have reached pounds 40,000 - more than three times what it was a decade ago. As a result, the proportion of first-time buyers accounting for loans for house purchase has dropped dramatically, from 40 per cent in August 2002 to 28 per cent in August 2003. Andrew Frankish of broker Mortgage Talk says the number of first-time buyers is now at an all-time low: eThis inevitably causes problems. It distorts prices, and alienates a whole class of young people, who simply feel priced out of the market.' Mortgage Talk is calling for the abolition of stamp duty on all first-time purchases.

City folk looking to buy into country idylls are facing increasing competition for residential farm properties as availability falls, according to the Royal Institution of Chartered Surveyors. In the third quarter of 2003, 58 per cent more surveyors reported a fall in the supply of farms with a desirable house, a significant decrease from the 22 per cent reporting a decline in quarter two. The low level of transactions taking place and predicted price rises are putting the rural dream even further out of reach for some. Thirtynine per cent more surveyors expect a rise in farm prices than a fall.

The Washington Post

November 26, 2003 Wednesday
Final Edition

SECTION: Metro; B06

LENGTH: 740 words

HEADLINE: District Panel Backs Property Tax Limit;
10% Cap on Yearly Increases Proposed

BYLINE: David Nakamura, Washington Post Staff Writer

BODY:

A D.C. Council committee approved a bill yesterday that would cap the amount of property tax increases for city homeowners at 10 percent each year, welcome relief for residents who have expressed sticker shock at soaring assessment increases.

The new legislation, co-authored by council members Jack Evans (D-Ward 2) and David A. Catania (R-At Large), is a significant decrease from the current 25 percent cap that has been in place since 2001.

The Baltimore Sun

August 23, 2004 Monday FINAL Edition

SECTION: EDITORIAL, Pg. 10A LETTERS TO THE EDITOR

LENGTH: 1076 words

HEADLINE: LETTERS TO THE EDITOR

BODY:

Sewage plants have sharply cut their emissions

A recent Sun editorial suggested that the Chesapeake Bay Program is "fundamentally flawed" because the bay "cleanup management plan ... has no power to enforce pollution reduction goals and holds no individual or agency responsible for lack of progress" ("Fundamentally flawed," editorial, Aug. 18).

But the real failure lies in the fixation by interest groups on holding pollution from point sources responsible for the bay's ills. That is simply wrong.

Maryland's sewage treatment plants have achieved significant reductions in nutrient emissions (which have been cut by 60 percent since 1985). These plants are accountable for the reductions they have committed to make through legally binding grant agreements between state and local governments.

The Irish Times

August 10, 2004

SECTION: CITY EDITION; HEALTH SUPPLEMENT; NEWS FOCUS; Pg. 54

LENGTH: 1121 words

HEADLINE: Cancer strategy political poison
As advisers draw up a blueprint for cancer care, they would do well to take public opinion into account, writes Martin Wall

BODY:
When the members of the National Cancer Forum met at Government Buildings in mid-July, one of the documents up for discussion was a report on communications which emphasised how important it would be for the advisory body to sell the controversial recommendations contained in its forthcoming blueprint on cancer care.

The history of Irish medico-politics is littered with expert group reports which ran into trouble in the face of public hostility.

From the Fitzgerald report on hospital reform in 1968 to its distant off-spring - the Hanly report last year - their recommendations may have made good medical practice but were extremely dangerous politically.

When its new strategy is published in the autumn, the National Cancer Forum will have to sell to a somewhat sceptical public that it would be in their long-term interest if cancer surgery services were centralised in regional or supra-regional centres.

The report cites the medical literature as indicating that the outcome for patients with common cancers is better where large numbers of people are treated under multi-disciplinary teams of doctors and other healthcare professionals.

The message coming from the forum appears to be that the era of virtually every hospital in the State doing a bit of everything in the area of cancer surgery would have to come to an end.

Around 20,000 people in Ireland are diagnosed with cancer every year and about 7,500 people die from the disease annually.

However, cancer services in Ireland are improving - albeit from a low base. Since 1996 the Government has invested heavily in this area, appointing up to 60 additional consultants, and the return has been a significant reduction of more than 15 per cent in the mortality rates in persons aged under 65.

The Toronto Star

June 22, 2004 Tuesday

SECTION: EDITORIAL; Pg. A24

LENGTH: 317 words

HEADLINE: Pitch in for clean air

BODY:

When smog alerts are issued for Algonquin Park, as they have been for the past several summers, it's clear Ontario needs all hands on deck to combat air pollution.

Yesterday, Environment Minister Leona Dombrowsky announced more of Ontario's large industries will be asked to do their share.

They will be ordered to cut their emissions of nitrogen oxide and sulphur dioxide - two of the most significant smog-causing pollutants.

The new emission limits will apply to Ontario's iron and steel producers, cement manufacturers, oil refineries and pulp and paper mills. Previously, only the electricity sector and some smelters - nickel, being the biggest - were subject to limits.

The new regulations will require significant reductions - a 46 per cent cut from 1994 sulphur dioxide levels, and 21 per cent for nitrogen oxide - over six years and will become stricter over time.

The Irish Times

May 4, 2004

SECTION: CITY EDITION; HOME NEWS; Pg. 2

LENGTH: 420 words

HEADLINE: EEA satellite images reveal urban sprawl

BYLINE: By FRANK MCDONALD, Environment Editor

BODY:

Satellite imaging by the European Environment Agency (EEA) has shown up dramatic changes in Ireland's land cover, with a 31 per cent increase in the amount given over to housing and other "artificial surfaces" during the 1990s.

The data also found a significant reduction of more than 7 per cent (some 240,000 acres) in the area covered by wetlands, including bogs, a trend described as "depressing" by the EEA's director-general, Dr Jacqueline McGlade.

The Irish Times

May 4, 2004

SECTION: CITY EDITION; HOME NEWS; Pg. 2

LENGTH: 420 words

HEADLINE: EEA satellite images reveal urban sprawl

BYLINE: By FRANK MCDONALD, Environment Editor

BODY:

Satellite imaging by the European Environment Agency (EEA) has shown up dramatic changes in Ireland's land cover, with a 31 per cent increase in the amount given over to housing and other "artificial surfaces" during the 1990s.

The data also found a significant reduction of more than 7 per cent (some 240,000 acres) in the area covered by wetlands, including bogs, a trend described as "depressing" by the EEA's director-general, Dr Jacqueline McGlade.

The Times (London)

March 19, 2004, Friday

SECTION: Home news; 9

LENGTH: 624 words

HEADLINE: Women exercise rights to indulge ...

BYLINE: Alexandra Frean

BODY:

A new vogue has emerged for females aged 16 to 24 to drink and smoke heavily, reports Alexandra Frean.

THE RISING tide of gender equality has produced a nasty sting in the tail, with new government figures confirming that destructive behaviour such as heavy drinking and smoking are now on the decline among young men, but increasing in young women.

While the findings may dismay health professionals and policymakers, psychiatrists believe there may be a simple explanation: if they are now working and earning like men, it is only understandable that young women might want to start living and behaving like them as well.

Results from the Government's annual Living in Britain survey, published yesterday and based on questionnaires completed by 20,000 adults, show that the proportion of women aged 16 to 24 who drink heavily (more than 35 units a week for women) increased from 7 to 10 per cent between 1998 to 2002. Among young men of the same age, there was a decrease in heavy drinking (more than 50 units a week for men) from 14 to 12 per cent.

A similar pattern is shown in average alcohol consumption levels. In 2002, the average number of units consumed a week by men aged 16 to 24 was 21.5, down from 25.5 in 1998.

For women of the same age, average consumption rose from 11 units in 1998 to 14.1 in 2002, nearly double the level of 7.3 recorded ten years earlier.

Figures on smoking show that there has been a significant reduction from 30 to 22 per cent in the proportion of young men aged 16 to 19 between 1998 and 2002.

Tampa Tribune (Florida)

December 10, 2003, Wednesday, FINAL EDITION

SECTION: NATION/WORLD, Pg. 1

LENGTH: 1325 words

HEADLINE: Environmentalists Sound Mercury Alarm

BYLINE: MIKE SALINERO , msalinero@tampatrib.com; Reporter Mike Salinero can be reached at (850) 222-8382.

BODY:

TALLAHASSEE - Claiming the Bush administration is putting an entire generation of children at risk, environmentalists are mobilizing to fight proposed rules regulating mercury emitted from coal-fired power plants. They view the rules as too weak.

The organization Environmental Defense on Tuesday issued a report that ranks Florida among the nation's top 10 "hot spots" for mercury contamination.

Calling the amount of the toxic metal spewing from the nation's power plant smokestacks "out of control," the report spells out the dangers for local communities.

"We have truly come to realize that mercury is a dangerous health threat," said the report's author, Michael Shore.

The new rules proposed by the U.S. Environmental Protection Agency call for nationwide caps on mercury, a neurotoxin that can cause brain damage and learning disabilities in unborn children, infants and toddlers.

But the EPA proposal calls for a 30 percent reduction by 2010, far short of the 90 percent reduction environmentalists say is possible using modern pollution controls.

More significant reductions of up to 70 percent wouldn't happen until 2018 under the Bush EPA plan.

The Nelson Mail (New Zealand)

October 22, 2003, Wednesday

SECTION: NEWS; NATIONAL; Pg. 1; BRIEF

LENGTH: 794 words

HEADLINE: Council to review rating policies

BYLINE: CULL, Bridget

BODY:

The Nelson City Council will be reviewing how rates are spread across the district following new property valuations which could cause rates to skyrocket in some areas.

The review comes amid a warning from Nelson Grey Power that pensioners will be forced out of their family homes if the council or Government don't do something to even the spread.

Three-yearly property valuations, on which the council bases its rating calculations, were released last week.

The valuations will not impact on rates until the 2004-05 financial year but a valuation roll available for inspection at council offices includes a hypothetical rate. This rate is a calculation of how the new valuations would have impacted if applied to the current year's rates.

The full impact of the new valuations on next year's rate will not be known until the council goes through the annual plan process and decides how much money it needs to spend and collect.

shows the hypothetical rate calculations for different suburbs of Nelson.

predicts an average increase in rates of 20 percent in some areas such as the Port Hills, compared to an average increase of 2.25 percent in others, such as behind the Cathedral. Council planner Mark Tregurtha said the council would be reviewing its rating policies next year.

"The council is going to have to decide whether or not the disparities which came out of these new valuations are acceptable or whether it wants to change the system," he said.

"Last year we had the community facilities levy, next year it will be how the divergence between the lowest valuation properties and highest valuation properties has grown."

Nelson Grey Power president Gordon Currie said the latest valuations were a major concern for Grey Power, which had 8000 members in the region.

"We are worried that with the escalated property values around Nelson we will find some senior citizens, who bought a house 50 years ago with a beautiful view, will be landed with a massive rates increase while their incomes stay the same," Mr Currie said.

Grey Power had asked Nelson Mayor Paul Matheson and MP Nick Smith to lobby the Government to increase the rates rebate level.

Turn to RATES Page 2

Mr Tregurtha said the council could consider two main ways of changing its ratings system to even out the variations.

It could increase its Uniform Annual General Charge, which was the fee it charged each property to pay for services that benefited the whole community.

The council's UAGC, at about $ 84, was very low in comparison to many other councils which charged about $ 220, he said.

Or it could start basing its ratings calculations on capital value, rather than land value.

Mr Tregurtha said urban centers had traditionally used land value, while rural areas mainly used capital value, to get an equitable rates spread.

But with land becoming so pricey in Nelson, it might make sense for the council to make the change.

The new valuations will be sent to ratepayers this week. Continued from page 1

"Even though I've had assurances from them that the rates will not rise in line with the higher values of properties, I'm inclined to say something like, 'pigs might fly'," Mr Curry said.

A report to be presented to a council committee tomorrow shows properties with sea views will face the greatest increases in rates. Applying the new valuations to this year's rates sees an average 19.32 percent increase in rates for houses at the Glen and an average 17.33 percent increase for those in Atawhai.

Meanwhile, it generates an average 4.45 percent increase for houses in the Wood, an average 3.65 percent increase in Tahunanui and an average 6.77 percent in Stoke.

Using the current rating system, the new valuations cause significant reductions in commercial rates, with a decrease of 17.6 percent for commercial properties outside the city centre and a decrease of 32.7 percent for those inside the city centre.

The Mercury (Australia)

August 23, 2004 Monday

LENGTH: 1461 words

HEADLINE: LETTERS TO THE EDITOR

BODY:

Wind benefits

In each of their letters (August 19), David Jeffery and Libby Anthony make a strong case that generating electricity with wind turbines is both economically and environmentally beneficial. What they understate is why fostering wind energy is so important. Wind energy will help reduce the overall greenhouse gas emissions created by Australia and reduce our contribution to global climate change. The overwhelming majority of scientists agree that global climate change is real, it's happening and that it's due to human causes.

The other side of this coin is that we humans also have the power to offset severe climate change by controlling and reducing our greenhouse gas emissions. Wind energy must be seen as part of a comprehensive strategy to significantly reduce greenhouse gases by 60 per cent of 1990 levels by the year 2020.

Plain Dealer (Cleveland)

July 15, 2004 Thursday
FINAL Edition; ALL Editions

SECTION: DRIVING; Pg. G1

LENGTH: 973 words

HEADLINE: Lincoln Aviator: Send in the clone?;
In the beginning, it was an Explorer

BYLINE: CHRISTOPHER JENSEN, PLAIN DEALER AUTO EDITOR

BODY:

IN THE DRIVER'S SEAT

It would be easy to assume that the Lincoln Aviator is another example of "badge engineering," taking the Ford Explorer and slapping on a new name and hiking the price. But would that be fair?

For sure, the price sticker has been re-engineered. The Aviator that Ford lent us for a weeklong test had a base price of $45,125, plus the destination charge of $740.

Major standard equipment ranged from power everything to high-intensity discharge headlamps and front seats that could be heated or cooled.

If it was my choice, I would head out the door with only one option, a skid-control system called Advance Trac, which is $855. Of course, the Scion xB, which is priced at a little more than $14,000, has a skid-control program as standard, so one might bristle a bit at Lincoln having it as an option.

Dimensionally, the Aviator is almost identical to the Explorer. Inside that means a reasonable amount of legroom in the first two rows and enough space in the third row to accommodate what my brother calls high-maintenance sub-units.

If you use all three rows, there are 13.8 cubic feet of cargo space, close to what you would find in a Ford Focus sedan. Lower the third row into the floor and 44.5 cubic feet allow far more serious cargo hauling.

As expected, the interior has an upscale look that is far richer than an Explorer or many other sport utilities.

One unusual feature involves rainy days. Open the window and water dribbles in; how refreshing.

Also, despite the luxo-price, the rake of the driver's seatback is still not power adjustable, requiring the wealthy to engage in burdensome manual labor. Ford is either too cheap to offer a power adjustment or hasn't figured out the engineering yet.

There is a serious complement of safety equipment, including adjustable pedals, allowing a short driver to get back a bit from the air bag.

There are air curtains, which come down from the ceiling and cover the side windows (front and second row only) in a side-impact crash or if sensors determine the vehicle is likely to roll over.

The idea is to keep heads away from hard objects and valuable accessories, such as arms, inside the vehicle. These are not replacements for seat belts.

A study of real-world crashes by the Insurance Institute for Highway Safety showed such head protection can reduce the driver's chance of being killed by 45 percent in a side-impact crash on the driver's side.

The Aviator also is available with Advance Trac, a skid-control system, thought to be particularly valuable in a sport utility. The reason is that such vehicles have higher centers of gravity than cars and when they are sliding sideways, they are more vulnerable to being tripped by a curb or soft ground, causing a rollover.

A study in Sweden found such a system can significantly reduce fatal accidents on a slippery surface by about 35 percent.

The Washington Post

July 14, 2004 Wednesday
Final Edition

SECTION: Style; C01

LENGTH: 1734 words

HEADLINE: A Vision for the Southwest;
New Homes, Parks, Cultural Facilities Among Changes Planned

BYLINE: Benjamin Forgey, Washington Post Staff Writer

BODY:

Third in a five-part series

The Southwest waterfront is one of the few places in Washington where the city busily engages the water's edge.

A place where people live. An active, interesting place that people walk to from nearby streets, mingling with fish sellers, fishermen, folks hanging out at waterside restaurants and bars, families out for an evening stroll.

Oops. Time warp. That reality was eons ago. Back before much of the neighborhood was bulldozed in the 1960s to make way for something new.

And, believe it or not, that lively image was how it was supposed to be once again -- only cleaner and brighter when the bulldozing was done. Despite the fine intentions, however, the urban renewers got it wrong, and the waterfront became the place we know and, for so many, find impossible to love today.

A failed place where the fish sellers hang on at the edge and where people parade from cars and buses directly to and from eateries and tourist boats. Where, most days, nobody really hangs out just for the pleasure of it.

Now, the day has arrived, again, to brace for dramatic change, because the Southwest waterfront is a prime focus of the city's Anacostia Waterfront Initiative.

"The Southwest waterfront," says Andrew Altman, director of the city's Office of Planning, "is absolutely at the pivotal location between the water, the Mall, the downtown and the Southwest neighborhood. It should be the premier destination waterfront in Washington. It should be a great urban waterfront."

Chances for change are good. Despite its faults, the setting, extending nearly a mile along the Washington Channel, is all-around great. It's got water and boats, and it's a five-minute walk from the Jefferson Memorial. Ten minutes from the Mall. It is perfectly placed to supply the demand for in-city residences. And the city already controls much of the land.

And chances are strong that when it comes, the change will look pretty much like this: An orderly row of mid-rise buildings for residences, hotel rooms, small offices, stores and cultural facilities will replace the low buildings now facing the channel. The new buildings will accommodate up to 800 upscale housing units (with 20 percent "affordable") and a hotel with up to 450 rooms. It'll be a high-density urban neighborhood.

The waterside esplanade will be redesigned to be active and alluring. The 10th Street Overlook, now the site of a modest memorial to Benjamin Banneker, will be rebuilt to connect directly to the waterfront. Stores and restaurants will be greatly increased in number.

Existing parks will be significantly improved, and two new ones will be added -- a Market Square at the northwestern end of the promenade, next to the existing fish market, and a civic park at the southeastern end. The civic park, with space for an as yet undesignated cultural facility, would greatly enhance the setting for Arena Stage, which has its own plans for an exciting makeover.

For today's residents of nearby apartment buildings and townhouses, the changes should be, on balance, a big plus -- though anyone fond of the sleepy atmosphere may well resent the new busyness that change will bring.

Ironically, this bold restructuring was made possible by one of the biggest of the mistakes made by the urban renewers decades ago. They thought the main idea was to make sure there was plenty of room for cars. Thus, they laid out two parallel streets -- wide Maine Avenue and wide Water Street, with parking lots in between.

To be sure, the plan does work for cars. Access to and from the freeway and the 14th Street bridges is a snap and, except at the fish market, parking is always easy to find. It's as if the planners actually wanted to keep nearby residents away from the waterside or, more likely, expected them to use their cars to get there.

All in all, the 1960s waterfront layout, a key part of the Southwest Urban Renewal Plan, amounted to a catalogue of errors that have long needed correcting.

Those long, low buildings placed in a row along the waterfront act more as barriers than allurements.

The architecture is banal, at best, from the early Pizza Hut profile of the Capital Yacht Club in the north to the dull motel modernism of the Channel Inn in the south. Paint jobs and quick fixes of the other buildings have done little to improve their warehouselike exteriors.

The public spaces are equally nondescript. Hard-surfaced, with mere dollops of shade and a few well-intentioned nautical implements (anchors, ship's bells and the like) for local color, the rectangular parks between the buildings are, not surprisingly, unpopulated most of the time.

Sadder still is the waterfront esplanade. Intended as a grand public promenade, it turned out to be a forbidding, narrow walkway.

On the waterside, fences with locked gates separate walkers from the water and the boating piers of the channel marinas. On the land side, a concrete wall closes off access to the restaurants. A row of waterside trees is but a sorry reminder of good intentions gone amiss.

The overarching error, of course, was the failure to put people back in residences at the center of the waterfront. Post-World War II planners believed strongly that cities would be greatly improved if people were to live, work and play in zones that are separate and distinct. The Southwest waterfront is a testament to that idea.

By contrast, the city's waterfront initiative pursues an opposite, older urban ideal of mixed-used, interconnected neighborhoods. How well it fulfills these noble intentions remains to be seen, but the ideas are fundamentally sound.

"Yesteryear's mistake is today's opportunity" would be a good motto for the plan. All that "wasted" space, as Altman rightly calls the redundant roads and surface parking, can be adapted for useful purposes -- namely to put up buildings people can live in and to shape new spaces for them to play in.

As a result, not only will the new Southwest waterfront provide lots of homes where there are none, it'll also dramatically increase space for public parks, almost tripling the area from five to 14 acres.

At the same time, it'll significantly reduce surfaces covered by paving from 42 percent of the total area to about 20 percent. Not incidentally, there will be a lot more parking than now exists, but most of it will be underneath new buildings.

The Gazette (Montreal, Quebec)

February 25, 2004 Wednesday Final Edition

SECTION: Automotive Plus; Pg. E1 / BREAK

LENGTH: 404 words

HEADLINE: Side air bags effectiveness: The next big bang in car safety

SOURCE: CanWest News Service; National Post

BYLINE: DAVID DEHAAS

BODY:

The first significant figures are in. And they show that side air bags are highly effective in preventing fatalities in side-impact car crashes.

A study conducted by the Insurance Institute for Highway Safety (IIHS) in the United States has found that side air bags with head protection reduce the fatality rate by about 45 per cent in passenger cars struck on the driver's side. Air bags that feature torso protection only were also shown to significantly reduce fatalities, in this case by about 11 per cent.

The Straits Times (Singapore)

November 29, 2003 Saturday

SECTION: World

LENGTH: 508 words

HEADLINE: Road deaths a growing global threat;
Traffic accidents set to overtake major diseases to become the third leading cause of death and disability, says WHO

BYLINE: William Choong

BODY:

ROAD traffic accidents are a growing global problem and could overtake malaria, tuberculosis and Aids as a leading cause of death in just over a decade, the World Health Organisation (WHO) has warned.

Worldwide, the economic costs resulting from such injuries are estimated to amount to US $518 billion (S$896 billion) a year - which works out to six times Singapore's annual economic output.

Road traffic accidents are now the ninth leading cause of death and disability in the world.

But by 2020, they could become the world's third leading cause of death and disability after heart disease and depression, said WHO in a recent report.

According to the latest figures available, an estimated 1.26 million people worldwide died in 2000 as a result of road accident injuries.

A 1999 WHO report stated that the world's top two causes of death and disability were lower respiratory infections and HIV/Aids. But road accidents are fast gaining on diseases as a cause of death.

This has prompted United Nations Secretary-General Kofi Annan to warn in a recent address to the General Assembly: 'Road traffic injuries now pose a global public health crisis that requires urgent action at the national and international levels.'

The challenges are so pressing that road accidents will be the main subject of World Health Day next April, supplanting diseases like HIV/Aids and malaria.

WHO will also present its World Traffic Report at that gathering.

'It's going to be a bigger World Health Day than usual because of the magnitude of the issue,' Dr Etienne Krug, director of WHO's department for injuries and violence prevention, told the New York Times.

Across the world, a clear trend is emerging: road fatality rates in developed nations are falling while fatality rates in developing countries are heading north.

The death rate from traffic accidents in the United States, for example, fell to 1.51 deaths per 100 million miles (160 million km) travelled last year, from 1.58 deaths in 1998 and 4.8 in 1970.

Australia's death rate fell from 7.13 in 1971 to 1.45 in 2001, according to the Organisation for Economic Co-operation and Development, a grouping of industrialised countries.

WHO gave no specific figures for developing countries but it noted that South-east Asia had the highest proportion of road fatalities.

The region accounted for 435,000 deaths, or a third of the global total in 2000.

No figures were given for Singapore, but according to recent statistics provided by the Singapore Police Force, Singapore's roads are among the safest worldwide.

Its accident fatality rate was 4.7 per 100,000 population in 2001, compared with 6.1 in Britain, 7.9 in Japan and nine in Australia.

Other findings from the WHO report:

Worldwide, three times as many men die from traffic accidents as women;

About 60 per cent of those killed in motor vehicle accidents are between 15 and 44 years old; and

The seat belt has been shown to 'significantly reduce' the severity of road injuries by as much as 61 per cent.

Ottawa Citizen

July 21, 2004 Wednesday Final Edition

SECTION: City; Pg. C4

LENGTH: 175 words

HEADLINE: No-shows cost us money

SOURCE: The Ottawa Citizen

BYLINE: Nancy A. Clevette, MD

BODY:
Re: No-show blues, July 14.

I read with interest the problems restaurants are having with individuals making reservations and then not turning up. I empathize with the restaurateurs because physicians and other professionals who do business by appointment have the same problem. Making a reservation or appointment is in effect making a commitment to the business; it is poor manners to fail to meet this commitment without calling to cancel. More important, the public often is unaware that the business (or professional) cannot be reimbursed for lost time caused by no shows and loses money every time it happens.

I see about 30 patients a day and some days I may have three or more no-shows, so I suffer a 10-per-cent (significant) loss of gross income. These "no-shows" rob other patients of the opportunity of being seen when they are ill. The most aggravating situation is when the last patient of the day fails to show up, which leaves me sitting and wondering if I can go home to my family or not.

Nancy A. Clevette, MD,

Ottawa

The Irish Times

July 10, 2004

SECTION: CITY EDITION; HOME NEWS; Pg. 5

LENGTH: 501 words

HEADLINE: Court grants Galway pub owner special exemptions

BYLINE: By MICHELLE MCDONAGH

DATELINE: GALWAY

BODY:

The Galway publican who this week controversially defied the smoking ban by permitting customers to smoke in one of his pubs has succeeded in his application for a series of special exemptions for another premises.

Mr Ronan Lawless, proprietor of five licensed premises around Galway city, including Fibber Magees in Eyre Square, was ordered to appear before Spiddal District Court in Galway yesterday by Judge Mary Fahy in relation to an application for special exemptions for another pub, Fox's of Forster Street.

Judge Fahy had granted the 10 special exemptions for late licences for Fox's between 12.30 a.m. and 2 a.m. from July 10th to August 29th at the morning sitting of Galway District Court on Wednesday last. However, when she learned that Mr Lawless was refusing to comply with the smoking ban in Fibber Magees, she revoked the exemptions and ordered him to appear before her.

She granted the exemptions yesterday when Mr Lawless gave an undertaking that he would comply with all of the provisions of the Act.

Meanwhile, Mr Lawless has closed the doors of Fibber Magees pub in Eyre Square indefinitely while he prepares to mount a constitutional challenge to the ban.

Speaking outside Spiddal courthouse yesterday, Mr Lawless, who says business fell significantly when the ban was introduced, confirmed that he had appointed a legal team to work on a constitutional challenge. He said he was " a law abiding citizen and I always have been, but I feel this law is fundamentally wrong and draconian".

The Southern Health Board yesterday said it had received written undertakings from a publican in Cork city and another in Cobh that they would obey the smoking directive after being warned by Environmental Health Officers that they faced legal action. Mr Gareth Kendellen, who owns Paddy The Farmers on Old Blackrock Road and had defied the smoking ban on Thursday, said yesterday that he had no choice but to reintroduce the ban after being advised by his solicitors that he should obey the smoking directive.

Meanwhile, a report commissioned by Dublin publicans claims that 2,000 jobs have been lost in the trade since the introduction of the smoking ban. The report said drink sales in the city were down by 16 per cent and employment in the sector down 14 per cent. Marketing research company, Behaviour and Attitudes, surveyed 277 pub owners and managers in recent weeks by telephone.

Ciaran Tierney adds: Businesses located on the east side of Galway's Eyre Square have reported a substantial loss of trade because of construction work. Businesses have reported a drop of between 30 per cent and 40 per cent in turnover while digging to allow pipes to be laid goes on.

Star News (Wilmington NC)

August 17, 2004, Tuesday

SECTION: Local/State; Pg. 1B, 3B

LENGTH: 425 words

HEADLINE: Storm ravages area corps; Wind, rain leave farmers facing millions of dollars in damage

BYLINE: Cheryl Welch, Staff Writer

BODY:

BURGAW | Charles Giddens looked over his 27 acres of tobacco after hurricanes Bonnie and Charley blew through and decided it would do him no good to salvage it.

"It isn't worth 2 cents to pick it back up," the 56-year-old Willard farmer said. "The storm just hurt me bad."

Mr. Giddens isn't alone in his misery.

According to the N.C. Department of Agriculture and Consumer Services, farmers in Bladen, Columbus, Duplin, New Hanover and Pender counties suffered an estimated $ 17.9 million in crop damage from the hurricanes. Brunswick County officials reported an additional $ 1.2 million to $ 1.5 million loss.

Tobacco stalks were plowed flat or stripped of their yellow-green leaves throughout the region, though some fields remained perfectly fine.

Other crops suffered flood or wind damage. As Pender County Extension Director Wayne Batten walked through muddy, wind-damaged tobacco fields Monday afternoon, he said the loss was going to be hard for farmers to swallow.

"We actually were looking at an excellent crop throughout the region until this weekend," he said of a forecast calling for a high-yield, high-market-value year. "Then something like this comes through."

Shirley Blanton, Pender/New Hanover County Farm Service Agency director, estimated a 35 percent loss of the tobacco crop, 35 percent loss of the corn crop, a 25 percent loss of the cotton crop and a 20 percent loss of the soybean crop in both counties.

"It could be higher," she said.

Mr. Batten stopped in to talk to tobacco farmers in the area about the possibility of using about 100 inmates for a week to straighten the stalks of tobacco.

"It's a temporary fix," he said, indicating it would just enough to reduce further damage and allow farmers to get into the fields to mechanically harvest the crop.

But the county would first have to be declared a disaster area by Gov. Mike Easley before the inmate population could be used to help farmers. No announcement came by 5 p.m. Monday.

Low-interest loans also could be offered through county farm offices if a declaration is made.

Al Hight, agriculture extension for Brunswick County, said it wouldn't much help his farmers.

"There's some significant loss out there," he said, estimating that 30 percent to 50 percent of the tobacco crop has been destroyed.

Copley News Service

June 3, 2004 Thursday

SECTION: ILLINOIS SPOTLIGHT

LENGTH: 772 words

HEADLINE: Parts of damaged plastic plant still off-limits to investigators

BYLINE: Sarah Antonacci Copley News Service

DATELINE: ILLIOPOLIS

BODY:

Investigators for the lead agency probing the April 23 explosion at the Formosa Plastics plant have not yet been able to get into the most severely damaged area due to structural instability and the possibility that dangerous chemicals are still present.

Stephen Wallace, lead investigator for the U.S. Chemical Safety and Hazard Investigation Board, estimated it would be at least the end of the month before they can get into the area where the explosion occurred.

"We have been into the peripheral areas," he said Thursday. "We have not yet been able to get into that specific unit. There are safety concerns with the structural integrity of the building because of the damage of the explosion and residual toxic material in the area."

Four workers were killed in the blast, a fifth died later of his injuries and another remains hospitalized.

Rob Thibault, manager of corporate communications for Formosa, said company officials and the Occupational Safety and Health Administration are working on a plan to get investigators into the blast area. That might require shoring up the property, he said.

"We just don't know what's there. The concern is that there could still be some chemicals left in the piping or the reactor vessels themselves," he said.

Wallace said he does not believe that anything done to shore up the property will harm forensic evidence at the site. He said OSHA's structural engineer will make sure there is a safe pathway into the area of the explosion and that OSHA will look for residual vinyl chloride to determine what safety measures investigators must take.

While they are unable to work in the blast area itself, investigators are focusing on interviewing Formosa employees, eyewitnesses and are requesting paperwork from Formosa.

"We asked for drawings of the facility so we can get familiar with it, documents to help us get familiar with the production process, specific equipment, the way it operated, problems they'd had with it in the past, previous incidents," Wallace said.

"The data we get from interviews is vital, when we talk to people who are eyewitnesses who can tell us what happened that led up to it. There can be a disconnect between what's on paper and what happens in the plant, though I'm not predicting that's what happened."

Wallace estimated that the investigation may take up to a year, but if the chemical safety board is unable to get into the blast area, it could take even longer.

"Our mission is to discover the root causes of the explosion and to make recommendations," he said. "We will look for the specific cause of the explosion, the cause of the release of material and if any safety systems that did not function and what may have caused them not to function. We will look for equipment that broke and why it broke.

"We don't just want to fix the problem, but find out why it occurred."

Also, Wednesday night, two Springfield residents with a firm called Opportunity Alliance LLC made a presentation to the Logan County Regional Planning Commission asking that the panel consider expanding that county's enterprise zone to include the Formosa site.

Phil Mahler, the commission's director, said the move would allow Formosa to seek sales tax breaks on building materials and would also provide sales tax breaks on natural gas.

Thibault said Formosa hired Opportunity Alliance before the explosion in an effort to make the plant "more economically viable." He said the inquiry was related to increases in natural gas taxes on top of record high natural gas prices.

"This had been in the works for a while," he said.

Mahler said the idea was tabled because more information was needed. Logan County officials told Steve McClure and Andy Hamilton of Opportunity Alliance to check with Springfield about expanding its enterprise zone, too.

McClure said Formosa is looking at a situation now where there would be a significant amount of reinvestment, and that a sales tax break on new materials could be beneficial. Wednesday's meeting with Logan County officials was a first step in a long process, he said.

"Formosa is a multi-national corporation. We need to put our best foot forward in keeping them. In the last five years, Sangamon County has lost 21 percent of its manufacturing jobs, and that's a significant loss," he said, quoting chamber of commerce statistic.

The Irish Times

July 10, 2004

SECTION: CITY EDITION; HOME NEWS; Pg. 5

LENGTH: 501 words

HEADLINE: Court grants Galway pub owner special exemptions

BYLINE: By MICHELLE MCDONAGH

DATELINE: GALWAY

BODY:

The Galway publican who this week controversially defied the smoking ban by permitting customers to smoke in one of his pubs has succeeded in his application for a series of special exemptions for another premises.

Mr Ronan Lawless, proprietor of five licensed premises around Galway city, including Fibber Magees in Eyre Square, was ordered to appear before Spiddal District Court in Galway yesterday by Judge Mary Fahy in relation to an application for special exemptions for another pub, Fox's of Forster Street.

Judge Fahy had granted the 10 special exemptions for late licences for Fox's between 12.30 a.m. and 2 a.m. from July 10th to August 29th at the morning sitting of Galway District Court on Wednesday last. However, when she learned that Mr Lawless was refusing to comply with the smoking ban in Fibber Magees, she revoked the exemptions and ordered him to appear before her.

She granted the exemptions yesterday when Mr Lawless gave an undertaking that he would comply with all of the provisions of the Act.

Meanwhile, Mr Lawless has closed the doors of Fibber Magees pub in Eyre Square indefinitely while he prepares to mount a constitutional challenge to the ban.

Speaking outside Spiddal courthouse yesterday, Mr Lawless, who says business fell significantly when the ban was introduced, confirmed that he had appointed a legal team to work on a constitutional challenge. He said he was " a law abiding citizen and I always have been, but I feel this law is fundamentally wrong and draconian".

The Southern Health Board yesterday said it had received written undertakings from a publican in Cork city and another in Cobh that they would obey the smoking directive after being warned by Environmental Health Officers that they faced legal action. Mr Gareth Kendellen, who owns Paddy The Farmers on Old Blackrock Road and had defied the smoking ban on Thursday, said yesterday that he had no choice but to reintroduce the ban after being advised by his solicitors that he should obey the smoking directive.

Meanwhile, a report commissioned by Dublin publicans claims that 2,000 jobs have been lost in the trade since the introduction of the smoking ban. The report said drink sales in the city were down by 16 per cent and employment in the sector down 14 per cent. Marketing research company, Behaviour and Attitudes, surveyed 277 pub owners and managers in recent weeks by telephone.

Ciaran Tierney adds: Businesses located on the east side of Galway's Eyre Square have reported a substantial loss of trade because of construction work. Businesses have reported a drop of between 30 per cent and 40 per cent in turnover while digging to allow pipes to be laid goes on.

Press Enterprise (Riverside, CA)

February 10, 2004, Tuesday

SECTION: LOCAL; Pg. B03

LENGTH: 328 words

HEADLINE: School district considers asking for financial help;
MENIFEE: Trustees will vote on whether to seek waivers for absences due to the wildfires.

BYLINE: IOANA PATRINGENARU; THE PRESS-ENTERPRISE

BODY:

MENIFEE

School district officials want to ask the state for financial help after many students missed school because of wildfires and a flu epidemic.

School board members will vote tonight on whether to ask the state for attendance waivers, which would bring the Menifee Union School District an extra $ 27,000, district officials said.

Trustee Patricia Hanson said Monday that she supported the idea, as long as the state will allow it.

"It's hard with the state. Sometimes they say yes; sometimes they say no," she said by phone.

California schools receive most of their funds based on the average number of students attending school every day. Menifee Union receives a little more than $ 25 per student per day, said Pam Gillette, director of fiscal services. If the waivers are approved, the state would fund Menifee schools based on a projected number of students, rather than the actual number of children who attended school on certain days. The estimated number is based on attendance before the fires and flu epidemic, Assistant Superintendent Dan Wood said by phone.

Many students in October and December stayed home because of these events, Gillette said in a telephone interview. For example, Menifee Elementary reported attendance at 425 students on Dec. 12, a day when the district estimated 585 students would

EXHIBIT C

*1978 FTC LEXIS 375, **

In the Matter of HERBERT R. GIBSON, SR., et al.

DOCKET No. 9016

Federal Trade Commission

1978 FTC LEXIS 375

ORDER TAKING OFFICIAL NOTICE OF CERTAIN TELEPHONE DIRECTORY LISTINGS

May 3, 1978

ALJ: [*1]

Theodor P. von Brand, Administrative Law Judge

ORDER:

Complaint counsel move pursuant to Rule 3.43(d) of the Rules of Practice that official notice be taken of certain listings in the Dallas, Texas telephone directories in the period 1969-77. Respondents have filed an answer in opposition.

At the outset it may be noted the authenticity of the directories is not in dispute. Nor can there be any question that the listings which complaint counsel request be noticed in fact appeared in the directories in question.

Respondents urge that the Commission's Rules of Practice do not provide for the taking of official notice of adjudicative facts. The short answer is that 3.43(d) of the Commission's Rules does provide that initial or Commission decisions may rest upon facts officially noticed provided there is opportunity to disprove the noticed facts. Respondents further argue that official notice should not be taken because they would be deprived of cross-examination of the telephone company employees preparing the directories, and further that this procedure would unfairly shift the burden of proof. In addition, they urge that the motion should be denied because if such official notice **[*2]** were granted their defense would require time consuming discovery leading to delay.

Rule 803 of the Federal Rules of Evidence entitled "Hearsay Exceptions; Availability of Declarant Immaterial" n1/ provides that certain materials are not excluded by the hearsay rule even though the declarant is available as a witness. Among the exceptions are:

n1/ The Federal Rules of Evidence while not controlling in FTC proceedings frequently provide a useful guide to the resolution of evidentiary problems.

"(17) Market reports, commercial publications. Market quotations, tabulations, lists, directories, or other published compilations, generally used and relied upon by the public or by persons in particular occupations."

The basis of trustworthiness underlying the rule is general reliance by the public or by a particular segment of it on such publications and the motivation of the compiler to foster reliance by being accurate. Weinstein's Evidence 803-49. The public generally uses and relies upon such directories in making use of the telephone. n2/ The material is accordingly within the exception of Rule 803(17) and the taking of official notice of such facts does not **[*3]** deprive respondents of their right to cross-examine.

n2/ Courts admitting such evidence have noted that "Telephone directories... are semipublic documents" and that such directories are constantly consulted [with] "Reliance... generally placed thereon" State v.

McInerney, 182 P.2d 28, 34 (Wyo. 1947); see also In re Gilbert's Estate, 15 A.2d 111, 115 (N.J. 1940); Peoples Nat. Bank v. Manos Brothers, 84 S.E.2d 857 (S.C. 1954); Williams v. Campbell Soup Co., 80 F. Supp. 865, 868 (W.D. Mo. 1948); Harris v. Beech Aircraft Corporation, 248 F. Supp. 599, 601 (E.D. Tenn. 1965).

Nor does this procedure unfairly shift the burden of proof. Respondents are in the best position to rebut the facts noticed or the inferences which may be drawn therefrom. If, in fact, some of the listings were in error, respondents should be able to demonstrate that fact. Moreover, respondents, not telephone company officials, have command of the facts which may be introduced to rebut the inferences to be drawn from such listings. Finally, if, in fact, the listings in question did contain errors then respondents should be able to document their efforts to obtain corrections **[*4]** if such efforts were made. Under the circumstances, there is no need for time consuming discovery from telephone company officials or employees as respondents contend. Accordingly.

IT IS ORDERED that complaint counsel's motion to take official notice filed April 17, 1978, be, and it hereby is, granted.

EXHIBIT D

UNITED STATES OF AMERICA
BEFORE FEDERAL TRADE COMMISSION

In the Matter of:

BASIC RESEARCH, LLC,
a limited liability company;
A.G. WATERHOUSE, LLC,
a limited liability corporation;

ORIGINAL

KLEIN-BECKER USA, LLC,
a limited liability company;
NUTRASPORT, LLC,
a limited liability company;

SOVAGE DERMALOGIC LABORATORIES, LLC,
a limited liability company;
BAN, LLC,
a limited liability corporation, also doing business as BASIC RESEARCH, LLC, OLD BASIC RESEARCH, LLC, BASIC RESEARCH, A.G. WATERHOUSE, KLEIN-BECKER USA, NUTRA SPORT, and SOVAGE DERMALOGIC LABORATORIES,
DENNIS GAY,
individually and as an officer of the limited liability corporations,
DANIEL B. MOWREY, Ph.D.,
Also doing business as AMERICAN PHYTOTHERAPY RESEARCH LABORATORY, and

MITCHELL K. FRIEDLANDER,
Respondents.
_______________________________________/

Wednesday, November 17, 2004
Washington, DC 20036

Deposition of:
MICHAEL BERNARD MAZIS, PH.D.,
a witness, called for examination by counsel for the Respondents, pursuant to Notice, at the offices of Esquire Deposition Services, 1020 Nineteenth Street, Northwest,

Respondents' Hearing Exhibit
Docket No. 9318
RX-036

Suite 620, Washington, D.C. 20036, commencing at 10:00 a.m., there being present on behalf of the respective parties:

APPEARANCES:

ON BEHALF OF FEDERAL TRADE COMMISSION:

ROBIN M. RICHARDSON, ESQ.
LAUREEN KAPIN, ESQ.
Division of Enforcement
Federal Trade Commission
Bureau of Consumer Protection
600 Pennsylvania Avenue, NW
Washington, DC 20580
Telephone: 202.326.2798
Facsimile: 202.326.2558

ON BEHALF OF RESPONDENTS:

JEFFREY D. FELDMAN, ESQ.
Feldman Gale
Miami Center
Nineteenth Floor
201 South Biscayne Blvd.
Miami, FL 33131-4332
Telephone: 305.358.5001
Facsimile: 305.358.3309
Toll-Free: 800.489.9814

RONALD F. PRICE, ESQ.
Peters Scofield Price
340 Broadway Centre I
111 East Broadway
Salt Lake City, UT 84111
Telephone: 801.322.2002
Facsimile: 801.322.2003

REPORTED BY:

OVEDA V. HANCOCK, CVR
Notary Public, District of Columbia

C-O-N-T-E-N-T-S

E-X-H-I-B-I-T-S

P-R-O-C-E-E-D-I-N-G-S

Whereupon,

MICHAEL BERNARD MAZIS, PH.D.,

a witness called for examination by counsel for the plaintiffs, was duly sworn and was examined and testified as follows:

EXAMINATION BY COUNSEL FOR RESPONDENTS

BY MR. FELDMAN:

Q. Would you state your name, please?

A. Michael Bernard Mazis.

Q. Your occupation?

A. Professor of marketing at American University.

Q. Okay. Professor, you were subpoenaed here today in the matter of the Federal Trade Commission v. Basic Research, et al. Did you have a chance to look at the subpoena that was served on you, in particular the Document Request, prior to coming today?

A. Yes.

Q. Did you find documents that were responsive to that Document Request?

A. Yes.

Q. All right. Before we began the deposition, you produced a box and indicated that this box contains documents that are responsive to the subpoena that you received; is that correct?

A. Yes.

Q. Would you mind removing from the box the documents that you brought, and, if you would please, just read into the record, you can do it by general description if you want, the documents that you brought that are responsive to the subpoena?

A. The expert report that I wrote, the FTC complaint, a letter from the FTC --

Q. Wait. May I see that?

MR. FELDMAN: For the record, this is a letter dated June 21, 2004, from Laura Schneider to Michael Mazis.

THE WITNESS: -- Exhibits to the FTC complaint, the contract that I had with the FTC, and I think three copies of the subpoena, since I got it in three different ways.

BY MR. FELDMAN:

Q. Let's take those out.

A. The protective order in this case, a series of articles that I have authored that I had in my possession that were responsive to the Document Request.

Q. Are these all of the articles that you have written, or are these articles that you believe that you have written that are directly responsive to what was requested? A poor question. Just tell me how you decided which articles you wrote to produce.

A. Well, I looked at the deposition request, and then I went through my files and came up with articles that I thought were responsive. These are all the ones that I thought were responsive that I had in my possession.

Q. Okay. May I see that?

MR. FELDMAN: Just for the record, Dr. Mazis has produced an article entitled, "The Role of Consumer Surveys in Public Policy Decision-Making"; I read this one, and it was very well done, "Marketing of Public Policy Conference Proceedings"; "Consumer Perceptions of Health Claims and Advertisements on Food Labels"; Patient Attitudes About Two Forms of

Printed Oral Contraceptive Information; "A Survey of the Effects of Oral-Contraceptive Patient Information"; "Risk Disclosures in Televised Prescription Drug Advertising to Consumers"; "Informing Buyers of Risk: The Analysis of the Marketing and Regulation of All Train Vehicles; "Regulation of OTC Drug Advertising, the FDA Prescription"; "Marketing the Scarlet Letter: The Theory and Practice of Corrective Advertising"; "Framework for Evaluating Consumer Information Regulation"; "Consumer Search in Public Policy"; "The Use of Marketing Research in FTC Decision-Making"; the "Future of Consumer Protection Regulation"; Copy Testing Issues in FTC Advertising Cases; Public Policy Issues In Marketing."

BY MR. FELDMAN:

Q. Did I read them correctly?

A. Yes.

Q. Okay. All right, what else do you have?

A. A copy of the study done by Ed Popper.

MR. FELDMAN: Just for the record, this document is a composite exhibit that begins with a letter from Joshua Millard to Professor Mazis, August 31, 2004, enclosing a copy of the Dermalin-APG" information communication study by Edward T. Popper; okay.

A copy of an expert report by Geoffrey, that is G-E-O-F-F-R-E-Y, Nunberg, N-U-N-B-E-R-G, on behalf of the FTC. Then I have a whole pile of promotional materials, various advertising materials and retail brochures that were given to me by the FTC.

The documents appear to be in sequence, and they have Bates Nos. 5004217 -- no, I'm not quite sure if they are in sequence. We are just going to have to take these as a composite and assume the -- actually, I see what we've got there; okay.

We have a number of Dermalin" advertisements and then we have another stack of Cutting Gel" advertisements, then we have Tummy Flattening Gel" advertisements, then there were PediaLean" advertisements, and then we have Leptoprin" advertisements.

BY MR. FELDMAN:

Q. I believe that is the stack. Would you agree?

A. Yes. Except there are Leptoprin and Anorex" --

Q. Within the Leptoprin pile, there are Anorex ads?

A. Yes.

Q. Okay, no problem. Why did you produce these documents?

A. They were given to me by the FTC. I had them in my file. I relied on them in compiling my expert report.

Q. There is another pile in here, some Cutting Gel packaging?

A. Right, those are some package information that I printed off. There is a CD here that has all different packaging material, both boxes and product labels. These are just some that I printed off from the CD. And then I have a series of advertisements on CD. There are five TV commercials and two radio commercials.

Q. For Leptoprin?

A. Yes, for Leptoprin. And there is a

videotape of a Leptoprin TV commercial dated August 23, 2002.

Q. Okay. Let's go through the Duces Tecum real quick. I asked you to bring your complete file related to this matter. Did you do that?

A. Yes.

Q. Is it included in the documents that we just went through?

A. Yes.

Q. There is no other piece of paper that you have?

A. No.

Q. "All correspondence to the Federal Trade Commission concerning this matter, regardless of whether you were the author, addressee or copy recipient." Did you produce all of that?

A. Yes.

Q. Did that include E-mail correspondence?

A. Yes.

Q. Okay. So, there is no electronic or hard copy correspondence at all that you have with the Federal Trade Commission that is not in this room?

A. Correct.
Q. "All correspondence with any individual or entity, other than the Federal Trade Commission, concerning this matter, regardless of whether you were the author, addressee or copy recipient." Did you produce that?
A. Yes.
Q. Did you have any direct communication with Mr. Nunberg -- Dr. Nunberg?
A. No.
Q. Okay. So, whatever information that you have that is responsive to item 3, you have produced?
A. Yes.
Q. "All reports prepared by you in connection with this matter," they are here in this room?
A. Yes.
Q. "All notes prepared by you in connection with this matter," are they in this room?
A. Yes.
Q. "All drafts of all reports of other documents prepared by you in connection with this matter," are they in this room?

A. There was a draft, but I didn't have it in my possession, so I didn't produce it.
Q. Who has possession of it?
A. The FTC.
MR. FELDMAN: I think you guys produced that; correct?
MS. KAPIN: We did.
MR. FELDMAN: Thank you.
BY MR. FELDMAN:
Q. "All documents reviewed by you in connection with this matter," you have produced?
A. Yes.
Q. "All materials consulted by you or relied upon by you in forming any opinion in connection with this matter"?
A. Yes.
Q. You produced those. "All articles, books or other documents that you have authored whether individually or with others or to which you have contributed with regard to the following: obesity, weight loss, fat loss, the FTC, clinical trial protocols or procedures, FTC advertising rules and

regulations, the definition of competent and reliable scientific evidence, dietary supplements, weight-loss or fat-loss advertising, the study of linguistics in relation to advertising and marketing."

Did you produce all of the documents that you have that are responsive to that category?

A. Yes.

Q. That is, articles, books or other documents?

A. Yes.

Q. Okay. "All documents relating to lectures, speeches or testimony that you have given," related to the same areas that I just mentioned?

A. Yes.

Q. You produced those?

A. Yes, all that I had in my possession.

Q. Okay. Well, let's talk about that. When you say all that you had in your possession, are there documents that you know of that you have authored that are responsive to these requests that you do not have in your possession?

A. Well, testimony is an example. I have testified a number of times, but I don't have copies of the testimony.

Q. No problem. In terms of articles, books or things of that nature, are there things that are responsive that you don't have?

A. Not that I'm aware of.

Q. "All documents relating to research, tests or other medical or clinical studies that you conducted or contributed to or participated in related to involving obesity, weight loss, fat loss, dietary supplements, the study of linguistics in relation to advertising and marketing"?

MS. KAPIN: Jeff, do you have a copy of that so that he can look on?

MR. FELDMAN: Sure, yes, no problem.

THE WITNESS: What item are we on?

MS. KAPIN: Ten, I believe.

MR. FELDMAN: We did ten, eleven.

(The witness perused the document.)

THE WITNESS: Yes.

BY MR. FELDMAN:

Q. What you had you have given me?

A. Yes.

Q. The same question for number twelve?

A. Yes.

Q. You have no patents?

A. No.

Q. Okay. Thirteen, all documents relating to lawsuits, whether criminal or civil, in which you were named as a party?

A. Yes.

Q. It is an absence of entry, I take it; correct?

A. Yes.

Q. Okay. All documents pertaining to work that you have performed for any company that manufactures, markets or sells pharmaceuticals or dietary supplements relating to obesity, weight loss or fat loss?

A. Yes.

Q. When you say yes, being clear that what the yes is, is that to the extent you had responsive documents you have produced them today?

A. Yes.

Q. All right. That question follows each recitation of each specification on the subpoena. When I'm reading the specification, I am asking you to confirm that to the extent you have had responsive material you have produced it; okay?

A. Yes.

Q. Okay. All right. Did we do 14? "All documents pertaining to work that you have performed for any company that manufactures, markets or sells pharmaceuticals or dietary supplements relating to obesity, weight loss, or fat loss"?

A. Yes.

Q. "All documents reflecting compensation that you have earned from any company that manufactures, markets or sells pharmaceuticals or dietary supplements relating to obesity, weight loss or fat loss"?

A. Yes.

Q. "All documents relating to weight loss or fat loss advertisements that you have authored, reviewed or approved or were asked to review or approve"?

A. Yes.

Q. Is that an absence?
A. Yes.
Q. You had absolutely no documents responsive to 16?
A. Yes.
Q. All documents relating to requests for approval that you have made to the FDA, FTC or other regulatory body either on behalf of yourself or a third party relating to advertising and package labeling claims that you sought to make in relation to any dietary supplement including, but not limited to, weight-loss or fat-loss dietary supplement products?
A. Yes.
Q. Again, did you have any?
A. No.
Q. Eighteen, "All documents relating to efforts by you either on behalf of yourself or a third parties to justify or substantiate advertising claims made in relation to any weight- or fat-loss product including, but not limited to, pharmaceutical products or dietary supplements." Did you have any documents responsive to that?

A. No.

Q. Nineteen, "All documents pertaining to work that you have performed for the Federal Trade Commission, the FDA or any other federal agency whether as an expert, a consultant, or in any other capacity relating to obesity, weight loss, fat loss, clinical trial protocols or procedures, FTC advertising rules or regulations, the definition or meaning of competent and reliable, evidence of dietary supplements or weight-loss or fat-loss advertising." Do you have any documents that are responsive?

A. No.

Q. All right. Let me just ask a question here. This is not the first case in which you have appeared as an expert for the FTC; correct?

A. Yes.

Q. You have done other expert reports for them?

A. Yes.

Q. How come you did not produce other reports from other cases?

A. I don't have them.

Q. You don't keep copies of your expert

reports?
A. No.
Q. Okay. Why is that?
A. It is just my standard business practice.
Q. Number 20. So, you have no records at all of any work that you have done previously for the FTC?
A. Yes, correct.
Q. "All documents relating to any analysis that you conducted of the challenged ads." Did you produce all of this, such documents?
A. Yes.
Q. All documents which support your definition of the terms `rapid' and `substantial' and `visibly obvious' and `causes' as those terms are used in the FTC complaint in this matter." Did you produce any responsive documents to that request?
A. I'm not sure whether to answer that yes or no in terms of how you worded that. I produced all documents responsive to that request.
Q. Which document in what you have produced here is responsive to Request 21?
A. I don't have any.

Q. You have no responsive documents to twenty-one?

A. Correct.

Q. Okay. Twenty-two, "All documents relating to consumer tests, copy tests, penetration studies, focus groups or similar research that you conducted, directed, supervised or assisted in connection with this matter." Do you have any responsive documents to that request?

A. No.

Q. All scientific or medical testing protocols or guidelines that you have authored? You don't have anything for that; right?

A. Correct.

Q. "All scientific and/or medical testing protocols in which you have provided comments including your comments." Likewise, you have nothing responsive to that; correct?

A. Yes.

MS. KAPIN: Jeff, just for the record, I want to make it clear that the FTC didn't agree that all of these requests were proper or relevant, but since Dr. Mazis didn't really have a lot of documents implicating the ones that we thought were improper, we did not pursue it further.

MR. FELDMAN: We would like a copy of the materials that Dr. Mazis produced this morning. We can take it and return it. If you would like, you can have it copied. We will pay you for the copy. What is your preference?

MS. KAPIN: Why don't we have it copied, then, and you can pay for the copies, or Dr. Mazis can have it copied, either one.

MR. FELDMAN: Well, let's go off for a second.

(Thereupon, from 10:24 a.m. to 10:29 a.m., there was a pause in the proceedings.)

MR. FELDMAN: Back on the record.

All right. During the break, we have made arrangements to have Ikon do it. Ikon will deliver the originals back to Dr. Mazis' address and will send us the copies. Is that all right?

MS. KAPIN: You will let us know what the turnaround time is, yes?

MR. FELDMAN: Yes. They are very good, just a couple of days maybe.

MS. KAPIN: Okay.

You're comfortable with that, Mike?

THE WITNESS: Yes.

MR. FELDMAN: We are not taking possession of the documents; IKON is taking possession. They will be picked up from here. I need to get some boxes.

Let's mark this as Exhibit No. 1.

(The documents marked, Mazis Deposition Exhibit Nos. 1 through 3, were marked for identification.)

BY MR. FELDMAN:

Q. All right. Dr. Mazis, I just want to mark as Exhibit 3, a copy of the Duces Tecum that you have produced. Is Exhibit 3, in fact, the subpoena that you received and in fact was served with?

A. Yes.

Q. Is the document request attached to Exhibit 3 the document request that we went through?

A. Yes.

Q. All right. I am now showing you Exhibit 1 and Exhibit 2. Do you recognize these documents?

A. (Perusing) Yes.

Q. What are those documents?

A. Exhibit 1 is the expert report that I wrote in this case, and Exhibit 2 is an article that was attached to the report, but inadvertently I copied it only on every other page.

Q. All right. So, Exhibit 2 is an exhibit to Exhibit 1; right?

(No response.)

BY MR. FELDMAN:

Q. All right. What we have marked as Exhibit 2 is an exhibit to your report?

A. Yes.

Q. Your report is what we have marked as Exhibit 1 to this depo?

A. Yes.

MS. KAPIN: Just for clarity, there is a cover letter of course that wasn't part of the report attached to Exhibit 2.

MR. FELDMAN: Agreed.

This is four. May I have this marked as Exhibit 4?

(The document, Mazis Deposition Exhibit No. 4, was marked for identification.)

MR. FELDMAN: Let's take your box and put back into the box, if you would, the documents that you produced as being responsive. So, the report is one, the supplemental is two, the subpoena is three, and the complaint is four.

Did you get a copy of this?

MS. KAPIN: I did already. Thank you.

BY MR. FELDMAN:

Q. What we have before you right now is we have Exhibit 1, which is the report; Exhibit 2, which is the article, all right, that is part of the report; Exhibit 3 is the subpoena; and now I am asking you to look at Exhibit 4. Do you recognize Exhibit 4?

A. (Perusing) Yes.

Q. What is Exhibit 4?

A. The FTC's complaint in this case.

Q. Okay. Were you given a copy of that by the FTC?

A. Yes.

Q. When?

A. When I was first approached in this case on June 21, 2004.

Q. All right. Looking at Exhibit 1, the expert report that you prepared, do you stand by the statements contained in your expert report provided on behalf of the FTC in the FTC v. Basic Research case?

A. Yes.

Q. Do you have anything to add to your report?

A. No.

Q. Are you in the process of doing any empirical research in this case?

A. No.

Q. Do you intend to do any empirical research in this case?

A. It depends on whether I am asked to.

Q. Okay. Right now, you are not doing any, and there are no plans for any; is that correct?

A. Yes.

Q. It is a compound question, so let me break it up. Have you done any empirical research to back up your analysis in this case?

MS. KAPIN: Objection, vague.

THE WITNESS: I haven't done any empirical research in this case.

BY MR. FELDMAN:

Q. Are you planning on doing any?

A. Not at this time.

Q. And when you say "not at this time," what does that mean?

A. That means I am not under contract to do any empirical research, and I haven't been asked to do it.

Q. Okay.

MS. KAPIN: Just for clarity, Jeff, that is in connection with this case? Am I correct?

MR. FELDMAN: In connection with this case. All right, can I have a minute, please?

(Thereupon, from 10:40 a.m. to 10:41 a.m., there was a pause in the proceedings.)

BY MR. FELDMAN:

Q. Do you know if the FTC has employed or spoken to another person to do any empirical research in this case?

A. No, I don't know, I mean, of any such contact.

Q. Okay. So your intention is to appear at trial and give testimony based on what is in your report; correct?

A. Yes.

MR. FELDMAN: Okay. I need a minute.

(Thereupon, from 10:41 a.m. to 10:44 a.m., there was a pause in the proceedings.)

MR. FELDMAN: Obviously, given Dr. Mazis' testimony on the report and the lack of empirical research, we have no reason to continue. If for any reason that was to change, we would expect notice, and we would continue this deposition at that time.

We would not by any means be consenting to any work being done by this expert after this point, and I don't want to give that appearance. We are not consenting to anything.

I just want to make it clear that we are reserving our right to continue this deposition if any aspect of this expert witness' report was to change, particularly if there was a change in his position on empirical research." With that said, we are concluding.

MS. KAPIN: Just for the record, on behalf of the FTC, I am not stating that we agree with your position, but we understand your position.

MR. FELDMAN: Okay. Thank you.

(Thereupon, from 10:45 a.m. to 10:50 a.m., there was a pause in the proceedings.)

MR. FELDMAN: Dr. Mazis, it is customary to give the witness an opportunity to read and approve the deposition transcript once it is prepared. You can waive the reading, if you want. What is your pleasure?

MS. KAPIN: I would prefer that you look at it and see whether it is accurate.

THE WITNESS: I will read it and sign it.

MR. FELDMAN: Thank you.

(Whereupon, at 10:51 a.m., signature not having been waived, the deposition was adjourned.)

* * *

ACKNOWLEDGMENT OF DEPONENT

I, MICHAEL B. MAZIS, Ph.D., do hereby acknowledge I have read and examined the foregoing pages of testimony, and the same is a true, correct and complete transcription of the testimony given by me, and any changes or corrections, if any, appear in the attached errata sheet signed by me.

__________________ ____________________________

Date Michael B. Mazis, Ph.D.

CERTIFICATE OF NOTARY

I, OVEDA V. HANCOCK, the officer before whom the foregoing testimony was taken, do hereby certify that the witness whose testimony appears in the foregoing transcript was duly sworn by me; that the testimony of said witness was taken by me by stenomask means and thereafter reduced to typewriting by me or under my direction; that said testimony is a true record of the testimony given by said witness; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this testimony is taken; and, further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of the action.

This certification is expressly withdrawn and denied upon the disassembly or photocopying of the foregoing transcript of the proceedings or any part thereof, including exhibits, unless said disassembly or photocopying is done by the undersigned court reporter and/or under the auspices of Esquire Deposition Services, and the signature and original seal is attached thereto.

OVEDA V. HANCOCK
Notary Public in and for
the District of Columbia

My Commission Expires:
June 29, 2008

Laureen Kapin, Esq.
Division of Enforcement
Federal Trade Commission
Bureau of Consumer Protection
600 Pennsylvania Avenue, NW
Washington, DC 20580
Telephone: 202.326.2798

IN RE: Federal Trade Commission v.
Basic Research, LLC, Et Al

Dear Ms. Kapin:

Enclosed please find your copy of the deposition of Michael B. Mazis, Ph.D., along with the original signature page. As agreed, you will be responsible for contacting the witness regarding reading and signing the transcript.

Within 30 days of receipt, please forward errata sheet and original signature page signed to counsel for Respondents, Jeffrey D. Feldman. If you would like to change this procedure, or, if you have any questions, please do not hesitate to call.

Thank you.

Sincerely yours,

Oveda V. Hancock
Reporter/Notary Public

ERRATA SHEET

Case Name: Federal Trade Commission v. Basic Research, Et Al

Witness Name: Michael B. Mazis, Ph.D.

Deposition Date: Wednesday, November 17, 2004

Job No.: 164069

Page No.	Line No.	Correction	Reason For Correction

WORD INDEX

Laureen Kapin, Esq.
Division of Enforcement
Federal Trade Commission
Bureau of Consumer Protection
600 Pennsylvania Avenue, NW
Washington, DC 20580
Telephone: 202.326.2798
IN RE: Federal Trade Commission v.
Basic Research, LLC, Et Al

Dear Ms. Kapin:

Enclosed please find your copy of the deposition of Michael B. Mazis, Ph.D., along with the original signature page. As agreed, you will be responsible for contacting the witness regarding reading and signing the transcript.

Within 30 days of receipt, please forward errata sheet and original signature page signed to counsel for Respondents, Jeffrey D. Feldman. If you would like to change this procedure, or, if you have any questions, please do not hesitate to call.

Thank you.

Sincerely yours,

Oveda V. Hancock
Reporter/Notary Public

EXHIBIT E

Statement of Dr. Stephen M. Nowlis

I. Background and Qualifications

1. I am the AT&T Distinguished Research Professor of Marketing in the W. P. Carey School of Business at Arizona State University. A copy of my curriculum vitae, which includes a complete list of my publications, is attached as Exhibit A. It includes a list of cases in which I provided expert witness consulting services. I am being compensated at the rate of $500 per hour.
2. I hold a Ph.D. in Marketing and a Master's degree in Business Administration (MBA) from the University of California at Berkeley, Haas School of Business, and a Bachelor's degree in Economics from Stanford University.
3. My field of expertise is consumer behavior, marketing and advertising management, survey methods, and decision making. Most of my research has focused on consumer decision making and choice, marketing strategies, and methodology issues.
4. I have received several awards, including (a) the 2001 Early Career Contribution Award from the Society for Consumer Psychology – Sheth Foundation, which is given annually to the most productive young scholar in the field of consumer behavior/marketing, (b) the 2001 O'Dell Award, given to the Journal of Marketing Research (the major journal on marketing research issues) article that has had the greatest impact on the marketing field in the previous five years, and (c) a finalist for the 2002 O'Dell Award.
5. I currently serve as an Associate Editor at the Journal of Consumer Research (the major journal on consumer behavior research). In this capacity, I review many papers and help determine whether they are acceptable for publication. I also serve on the editorial review boards at the Journal of Marketing Research, Journal of Marketing and Marketing Letters.

6. At Arizona State University, I have taught undergraduate and MBA courses on marketing management, covering such topics as buyer behavior, developing marketing plans, advertising, sales promotions, retailing, and product development. I have also taught several doctoral courses. One course focused on various methods for conducting research projects. A second course dealt with buyer behavior, covering such topics as buyer decision making processes, influences on purchase decisions, and persuasion.
7. After completing my undergraduate studies and before starting the MBA program, I worked for two years as an Assistant Buyer for a major retail chain.
8. I was asked by counsel representing Basic Research LLC to evaluate the Expert Report of Dr. Michael Mazis. Dr. Mazis was asked by the Federal Trade Commission (FTC) to provide expert testimony in the FTC matter of Basic Research, LLC, et al. In my report, I rely on well-established principles of consumer behavior and advertising research to evaluate the methodology used by Dr. Mazis and the conclusions that he reached.
9. As I continue to receive and review additional information, I reserve the right to supplement, revise, or further explain the opinions contained in this report.

II. Summary of Conclusions

10. I disagree with the methods used and the conclusions drawn by Dr. Mazis in his Expert Report. First and foremost, Dr. Mazis employs a "method" of analysis known as facial analysis. However, this technique has not been supported in the literature as it is simply the opinion of one person. Thus, I feel that it is paramount for empirical data to be collected which could help determine how consumers actually perceive the ads that Dr. Mazis examined. I also disagree with many of Dr. Mazis' points regarding how consumers interpret price, their use of pragmatic implications, and how consumers perceive messages for weight loss products.

III. Proper Methodology for Testing Potential Deceptive Advertising

11. Dr. Mazis uses a technique which he calls "facial analysis" to examine possible consumer perceptions regarding the ads which he reviews. However, it should be noted that such a technique is nothing more than one individual looking at advertisements and merely estimating what consumers would actually think about the messages contained in those ads. In other words, while "facial analysis" might imply that this is some sort of scientific technique, it simply amounts to one person's opinion. Such a technique does not rely on any type of empirical data, nor does it rely on the findings from other published studies. In addition, there are many different techniques for analysis that marketing academics can use. As an Associate Editor at the Journal of Consumer Research, and as an active reviewer of papers at other leading marketing journals, I have never seen a paper submitted for publication which relied on facial analysis. If such a technique were used in a paper submitted for peer review, it would be questioned, because, again, it is simply the opinion of one person.

12. In addition, Dr. Mazis published a paper in a peer reviewed journal, in which he admits that facial analysis, when used in litigation, was challenged by other academics as inappropriate.[1] Furthermore, Dr. Mazis published another paper in that same journal, where he discusses the use of survey data in policymaking issues, including deceptive advertising cases.[2] Dr. Mazis writes, "At the enforcement stage of policymaking, there is a potential for legal action. Therefore, government agencies frequently seek objective data to make a strong case that a violation has occurred. When the alleged violation involves consumer perception or consumer behavior

[1] Mazis, Michael B. (2001), "FTC v. Novartis: The Return of Corrective Advertising," Journal of Public Policy & Marketing, 20 (1), 114-122.
[2] Hastak, Manoj, Michael B. Mazis, and Louis A. Morris (2001), "The Role of Consumer Surveys in Public Policy Decision Making," Journal of Public Policy & Marketing, 20 (2), 170-185.

issues, survey research can provide government agencies with the needed objective data." (pages 174-175). Thus, Dr. Mazis himself realizes that "objective data" is needed to build a strong case, and he mentions that survey research can provide such data. He then goes on to write about how the FTC often conducts studies, using survey data, to investigate potential deceptive advertising. Survey research, unlike facial analysis, is a well-accepted technique among marketing academics, as it does provide the type of objective information that is needed to test a hypothesis. In my experience as an Associate Editor and active reviewer, I see many papers which use such a technique, because it can provide the type of data that is objective.

13. In particular, a paper published in a peer reviewed journal mentions how the FTC often relies on advertising copy tests in deceptive advertising cases, because this type of information is far less subjective than a facial analysis.[3] The authors of this paper state that, "Extrinsic evidence is frequently offered in Federal Trade Commission advertising deception cases, most often in the form of advertising research, such as copy tests." (page 301). This paper also quotes the FTC, involving a deceptive advertising case against Thompson Medical, as "The extrinsic evidence we prefer to use and to which we give great weight is direct evidence of what consumers actually thought upon reading the advertisement in question. Such evidence will be in the form of consumer survey research for widely distributed ads…" (page 301). This paper then goes on to list many issues that need to be considered when conducting a valid copy test.

14. Other independent research on tests for deceptive advertising, published in peer reviewed journals, have also discussed the use of survey evidence.[4] This research

---

[3] Andrews, J. Craig, and Thomas J. Maronick (1995), "Advertising Research Issues from FTC versus Stouffer Foods Corporation," Journal of Public Policy & Marketing, 14 (2), 301-309.

[4] Stewart, David (1995), "Deception, Materiality, and Survey Research: Some Lessons from Kraft," Journal of Public Policy & Marketing, 14 (1), 15-28; Jacoby, Jacob and George J. Szybillo (1995), "Consumer Research in FTC v. Kraft: A Case of Heads We Win, Tails You Lose?," Journal of Public Policy & Marketing, 14 (1), 1-14.

goes to great lengths to discuss the appropriate techniques involved in properly conducting survey research. For example, the proper use of control conditions is discussed, among many other issues for ensuring that reliable data is collected. However, this research never discusses the use of facial analysis, because such a technique is inferior to empirical, objective data on what consumers really think about an advertisement. In addition, an entire book was written by an academic on tests for deceptive advertising.[5] This book also goes into a great amount of detail as to how potential deceptive advertising can be properly tested. Yet, facial analysis is never mentioned as a possible technique, whereas a large part of the book discusses survey methods.

15. Given such research published by academics, there is ample support for the notion that empirical evidence is a generally accepted methodology (apparently often preferred by the FTC as well) to assess whether or not consumers have been misled by advertisements. Thus, without such empirical data, Dr. Mazis is left only with a facial analysis, which again means that this is simply the opinion of one person, and we have no idea whether or not consumers in general would actually perceive the advertisements in the same way.

16. Given the superiority of survey research, and its acceptance as evidence in other cases, it is perhaps surprising that Dr. Mazis chose instead to rely on a facial analysis. It may also be surprising given that Dr. Mazis himself wrote, in a peer reviewed academic journal, "Agency decision making could benefit greatly from increased use of survey evidence in cases involving consumer perception issues." (p. 181).[6] I also examined some of Dr. Mazis' other writings to determine why he might have relied on a facial analysis. In the paper just mentioned, Dr. Mazis states, "Surveys are not

---

[5] Richards, Jef I. (1990), Deceptive Advertising: Behavioral Study of a Legal Concept, Lawrence Erlbaum Associates: Hillsdale, NJ.

[6] Hastak, Manoj, Michael B. Mazis, and Louis A. Morris (2001), "The Role of Consumer Surveys in Public Policy Decision Making," Journal of Public Policy & Marketing, 20 (2), 170-185.

needed when the contested issue pertains to substantiation for an express claim." (page 175).[7] He also mentions that surveys are used when an implied claim is presented. Thus, according to Dr. Mazis' own writings, surveys provide valuable information when a claim is implied, but not when the claim is express. However, assuming that this logic makes sense in the first place, a critical issue then becomes how one determines whether a claim is indeed implied or if this claim is so obvious that the opinion of one person is sufficient to determine what that claim actually is. Can Dr. Mazis simply make the determination that all of the claims he analyzes in his report are express? That seems extremely unlikely, given that he discusses so many different claims. Furthermore, if a claim truly were express, why would an expert even need to offer an opinion, if it were so obvious to everyone?

17. In my own reading of the messages examined by Dr. Mazis, it is simply not the case that all of these messages led to inferences that are as obvious as Dr. Mazis might suggest. For example, Dr. Mazis seems to feel that the phrase "spot-reducing gel," which appears in one of the ads that he reviewed, is somehow obviously deceptive. My own expert opinion would be that such a phrase would not be deceptive as Dr. Mazis suggests. As another example, Dr. Mazis feels that ads for Tummy Flattening Gel, which mention that it is "clinically proven" and "verified by two published clinical trials" somehow implies to consumers that "published, clinical testing supports claims that these products cause rapid and visibly obvious fat loss in areas of the body to which they are applied."[8] Again, this is by no means obvious to me. I offer these examples to show that such claims may or may not be obvious to consumers, and the best way to test for this would be through the collection of empirical, objective data. Without this, we do not know whether a claim is obvious

[7] Hastak, Manoj, Michael B. Mazis, and Louis A. Morris (2001), "The Role of Consumer Surveys in Public Policy Decision Making," Journal of Public Policy & Marketing, 20 (2), 170-185.
[8] Page 11 of Dr. Mazis report.

or not to all consumers, nor do we know exactly which message means what to consumers. For example, does "clinically proven" imply "rapid and visibly obvious weight loss"? This is an empirical question which is by no means obvious, as Dr. Mazis might wish to assert.

18. It should also be noted that Dr. Mazis picks out many different messages in his analysis. However, he simply cannot link each particular message that he analyzed to a particular deceptive implication. This is again why empirical tests would be useful here. For example, Dr. Mazis could then test whether or not "spot-reducing gel" led consumers to some sort of deceptive inference. Instead, he lists off a number or phrases, and then assumes that these phrases all lead to particular deceptive implications.

19. Thus, one reason why Dr. Mazis did not feel it necessary to collect empirical data may have been because he believed that all of the claims he studied were express. Again, this seems highly unlikely, given that he looked at many different messages. Furthermore, given the objective information that can be obtained with survey data, a facial analysis simply is not as strong of a technique. Finally, Dr. Mazis mentions that, "..the FTC cases have generally settled and have not gone to trial. Commission staff members often do not see the need to collect expensive consumer perception data as long as there is hope of a pretrial settlement." (page 181).[9] Of course, I have no way to know what the objectives of the FTC are in this case. However, I simply have noted here what Dr. Mazis himself published in a peer reviewed academic journal.

---

[9] Hastak, Manoj, Michael B. Mazis, and Louis A. Morris (2001), "The Role of Consumer Surveys in Public Policy Decision Making," Journal of Public Policy & Marketing, 20 (2), 170-185.

IV. Pragmatic Implications

20. Dr. Mazis uses facial analysis to estimate what consumers might think about the ads he examined. In doing so, he thought about possible pragmatic implications that consumers might draw from these ads. According to the literature (and to an article that Dr. Mazis cited), "Pragmatic implications are statements that lead a person to believe something that is neither explicitly stated nor necessarily implied."[10] (page 265). First, Dr. Mazis is simply assuming in his facial analysis that all of the inferences that consumers drew, if they were pragmatic implications, went above and beyond what was necessarily implied. Second, it should be noted that pragmatic implications are commonly drawn by consumers, but that these implications are not necessarily deceptive. For example, as noted in a peer reviewed article, "Misunderstood claims are not necessarily deceptive." (page 483)[11] Thus, it may not be that the advertisements were specifically designed to lead to the types of deception that Dr. Mazis claims occurred, but that consumers may or may not have understood exactly what the ads were asserting. Furthermore, the authors of this article again note that it is important to specifically test which particular claims may or may not be deceptive. Without such empirical tests, it is very difficult to estimate what a consumer might think that an advertisement may or may not imply.

21. Published research has also found that the degree to which consumers form pragmatic implications, whether or not they are deceptive, can vary as a function of certain buyer or environmental characteristics. In particular, research has found differences in the types of pragmatic implications that are drawn based on the sex of the respondent, buying history, the age of the respondent, and whether or not there is

---

[10] Searleman, Alan and Helen Carter (1988), "The Effectiveness of Different Types of Pragmatic Implications found in Commercials to Mislead Subjects," Applied Cognitive Psychology, 2, 265-272.

[11] Burke, Raymond R., Wayne S. DeSarbo, Richard L. Oliver, and Thomas S. Robertson (1988), "Deception by Implication: An Experimental Investigation," Journal of Consumer Research, 14, 483-494.

a delay between the time that the ad is seen and when consumers evaluate the ad.[12] Given that there is no empirical evidence in Dr. Mazis' report, it is difficult to know whether or not any of these variables could have qualified any conclusions that Dr. Mazis drew from his facial analysis.

V. Consumers Skepticism Toward Advertising

22. Academic research has shown that consumers are often quite skeptical of advertising.[13] One of these papers examined consumer perceptions of advertising over time, based on the answers to national opinion polls.[14] This paper found that, "Poll results strongly suggest that consumers are deeply skeptical of advertising claims. Moreover, public opinion has remained extraordinarily constant for two decades or more." (page 244). Dr. Mazis, in an independent peer reviewed publication, also comes to the conclusion that consumers can be very skeptical of advertisements for health claims.[15] In particular, Dr. Mazis finds that consumer beliefs for health claims may not be as strong when these claims are made in the form of advertisements instead of in the form of labels and standardized nutritional information.

---

[12] Searleman, Alan and Helen Carter (1988), "The Effectiveness of Different Types of Pragmatic Implications found in Commercials to Mislead Subjects," Applied Cognitive Psychology, 2, 265-272; Harris, Richard Jackson, Julia C. Pounds, Melissa J. Maiorelle, and Maria Mermis (1993), "The Effect of Type of Claim, Gender, and Buying History on the Drawing of Pragmatic Implications from Advertising Claims," Journal of Consumer Psychology, 2 (1), 84-96; Gaeth, Gary J. and Timothy B. Heath (1987), "The Cognitive Processing of Misleading Advertising in Young and Old Adults: Assessment and Training," Journal of Consumer Research, 14, 43-54.

[13] Calfee, John E. and Debra Jones Reingold (1988), "Consumer Skepticism and Advertising Regulation: What Do the Polls Show?," Advances in Consumer Research, 15, 244-248; Ford, Gary T., Darlene B. Smith, and John L. Swasy (1990), "Consumer Skepticism of Advertising Claims: Testing Hypotheses from Economics of Information," Journal of Consumer Research, 16, 433-441; Obermiller, Carl and Eric R. Spangenberg (1998), "Development of a Scale to Measure Consumer Skepticism Toward Advertising," Journal of Consumer Psychology, 7 (2), 159-186; Mazis, Michael B. and Mary Anne Raymond (1997), "Consumer Perceptions of Health Claims in Advertisements and on Food Labels," Journal of Consumer Affairs, 31, 10-26.

[14] Calfee, John E. and Debra Jones Reingold (1988), "Consumer Skepticism and Advertising Regulation: What Do the Polls Show?," Advances in Consumer Research, 15, 244-248.

[15] Mazis, Michael B. and Mary Anne Raymond (1997), "Consumer Perceptions of Health Claims in Advertisements and on Food Labels," Journal of Consumer Affairs, 31, 10-26.

23. Given this high level of consumer skepticism toward advertisements, it is very likely that consumers will not necessarily jump to the types of erroneous conclusions that Dr. Mazis suggests. While a facial analysis might assume that consumers will jump to all sorts of deceptive conclusions, it should be noted that consumers are quite used to evaluating claims in advertisement, and are often quite skeptical of such claims. Thus, consumers are likely to view these ads with a degree of skepticism that makes it unlikely that they would all draw misleading implications from all of the messages that Dr. Mazis examined.

24. While consumers exhibit a general degree of skepticism toward advertising, it is also useful to look for published research which has specifically examined consumer perceptions of diet or weight loss claims. One such paper looked at consumer reaction toward claims made by an over-the-counter appetite suppressant.[16] Empirical data was collected by showing consumers an advertisement for this product which said, "When calling to place your order, mention this advertisement" (the neutral or control condition). A second version said, "PPA can make weight loss easy, affordable, and fast" (enhancement version). The results from this study showed that consumers were unaffected by the message of easy weight loss, as they were just as likely to want to buy the product if they saw the neutral condition as they were if they saw the enhanced condition of the advertisement. Thus, consumers in this study were quite skeptical of weight loss claims, as they had no effect on purchase intentions. Another published study also examined consumer reaction to weight loss advertisements.[17] This study looked at potential differences in consumer reaction to three different weight loss messages: promising weight loss of up to 12

---

[16] Whisenhunt, B.L., D.A. Williamson, R.G. Netemeyer, and C. Andrews (2003), "Health Risks, Past Usage, and Intention to Use Weight Loss Products in Normal Weight Women with High and Low Body Dysphoria," Eating and Weight Disorders, 8, 114-123.

[17] Trottier, Kathryn, Janet Polivy, and C. Peter Herman (2005), "Effects of Exposure to Unrealistic Promises about Dieting: Are Unrealistic Expectations about Dieting Inspirational?," International Journal of Eating Disorders, 37 (2), 142-149.

pounds per week, promising weight loss of 6 pounds per week, and promising weight loss of up to 2 pounds per week. This study found no significant differences across these claims on consumer expectations of them. Thus, this study also shows that consumers are quite skeptical of weight loss claims in advertisements, and often do not believe them or let them influence their purchase decisions.

VI. Price

25. Dr. Mazis believes that the "high" prices of the products which he reviewed suggest that the product is of higher quality than lower priced products. Whether or not this is true, and whether or not consumers would be deceived by this, is an empirical question in the context of the issues at hand. Furthermore, considerable research has shown that greater motivation leads to greater attention to advertising elements. In particular, "When a consumer's motivational intensity is high, he or she will be more likely to engage in more effortful cognitive processing to evaluate information."[18] (page 259). Thus, if the prices of these products are considered high by consumers, this can lead to an increased motivation to carefully think about the messages contained in the ads.

VII. The "Fine Print"

26. Dr. Mazis also notes that many of the ads he examined have a section called "So What's the Catch?," or "The 'Fine Print'." This section informs the consumer about how certain benefits of particular products may be most effectively accomplished. However, Dr. Mazis feels that these disclosures are not as prominent and can deceive the consumer. Again, I would argue that how the consumer may or may not have

[18] Keller, Scott B., Mike Landry, Jeanne Olson, Anne M. Velliquette, Scot Burton, and J. Craig Andrews (1997), "The Effects of Nutritional Package Claims, Nutrition Facts Panels, and Motivation to Process Nutritional Information on Consumer Product Evaluations," Journal of Public Policy & Marketing, 16 (2), 256-269.

been deceived is an empirical question that deserves objective testing. Furthermore, my own examination of the ads shows that the "fine print" is actually shown in the same font size as the rest of the advertisement, and is shown in the same format as the rest of the advertisement. Thus, it appears as though the "fine print" does follow the FTC guidelines that disclaimers be displayed in a clear and conspicuous manner.[19] As a result, it is difficult to argue that the "fine print" was buried so that consumers would not read it.

27. In addition, published research has shown that disclosures of this sort, when accompanying health claims such as weight loss, can help a consumer to properly interpret any implications they may draw from the advertisements. In particular, the authors of a published paper note that "Our research suggests that when disclosures are displayed clearly and prominently, they can be important tools in qualifying misleading impressions from nutrient content claims."[20] (page 71). Given that the "fine print" was displayed clearly and prominently, it should then be able to help the consumer to accurately interpret the information contained in the ads.

---

[19] Stewart, David W. and Ingrid M. Martin (2004), "Advertising Disclosures: Clear and Conspicuous or Understood and Used?," Journal of Public Policy & Marketing, 23 (2), 183-192.

[20] Andrews, J. Craig, Richard G. Netemeyer, and Scot Burton (1998), "Consumer Generalization of Nutrient Content Claims in Advertising," Journal of Marketing, 62, 62-75.

Stephen M. Nowlis

11/22/2005

Date

Stephen M. Nowlis

Office:
WP Carey School of Business
Arizona State University
350 E. Lemon St.
PO Box 874106
Tempe, AZ 85287-4106
Phone: 480-965-2939
Fax: 480-965-8000
email: stephen.nowlis@asu.edu
http://wpcarey.asu.edu/mkt

Home:
9119 Davenport Dr.
Scottsdale, AZ 85260
Phone: 480-614-9786

Education

Ph.D. Business Administration (Marketing concentration), Haas School of Business, University of California at Berkeley, 1994

Thesis: Competitive Brand Strategies of High-Tier and Low-Tier Brands: A Consumer Choice Perspective

M.B.A. Haas School of Business, University of California at Berkeley, 1990

B.A. Economics, with Distinction, Stanford University, 1986

Academic employment

AT&T Distinguished Research Professor of Marketing, WP Carey School of Business, Arizona State University, Tempe, AZ, 2004-
Professor, WP Carey School of Business, Arizona State University, Tempe, AZ, 2003
Dean's Council Distinguished Scholar, WP Carey School of Business, Arizona State University, 2002-2004
Center for Services Leadership Distinguished Research Fellow, WP Carey School of Business, Arizona State University, Tempe, AZ, 2001-2002
Associate Professor, WP Carey School of Business, Arizona State University, Tempe, AZ, 2000-2003
Assistant Professor, WP Carey School of Business, Arizona State University, Tempe, AZ, 1996-2000
Assistant Professor, Washington State University, Pullman, WA, 1994-1996

Professional service

Associate Editor, *Journal of Consumer Research*, 2002-
Editorial Review Board, *Journal of Marketing*, 2005-
Editorial Review Board, *Journal of Consumer Research*, 2000-2001
Editorial Review Board, *Marketing Letters*, 2001-
Editorial Review Board, *Journal of Marketing Research*, 2001-

Ad-Hoc Reviewer, *Journal of Marketing, Marketing Science, Journal of Consumer Psychology, Management Science, Journal of Retailing, Current Anthropology, Nonprofit & Voluntary Sector Quarterly, Industrial and Corporate Change,* Reviewer for Association for Consumer Research conferences, American Marketing Association conferences, AMA John A. Howard Doctoral Dissertation Competition, Society for Consumer Psychology conferences. Program Committee, Association for Consumer Research conference, 2001 and 2003. Representative of the Society for Consumer Psychology at the main meeting of the American Psychological Association, 2001. Advisory Board for the MSI-JCP Research Competition on Product Assortment and Variety-Seeking in Consumer Choice, 2004.

Honors and Awards

Co-Chair of ACR doctoral symposium, 2006

Ferber Award Judge, 2005

Outstanding Reviewer Award, *Journal of Consumer Research*, 2002.

Winner of the 2001 William F. O'Dell Award. Given for the article appearing in the *Journal of Marketing Research* in 1996 that has made the most significant long-term contribution to the marketing discipline in the five year period 1996-2001.

Finalist (top 4) for the 2002 William F. O'Dell Award. Given for the article appearing in the *Journal of Marketing Research* in 1997 that has made the most significant long-term contribution to the marketing discipline in the five year period 1997-2002.

Winner of the 2001 Early Career Contribution Award from the Society for Consumer Psychology – Sheth Foundation, Division 23, American Psychological Association. Given annually to the most productive researcher in the field of consumer behavior/marketing who has been a faculty member for less than ten years.

Winner of Best Theoretical Paper award (Stephen M. Nowlis and Deborah B. McCabe), "Online vs. Off-line Consumer Decision Making: The Effect of the Ability to Physically Inspect Merchandise," at 2nd INFORMS "Marketing Science and the Internet: Understanding Consumer Behavior on the Internet," conference, sponsored by Andersen Consulting and the Marshall School of Business, April 29 - 30, 2000. Prize paid $2500.

AMA Consortium faculty participant, 2003 and 2004

Association for Consumer Research Doctoral Symposium speaker, 2002 and 2004

Nominated by the Arizona State University Marketing Department and Finalist (top 4), College of Business Undergraduate Teaching Excellence Award, 1997-1998 and 1998-1999.

Voted Outstanding Graduate Student Instructor, Haas School of Business, University of California at Berkeley, 1992-1993

Winner of Delbert Duncan Award for Best Marketing MBA student, 1988-1990

Publications

Kahn, Barbara E., Mary Frances Luce, and Stephen M. Nowlis, "Debiasing Insights from Process Tests," with Barbara Kahn and Mary France Luce, *Journal of Consumer Research,* forthcoming.

Nowlis, Stephen M. and Baba Shiv (2005), "The Influence of Consumer Distractions on the Effectiveness of Food Sampling Programs," *Journal of Marketing Research*, 42 (May), 157-168.

Shiv, Baba, Alexander Fedorikhin, and Stephen M. Nowlis (2005), "Interplay of the Heart and Mind in Decision Making," in *Inside Consumption: Frontiers of Research on Consumer Motives, Goals, and Desire*, ed. Ratti Ratneshwar and David Mick, forthcoming.

Nowlis, Stephen, Naomi Mandel, and Deborah Brown McCabe (2004), "The Effect of a Delay Between Choice and Consumption on Consumption Enjoyment," *Journal of Consumer Research*, 31 (December), 502-510.

Shiv, Baba and Stephen M. Nowlis (2004), "The Effect of Distractions while Tasting a Food Sample: The Interplay of Informational and Affective Components in Subsequent Choice," *Journal of Consumer Research*, 31 (December), 599-608.

Dhar, Ravi and Stephen M. Nowlis (2004), "To Buy or Not to Buy: Response Mode Effects on Consumer Choice," *Journal of Marketing Research*, 41 (November), 423-432.

Nowlis, Stephen M. and Deborah B. McCabe (2004), "The Effect of Examining Actual Products or Product Descriptions on Consumer Preference," *Journal of Consumer Psychology*, 13 (4), 431-439.

Nowlis, Stephen M., Barbara E. Kahn, and Ravi Dhar (2002), "Coping with Ambivalence: The Effect of Removing a Neutral Option on Consumer Attitude and Preference Judgments," *Journal of Consumer Research*, 29 (December), 319-334.

Lemon, Katherine and Stephen M. Nowlis (2002), "Developing Synergies Between Promotions and Brands in Different Price-Quality Tiers," 39 (May) *Journal of Marketing Research,* 171-185.

Itamar Simonson, Ziv Carmon, Ravi Dhar, Aimee Drolet, Stephen M. Nowlis (2001), "Consumer Research: In Search of Identity," *Annual Review of Psychology*, 52, 249-275.

Simonson, Itamar and Stephen M. Nowlis (2000), "The Role of Explanations and Need for Uniqueness in Consumer Decision Making: Unconventional Choices Based on Reasons," *Journal of Consumer Research*, 27 (June), 49-68.

Dhar, Ravi, Stephen M. Nowlis, and Steven J. Sherman (2000), "Trying Hard or Hardly Trying: Context Effects in Choice," *Journal of Consumer Psychology*, 9 (4), 189-200.

Nowlis, Stephen M. and Itamar Simonson (2000), "Sales Promotions and the Choice Context as Competing Influences on Consumer Decision Making," *Journal of Consumer Psychology*, 9 (1), 1-16.

Dhar, Ravi, Stephen M. Nowlis, and Steven J. Sherman (1999), "Comparison Effects On Preference Construction," *Journal of Consumer Research,* 26 (December), 293-306.

Ravi Dhar and Stephen M. Nowlis (1999), "The Effect of Time Pressure on Consumer Choice Deferral," *Journal of Consumer Research*, 25 (March), 369-384.

Nowlis, Stephen M. and Itamar Simonson (1997), "Attribute-Task Compatibility as a Determinant of Consumer Preference Reversals," *Journal of Marketing Research*, 34 (May), 205-218. This paper was a finalist for the 2002 O'Dell Award. A Brief of this paper is written by John T. Landry in *Harvard Business Review* (1996), 74 (November/December), 13.

Nowlis, Stephen M. and Itamar Simonson (1996), "The Effect of New Product Features on Brand Choice," *Journal of Marketing Research*, 33 (February), 36-46. This paper won the 2001 O'Dell Award.

Nowlis, Stephen M. (1995), "The Effect of Time Pressure on the Choice Between Brands that Differ in Quality, Price, and Product Features," *Marketing Letters*, 6(4), 287-295.

Simonson, Itamar, Stephen M. Nowlis, and Katherine Lemon (1993), "The Effect of Local Consideration Sets on Global Choice Between Lower Price and Higher Quality," *Marketing Science*, 12 (4), 357-377

Simonson, Itamar, Stephen M. Nowlis, and Yael Simonson (1993), "The Effect of Irrelevant Preference Arguments on Consumer Choice," *Journal of Consumer Psychology*, 2 (3), 287-306.

Industry experience

Assistant Buyer, May Company Department Stores, Los Angeles, CA, 1986-1988
Expert Witness Consulting, 2001-

Professional affiliations

American Marketing Association
Association for Consumer Research
Society for Judgment and Decision Making
Society for Consumer Psychology

Conference presentations

"A Bite to Whet the Reward Appetite: Influence of Sampling on Appetitive Behaviors," (with Baba Shiv and Monica Wadhwa), *Association for Consumer Research* conference, San Antonio, TX, September 2005.

"The Effect of Predictions on the Enjoyment of a Consumption Experience," (with Naomi Mandel), *Association for Consumer Research* conference, San Antonio, TX, September 2005.

"The Effect of Distractions while Tasting a Food Sample: The Interplay of Informational and Affective Components in Subsequent Choice," (with Baba Shiv), *Society for Consumer Psychology* conference, San Francisco, CA, February 2004.

"The Effect of Tradeoff Resolution Order on Consumer Choice," (with Ravi Dhar and Itamar Simonson), *Association for Consumer Research* conference, Toronto, Canada, October 2003.

"The Effect of a Forced Delay after Choice on Consumption Enjoyment," (with Deborah McCabe and Naomi Mandel), *Society for Consumer Psychology* conference, New Orleans, LA, February 2003.

"Effects of Distraction While Consuming a Food Item: Will it Increase or Decrease Subsequent Choice," (with Baba Shiv), *Society for Consumer Psychology* conference, New Orleans, LA, February 2003.

"The Effect of a Delay between Choice and Consumption on Consumption Preference," (with Deborah McCabe and Naomi Mandel), *Association for Consumer Research* conference, Atlanta, GA, October 2002.

"Effects of Distraction while Consuming a Food Item: Will it Increase or Decrease Subsequent Choice?," (with Baba Shiv), *Association for Consumer Research* conference, Atlanta, GA, October 2002.

"Consumer research in computer mediated environments," (with Sharon Shavitt), *Association for Consumer Research* doctoral symposium, Atlanta, GA, October 2002.

"The Effects of Generating Options on Judgment and Choice," (with Ravi Dhar), *Association for Consumer Research* conference, Austin, TX, October 2001.

"Developing Synergies Between Promotional and Brand Strategies," (with Katherine Lemon), *Association for Consumer Research* conference, Salt Lake City, UT, October 2000.

"The Effect of the Ability to Inspect Merchandise on the Likelihood of Choosing Products Online," (with Deborah B. McCabe), *American Marketing Association* summer marketing educators' conference, Chicago, IL, August 2000.

"Managerial Strategy Making: Problem Structuring and Alternative Generation by Marketing Managers," (with Gabriel R. Gonzales), *American Marketing Association* summer marketing educators' conference, Chicago, IL, August 2000.

"Online vs. Offline Shopping Experiences," (with Deborah Brown McCabe), *INFORMS "Marketing Science and the Internet"* Conference, USC, Los Angeles, April 2000.

"The Effect of Physically Inspecting Merchandise on Product Choice in Store and Online Environments," (with Deborah McCabe), *Haring Symposium*, Indiana University, Bloomington, IN, April 2000.

"The Effect of Alternative Generation on Preference for Hedonic and Utilitarian Goods," (with Ravi Dhar and Steven J. Sherman), *Society for Judgment and Decision Making,* Los Angeles, CA, November 1999.

"Comparison Processes in Consumer Choice," (with Ravi Dhar and Steven J. Sherman) *Association for Consumer Research* conference, Columbus, OH, October 1999.

"Brand Switching Between Quality Tiers: The Role of Price Promotions and the Choice Context," (with Itamar Simonson), *Marketing Science* Conference, Berkeley, CA, March 1997.

Co-Chair of session, "How Do I Prefer Thee? Let the Way Decide for Me: An Examination of Task Effects and Consumer Preference Formation," (with Ziv Carmon) and presenter of "The Effect of Providing Reasons and Being Evaluated by Others on Consumer Decision Making," *Association for Consumer Research* conference, Tucson, AZ, October 1996.

Chair of session, "Moderators of Consumer Response to Promotions," and presenter of "The Effect of Choice Set Composition on Consumer Response to Sales Promotions," *Association for Consumer Research* conference, Minneapolis, MN, October 1995.

Co-chair of session, "The Constructive nature of Consumer Response to Differential Product Advantages," (with Ziv Carmon), and presenter of "The Effect of Response Mode on Consumer Decisions Involving Overall Brand Quality, Price, and Product Features," *Association for Consumer Research* conference, Boston, MA, October 1994

Co-chair of session, "A Later Mover Advantage? The Impact of Order of Entry and Brand Characteristics on Consumer Preferences," (with Jennifer Aaker), and presenter of "The Effect of Differentiating Product Features on Brand Choice," (with Itamar Simonson), *Association for Consumer Research* conference, Nashville, TN, October 1993

"Influences on the Decision to Purchase Product Enhancements," (with Itamar Simonson), National *ORSA/TIMS* Conference, San Francisco, CA, November 1992

"The Effect of Paired Comparisons and Product Display Format on Choices Between Lower Price and Higher Quality," (with Itamar Simonson and Katherine Lemon), *Association for Consumer Research* conference, Vancouver, British Columbia, October 1992.

"Influencing Consumer Preferences Between High and Low Price Alternatives," (with Itamar Simonson and Katherine Lemon), *Marketing Science* Conference, London, England, July 1992.

"Managing the Marketing Mix to Increase Frequent use of Consumer Services," (with Jukka M. Laitamaki and Ross Bellingham), *AMA's Services Marketing* Conference, Chicago, IL, October 1990.

Expert Witness Consulting

Critique of Alcohol Labelling Survey conducted by the Center for Science in the Public Interest
- Wine Institute, San Francisco, CA
- Expert report
- July 2001

Platypus Wear v. Bad Boy Entertainment
- Luce, Forward, Hamilton & Scripps, Los Angeles, CA
- Expert report
- October 2001

Marcia Spielholz v. Los Angeles Cellular Telephone Company
- Gibson, Dunn & Crutcher, Los Angeles, CA
- Expert report, deposition
- April 2002

California Consumers v. BMG Direct Marketing, Inc.
- Coblentz, Patch, Duffy & Bass, San Francisco, CA
- Deposition
- November 2002

UMG Recordings, Inc., et al. v. Sinnott
- Mitchell, Silberberg & Knupp, Los Angeles, CA
- Expert report, deposition
- November 2003

Kinetic Concepts, Inc. v. BlueSky Medical
- Rothschild, Barry & Myers, Chicago, IL
- Expert report, deposition
- April 2005

Arista Records, Inc., et al. v. Flea World, Inc., et al.
- Mitchell, Silberberg & Knupp, Los Angeles, CA
- Expert report, deposition
- September 2005