UNITED STATES OF AMERICA
BEFORE FEDERAL TRADE COMMISSION

DOCKET NO. 9279

In the Matter of

NOVARTIS CORPORATION, and
NOVARTIS CONSUMER HEALTH, INC.,
corporations.

INITIAL DECISION

Lewis F. Parker
Administrative Law Judge

Dated: March 9, 1998

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By: Lewis F. Parker, Administrative Law Judge

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I. INTRODUCTION

On June 21, 1996, the Commission issued its complaint in this proceeding charging that Ciba-Geigy Corporation and Ciba Self-Medication, Inc., now Novartis Corp. and Novartis Consumer Health, Inc. ("Novartis" or respondents), successors in interest to Ciba-Geigy and Ciba Self-Medication (see order dated April 23, 1997), violated Section 5 of the Federal Trade Commission Act.

Novartis manufactures, advertises and sells Doan's analgesic products. The complaint alleges that Novartis has represented, directly or by implication, that these products are more effective than other analgesics, including Bayer, Advil, Tylenol, Aleve, and Motrin, for relieving back pain.

The complaint further charges that Novartis has, by the use of several ads, falsely represented, directly or by implication, that at the time it made its effectiveness claims, it possessed and relied upon a reasonable basis that substantiated them.

After extensive pretrial discovery, trial was held in Washington, D.C. The record was closed on December 5, 1997 and the parties filed their proposed findings on December 19, 1997. Replies were filed on January 16, 1998.

This decision is based on the transcript of testimony, the exhibits which I received in evidence, and the proposed findings of fact and conclusions of law, and answers thereto, filed by the parties. I have adopted several proposed findings verbatim. Others have been adopted in substance. All other findings are rejected either because they are not supported by the record or because they are irrelevant.

II. FINDINGS OF FACT

A. Novartis

1. Respondent Novartis is a corporation organized, existing and doing business under and by virtue of the laws of the State of New York, with its offices and principal place of business located at 556 Morris Avenue, Summit, New Jersey 07901. Respondent Novartis Consumer Health, Inc., is a corporation organized, existing and doing business under and by virtue of the laws of the State of Delaware, with its offices and principal place of business located at 560 Morris Avenue, Summit, New Jersey 07901. Novartis Consumer Health, Inc., is a subsidiary of Novartis Corporation. (See Ans ¶ 1; JX 2 ¶ 11.)[1]

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[1] Abbreviations used in this decision are:

(continued...)

B. Doan's

8. Doan's has been sold in this country for over 90 years and has always been advertised (or "positioned") for the relief of back pain (Peabody Tr. 285-87) (Mr. Peabody is the Director of Marketing Research at Novartis Consumer Health, Inc.).

9. Ciba purchased the Doan's brand in early 1987 from DEP Corporation, which had shortly before acquired the brand from Jeffrey Martin, Inc. (JX 2 ¶ 12; CX 455-A; CX 500 at 19-20 [Russo Dep.]).

10. Ciba purchased the Doan's brand for approximately $35 million (CX 500 at 21-33 [Russo Dep.]) because it believed that Doan's was a brand name with a high level of awareness and potential for expanding sales (CX 501 at 24 [Sloan Dep.]). At that time, Ciba believed that Doan's did not have much of a brand image and was viewed as dated and old fashioned. This

15. Doan's analgesic products are sold at a price premium over general purpose analgesic products (CX 402-F; CX 496 at 23-24 [Caputo Dep.]). This is true for both Doan's factory prices (i.e., the price paid by retailers) and retail prices. (See Peabody Tr. 331, 550-52; CX 360-Z-38; CX 497 at 173 [Esayian Dep.].) In 1992, the retail price of a 24 count package of Doan's Regular Strength tablets was $4.32, while 24 count packages of regular strength Tylenol and Bayer tablets sold for $2.61 and $2.57, respectively, constituting price premiums of 66% and 68%. (See CX 360-Z-38; CX 402-F.)

16. Doan's is more expensive relative to other OTC analgesics on a per pill basis (CX 402-F). The largest size packages of Doan's available, depending on the particular version, are 20, 24, or 48 count packages, whereas general analgesics are sold in substantially larger, more economical packages. (See CX 368-D-I; CX 402-F; CX 455-J; Peabody Tr. 551.) In 1995, a 24 count package of Doan's Regular Strength cost $.18 per pill, while in 100 count packages, Regular Strength Tylenol cost $.06 per pill, Advil cost $.08 per pill, and private label aspirin cost $.03 per pill (CX 402-F). On this basis, Doan's was sold at a 200% premium over Tylenol and a 500% premium over private label aspirin. With respect to Advil, the recommended dose is only one pill, while the recommended dose of Doan's is two pills. Accordingly, one dose of Doan's cost $.35 versus $.08 for Advil, a premium of over 300%. Doan's premium price may have been a barrier to increased brand usage (CX 501, pp. 89-90; CX 454-C), so Ciba's strategy for marketing it was to "use back pain specific/special ingredient strategy to justify price premium" (CX 351-Z-27).

C. Doan's And The FDA

17. Product labeling for magnesium salicylate, the active ingredient in Doan's analgesic products, is regulated by the Food and Drug Administration ("FDA"). Tentative Final Monograph on Internal Analgesic, Antipyretic, Antirheumatic Products for Over-the-Counter Human Use (53 Fed. Reg. 46,204, Nov. 16, 1988) ("Monograph") (JX 1 ¶ 1).

18. Under the Monograph, an OTC analgesic drug product may be labeled as indicated for the temporary relief of minor aches and pain associated with one or more of the following: a cold, the common cold, sore throat, headache, toothache, muscular aches, backache, premenstrual or menstrual periods or cramps, and arthritis. 53 Fed. Reg. at 46,209. (JX 1-B ¶ 5.)

19. In 1988, when it promulgated the Monograph, the FDA was aware of comments expressing the concern that pain-specific labeling would suggest to consumers that "one product offers unique advantages over another for the specific indications stated on the label" (RX 88.1-Z-7). Despite this view, the FDA permitted pain-specific labeling as an alternative labeling option, concluding that such labeling "May be helpful to consumers to provide them with examples of the general types of pain for which OTC internal analgesic products are useful" (JX 1-B ¶ 5). Many OTC analgesic brands have positioned themselves for or advertised their efficacy for specific indications, such as headaches, arthritis, or back pain relief (RX 60-A-Z). Doan's specific

positioning as a back pain reliever is consistent with the Monograph (JX 1-B ¶ 5; RX 88; RX 88.1) although it has not been FDA approved. (See CX 114-A; CX 500 at pp 14, 74-76.)

20. Although the Monograph states that magnesium salicylate is effective for pain relief for several ailments, the only indication for which Novartis has marketed Doan's has been for the relief of back pain (CX 501 at 20 [Sloan Dep.]). The manufacturers of Advil, Aleve, Bayer, Motrin, and Tylenol label their products as providing relief from pain associated with several different problems. (See Peabody Tr. 557; see, e.g., RX 114.)

21. The Monograph does not state that any approved analgesic ingredient is more effective for the relief of back pain than any other approved ingredient (CX 415-A-Z-31) and it does not sanction a company's labeling or advertising of its analgesic product as being more effective for back pain (id.; see also Peabody Tr. 588-89; Scheffman Tr. 2643-44).

22. No other brand of OTC analgesic contains magnesium salicylate as its active ingredient (Peabody Tr. 314), but there are no studies demonstrating that it relieves back pain more effectively than acetaminophen, aspirin, ibuprofen or naproxen sodium (CX 584; JX 1 ¶ 9).

D. The Dissemination of Doan's Ads

23. The challenged ads were disseminated in a long-running national ad campaign beginning in May 1988, and continuing through May 1996 (JX 2 ¶¶ 25, 35, 36).

24. Ciba's ad efforts for Doan's products used national television ads and free-standing inserts ("FSI's") and, at times, radio ads disseminated in selected markets (JX 2 ¶¶ 25, 28, 29, 33-36). FSI's are ads appearing in Sunday newspaper supplements with, in some cases, attached discount coupons. FSI's are primarily used by "coupon clippers." During the relevant period Doan's FSI's were redeemed by less than 1% of newspaper subscribers (RX 160-A; Peabody Tr. 486).

25. Over the period 1988 through 1996, Ciba's broadcast ad expenditures for Doan's products totaled approximately $55 million, and its consumer promotion spending for Doan's (including FSI production and dissemination and merchandising materials) totaled about $10 million (JX 2 ¶ 21).

26. The target audience for Doan's ads was backache sufferers who treat their back pain with OTC pain relievers ("sufferers/treaters") within specified age ranges that varied over time (JX 2 ¶ 27). The goals of Ciba's ad and promotion campaign were to maintain the loyalty of existing Doan's users, encourage Doan's users to increase their usage of Doan's pills for treating their backaches, regain lapsed Doan's users, and attract new users who had been using other OTC pain relievers to treat their back pain or who were new to the analgesics market. (See, e.g., Peabody Tr. 150; Stewart Tr. 3608; CX 360-Z-43; CX 455-I; CX 508-O.)

1. Television Ads

27. Between January 1987 and June 1996, Doan's television ads were disseminated nationally both on network television during daytime and late night hours, as well as on syndicated and cable television during prime time, early evening, weekend, daytime and late night. (See JX 2 ¶ 28; CX 370-A-Z-78; CX 371-A-Z-39; Stewart Tr. 3418-19, 3440.) They appeared during such popular television shows as One Life to Live, The Young and the Restless, General Hospital, Family Feud, Jeopardy, Wheel of Fortune, Cops, Inside Edition, Current Affair, Oprah Winfrey, Rush Limbaugh, and, in 1989, during prime time newscasts (JX 2 ¶ 29; CX 370-A-Z-78). Doan's television commercials appeared on cable stations such as the Cable News Network, Nashville Network, USA Network, Turner Network Television, Turner Broadcasting Service, Weather Channel, and Lifetime (JX 2 ¶ 29). It also bought time on cable television programs with high Southern viewership, such as "Country News Late," "Texas Connection," "Western Block," and "Truck and Tractor" (CX 371-A-Z-79; Stewart Tr. 3438-39).

28. The advertising agencies Hicks & Greist and Ketchum Advertising participated in the creative development, production, and media dissemination of Doan's television commercials from 1987 to April 1993. Jordan, McGrath, Case & Taylor, Inc. ("Jordan McGrath"), another advertising agency, participated in the creative development, production, and media dissemination of Doan's television commercials from April 1993 to June 1996. Ciba gave final approval for all advertising copy and dissemination (JX 2 ¶ 26).

29. The television ads disseminated by Ciba were 15-second spots (JX 2 ¶ 25).

32. The first ads disseminated by Ciba for Doan's were 15-second versions of the "Hollingshead" and "Schwartz" television commercials developed by Doan's prior owner, Jeffrey Martin, Inc. These ads were disseminated from January 1987 through February 1988. After it introduced Extra-Strength Doan's, Ciba modified these ads by adding tag lines announcing the Extra-Strength product. These revised "Hollingshead" and "Schwartz" (CX 2) ads aired from February through May 1988 (JX 2 ¶ 25; see also Mazis Tr. 947; CX 500 at 57-58 [Russo Dep.]; Peabody Tr. 161, 605-607).

33. The first television commercial created by Ciba, "Graph" (CX 2; CX 13), was disseminated from May 1988 through June 1991. A television ad known alternatively as "X-Ray" or "Acetate" (CX 14), which was a variation of the "Graph" ad, was disseminated concurrently with "Graph" from August 1989 through June 1991 (JX 2 ¶ 25).

34. The "Black & White Back" television ad (CX 15) was disseminated from June 1991 through October 1992. A variation of the "Black & White Back" ad known as "Black & White Pan" (CX 7; CX 16) was disseminated from December 1992 through June 1994 (JX 2 ¶ 25).

35. The "Ruin A Night's Sleep" television ad (CX 7; CX 17) was disseminated from January 1992 through August 1992. Subsequently, "Ruin A Night's Sleep - Non-New" (CX 8; CX 18) was disseminated concurrently with "Black & White Pan" from August 1993 through June 1994 (JX 2 ¶ 25).

36. The "Activity–Pets" (CX 8; CX 22) and "Activity–Playtime" (CX 8; CX 10; CX 20) television ads were disseminated concurrently from July 1994 through July 1995 (JX 2 ¶ 25).

37. The "Muscles" television ad (CX 11; CX 23) was disseminated from August 1995 through May 1996 (JX 2 ¶ 25).

38. The most recent challenged television ad, "Muscles," last aired in May 1996 (JX 2 ¶ 25). Beginning in May 1996, a revised version of the "Muscles" ad, "New Muscles - Male" (RX 17; RX 24-A), and a revised female version, "New Muscles - Female" (RX 18), have been disseminated (RX 5-Z-84, Z-90-92; RX 17; RX 18; RX 24-A).

2. Free Standing Inserts

39. Between 1987 and mid-1996, Ciba disseminated FSI's for Doan's products in Sunday newspaper supplements two to three times per year (JX 2 ¶ 36). One FSI (CX 32-A) was disseminated on May 21, 1989 in newspapers with circulations totaling 34.9 million, and was used twice again, appearing on October 14, 1990 in 45.3 million individual newspapers (CX 29-J) and on September 29, 1991 in 12.6 million individual newspapers (CX 29-Z-4). On June 2, 1991, two different FSI's (CX 29-U; CX 29-W) appeared in 583,000 newspapers and 473,000 newspapers, respectively. On January 8, 1995, another FSI (CX 53-E; CX 544) appeared in 40.3 million newspapers.

3. Radio Ads

40. From March through December 1991, Ciba tested local radio ads for Doan's in five cities: Denver, Nashville, Oklahoma City, Orlando, and Tampa-St. Petersburg-Clearwater. For each twelve-week flight, the tested Doan's radio ads reached an estimated 45% to 52% of the target audience (adults between the ages of 25 and 54) an average of 17 to 20 times each (JX 2 ¶ 33). In 1992, at least three four-week flights of Doan's radio ads were aired in selected markets (JX 2 ¶ 34).

41. From May through September 1993, Ciba tested Spanish language Doan's radio ads (CX 58 [translated as CX 467]; CX 59 [translated as CX 468]; CX 60 [translated as CX 469]; CX 61 [translated as CX 470]; CX 62 [translated as CX 471]; CX 472 [translated as CX 473]; CX 474 [translated as CX 475]; and CX 476 [translated at CX 477]) targeted at Hispanic consumers in Houston. Three Houston radio stations broadcast between twelve and seventeen Doan's ads weekly for ten weeks (JX 2 ¶ 35).

Novartis voluntarily ceased running the challenged ads in May 1996, prior to the issuance of the complaint (Peabody Tr. 442; JX 2-E ¶ 25).

E. The Claims Conveyed By The Challenged Ads

42. Several expert witnesses were called by the parties to testify about significant issues in this case -- the claims conveyed by the challenged ads, their materiality, and the need for corrective advertising if the complaint's allegations were upheld.

1. Complaint Counsel's Experts

a. Dr. Michael B. Mazis

43. Dr. Mazis is a tenured Professor of Marketing at The American University in the Kogod College of Business Administration (Mazis Tr. 923, 925; CX 417-A, J). Dr. Mazis has taught Principles of Marketing to undergraduates; Marketing and Public Policy to graduate students; marketing research courses to both undergraduates and graduate level students; and consumer behavior courses to undergraduates, graduate level students, and Ph.D. level students (Mazis Tr. 925; CX 417-J).

44. Dr. Mazis received his Doctor of Business Administration from Pennsylvania State University in 1971 with a major in marketing and minors in social psychology and quantitative business analysis (statistics) (Mazis Tr. 924; CX 417-A). From 1971 to 1976, Dr. Mazis was an Assistant Professor and Associate Professor of Marketing at the University of Florida where he taught a variety of courses involving marketing research and consumer behavior (Mazis Tr. 924-25; CX 417-B).

45. From 1976 to 1979, Dr. Mazis served as a full time consultant, first to the FDA's Bureau of Drugs, then in the FTC's Division of National Advertising, and finally as Chief of Marketing and Consumer Research in the FTC's Office of Policy and Planning (Mazis Tr. 925; CX 417-B). During this period he conducted consumer research and worked on a variety of issues related to advertising and consumer information (Mazis Tr. 925).

46. Dr. Mazis was made a full professor at American University in 1981 (Mazis Tr. 925). From 1980 to 1989, he was the Chair of the Department of Marketing. In 1991, Dr. Mazis was awarded the Kogod College Award for Scholarship (CX 417-J).

47. Dr. Mazis has published extensively in peer-reviewed journals, including many articles with application to advertising and public policy issues (CX 417-C-H). These include an article regarding copy testing issues in FTC advertising cases and four articles regarding corrective advertising (Mazis Tr. 926-27; CX 417-E-G).

48. Dr. Mazis was awarded a $700,000 grant from the National Institutes of Health to study consumer perceptions of alcohol warning labels (Mazis Tr. 926; CX 417-C) and has served as a consultant to several government agencies, including the FTC, the FDA, the Consumer Product Safety Commission, the Department of Justice and the State of California (Mazis Tr. 926; CX 417-J).

49. Dr. Mazis has served as a consultant to numerous private corporations, has conducted litigation copy testing for Lanham Act cases, and has testified as an expert witness (Mazis Tr. 926, 929). In prior expert testimony that has been accepted by the courts, he has on a number of occasions analyzed advertising and marketing materials on the face of the ad and offered an opinion with regard to what reasonable consumers are likely to take away from such advertising or promotional materials (id., 929, 932).

b. Dr. David W. Stewart

50. Dr. Stewart is a full Professor of Marketing in the Marshall School of Business at the University of Southern California (Stewart Tr. 3390-91; CX 589-A, B, E). He holds the Robert E. Brooker Chair and currently serves as the Chairperson of the Department of Marketing (Stewart Tr. 3391, 3393; CX 589-A-B). Dr. Stewart has taught a variety of graduate and undergraduate level courses related to advertising, advertising and promotional management, consumer behavior, marketing research, market analysis, marketing strategy, product management, and sales management (Stewart Tr. 3393; CX 598-E). Dr. Stewart received his Ph.D. and M.A. in psychology from Baylor University and his B.A. in psychology from Northeast Louisiana University (Stewart Tr. 3391; CX 589-A-B).

51. Dr. Stewart has had a long and distinguished academic career. Prior to his teaching at the University of Southern California, he was employed as an Associate Professor of Psychology

and Business at Jacksonville State University from 1978 to 1980, and as an Associate Professor of both marketing and psychology at Vanderbilt from 1980 to 1986 (Stewart Tr. 3392; CX 589-E-F).

52. Dr. Stewart has authored or co-authored six books on advertising related issues and has written over 70 articles which have been accepted in peer reviewed academic journals (Stewart Tr. 3396; CX 589-A, Z-1-9). His published works have involved the effectiveness of comparative advertising for brands with low market share, the manner in which advertising campaigns wear in and out, the defensive role of advertising for mature brands, and whether sales increases are sufficient to determine whether an advertising campaign has been successful (Stewart Tr. 3397-98). A number of his publications have involved the ARS copy testing methodology used by Research Systems Corporation (Stewart Tr. 3397, 3450).

53. Dr. Stewart has received numerous academic honors during his teaching career. Currently he is the President of the Academic Council of the American Marketing Association and chairman of the Section on Statistics in Marketing of the American Statistical Association (Stewart Tr. 3393-95; CX 589-A, H). He is a past president of the Society of Consumer Psychology of the American Psychological Association (Stewart Tr. 3395; CX 589-A, I). He has won numerous awards, including awards from the American Academy of Advertising for best paper published during 1989 in the Journal of Advertising and the best paper published during 1992-1994 in the Journal of Public Policy and Marketing (Stewart Tr. 3397; CX 589-A, C-D).

54. Dr. Stewart has served as the editor, associate editor, or member of the editorial board of numerous academic journals (Stewart Tr. 3397; CX 589-H-J) and has served as a peer reviewer of articles submitted for publication to numerous academic journals (CX 589-J).

55. Dr. Stewart was also employed for two years as the Research Manager for a major advertising agency, Needham, Harper, and Steers (now called DDB Needham) where he managed a research department and was responsible for research, including diagnostic copy testing and communication tests, research regarding markets, and profiling consumers (Stewart Tr. 3391-92; CX 589-A, F).

56. Dr. Stewart has also done extensive consulting work for major corporations in the areas of advertising effectiveness, consumer behavior, and the structure of markets (Stewart Tr. 3398).

57. Dr. Stewart has testified as an expert witness both before the Federal Trade Commission and in U.S. district courts (Stewart Tr. 3399-3400; CX 589-A, T-U). He has previously testified as an expert in advertising, marketing, marketing research, survey methodology, marketing communication, and branding (Stewart Tr. 3400; CX 589-A).

2. Novartis' Experts

a. Dr. David Scheffman

58. Dr. Scheffman is the Justin Potter Professor of American Competitive Enterprise and Professor of Business Strategy and Marketing at the Owen Graduate School of Management at Vanderbilt University in Nashville, Tennessee (Scheffman Tr. 2513; RX 205-A). He is also a consultant for a national consulting company, Law & Economic Consulting Group, Inc. (Scheffman Tr. 2513, 2515; RX 205-A).

59. Dr. Scheffman teaches courses in marketing, pricing, strategic management, brand equity evaluation and distribution to MBA and executive MBA students (Scheffman Tr. 2516; RX 205-C-D). Dr. Scheffman specializes in industrial organization economics, which uses various theories and tools to evaluate quantitative and qualitative evidence concerning markets and competition (Scheffman Tr. 2513).

60. Dr. Scheffman has a B.S. in mathematics from the University of Minnesota and a Ph.D. from the Massachusetts Institute of Technology in economics (Scheffman Tr. 2512; RX 205-A).

61. Dr. Scheffman worked for the Commission beginning in 1982 (RX 205-B). From 1985 to 1988, he was the Director of the Bureau of Economics, and served as the chief economist on all matters being investigated or litigated by the Commission, including consumer protection matters (Scheffman Tr. 2515; RX 205-B).

62. Dr. Scheffman has co-authored five books and written forty-one articles (RX 205-M-Q). Dr. Scheffman has written articles about the relationship between advertising and product quality, and has authored one book on consumer protection regulation (Scheffman Tr. 2524).

b. Mr. Robert Lavidge

63. Mr. Robert Lavidge was qualified as an expert in consumer survey research, marketing and advertising (Lavidge Tr. 746-47).

64. Mr. Lavidge received a B.A. with highest honors in 1943 from DePauw University, and an M.B.A. with highest honors in 1947 from the University of Chicago (Lavidge Tr. 742; RX 21-A). For over thirty years, Mr. Lavidge has taught in the areas of marketing and advertising as a member of the adjunct faculty of the Northwestern University School of Management (Lavidge Tr. 743). Since 1980, Mr. Lavidge has served as a member of the Advisory Council for the University of Chicago Graduate School of Business (RX 21-B).

65. Since 1951, Mr. Lavidge has served as the President of Elrick & Lavidge, one of the largest consumer survey research companies in the country (Lavidge Tr. 739). As President of Elrick & Lavidge, Mr. Lavidge has participated in thousands of surveys, hundreds of which have been offered as evidence in court (Lavidge Tr. 739).

66. Mr. Lavidge has served as the President of the American Marketing Association ("AMA") (Lavidge Tr. 740). Mr. Lavidge also has served as the head of the AMA's Marketing Research Division, the chairman of the Census Advisory Committee and of the Long-Range Planning Committee, and is currently serving as the chair of the AMA's Foundation Board of Trustees, which provides a means for members of the AMA and others in the marketing field to perform public service (Lavidge Tr. 741-42).

67. Mr. Lavidge has been qualified as an expert witness concerning marketing and survey research in excess of forty times (Lavidge Tr. 746).

68. In 1961, Mr. Lavidge wrote an article for the Journal of Marketing entitled, "A Model for Predictive Measures of Advertising Effectiveness" (Lavidge Tr. 744; RX 21-C). This article is credited with introducing the concept of the "hierarchy of effects," has been reprinted in numerous publications over the years, and is regarded as a seminal article by researchers and others studying the functions and effects of advertising (Lavidge Tr. 744; Mazis Tr. 1627).

c. Dr. Jacob Jacoby

69. Dr. Jacoby was qualified as an expert in the fields of consumer behavior, consumer research, social science research methodology, and the comprehension and miscomprehension of advertising (Jacoby Tr. 2921-22).

70. Dr. Jacoby received a B.A. in Psychology in 1961 and a Masters in Psychology in 1963 from Brooklyn College (Jacoby Tr. 2910; RX 4-A). Dr. Jacoby received a Ph.D. in Social Psychology from Michigan State University in 1966 (Jacoby Tr. 2910; RX 4-A).

71. Dr. Jacoby has taught for over thirty years in the areas of advertising and marketing (Jacoby Tr. 2911-13; RX 4-A). From 1968 to 1981, Dr. Jacoby served as an assistant professor and then professor in the Department of Psychology at Purdue University (Jacoby Tr. 2911; RX 4-A). While at Purdue, Dr. Jacoby taught courses in consumer behavior and research methods (Jacoby Tr. 2911-12). Since 1981, Dr. Jacoby has held an endowed chair as the Merchants Council Professor, Consumer Behavior and Marketing at the Stern School of Business, New York University (Jacoby Tr. 2912; RX 4-A). At New York University, Dr. Jacoby has taught courses in consumer behavior, research methods, and market research, among others, to undergraduates, masters, and doctoral students (Jacoby Tr. 2912-13; RX 4-A).

72. Since 1968, Dr. Jacoby has worked as a consultant for clients including the Commission, the FDA, General Electric, Pillsbury and Proctor & Gamble, among others (Jacoby Tr. 2905-07). As a consultant, Dr. Jacoby has designed well over 1000 studies, hundreds of which have been offered in court (Jacoby Tr. 2907-08), including hundreds of studies focusing on the effects of advertising (Jacoby Tr. 2908).

73. Dr. Jacoby has served as the President of the Consumer Psychology Division of the American Psychological Association (Jacoby Tr. 2917; RX 4-B). Dr. Jacoby has served on the Executive Committee of the Market Research Council (Jacoby Tr. 2918; RX 4-C). Dr. Jacoby also has served as a reviewer of proposals for the FDA and for the National Science Foundation (Jacoby Tr. 2919; RX 4-C).

74. Dr. Jacoby has co-authored seven books and written over 100 articles, including books and articles on deceptive advertising, corrective advertising, the miscomprehension of televised and print communication, and research methodology (Jacoby Tr. 2920).

75. Dr. Jacoby has been qualified as an expert over 100 times in federal court (Jacoby Tr. 2921).

d. Dr. Morris Whitcup

76. Dr. Morris Whitcup was qualified as an expert in marketing and consumer research (Whitcup Tr. 2102). Dr. Whitcup designed, conducted and analyzed two studies for Novartis (Whitcup Tr. 2082).

77. Dr. Whitcup received a B.A. from Yeshiva College (Whitcup Tr. 2085). He subsequently received a Ph.D. in social psychology from Columbia University in 1977 (Whitcup Tr. 2085; RX 1-A). Dr. Whitcup has over twenty years of professional experience in consumer marketing research (Whitcup Tr. 2085) and has participated in more than 2,500 marketing research studies (Whitcup Tr. 2093; RX 1-A).

e. Dr. James Jaccard

82. Dr. James Jaccard is a professor of psychology at the State University of New York at Albany (Jaccard Tr. 1400; RX 122-C). He specializes in social science research methodology, including the design of scientific experiments and surveys and the analysis of the results to draw conclusions about consumer attitudes, behavior, and decision-making (Jaccard Tr. 1401, 1405). In connection with his work in social science research methodology, Dr. Jaccard has taught, applied, and evaluated statistical methodology for analyzing behavioral data (Jaccard Tr. 1401; RX 122-B).

83. Dr. Jaccard received an A.B. in psychology from the University of California at Berkeley in 1971 (Jaccard Tr. 1400; RX 122-C). He received his A.M. and Ph.D. in social psychology from the University of Illinois, Urbana in 1972 and 1976, respectively (Jaccard Tr. 1400; RX 122-C).

84. Dr. Jaccard has taught and practiced social science research methodology for more than twenty years (RX 122-C-D). Since 1987, he has served as a professor in the Department of Psychology at the State University of New York, Albany, New York (RX 122-C). Dr. Jaccard has taught graduate and undergraduate courses on research methodology, experimental design, and statistical methods as applied to the analysis of behavioral data (Jaccard Tr. 1402; RX 122-B-C, S).

85. Dr. Jaccard has been a statistical consultant for the federal government and the State of New York, as well as for numerous industries (Jaccard Tr. 1403-04; RX 122-B). Dr. Jaccard also has served as a consulting editor for a number of major scientific journals, and has evaluated statistical analyses of original research (Jaccard Tr. 1404-05; RX 122-B).

86. Dr. Jaccard has authored or co-authored four books addressing statistical methods for evaluating behavioral data. He also has written numerous book chapters and articles published in peer reviewed academic journals (RX 122-A, B, D to N). In these articles, Dr. Jaccard has developed, explained, and applied statistical approaches for evaluating behavioral data (Jaccard Tr. 1408). Several of Dr. Jaccard's publications have dealt specifically with consumer attitudes and decision-making (Jaccard Tr. 1406,5Stat-09).

3. Facial Analysis Of The Challenged Ads

a. TV Ads

87. In the first ad Ciba created for Doan's -- "Graph" -- (CX 13) a voice-over announces that "New Extra Strength Doan's is made for back pain relief." This statement is followed by a depiction of a Doan's package on the left side of the screen and packages of three competing

states: "with an ingredient these pain relievers don't have," as the spotlight on the competing brands is darkened, leaving only the Doan's package clearly visible on the screen.

88. All of the challenged television ads disseminated after "Graph" continued to focus on Doan's special efficacy in relieving back pain, and emphasized that Doan's has an ingredient not found in competing analgesics. The ads, like "Graph," display and then visually diminish competitive analgesics. The same symbolism has been used by Doan's competitors (RX 60; CX 14; CX 15; CX 16; CX 17; CX 18; CX 20; CX 22; CX 23).

89. "X-Ray" (CX 14) is a variation of the "Graph" ad with the addition of an audio and visual reference to Doan's as "The back specialist." The Ketchum advertising executive who oversaw Doan's advertising from 1987 through 1991 testified that he intended the "back specialist" phrase to create a memorable analogy to a doctor who treats backs only. A conference report summarizing a meeting between Ciba and Jordan McGrath stated with respect to "X-Ray": "Since Doan's is the expert, Doan's works better for back pain" (CX 131-B).

90. The "back specialist" tag line was used in most subsequent Doan's television ads (CX 15; CX 16; CX 20; CX 22; CX 23).

91. In "Black & White Back" (CX 15), the ingredient the other pain relievers don't have is referred to as a "special ingredient," and in the "Ruin A Night's Sleep" ads (CX 17; CX 18) that ingredient is described as "unique." Jordan McGrath's Senior Vice President, who was responsible for the Doan's ads created subsequent to "Ruin A Night's Sleep," but who was not involved in the creation of "Black & White Back," testified that she would not have approved a Doan's advertisement that contained the phrase "with a special ingredient." (See CX 504 at 116 [Schaler Dep.].)

92. The final frames of "Activity–Playtime" (CX 20) and "Activity–Pets" (CX 22), Novartis' more recent ads, depict a package of Doan's alongside packages of Advil, Tylenol, Bayer, and a newly introduced competitor, Aleve, while the voice-over states that "Doan's has an ingredient these pain relievers don't have." These ads conclude with the "back specialist" tag line, as does "Muscles" (CX 23).

b. Free Standing Inserts

93. An FSI that first ran in 1989 (and that was disseminated again in 1990 and 1991) features a large Doan's package alongside smaller but clearly visible packages of Advil, Extra-Strength Tylenol, and Bayer (CX 32-A; CX 29-J; CX 29-Z-4). Prominent copy above the packages states: "Doan's. Made for back pain relief." Under this statement, and just above the packages of the competing brands, is the claim "With an ingredient these other pain relievers don't have."

94. One of two FSI's that ran in 1991 headlined: "Back Pain Sufferers -- It's Easy to See Why You Need Doan's" (CX 29-W). This statement appears directly above packages of Bayer,

Pan" (CX 16; Mazis Tr. 960-63); "Ruin A Night's Sleep" (CX 17; Mazis Tr. 961-62) and "Ruin A Night's Sleep - Non-New" (CX 17; CX 18; Mazis Tr. 961-63); "Activity–Pets" and "Activity–Playtime" (CX 20; CX 22; Mazis Tr. 964-66); "Muscles" (Mazis Tr. 966-69); FSI, May 1989 (CX 32-A; Mazis Tr. 971); FSI "Back Pain Is Different" (CX 29-U; Mazis Tr. 974); FSI "back pain sufferers" (CX 29-W; Mazis Tr. 974-76); FSI, 1995 (CX 53-E; CX 544; Mazis Tr. 976-78).

4. Novartis' Knowledge Of The Claims Conveyed By The Ads

100. Ciba's Marketing Department knew that advertising claims required substantiation, and that, while the OTC Analgesics Monograph supported efficacy claims, superiority claims would require one or two well-controlled clinical studies (CX 501 at 27-28 [Sloan Dep.]; see also CX 499 at 58-59 [Nagy Dep.]). Company officials, members of the Marketing Department, and ad agency executives were unaware of any scientific evidence that Doan's was more effective than other analgesics (see e.g., CX 501 at 8-10 [Sloan Dep.]; CX 496 at 64-65 [Caputo Dep.]; CX 497 at 42 [Esayian Dep.]; CX 498 at 18-19 [Gray Dep.]; CX 499 at 58-59 [Nagy Dep.]; CX 500 at 62 [Russo Dep.]; CX 504 at 48-49 [Schaler Dep.]).

101. In a 1994 letter addressed to the Marketing Director for Doan's, Jordan McGrath's Senior Vice President responsible for Doan's stated: "Doan's cannot support product 'superiority' . . . nor can it deliver a unique or seemingly superior consumer benefit" (CX 169-D; CX 504 at 136 [Schaler Dep.]).

102. In a "demo exploratory" document attached to a summary of discussions between Jordan McGrath and Ciba regarding creative strategy for 1995, the agency noted:

> While we would like to *imply* that Doan's provides superior efficacy because of its unique ingredient, we cannot clinically support this since the other brands work equally well as Doan's at relieving back pain.

(emphasis in original) (CX 147-J.)

103. In a June 1995 response to an inquiry from the Federal Trade Commission, Ciba's Vice President of Marketing responsible for Doan's wrote that there are "no such documents or studies in existence demonstrating that magnesium salicylate relieves back pain more quickly and/or effectively than acetaminophen, aspirin, ibuprofen or naproxen sodium" (CX 584).

104. Despite its awareness that it lacked substantiation, Ciba knowingly and intentionally conveyed in its ads that Doan's was better for back pain than other OTC analgesics, an intention which is shown by the creative strategy upon which the first ads it created were based: "Graph" (CX 13) and "X-Ray" (CX 14). This strategy targeted "adults 35+ who: suffer from backache" and "seek better relief than provided by all purpose pain relievers" and sought to convince them that because Doan's "is made for back pain relief" and "contains a back pain medicine that no

leading analgesic product has" it "provides relief from backache that the leading pain relievers may not be able to do" (CX 508-Z-31-32; Peabody Tr. 260-61).

105. Mr. Peabody testified that a reason that Ciba tested Doan's commercials prior to dissemination was to make sure that the ad did not miscommunicate a claim for which Ciba did not have support, and that he became concerned about miscommunication if an ad communicated a claim in copy testing at a 10% to 15% level (Peabody Tr. 149-51), but that he would not be concerned if the target audience was composed of a disproportionate share of users since this group tends to play back a "more favorable message" (Peabody Tr. 617-18).

106. A communication test of the "Graph" ad conducted prior to its production and dissemination informed virtually all of the senior marketing executives at Ciba that it communicated "product superiority" to 38% of respondents (CX 225-C; Peabody Tr. 171-73). This exceeded Mr. Peabody's 10% to 15% miscommunication threshold. An executive summary of the results of this study recommended the production of "Graph," since it had the strengths of the prior ad "as well as communicates product superiority and perceived efficacy" (CX 225-A-D). Doan's 1989 Marketing Plan repeated the product superiority playback and described the ad as a "strong execution which effectively communicates product superiority and perceived efficacy" (CX 335-Z-8). Ciba disseminated the "Graph" ad from May 1988 through June 1991 (JX 2 ¶ 25).

107. The report of a 1989 focus group of the "Graph" ad informed Ciba that "[m]entioning the competitive brands by name . . . appears to create the impression that Doan's may in fact be better than the other brands, thereby promulgating a more favorable predisposition to trying Doan's" (CX 227-Z-3).

108. In September 1990, Ciba commissioned a communication test of three alternative commercial executions to see which best communicated Doan's "Relieving All Kinds of Back Pain" strategy. One of the three ads was the "Black & White Back" ad (CX 15). The test showed that it had a 62% open-ended communication of "superiority over other products" (CX 236-M, Z-67; Peabody Tr. 180). (An open-ended question is one that provides respondents with very little context or structure in order to obtain unprompted answers in respondents' own words (Mazis Tr. 100; Peabody Tr. 165).) The ad was tested prior to its production by the ASI 24-hour delayed-recall methodology (CX 76-A-D; CX 237-A-Z-38; Peabody Tr. 181). A memorandum from the Marketing Research Department to Ciba's senior marketing executives compared ASI test results of "Black & White Back" to an ASI test of "Graph" and reported that "'Black and White Back' does a better job than 'Graph' in establishing Doan's relief/efficacy, quality, and brand superiority" (CX 76-A, C; Peabody Tr. 183-85). A Doan's Marketing Plan also reported, "Our current execution, 'Black & White Back,' is a strong performer. . . . Communicates backache relief, efficacy and product superiority" (CX 360-Z-100; Peabody Tr. 263). Ciba disseminated

and 15% open-ended communication of "superiority over other products" among Doan's users (CX 244-F, T; Peabody Tr. 188-89). A report of this study, as well as an executive summary, was distributed to the Marketing Department. Ciba disseminated the "Ruin A Night's Sleep" ad from January 1992 through August 1992, and then disseminated "Ruin A Night's Sleep - Non-New" (CX 18) from August 1993 through June 1994 (JX 2 ¶ 25).

110. In April 1993, Ciba switched the Doan's account from Ketchum Advertising to Jordan McGrath. Ciba and its new ad agency intended to convey the message that Doan's was more effective for back pain. A December 1993 Conference Report of discussions between Ciba and Jordan McGrath indicates that Ciba and the agency agreed to pursue several executions to "strongly communicate that Doan's has something the others don't have (thereby implying that Doan's is different/better)" and to "more clearly communicate that since Doan's is the expert, Doan's works better on back pain" (emphasis in originals) (CX 131-A-B).

111. In May 1994, Ciba and Jordan McGrath were put on notice regarding an implied superiority claim. Jordan McGrath wrote to Ciba:

> All three Networks are requiring substantiation for the claim "If nothing you take seems to help." The Networks believe that this language implies that Doan's provides superior efficacy vis a vis the competitive products shown . . . . As such, to make this claim, we will need substantiation that Doan's is more effective (due to its Magnesium Salicylate ingredient) at relieving back pain versus the competitors pictured.
>
> Importantly, our Agency council [sic] agrees with the networks.

(emphasis in original) (CX 165-A). Ciba could not provide the networks with substantiation (see, CX 166-A; CX 503 at 83-93 [Jackson Dep.]; CPF. ?). The"Activity" ads disseminated later contain language similar to that which the networks disapproved: "If nothing seems to help try Doan's. It relieves back pain no matter where it hurts. Doan's has an ingredient these pain relievers don't have" (CX 20).

112. Further evidence of Ciba's knowledge of its implied superiority claim involves the “Activity–Playtime” (CX 20) ad. At approximately the same time the ad was first disseminated, it was tested by ARS using its 72-hour delayed recall testing methodology (CX 169-A; CX 387-G). Several weeks after “Activity–Playtime” began airing, Jordan McGrath's Senior Vice President responsible for Doan's wrote to Ciba's Marketing Director, notifying her that the ARS testing showed 12% "implied superiority" and stating:

> Doan's cannot support product "superiority" . . . nor can it deliver a unique or seemingly superior consumer benefit. Hence, it's a challenge for the advertising execution to compensate and persuasively deliver a dimension of competitive "news."

(CX 169-B, D; CX 504 at 133-34 [Schaler Dep.]). Several days later, the agency's Vice President Account Supervisor also wrote to Ciba's Marketing Director, telling her:

> "Unfortunately, as we all know, in the Doan's 'Activity' executions our 'unique ingredient' story is not linked to a specific 'back pain relief' claim. Rather our claim 'Doan's has an ingredient these pain relievers don't have,' is used as a copy point that stands by itself with the objective of implied superiority."

(emphasis in original) (CX 170-B; see CX 503 at 55-58 [Jackson Dep.]; CX 504 at 143-44 [Schaler Dep.]). Subsequent to this correspondence, no one from Ciba asked that the "Activity–Playtime" ad be modified or withdrawn from dissemination (CX 504 at 135-36 [Schaler Dep.]; CX 503 at 57-58 [Jackson Dep.]). Ciba disseminated the "Activity–Playtime" ad from July 1994 through July 1995 (JX 2 ¶ 25).

113. In a "demo exploratory" attached to a February 1995 Conference Report of a meeting between Ciba and Jordan McGrath regarding the creative strategy for 1995, the agency noted:

> While we would like to *imply* that Doan's provides superior efficacy because of its unique ingredient, we cannot clinically support this since the other brands work equally well as Doan's at relieving back pain.

(emphasis in original) (CX 147-J). Nevertheless, before the "Muscles" (CX 23) ad was produced it was also tested by ARS 72-hour delayed recall testing (CX 265-A; Peabody Tr. 191-93). In that study, 18% of those with related recall played back a "better/best product" claim (see CX 265-M; Peabody Tr. 196). A report of this study, as well as an executive summary, was distributed to the Marketing Department (CX 265-A). The executive summary noted that "The conclusion that our product may be better/best is more likely to be conveyed in 'Muscles' than in 'Activity Playtime' ...." (CX 265-B). Ciba disseminated the "Muscles" ad from August 1995 through May 1996 (JX 2 ¶ 25).

114. Although comparative advertising may be the optimal technique for the promotion of low-share brands (Stewart Tr. 3459) and although Mr. Peabody denied any intention by Ciba to do so (Peabody Tr. 539), I find that Ciba's advertising campaign created the false message that Doan's was more effective for the relief of back pain than other OTC analgesics. This finding is based on the clear import of the challenged ads, Dr. Mazis' analysis of them, and Ciba's comments on those ads (F 98, 99, 102, 104, 106, 107-113).

5. Copy Tests Of The Challenged Ads

115. Respondents or their agents performed copy tests in the ordinary course of business on a number of the challenged ads. In addition, complaint counsel commissioned the United States Research Company ("USR") to execute a copy test of two of the challenged ads. These tests support the conclusion that Doan's ads communicated the false message that it was superior to other OTC analgesics for the relief of back pain.

a. Copy Tests Conducted For Ciba

(1) Bruno & Ridgeway Copy Tests Of The "Graph" Ad

116. In March 1988, Bruno & Ridgeway, an independent consumer research company, copy tested the "Graph" ad (CX 2; CX 13), a potential ad, "Twisted," and an ad which was being run, "Hollingshead" (CX 224-E; Peabody Tr. 158). The questionnaires were designed by the staff of Ciba's marketing department and researchers at Bruno & Ridgeway (Peabody Tr. 159-60; CX 502 at 70).

117. This test used the mall intercept method in six geographically dispersed shopping centers. Qualified respondents were taken to a central interviewing room and were shown one of the test ads (Mazis Tr. 996; CX 224-D; Z-97).

118. Qualified respondents included adult back pain sufferers/treaters aged 35 to 64 (CX 224-E, Z-97-98; Mazis Tr. 997; Peabody Tr. 158-59). Respondents were not required to have used or been aware of Doan's for the treatment of backache. These demographics constituted the target audience that Ciba was attempting to reach with its Doan's ads at the time (Peabody Tr. 159). This was an appropriate group of consumers upon which to test these ads (Whitcup Tr. 2383-84; Mazis Tr. 997).

119. A total of 300 copy test respondents were included in this survey (CX 224-E). Each respondent was shown one of the three tested ads which were in a rough, unfinished form. Ciba routinely tested unfinished ads to save the approximately $300,000 it would cost to produce fully three different ads, none of which might ultimately be aired (Peabody Tr. 338-39). In the experience of Ciba's marketing research department, the results obtained from copy testing rough versions of Doan's ads provided an accurate measure of how those ads would communicate to consumers in finished form (Peabody Tr. 148-49, 338-40; CX 224-Z-99).

120. Approximately 100 respondents were exposed twice to each tested ad (CX 224-E, Z-99; Mazis Tr. 999-1000). Thereafter, they were asked to identify the advertised product, state how likely they were to buy it, and explain why (Questions 7a-8b) (CX 224-Z-100).

121. Respondents were then asked an open-ended question (F 108) (9a) asking what they thought was the main idea of the ad (id.; Mazis Tr. 1000-01). Thereafter, respondents were asked

another open-ended question (9c) to elicit what other ideas had been communicated to them by the ad (CX 224-Z-101; Mazis Tr. 1002). There is nothing in the questionnaire that would bias the results of the copy test (CX 502 at 74 [Wright Dep.]).

122. In response to question 9a, 18% of the respondents answered that the main idea of the "Graph" ad was "Superior to other products" (CX 224-M; Mazis Tr. 1002). When the results of the "main idea" question (9a) and the "other ideas" question (9c) were netted, 38% of the respondents exposed to the "Graph" ad were coded as answering that it communicated that Doan's was "Superior to other products" (CX 224-M; Mazis Tr. 1003; Peabody Tr. 163-64).

123. The open-ended responses that were coded as "Superior to other products" only included responses that Doan's was "better than/more effective than other products" (CX 224-Z-22; Mazis Tr. 1006; CX 502 at 84 [Wright Dep.]). In their own research conducted for this litigation, the experts for both parties coded such "better than/more effective than other products" responses to mean superior efficacy for back pain, since back pain is the subject of the ads (Whitcup Tr. 2418-23; Jacoby Tr. 3063; Lavidge Tr. 902-03; RX 128-D-E). The "Superior to other products" category is equivalent to the superior efficacy claim alleged in the complaint (Mazis Tr. 1007).

124. A 38% communication of a superior efficacy message in response to open-ended questions is quite high (Mazis Tr. 1009). In its report to Ciba, Bruno & Ridgeway concluded that the "Graph" ad was "successful at communicating the more specific ideas of: . . . Superiority to other products" (CX 224-K).

125. Respondents' marketing research department recommended "Graph" for finished production since it had many of the same strengths as "Hollingshead" and communicated product superiority and perceived efficacy (CX 225-D).

126. The "Graph" test did not use a control ad, i.e., an ad that is similar to the tested ad but which is believed not to make the claim that the tested ad is making. The purpose of a control ad is to account for "noise" -- responses that come from sources other than the ad's communication (Mazis Tr. 1077-78). For close-ended questions, the results of the control ad are subtracted from the results of the test ad to net out the effects of such noise. (Close-ended questions ask about specific topics and provide the respondent with a finite number of response options such as "yes" or "no" or "more," "same" or "less," Kraft, Inc., 114 F.T.C. 40, 68 (1991).) The results obtained from open-ended questions are usually not deducted from the test ad (Jacoby Tr. 325).

127. Copy testing research done in the ordinary course of business for Ciba did not employ control ads (id. at 354-56). Ciba relied heavily upon these copy tests in making consumer research-based business decisions (Peabody Tr. 354-56, 622).

128. The "Hollingshead" ad tested in CX 224 had an Extra-Strength tag line to announce its introduction. Only 7% of the respondents exposed to "Hollingshead" were coded as saying it conveyed a "superior to other products" claim. Thirty-seven percent of them were coded as stating that it communicated extra strength (CX 224-M; Mazis Tr. 1009).

129. Both the "Graph" and "Hollingshead" ads promoted Extra-Strength Doan's. Of the respondents viewing the "Graph" ad, 38% were coded as stating it communicated "Superior to other products," but only 24% were coded as stating it communicated "Extra Strength." Conversely, 7% of the respondents viewing "Hollingshead" were coded as stating the ad communicated "Superior to other products," but 37% were coded as stating it communicated "Extra-Strength" (CX 224-M). There is no correlation between consumer playback of the extra strength nature of the advertised Doan's product and consumer playback of superior efficacy (CX 224-M; Whitcup Tr. 2376-81).

130. Responses to open-ended questions 9a and 9c that were coded as "Extra-Strength" in CX 224 were not included in the "Superior to other products" code (Peabody Tr. 610-12; Whitcup Tr. 2355). Based upon the copy test results, Ciba's marketing research department concluded that "Extra Strength" was a secondary message for the "Hollingshead" execution. It did not find "Extra Strength" to be a secondary message in the "Graph" ad, which the marketing research department stated "was perhaps due to greater intrusiveness of Extra Strength in Hollingshead" (CX 225-C).

(2) Bruno & Ridgeway Copy Test Of The "Black & White Back" Ad

131. In September 1990, Bruno & Ridgeway copy tested the "Black & White Back" ad (CX 15) and two other potential ads named "Thermography" and "Broadcast News" (CX 236-E-F; Peabody Tr. 174).

132. The purpose of this mall intercept copy test was to test these ads for communication of a new message: that Doan's was effective at relieving all kinds of back pain (Peabody Tr. 357-76; CX 236-E).

135. After this first exposure, respondents were asked what products they recalled being advertised. For those who recalled a Doan's ad, three open-ended questions (5a-c) were asked to elicit respondents' take-away from the Doan's ad. Respondents were then exposed to the Doan's ad by itself (CX 236-Z-206-07; Peabody Tr. 175-76).

136. Following the second exposure to the Doan's ad, respondents were asked open-

141. The 1990 ASI Copy Test reported that only 3% of the 384 respondents questioned twenty-four hours after exposure to the "Black & White Back" commercial said that it communicated "product superiority" (Peabody Tr. 389; RX 98-H). Similarly, only 1% of respondents played back that Doan's was "more effective/works better" in comparison to other products (Peabody Tr. 390; RX 98-H).

142. Ciba believed that the ASI testing method is closer to a real world viewing situation than the Bruno & Ridgeway method, and, since it measures both communication and recall, that the data from the 1990 ASI Copy Test provided more reliable evidence of the effectiveness of the "Black & White Back" commercial than data from the 1990 Bruno & Ridgeway Copy Test (Peabody Tr. 392, 394-95).

(4) The Bruno & Ridgeway Copy Test Of The "Ruin A Night's Sleep" Ad

143. In October 1991, Bruno & Ridgeway copy tested the "Ruin A Night's Sleep" and "Car Bed" ads (CX 7; CX 17; CX 244-B; Peabody Tr. 185) to determine which of the ads best communicated consumers' response to the new Doan's P.M., a line extension product aimed at people who suffered nighttime back pain (Peabody Tr. 396-97).

144. This copy test used the mall intercept procedure, and it targeted nighttime back pain sufferers/treaters within the past 6 months, aged 25-60, one-half of whom who had ever used Doan's (CX 243-A-C; CX 244-B; CX 245-H; Peabody Tr. 186-87).

145. Respondents were asked open-ended questions and a close-ended question (CX 243-D; Mazis Tr. 1033).

146. Approximately 25% of consumers gave answers that were coded "superiority over other products," a result which Dr. Mazis testified was quite high for open-ended questions. This superiority coding included such responses as "works better than others," "Better than Tylenol," "Better than Advil," "Better than Bayer" (Mazis Tr. 1039-40).

147. Four percent of the respondents reported that the "Ruin A Night's Sleep" ad communicated that Doan's "is the best brand for back pain versus other brands" (Peabody Tr. 405; CX 244-V) and Mr. Peabody claimed that the rest of the 25% superiority playback was linked to the presence of the second sleep ingredient in Doan's P.M. which was not available in formulations offered by Doan's competitors (Peabody Tr. 405-06).

(5) 1991 ARS Copy Test Of "Ruin A Night's Sleep"

148. In 1991, ARS (F 159) tested the "Ruin A Night's Sleep" commercial and found that only 2% of the 165 backache sufferers reported 72 hours after exposure that it communicated that

Doan's was "effective/works/better" and four percent of these respondents reported that the commercial communicated "good product/better/best" (Peabody Tr. 411; RX 89-Z-20). Of the 81 nighttime backache sufferers/treaters included in the test, 7% reported that the commercial communicated "good product/better/best" (Peabody Tr. 412; RX 89-Z-20).

149. In addition, there were no respondents in the 1991 ARS Copy Test who recalled that "Ruin A Night's Sleep" communicated that Doan's P.M. had a "unique combination of ingredients/pain relieving medicine that Advil, Tylenol & Bayer don't have" (Peabody Tr. 414-15; RX 89-P, R, S, T, U).

(6) The 1993 ARS Copy Test Of "Black & White Pan Rev. 15"

150. In 1993, Ciba asked ARS to conduct a copy test of the proposed "Black & White Pan Rev. 15" commercial (Peabody Tr. 436; RX 32-A-Z-33). The ARS testing methodology measures the "persuasion" of a proposed commercial on a scale of one to seven. A score of zero to two is called "inelastic" and predicts a zero percent chance of the proposed advertising generating sales (Peabody Tr. 416-18; Stewart Tr. 3522). A score of two to four is called "low elasticity" and indicates that there is only a small possibility that the advertisement will increase sales (Peabody Tr. 418). A score of four to seven is called "moderate elasticity" and predicts a 50% chance of positive sales response from the advertising (Peabody Tr. 417).

151. Dr. Stewart testified that the ARS persuasion score was a "perfectly appropriate measure" for Ciba to rely upon in determining the effectiveness of its advertising campaign (Stewart Tr. 3516).

152. "Black & White Pan Rev. 15" scored in the low elasticity range of 2.3 to 3.7 on the ARS persuasion scale (Peabody Tr. 437; RX 32-F). Despite this, Ciba ran the "Black & White Pan Rev. 15" commercial (Peabody Tr. 437).

153. In addition to poor persuasion scores, 4% of the 163 male and female back pain sufferers who viewed "Black & White Pan Rev. 15" recalled that the commercial communicated "good product/better/best" (Peabody Tr. 438; RX 32-Y). Because playback of "good product" does not necessarily connote superiority, Mr. Peabody testified that the 4% figure overestimated the playback of a more effective claim in the 1993 ARS Copy Test (Peabody Tr. 438-39).

154. One percent of respondents recalled that "Black & White Pan Rev. 15" communicated that Doan's "contains a back pain relieving medicine that no leading analgesic product has" (Peabody Tr. 440; RX 32-M).

(7) The 1994 ARS Copy Test Of "Activity–Playtime"

155. In 1994, Ciba had ARS conduct a copy test of the proposed "Activity–Playtime" commercial. The persuasion scores for it were "abysmally low," i.e., in the 1.5 to 2.1 inelastic range (Peabody Tr. 429; RX 33-J). According to ARS studies, a score in this range would not have any positive impact on Doan's sales (Stewart Tr. 3514).

156. Nevertheless, Ciba decided to run this commercial because the "prior ad we had been running I think at this point was worn out, was equally as ineffective as this one" (Peabody Tr. 429).

157. In addition to the "abysmal" persuasion scores, only 4% of the 201 male and female backache sufferers who viewed the "Activity–Playtime" commercial recalled -- 72 hours after exposure -- that the commercial communicated "works/effective/more effective" (Peabody Tr. 433; RX 33-Z-4). Three percent of these respondents recalled that the commercial communicated "good product/better/best" (Peabody Tr. 434; RX 33-Z-4).

158. Less than 1/2% of respondents recalled that "Activity–Playtime" communicated that Doan's "has an ingredient other pain relievers don't have" (Peabody Tr. 435; RX 33-Z-5). Less than 1/2% of respondents recalled the commercial communicating that Doan's "has a special ingredient others don't have" (Peabody Tr. 435-36; RX 33-Z-5).

(8) The 1995 ARS Copy Test Of "Muscles"

159. In late March and early April 1995, ARS, an independent consumer research provider, implemented a 72-hour delayed recall test of the "Muscles" ad (CX 11, 23) (CX 265; Peabody Tr. 191). ARS testing is done in a theater-type setting where respondents are pre-recruited to watch two pilot television shows. Prior to viewing the program, respondents are given a depiction of various products in each category in which the brands whose advertisements will be tested compete, and are asked to select one from each product category with the promise that one person will win their selections. They then view the program material, which is interspersed with pods of ads. At the end of the program, the product selection task is done again, with the promise that another respondent will win the products they select (Peabody Tr. 191-93; Stewart Tr. 3450-51).

160. An ARS test includes a total of 12 ads in the one hour of programming shown. The remaining 11 ads are in product categories unrelated to the ad being tested (CX 265-Z-23; Peabody Tr. 194).

161. From the data it obtains comparing the respondents' product selections made before and after exposure to the programming material and ads, ARS calculates a persuasion score for each ad tested. In making this calculation, ARS takes additional factors into account, such as the number of competitors in the product category and the degree of brand switching in that category.

Positive scores are interpreted to mean that the ad will have a net persuasive affect (Stewart Tr. 3450-52; Peabody Tr. 191-93).

162. Seventy-two hours after the ARS test is conducted, respondents are recontacted by telephone. If they can remember an ad for the tested product and give some correct playback from that ad, they are considered to be a "related recaller" of the ad (Peabody Tr. 193; CX 265-Z-23). For evaluative purposes, ARS also provides a "norm" related recall score, which is an average calculated from scores obtained for all ads tested by ARS in the category in which the brand competes (Stewart Tr. 3452-53; see CX 265-L). The ARS "norm" against which the Doan's ads were compared was 23%+ related recall, i.e., whether 23% or more of the respondents recalled the ad and gave some correct playback from it (CX 265-L). Recall above that level was viewed as more memorable than the average ad for the category, which is calculated mostly from 30-second ads. Dr. Stewart acknowledged that "Muscles," as well as "Black & White Back" and "Activity Playtime," although persuasive, were not memorable (Stewart Tr. 3449, 3452-53).

163. The persuasion scores for "Muscles" were in the low elasticity range with a low likelihood of generating a positive sales response (Peabody Tr. 441-42).

164. The results reported by ARS for the sample of "male and female back pain sufferers in past year" in the "Muscles" ad test was based upon the entire sample of 143 such respondents. Of that sample, 45% had any related recall of the tested ad and 8% were coded as having said "superiority" was a claim conveyed by the ad (CX 265-M; Peabody Tr. 196; Mazis Tr. 1064-65). As a percentage of the related recallers, however, 18% of the recalling sample took away the "superiority" claim (Mazis Tr. 1065-66; see Peabody Tr. 196).

(9) Doan's FSI Mail Panel Communication Test

165. In January 1991, Market Facts, an independent consumer research provider, undertook a communication study of several Doan's FSI's using its mail panel research methodology (CX 238; Peabody Tr. 207-15; CX 502 at 47-49 [Wright Dep.]).

166. The respondents who were surveyed by Market Facts had previously completed a mail panel questionnaire inquiring about backaches and how they are treated (CX 238-Z-126; Peabody Tr. 209). The survey was mailed to the members of the Market Facts mail panel with instructions to give the questionnaire to the person in the household who had completed the previous backache related questionnaire (CX 238-Z-126; Peabody Tr. 208-09). No verification procedure was undertaken to ensure that the individual completing this questionnaire was identical to the one who completed the earlier questionnaire (Peabody Tr. 209-10).

167. One purpose of the mail panel study was to determine the communication effect of five FSI's (CX 502 at 47-48 [Wright Dep.]). Question 5 of the questionnaire asked respondents

what this offer [FSI] said about Doan's" (CX 238-Z-128). One of those statements was: "Is better for back pain than other pain relievers" (id.).

168. The results of question 5 for the statement "Is better for back pain than other pain relievers" were presented at CX 238-Z-71 (Peabody Tr. 214-15). For an FSI that was identical to CX 32-A and nearly identical to CX 29-J and CX 29-Z-4 (CPF 165), 47.4% of the respondents strongly or somewhat agreed that the FSI made that claim (CX 238-Z-71; see Peabody Tr. 212-13).

169. For FSI's that were substantially similar to CX 29-U and 29-W (CPF 165), 51.5% and 59.0%, respectively, of the respondents strongly or somewhat agreed that the FSI's made the superior efficacy claim (CX 238-Z-71; see Peabody Tr. 207-08, 213-14).

b. Dr. Mazis' Copy Test

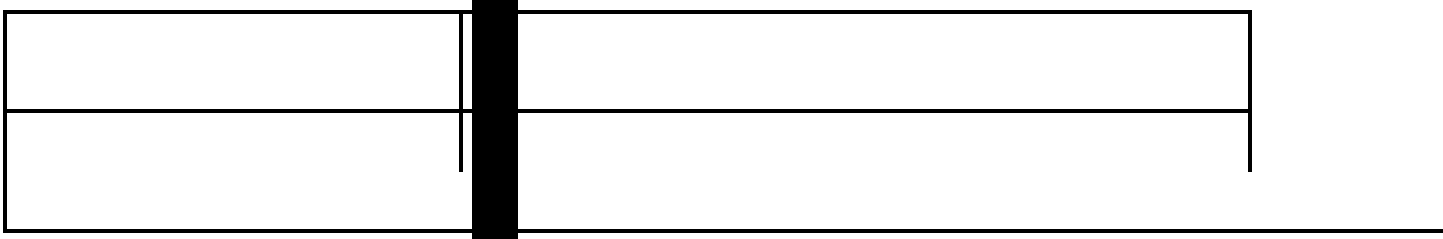
170. U.S. Research, Inc. ("USR") conducted a mall intercept copy test designed by Dr. Mazis to determine if two of the challenged ads communicated the superiority claim. The Doan's ads tested were "Activity–Playtime" (CX 10) and an FSI entitled "Why treat general aches? Back pain needs the back specialist" (CX 53). Dr. Mazis' use of an FSI was appropriate because it contained an ad message as well as a coupon (Mazis Tr. 976, 1902, 2034-35).

171. The copy test used the "funneling" technique: it asked open-ended questions followed by filtering questions to focus the questioning and minimize guessing, and then close-ended questions (Mazis Tr. 1084-90). The test also used a screener, a main questionnaire, and, to eliminate bias, control ads and control questions (Mazis Tr. 1077, 1087, 1090; CX 419-K-Z-8).

172. USR pretested the main questionnaire to determine if any of the questions were confusing. Some changes were made to the questionnaire (Kloc Tr. 671, 708). USR also validated the test to ensure that there was no interviewer misconduct or cheating (Mazis Tr. 1128).

173. USR's coding department developed proposed codes after review of a portion of the open-ended questions. The codes were developed by professional coders at USR, each of whom had between six and twenty years of experience as coders. To develop the codes, the coders took samplings from each of the open-ended questions to ascertain the thoughts and ideas that respondents gave to those particular questions (Kloc Tr. 694-98). They then combined similar thoughts into categories and created a list of proposed codes. The proposed codes were then reviewed by Dr. Mazis (Mazis Tr. 1069).

174. Dr. Mazis' universe was comprised of men and women, twenty-five to seventy years old who had suffered back pain in the last six months and treated it with an OTC analgesic (CX 419-F; Mazis Tr. 1070-71). His universe matched target audiences defined by Ciba (see JX 2 ¶ 27).



	Open-ended communication of superior efficacy based on Q2 and Q3b
"Activity–Playtime"	39%
"Why treat general aches?" FSI	25%

(Mazis Tr. 1095-96). The open-ended responses that were coded as "more effective" for back pain included responses coded that Doan's was "better overall" or "better than other pain relievers" (RX 128-D-E; Mazis Tr. 1915-18). Respondents' expert, Dr. Jacoby, also coded "best/better" and "better than other pain relievers" to mean superior efficacy for back pain, since back pain is the subject of the ads (Jacoby Tr. 3063; Mazis Tr. 1920). This is the standard manner in which to code these responses in the context of these ads (Mazis Tr. 1920-21).

182. The magnitude of the superiority responses given in response to the open-ended questions in Dr. Mazis' copy test is extremely high and is consistent with data from the copy tests respondents performed in the ordinary course of business on other challenged ads and FSI's (Mazis Tr. 1093, 1096-97).

183. For each of the two challenged ads shown to respondents in Dr. Mazis' copy test, the following is the percentage of consumers who responded that the advertisement conveyed that Doan's was more effective than other OTC pain relievers for back pain relief in response to close-ended question 5a:

	Total close-ended communication of superior efficacy based on Q5a
"Activity–Playtime"	73.3%
"Why treat general aches?" FSI	57.9%

(Mazis Tr. 1098-99; CX 419-Z-56).

(Q. 5a: "Does the ad state or imply that Doan's is more effective than other over-the-counter pain relievers for back pain relief?")

184. To control for beliefs consumers might have that all back pain claims are akin to superiority claims and for yea saying bias, Dr. Mazis first subtracted the "yea saying" responses (consumers who responded "yes" to 5b, the headache control question) ("Does the ad state or imply that the product is more effective than other OTC products for headaches?") from the total percentage of consumers who took away a "more effective" claim from the test and control ads in response to question 5a. Dr. Mazis then subtracted the result of this calculation for the control ad from the result obtained for the test ad. The use of this double control procedure provides a

conservative estimate of the superiority communication conveyed by close-ended question 5a (Mazis Tr. 1087, 1100-01).

185. The superiority playback of the tested ads from the close-ended question 5a, net of controls, is as follows:

	Close-ended communication of superior efficacy based on Q5a net of controls
"Activity–Playtime"	58.0%
"Why treat general aches?" FSI	42.7%

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190. These results provide reasonably reliable data which support the conclusion that the superior efficacy claim was conveyed to consumers by the "Activity–Playtime" and "Muscles" ads.

191. The data reported in RX 5 shows that 35% of the respondents who viewed the "Activity–Playtime" ad took the superior efficacy claim from it based upon their responses to the two open-ended questions (RX 5-Z-123; Jacoby Tr. 3063-64; Mazis Tr. 1111-12). Dr. Jacoby characterized that figure as "high" (Jacoby Tr. 3065).

192. The data reported in RX 5 shows that 19% of the respondents who viewed the "Muscles" ad took the superior efficacy claim from it based upon their responses to the two open-ended questions (RX 5-Z-124; Mazis Tr. 1112).

193. In response to these open-ended questions (Questions 6a-b), only one percent of respondents exposed to the "Activity–Playtime" commercial played back a "strong/extra strength/need fewer" message, while 35% of respondents played back a superiority claim (RX 5-Z-123); Jacoby Tr. 3121-22; Mazis Tr. 1728-29). Similarly, after exposure to the challenged "Muscles" commercial, only 2% of respondents played back a "strong/extra strength/need fewer" message, while nineteen percent played back a superiority claim (RX 5-Z-124; Mazis Tr. 1728-29). These data indicate that the "Extra Strength" claim is not the reason respondents are taking a superiority message (see Mazis Tr. 1728, 1874, 1922).

194. Dr. Mazis undertook an independent review of the verbatims from the three open-ended questions (6a-b, 7d) in Dr. Jacoby's copy test, adding a third category entitled "Faster" because these responses are properly included in the net superior efficacy take away (Mazis Tr. 1114).

195. Netting the three coding categories across the three open-ended communication questions yields a net superior efficacy take away of 47.9% for the "Activity–Playtime" ad and 22.1% for the "Muscles" ad (CX 453-C-D; Mazis Tr. 1114-15).

d. Mr. Lavidge's Copy Test

196. Mr. Lavidge designed three studies on behalf of respondents for the purpose of this litigation (RX 23) which measured both the communication of certain Doan's ads and beliefs about Doan's (Lavidge Tr. 758-60). The belief portion of the studies is discussed below. The copy testing portion of Mr. Lavidge's studies attempted to measure the communication of the challenged "Muscles" ad and the unchallenged "New Muscles - Male" ad, immediately after exposure and eleven days later (RX 23-E).

197. Mr. Lavidge's three surveys were called Test 1, Test 2, and Test 3 (RX 23-E). Tests 1 and 2 were identical except with regard to the Doan's ad shown; Test 1 showed the

challenged “Muscles” ad and Test 2 showed the modified, “New Muscles - Male” ad. Test 3 was identical in ad exposure to Test 1, but obtained its recall and belief measures between 10 and 12 days after that exposure (Lavidge Tr 758-59).

198. In Tests 1, 2, and 3, respondents were exposed to advertising in the same way. The Doan’s ad of interest was included on a so-called “clutter tape” with three other 15-second ads for Bufferin, Advil, and Extra Strength Tylenol Aches & Strains (Lavidge Tr. 758, 844). Each of these ads only promoted the advertised analgesic for the treatment of back pain. These commercials were shown twice and in random order (Lavidge Tr. 776-77; RX 23-F). Prior to this study, Mr. Lavidge had never used the clutter tape methodology, a procedure which was necessary here because of the combination of the belief and communication studies (Lavidge Tr. 759-60, 844-46).

199. All of the ads on the clutter tapes were for OTC analgesics to treat back pain, an unusual procedure, for clutter ads never use a product in the same category as the tested ad (Mazis Tr. 1264-66; Peabody Tr. 175-77).

200. Mr. Lavidge and Mr. Peabody testified that they would not recommend the placement of a Doan’s ad in a group of other OTC ads because consumers would have difficulty recalling the Doan’s message (Peabody Tr. 156; Lavidge Tr. 849). Thus, their use in the copy test would confuse respondents (Mazis Tr. 1266; Lavidge Tr. 851) with the result that it would likely discourage ad recall (Mazis Tr. 1265-67) Test 3 also discouraged ad recall by delaying questioning until, on average, eleven days after exposure to the clutter tape (Mazis Tr. 1267).

201. Copy tests seeking to determine whether implied claims are made usually ask that question (Mazis Tr. 1269; Whitcup Tr. 2829). Mr. Lavidge’s communication question did not do so (Mazis Tr. 1064, 1269).

202. Tests 1, 2, and 3 did not employ close-ended ad communication questions; the result may have been to miss playback of all ad claims (Whitcup Tr. 2829; Mazis Tr. 1994).

203. The use of the clutter tapes, the eleven-day recall methodology in Test 3, the lack of close-ended communication questions and the failure to ask for implied claims, resulted in an understatement of the ads’ communication of superiority claims (Mazis Tr. 1265-68).

F. Substantiation Of The Superiority Claim

204. According to accepted principles of scientific and medical practice, two well-controlled clinical studies are required to establish the therapeutic superiority of an OTC analgesic over competing OTC analgesics (JX 1 ¶ 6).

205. Although the Advisory Review Panel On OTC Internal Analgesic and Antirheumatic Products and the FDA concluded that magnesium salicylate is safe and effective for the treatment of backache and other pain (Peabody Tr. 313-14), the OTC Analgesic Monograph does not state that any approved analgesic ingredient is more effective for the relief of back pain than any other approved analgesic product (CX 415-A-Z-31).

206. No studies have been conducted regarding the efficacy of any Doan's product or the exact formulation contained in any Doan's product offered for sale to the public (JX 1 ¶ 8).

207. There are no specific studies demonstrating the therapeutic superiority of magnesium salicylate over aspirin, acetaminophen, ibuprofen, or naproxen sodium for the relief of back pain, or for any other approved OTC Analgesic Monograph indications (JX 1 ¶ 9).

208. Ciba's former Vice President of Marketing stated that there are no documents or studies in existence demonstrating that magnesium salicylate relieves back pain more effectively than acetaminophen, aspirin, ibuprofen or naproxen sodium (CX 584; see also CX 501 at 22 [Sloan Dep.]).

209. The only scientific review Ciba conducted prior to purchasing the Doan's brand was a review of FDA's OTC Analgesics Monograph (CX 501 at 25 [Sloan Dep.]).

210. Ciba's former Vice President of Marketing testified that during the time he was responsible for Doan's he knew that advertising claims required substantiation and that, while the OTC Analgesics Monograph was sufficient to support basic efficacy claims, superiority claims would require one or two well-controlled clinical studies (CX 501 at 27-28 [Sloan Dep.]). He also stated that he never saw any scientific evidence that Doan's was more effective than other analgesics (CX 501 at 22 [Sloan Dep.]).

211. In 1989, Ciba's legal counsel and the Marketing Manager for Doan's received a memorandum from Ciba's medical division stating that "clinical studies have shown that magnesium salicylate is an effective analgesic and is comparable to aspirin" and that "there are no clinical studies of Doan's in combination with other over-the-counter medications" (CX 71-B; CX 519-A).

212. As part of the network review process, Ciba sometimes received comments from the TV networks that the way a claim was structured might imply superiority and requesting substantiation (CX 501 at 37 [Sloan Dep.]; CX 503 at 86-91 [Jackson Dep.]). Ciba did not

provide the networks with substantiation for a superiority claim and, instead, revised its ads or withdrew them from consideration (see e.g., CX 166-A; CX 177-A-B; CX 212-A; CX 501 at 37 [Sloan Dep.]).

213. In a 1994 letter addressed to the then-Marketing Director for Doan's, Jordan McGrath's Senior Vice President responsible for Doan's stated:

> Doan's cannot support product "superiority" . . . nor can it deliver a unique or seemingly superior consumer benefit. Hence, it's a challenge for the advertising execution to compensate and persuasively deliver a dimension of competitive "news."

(CX 169-D; CX 504 at 136 [Schaler Dep.]).

214. In a "demo exploratory" document attached to a summary of discussions between Jordan McGrath and Ciba regarding creative strategy for 1995, the agency noted:

> While we would like to *imply* that Doan's provides superior efficacy because of its unique ingredient, we cannot clinically support this since the other brands work equally as well as Doan's at relieving back pain.

(emphasis in original) (CX 147-J).

G. Materiality Of The Superiority Claim

"Activity–Playtime"	25%
"Muscles" (challenged)	30%
"Muscles" (new and not challenged)	35%
Advil	28%
Tylenol Aches & Strains	42%

(RX 5-Z to Z-8).

Based on the measurements taken from these questions, the unchallenged Doan's commercials exerted a slightly greater impact on respondents' purchase decisions than the challenged "Activity–Playtime" and "Muscles" commercials (Jacoby Tr. 3057; RX 5-Z-112-13). The fact that the unchallenged Doan's "Muscles" commercial actually exerted more impact on respondents' purchase behavior is especially telling according to Dr. Jacoby (Jacoby Tr. 3057-58). Similar to the comparison between the two "Muscles" commercials, the Tylenol control commercial had a greater impact on respondents' purchase decisions than any of the Doan's commercials that were shown (Jacoby Tr. 3059-60; RX 5-Z-112).

218. Respondents were then asked what it was about the ad that made them more likely to buy (RX 5-Z-59). In response, only 2% out of 142 (2% of the 122 nonusers of Doan's and 0% of the 20 users of Doan's) who viewed the "Activity– Playtime" commercial attributed this reaction to a supposed claim in the ad that Doan's "works better/best/more/most effective." Only 3% of the same group indicated that the positive impact on their purchase interest was due to "Activity–Playtime" saying that Doan's had a "special/unique ingredient" (Jacoby Tr. 3058; RX 5-Z-114).

219. Two percent of the respondents who viewed the old "Muscles-Male" commercial indicated that the positive impact on their purchase interest was due to the commercial saying that Doan's "works better/best/more/most effective" (Jacoby Tr. 3059; RX 5-Z-115). Two percent of the same group indicated that the positive impact on their purchase interest was due to old "Muscles" saying that Doan's had a "special/unique ingredient" (Jacoby Tr. 3059; RX 5-Z-115).

220. Based on these measurements, Dr. Jacoby testified that any alleged more effective claim in the challenged Doan's advertising did not have a positive impact on relevant consumers' interest in purchasing Doan's (Jacoby Tr. 3061).

221. He also concluded that, to the extent that respondents in the Jacoby Study who indicated that the "Activity–Playtime" commercial communicated a more effective claim, the same respondents did not believe that such a claim would positively affect their purchase behavior (Jacoby Tr. 3338-42).

222. Of the 129 respondents who viewed the old "Muscles-Male" commercial, 4.7% reported that the commercial communicated a more effective claim and that the claim exerted a material impact on their purchase intentions (Jacoby Tr. 3341; RX 209-A). After controlling for noise by subtracting the response level from the new "Muscles-Male" commercial, the net amount

of respondents who thought the old “Muscles-Male” commercial communicated a more effective

Despite the results of Dr. Jacoby's study, I am compelled by the strong presumption of materiality and the evidence cited by complaint counsel to find that the challenged ads were material.

H. The Need For Corrective Advertising

228. Complaint counsel's argument for the imposition of a corrective advertising order claims that: (1) there exists a misbelief about Doan's efficacy, (2) the misbelief was substantially created or reinforced by the challenged advertising, and (3) the misbelief is likely to linger unless respondents are compelled to engage in an advertising campaign which will correct the misapprehension created by Doan's eight year advertising campaign.

229. Complaint counsel argue that the need for corrective advertising can be inferred. They also cite three extrinsic "belief" studies -- the 1987 A&U study, the Brand Equity study, and the NFO study, in support of their argument.

230. Respondents, on the other hand, cite "advertising penetration data" as well as consumer belief studies conducted by Mr. Lavidge and Drs. Jacoby and Whitcup which, they say, lead to the conclusion that corrective advertising is not an appropriate remedy in this case.

1. The Impression Created By Doan's Ads

a. Ordinary Course Of Business Studies

(1) The ASI and ARS Tests

231. The 1990 ASI and 1991, 1993, 1994 and 1995 ARS copy tests revealed low 24 (ASI) and 72 (ARS) hour recall (2% to 8%) by respondents of a "more effective" or "good product/better/best" message (F 140, 148, 150, 155, 159).

232. Dr. Jacoby testified that if only a small percent of consumers recall a "more effective" or "good product/better/best" message within one to three days after exposure to a commercial in a test environment, it shows the absence of any widespread lingering misimpression by consumers (Jacoby Tr. 2996-97).

(2) The 1987 Attitude And Usage Study

233. In June and July 1987, Arbor, Inc., an independent consumer research provider, conducted an attitude and usage study ("A&U study") by telephone for Doan's among adults who were back pain sufferers (CX 221-I; Peabody Tr. 134). The A&U study was undertaken shortly after Ciba purchased the Doan's brand and was conducted to help Ciba understand the product category in which Doan's competed, to determine consumer awareness of the Doan's brand, and

to determine the imagery and beliefs analgesic users held for Doan's and the brands with which it competed (CX 221-H; Peabody Tr. 133, 287; Mazis Tr. 979).

234. Question 22 of this study asked respondents to rate each of three selected brands of which they were aware on a list of 14 attributes, including one which stated "Is the most effective pain reliever you can buy for backaches" (CX 221-Z-120; Mazis Tr. 989-90; Peabody Tr. 141).

235. The mean results of respondents' ratings of the four brands (using a 1-7 scale) on the attribute "Is the most effective pain reliever you can buy for backaches" were: Doan's, 4.4; Extra-Strength Tylenol, 5.1; Advil, 4.8; Bayer, 4.2 (CX 221-Z-72). These ratings provide a measure of back pain sufferers/treaters' perceptions about the four brands on that attribute as of the time of the study (Peabody Tr. 141). They show that Doan's was rated below Extra-Strength Tylenol and Advil and about the same as Bayer on this attribute (id. at 143).

236. Ciba's marketing research department's analysis of the A&U study results concluded that "Extra-Strength Tylenol is clearly the gold standard for backache pain relief followed by Advil. Bayer and Doan's are consistently perceived weakest" (CX 221-C). That conclusion was based, in part, on the attribute rating for "Is the most effective pain reliever you can buy for backaches" (Peabody Tr. 144). The marketing research department further concluded that "Doan's has a weak image in comparison to the leading brands of analgesics and would benefit from positioning itself as a more effective product that is strong enough for the types of backaches sufferers usually get" (CX 221-C-D).

237. The results of the Doan's A&U study were used to help create new Doan's advertising. The first new Doan's ad that was created and disseminated after Ciba's receipt of the Doan's A&U study results was the "Graph" ad (Peabody Tr. 146).

(3) The Brand Equity Study

238. In July 1993, five years after the ad campaign at issue in this case began, CLT Research Associates, Inc., an independent consumer research company, implemented a research project called the Brand Equity study for Ciba. The study was conducted, in part, to help Ciba understand the strengths and weaknesses of the Doan's brand and establish the current equity and brand image of Doan's compared to its competitors in the backache market (CX 256-C; Peabody Tr. 217; Mazis Tr. 1042).

239. One purpose of the Brand Equity study was to evaluate how Doan's was perceived on a set of attributes compared to other analgesics used to treat back pain (Mazis Tr. 1042; see CX 259-B-C).

240. Question 2b of the study used an answer booklet (CX 259-B; CX 260) which consisted of a list of the 21 attributes and a grid of six boxes adjacent to each of the attributes (CX 260-B). The left hand box was labeled "Unacceptable, brand couldn't be worse," the right

hand box was labeled “Ideal, nothing could make brand better,” and in the middle above the

	Doan's	ES Tylenol	Advil	Motrin
Top Box	20.0%	7.1%	5.3%	6.6%
Top Two Box	36.0%	27.1%	16.8%	23.0%

(CX 480-C-D).

246. Dr. Mazis testified that the attribute "Being particularly effective for back pain" is similar to the attribute "Is more effective than other OTC pain relievers for back pain relief" (Mazis Tr. 1058). I disagree. “Particularly effective for back pain” probably reflects consumers’ association of Doan’s with back pain relief. It does not necessarily imply equivalence to the phrase “more effective” and this study, therefore, is not probative on the issue of belief.

b. The NFO Belief Study

247. NFO is a marketing research company which provides mail panel research. Mail panel research involves mailing research instruments to individuals, who have previously agreed to serve as survey respondents, for them to complete and return to NFO by mail. Over 500,000 households participate in NFO research projects (Clarke Tr. 8-9).

248. NFO conducts over 3,000 consumer research studies annually using the mail panel methodology for major corporate clients, including 45 of the top 100 companies listed in the Fortune 500 (Clarke Tr. 9). Its research includes tracking studies, consumer attitude studies, advertising studies, concept studies, etc. These corporate clients, including Ciba and Novartis, rely on mail panel research by NFO and its competitors to make business decisions (Clarke Tr. 10; Peabody Tr. 203, 520-21, 196-98, 206-07, 215).

249. A NFO multi-card survey is an omnibus mailing of various questionnaires to a large group of panelists (Clarke Tr. 10). NFO mailed a multi-card questionnaire to 40,000 households (8 panels) in October 1996 on behalf of complaint counsel (Clarke Tr. 10-14; CX 420-H) and prepared a report tabulating the results of that survey (CX 420). The multi-card survey was intended to identify back pain sufferers/treaters who were Doan's users or aware non-users who

Doan's (Mazis Tr. 1117-18; Clarke Tr. 11; Peabody Tr. 518). Dr. Mazis has had experience using mail panel research and he has found it to provide useful and reliable results (Mazis Tr. 1119).

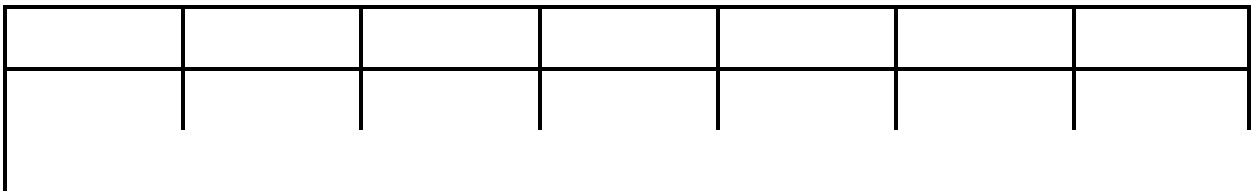
252. The survey, which was designed by Dr. Mazis (Tr. 1117), used a screening questionnaire to exclude respondents who did not meet the criteria established by him. An identical screening process was used in Doan's Brand Equity study (Mazis Tr. 1117-20; CX 258-C). Telephone validation of the NFO screening questionnaire was not conducted because there was no interviewer in this mail panel who might engage in misconduct (Mazis Tr. 1128).

253. In December 1996, NFO conducted a follow-up study for complaint counsel to assess beliefs of Doan's users and aware non-users (CX 421-H; Clarke Tr. 32; Mazis Tr. 1121-22, 1129). The sample of this survey consisted of 400 Doan's users and 400 Doan's aware non-users selected on a random basis from the larger population of both groups identified in the multi-card screening survey (Mazis Tr. 1130; Clarke Tr. 34-35). Dr. Mazis excluded consumers unaware of Doan's from his study because they do not hold any opinions about the product (Mazis Tr. 1122). Mr. Peabody confirmed the importance of obtaining data from users of Doan's (Peabody Tr. 377, 398).

254. At the time he designed the NFO belief study, Dr. Mazis planned to analyze the data that he obtained by comparing the belief measures of (1) users of Doan's to users of other analgesics for back plain relief, and (2) aware non-users of Doan's to aware non-users of other analgesics. The purpose of such matched comparisons was to take into account and control for the usage effect (Mazis Tr. 1129, 1158, 1199-1201). Novartis' expert statistician agreed that this sort of paired analysis is appropriate and necessary to remove the impact of the usage effect (Jaccard Tr. 1527-28; accord Lavidge Tr. 879).

255. The belief questionnaire presented to the respondents ten attribute statements, including "Is more effective than other over-the-counter pain relievers for back pain relief" (CX 421-Z-12; Mazis Tr. 1131) as well as "Has an ingredient for back pain" and "Is just for back pain." The remaining belief statements were included so as not to focus undue attention on the belief measures of interest, resulting in a list which was unbiased (Mazis Tr. 1134-35).

256. About 20% of respondents gave inconsistent answers, agreeing that the same product was both just for headaches and just for back pain, but Dr. Jaccard agreed that this was



265. On average, the proportions of joint aware non-users agreeing that Doan's is more effective for back pain than other OTC analgesics was 20% higher than the proportions agreeing that the other brands were more effective (Mazis Tr. 1176).

266. Dr. Mazis conducted a statistical analysis to determine whether the differences in beliefs about Doan's and other brands could have occurred by chance (Mazis Tr. 1178-81).

267. A statistical significance test determines whether the "null hypothesis" of no real difference is rejected. For example, in this case the null hypothesis might be that the proportion of joint users who believe Doan's is superior for back pain is not different than the proportion believing other brands superior. If the null hypothesis is rejected, one concludes that the observed difference is real and did not occur by chance (Mazis Tr. 1178-81; Jaccard Tr. 1421-22).

268. Usually, statistical analysis accepts a result, i.e., rejects the null hypothesis, when the likelihood of that result occurring by chance is less than five percent (Mazis Tr. 1178-79, 1181; Jaccard Tr. 1489). This is referred to as a "p value" of less than .05 (Mazis Tr. 1178-79). The p value is also known as an "alpha level" (Jaccard Tr. 1488-89). Dr. Mazis used .05 as the p value for his analysis of the NFO belief study data (Mazis Tr. 1182).

269. Dr. Mazis's analysis of the NFO belief study data used a "two-tailed" statistical significance test to measure the p value rather than a "one-tailed" approach (Mazis Tr. 1180; Jaccard Tr. 1487).

270. A "two-tailed" test is equally concerned about a difference in either direction, e.g., whether the percentage of joint users believing Doan's is superior is statistically significantly higher or lower than the percentage believing that the other product is superior (Mazis Tr. 1182). A "one-tailed" test is only concerned with a difference in one pre-determined direction (Mazis Tr. 1183; Jaccard Tr. 1486).

271. A two-tailed test is more conservative than a one-tailed test because using the former makes it more difficult to achieve a p value of .05 or less and, therefore, more difficult to conclude that there is a real difference (Mazis Tr. 1180-81; Jaccard Tr. 1488).

272. Because the issue in this proceeding is only whether there is a disproportionate belief that Doan's is more effective, a one-tailed test would have been appropriate (Mazis Tr. 1183). Dr. Jaccard agreed that the hypothesis at issue is concerned only with a result in that one direction and testified that it might be appropriate to use a one-tailed test to analyze the NFO data (Jaccard Tr. 1485-88).

273. Dr. Mazis calculated that all of the observed differences in the user-to-user comparison for the attribute "more effective for back pain" were statistically significant at the .05 level, as were the p values for four of the five aware non-user to aware non-user comparisons for

the attribute “more effective for back pain” (CX 424-Z-16-20; CX 422-E-F; Mazis Tr. 1187-89;

280. Although those who were unaware of Doan's could not express an opinion about its efficacy, Dr. Jacoby included them because they were potential purchasers (Jacoby Tr. 3139, 3377-78).

281. Dr. Jacoby also excluded Doan's non-users (79% of the respondents) because they would have no basis for forming efficacy beliefs except from personal use (Jacoby Tr. 3151).

282. Other exclusions of some respondents for questions about efficacy probably resulted in understatement of those who would have expressed efficacy opinions (RX 5-Z-56-57; Jacoby Tr. 2963, 2965, 3153-54, 2989; Mazis Tr. 1297, 1274-75).

283. Despite these flaws, complaint counsel rely on results of the Jacoby study which indicates that 38% of the Doan's users in the sample believed that Doan's is more effective for the relief of back pain, whereas 23% of Advil users and 17% of Tylenol users believed their brand is superior. Dr. Mazis testified that the results of user-to-user comparisons are consistent with the results of the 1993 Brand Equity study and the NFO belief study, which demonstrated that there is a clear, long-term, disproportionately strong belief that Doan's is more effective for back pain than other pain relievers (Mazis Tr. 1155-57).

284. The survey's questionnaire also presents some problems. Question 1f was an open-ended question directed to respondents who stated that a particular brand was more effective than others for back pain in response to questions 1d-e. It asked those respondents to tell the interviewer what made them say that brand was more effective (RX 5-Z-57). The interviewer was permitted to follow-up only once with the probe, "Anything else" (Jacoby Tr. 3158-59). Dr. Jacoby acknowledged that limiting the interviewer to one follow-up probe would not fully capture all of the reasons some respondents had for believing one brand was more effective than another. He also agreed that for open-ended questions in this study that he believed to be important, he permitted unlimited probing by the interviewer (Jacoby Tr. 3158-60, 2974-75).

285. In response to question 1f, 8% of the respondents who had previously identified Doan's as more effective for the treatment of back pain gave advertising as a reason they held that belief (RX 5-Z-107), but Dr. Mazis testified that this was not an insignificant amount (Mazis Tr. 1299-1300) given the fact that some consumers are reluctant to admit that they are influenced by advertising (Whitcup Tr. 2805-06; Lavidge Tr. 890-91); furthermore, it is a well known marketing principle that consumers are often not aware that their views are shaped by advertising (Mazis Tr. 1300-03; Lavidge Tr. 890-91; Jacoby Tr. 3194).

286. Dr. Jacoby concluded that RXlseriority beliefs elicited in his survey for Doan's, Advil and Tylenol were caused by past product usage and not the lingering effects of advertising (RX 5-Z-106; Jacoby Tr. 2984-85). He based this conclusion on the fact that 218 of 220 respondents (99%) who said one of those brands was slserior in efficacy for back pain in response to question 1e were users of those brands. However, this result occurred in part because of the design of question 1d which excluded non-users (RX 5-Z-56-57).

287. Question 2b asked users of a particular brand why they used that brand. Eleven percent cited advertising as the reason (Jacoby Tr. 3209-11; RX 5-Z-58). Some of this response may be due to the fact that Doan's users had a stronger recall of Doan's ads than did users of Tylenol or Advil (Jacoby Tr. 3209-11). Also, the 11% of Doan's users who cited advertising was higher than the 1% or less who cited advertising as the reason they used Tylenol or Advil (see RX 5-Z-109).

288. Question 3b asked those respondents who recalled advertising for a brand to state what the advertising communicated. Based on the fact that only 3% of the Doan's users gave responses that were coded as a superior efficacy claim, Dr. Jacoby concluded that there were few, if any, lingering effects of advertising related to the challenged claim (RX 5-Z-58), although he agreed at trial that the fact that respondents played back a general recall of Doan's ads, does not establish that they did not form a superiority belief from their exposure to Doan's ads (Jacoby Tr. 3208-09; see also Mazis Tr. 2017-19). He also agreed that people who see an ad can have beliefs based on the ad, hold those beliefs and yet not recall the ad (Jacoby Tr. 3201).

(2) The Whitcup Study

289. Dr. Whitcup designed a survey foonlonlo

91), making the data unreliable. Questions 1a-b and 1c-d, did not mention back pain, with the result that respondents were primed to think of all-purpose rather than back pain drugs, thus causing an understatement of Doan's awareness caused by advertising (Mazis Tr. 1280-81).

295. The main reason given -- that Dr. Whitcup did not want to poison respondents' minds (Whitcup Tr. 2148-49) -- did not dissuade other experts from referring to "back pain" in their screening questionnaires (CX 420-Z-34; RX 23-Z-398; RX 5-Z-6), although Dr. Jacoby stated that asking respondents first about awareness or use of OTC analgesics for back pain would not poison their minds (Jacoby Tr. 3146).

296. Based upon unaided questions 1c-d of his questionnaire, Dr. Whitcup concluded that awareness of Doan's ads is virtually nil and that they are unmemorable (RX 2-Z-3; see Whitcup Tr. 2160) but Dr. Mazis concluded that, because of priming, they understate respondents' recollection of Doan's advertising (Mazis Tr. 1647). Furthermore, Dr. Whitcup acknowledged that a respondent's failure to mention Doan's ads on an unaided basis does not mean that they were unaware of Doan's ads (Whitcup Tr. 1280-81).

297. Question 1f asked respondents who had indicated that they used multiple brands to treat back pain which brand they used most often (RX 2-Z-11). Question 2 asked respondents, if they used only one brand of pain reliever to treat back pain, why they used that brand (

of the product, and thus could have no beliefs about it (Mazis Tr. 1273). The data collected in this survey shows that 71% of the sample were unaware of Doan's for the treatment of back pain (RX 182). In contrast, 79% of the sample were aware of (and 70% used) Tylenol; and 68% were

respondents to identify only one product they believed to be more effective (Lavidge Tr. 889-90). This question is flawed because it limits respondents to giving only one product when they may believe that more than one are more effective. This is particularly limiting for a niche product such as Doan's, which could be one of multiple products a respondent believes to be more effective, but does not come immediately to mind (Mazis Tr. 1275-76).

308. Novartis' other consumer research experts recognized the problem inherent in such a limitation and permitted respondents to provide multiple products in response to their belief question (RX 2-Z-13; Whitcup Tr. 2811; RX 5-Z-57; Jacoby Tr. 3158). Dr. Whitcup testified that 15% of the respondents answering his belief question identified multiple brands (Whitcup Tr. 2811). The singular wording of the term "product" in questions 13a-b of the Lavidge study may have resulted in those questions understating the number of products that respondents believed to be more effective for the treatment of back pain.

314. The purpose of Doan's ads was to convince consumers that it was superior to other OTC analgesics for relieving back pain and, to that end, Ciba spent $55 million from 1988 through 1996 for Doan's broadcast ads and $10 million for consumer promotions (JX 2 ¶ 21).

315. Doan's is a "niche" product which competes in the back pain segment of the OTC analgesics market and its ads target that audience (Stewart Tr. 3478; CX 501 at 68 [Sloan Dep.]). Marketers using niche ads can reach their intended audience with less ad dollars than marketers who target a broader audience (Stewart Tr. 3476, 3478).

316. Doan's ad agencies estimated that it reached between 80 and 90% of its target audience 20 to 27 times per year between 1988 and 1996 (JX 2 ¶ 25; Stewart Tr. 3413-14).

317. For most of the period in which the challenged Doan's ads were aired, Ciba used a

"Black & White Back Pan" was tested by ARS in 1993 and achieved a recall score of 38%, 15% above the average of the OTC analgesics category. "Activity–Playtime" was tested by ARS in 1994 and achieved a recall score of 34%, 11% above the average (Stewart Tr. 3452-53; CX 393-Z-30). "Muscles" was tested by ARS in 1995 and achieved a recall score of 45%, 22% above the average (id.; Peabody Tr. 196).

323. Dr. Stewart testified that these ARS recall scores indicate that the tested 15-second Doan's ads were more memorable than the average for the category, which is calculated mostly from 30-second ads (Stewart Tr. 3449, 3452-53), and he concluded that Ciba's use of 15-second ads for Doan's was a very effective strategy (Stewart Tr. 3462).

324. Dr. Jacoby's study (RX 5) shows that the Doan's advertising campaign was memorable among back pain sufferers/treaters when compared to the more extensive advertising campaigns for Advil and Tylenol during the same period. In the Jacoby study, before exposure to any test ad, respondents were asked about their recall of ads for the brands they used (RX 5-Z-58). Fifty-two percent of Doan's users said they recalled Doan's advertising (RX 5-Z-111) but only 3% of them recalled any superiority claim in Doan's ads (Jacoby Tr. 2996).

325. Dr. Stewart testified that the only way to differentiate Doan's and affect its market performance is through advertising; and, in fact, the Doan's brand group and its ad agency frequently referred to Doan's as an ad-driven brand (Stewart Tr. 3468). Other statements by Doan's employees and its ad agency confirm that the brand is advertising sensitive (CX 335-D;

having a net persuasive effect on the market, over and beyond what one might expect given various marketplace conditions (Peabody Tr. 191-93; Stewart Tr. 345-52).

329. All of the Doan's ads tested by ARS received positive scores, ranging from 1.5 for "Activity–Playtime" to 6.8 for "Ruin A Night's Sleep" (CX 393-Z-30; RX 89-K). All of the tested ads would be expected to have a net persuasive effect on the market (Stewart Tr. 3452).

330. Dr. Stewart testified that Doan's competes in the analgesics market, which is a "mature market." In such markets, it is difficult to persuade long-time customers to switch brands on the basis of one exposure to a competing ad. For a niche brand in the category, the persuasion scores achieved by the Doan's ads were quite good (Stewart Tr. 3452).

331. The ad which achieved the lowest, but still net positive persuasion score, "Activity Playtime," was very successful in generating sales for Doan's. In this instance the persuasion score was not a good predictor of what occurred in the real world (CX 504 at 55-57, 138 [Schaler Dep.]; Stewart Tr. 3472).

332. Between 1987, when Ciba bought the brand, and 1996, Doan's factory sales have increased by approximately 80%, from $10.2 million to a high of $18.9 million in 1994 (with a

succeeding in maintaining share, particularly in the case of a competitive onslaught (Stewart Tr. 3467; Mazis Tr. 1202; CX 597).

336. Since Ciba acquired Doan's, several new entrants have entered the back pain specific category (which consists of analgesics that are marketed only for back pain) and the general analgesics category (CX 393-R; CX 97-B). Despite these competitive pressures, Doan's was able to maintain and even increase its sales (Stewart Tr. 3468).

337. Doan's responded to these competitive entries partially through the use of advertising (Stewart Tr. 3434-37; Mazis Tr. 2028-32). When Nuprin Backache was introduced in the first half of 1993, Ciba's media planners increased Doan's television advertising budget by approximately $500,000 to respond to this competitive threat (CX 357-B; Mazis Tr. 2033-34; Stewart Tr. 3434). Similarly, when Bayer Select Backache was introduced, Ciba increased spending to run more advertising during the introductory period for Bayer Select (CX 378-K; Stewart Tr. 3434-35). Doan's Marketing Director wrote that both the Nuprin Backache and Bayer Select Backache products were unsuccessful because Doan's used a "consistent, strong advertising campaign to defend and even build share in the face of these competitors" (CX 399-B). Both products had been withdrawn from the market by 1996 (CX 496 at 24 [Caputo Dep.]).

338. At the time that Aleve was being introduced in mid-1994, Ciba directed its advertising agency to include the Aleve package in the competitive "set" in the "Activity" commercials that were then being produced. Ciba carefully tracked the entry of Aleve and consulted with its advertising agency regarding the most appropriate ways to defend Doan's during Aleve's introduction (CX 168-A-M).

339. Drs. Mazis and Stewart testified that the numerous references in the Doan's marketing and strategy documents to the fact that the brand is advertising driven, indicates that the challenged ads must have played an important role in sustaining and growing the Doan's brand (Mazis Tr. 2026; Stewart Tr. 3408-09).

340. It is not surprising that the challenged ads were successful, because academic research has shown that ads for low share brands which include explicit comparative references to high share brands in the same category are very effective. Such ads succeed in attracting more attention to the low share brand and increase purchase intention for the low share brand relative to the high share brand. This comparative reference strategy was employed in all of the challenged Doan's ads (Stewart Tr. 3458-61; CX 595-A-L; CX 596-A-I).

341. The advertising campaign for Doan's was a highly successful one for a niche brand (Stewart Tr. 3485).

342. Dr. Stewart testified that the ad expenditures for Doan's, the media strategies employed, and the type of ads that were used, created or reinforced consumers' beliefs that Doan's is more effective than other analgesics for back pain (Stewart Tr. 3485-86).

e. Consumer Research Into The Creation Of The Superiority Belief

343. The NFO study shows that more Doan's users and aware non-users believe that Doan's is superior for back pain than do those users and aware non-users of other brands who believe those brands are superior (CPF 347-52, 395-429). The similarity in the beliefs of users and aware non-users is evidence that Doan's advertising played a role in creating and reinforcing that superiority belief, since by definition the beliefs of aware non-users about Doan's stem from factors other than their usage experiences with the product (Mazis Tr. 1203-08; CX 502 at 123-25 [Wright Dep.]). And, the superiority beliefs among Doan's users cannot be explained by usage experience because of the inability of consumers to evaluate the comparative efficiency of analgesics (CPF 546-47).

344. Further evidence that advertising created or reinforced superiority beliefs is that Doan's users and aware non-users have beliefs that track other claims conveyed by Doan's advertising -- Doan's "has an ingredient especially for back pain" and "just for back pain" (Mazis Tr. 1210-18).

345. The NFO belief study demonstrates that there is a strong and disproportionate belief among both Doan's users and Doan's aware non-users that Doan's "has an ingredient especially for back pain" and "is just for back pain." In that study, survey respondents rated their levels of agreement or disagreement with these attributes for each of the brands of OTC back pain relievers of which they were aware (CX 422-A-D).

346. Dr. Mazis conducted the same statistical paired comparison analyses regarding these attributes, looking at joint users and joint aware non-users, that he conducted for the attribute "more effective for back pain than other OTC analgesics" (CX 424-G-K, Q-U; CX 422-D; Mazis Tr. 1208). Across the five user-to-user comparisons, the proportions of joint users agreeing that Doan's "has an ingredient especially for back pain" is on average 54% higher than the proportions agreeing that each of the other brands (Advil, Aleve, Bayer, Motrin, or Tylenol) has that attribute (see CX 424-A-U; CX 422-C-D). Across the five aware non-user-to-aware non-user comparisons, the proportions agreeing that Doan's "has an ingredient especially for back pain" is on average 46% higher than the proportions agreeing that each of the other brands has that attribute. For the attribute "just for back pain," on average 62% more joint users and 54% more joint aware non-users agreed that Doan's has that attribute (see CX 424-G-K; CX 422-A-B). Each of the differences in beliefs among every user-to-user and aware non-user-to-aware non-user comparison is large and highly statistically significant (Mazis Tr. 1209).

especially for back pain" and that it "is just for back pain" (Peabody Tr. 226-28) and Dr. Mazis concluded that consumers would not infer that a product had a special ingredient for back pain simply from the fact it is only advertised and marketed for back pain (Mazis Tr. 1621). The fact that the ads created beliefs consistent with these claims further supports the conclusion that they played a role in creating or reinforcing the belief that Doan's is more effective for back pain than other OTC analgesics (Mazis Tr. 1217; see id. at 1057-58; see also CX 480-A-D; Mazis Tr. 1054-58 (1993 Brand Equity Study)).

348. The 1987 A&U study and the 1996 NFO belief study measured the beliefs of users and aware non-users of Doan's, Extra-Strength Tylenol, Advil, and Bayer regarding the product attribute "most effective" (the A&U study) and "more effective" than other OTC pain relievers for back pain relief (CX 421-Z-12; CPF 383).

349. Since the A&U study was conducted just before the challenged ads were disseminated (CPF 326, 336), Dr. Mazis felt that comparing its results with those of NFO's 1993 belief study, which took place six months after they were abandoned, would permit him to determine if beliefs among users and non-users of these products had changed over the years and to measure the impact of the Doan's ad campaign on consumer beliefs (Mazis Tr. 1219-20).

350. I agree with respondents' experts that Dr. Mazis' comparison of these two studies is unsound since there are a number of differences in the methodologies and questions used in the 1987 A&U study and 1996 NFO study that could be responsible for the change in reported attribute ratings (Jaccard Tr. 1461-73; RX 133-B-E).

351. These include: (1) a difference in the wording of the key attribute in the two studies (CX 221-Z-120; CX 421-Z-12); (2) differences in the structure of the studies' questionnaires (Jaccard Tr. 1462-71); (3) differences in the response dimensions (how much attributes "applied" to a brand v. how much respondents "agreed" that the attributes described the tested brands) (Jaccard Tr. 1465; RX 133-B); and, (4) differences in the studies' response scales (Jaccard Tr. 1465-67; Jacoby Tr. 3021-22; RX 133-C).

352. The methodologies of the studies were also different. The 1987 A&U study was a telephone survey; the NFO study was a mail survey (Jaccard Tr. 1468-69; RX 133-C).

353. Finally, the samples in the two studies differed in terms of the nature of respondents' back pain (i.e., suffered "in an average six month period" versus "on a regular basis"), the usual type of treatment (i.e., "prescription or non-prescription medication" versus "over-the-counter medication"), and respondents' role in the purchase of the treatment product. Other key demographic variables -- such as age, gender, income, education, occupation, geographic location, and household size -- are not specified in the 1987 A&U study and could have varied from the demographics of the sample surveyed in the 1996 NFO Mail study. These many differences between the samples of respondents surveyed in the two studies could account for the discrepancy in respondents' attribute ratings (Jaccard Tr. 1470-71; RX 133-D, D)

354. Given the many differences in the questions, response dimensions, response scales, methodology, and samples in the 1987 A&U study and the 1996 NFO Mail study, I find that the attempted comparison of the two studies to draw inferences regarding the impact of the challenged advertising on consumer beliefs has no methodological merit (Jaccard Tr. 1577-78; RX 133-A).

f. The Lingering Effect Of The Challenged Ads

355. The challenged ads which were widely disseminated for several years communicated a message which created a disproportionate belief in the target audiences that Doan's is superior to other OTC analgesics for back pain.

356. Dr. Jacoby testified about the lingering effects of advertising in American Home Prods., 98 F.T.C. 283 (Initial Decision). He stated that beliefs concerning attributes that had been stressed in analgesic product ads can endure long after they have ceased (American Home Prods., 98 F.T.C. at 293 (IDF 592) (Initial Decision). Dr. Jacoby also testified that among users of an analgesic product that was advertised as superior to its competitors, that superiority belief would linger long after the cessation of the advertising because product usage will continually reinforce that image (id. at 284).

357. The NFO belief study was conducted in December 1996, six to seven months after the last challenged ad was disseminated (Mazis Tr. 1254-55; CX 421-H; JX 2 ¶ 25), and it shows, according to Dr. Mazis, that a strong superior efficacy belief lingered, and is likely to linger (Mazis Tr. 1254-55).

358. Dr. Mazis' conclusion is echoed by three empirical studies of the lingering effect of ads. The first study, authored by Kinnear, Taylor and Gur-Arie, was a follow-up study of the effect of a Commission corrective advertising order in RJR Foods, Inc., 83 F.T.C. 7 (1973). The purpose of the study was to measure the change in consumers' beliefs regarding the fruit juice content of Hawaiian Punch (Mazis Tr. 1257-59; CX 536-N-O).

359. This research continued for eight and one-half years (Mazis Tr. 1259; CX 536-N) and found that the percentage of the tested population that held the factually correct belief, the result the corrective advertising was intended to achieve, increased from 20% to 40% in a year's time, improved to 50% by the fifth year, and increased to 70% after eight years. This data shows that advertising based beliefs that are imbedded in consumers' minds can last a very long time, even in the face of corrective advertising. Such ad-created beliefs would have remained at even higher levels for a longer period of time, if the challenged advertising had ceased and no corrective advertising was required (Mazis Tr. 1259-61).

360. Two studies of the corrective advertising order in Listerine -- one conducted by Armstrong, Russ, and Gurol and the other by Dr. Mazis, -- tracked the effect of the corrective

advertising requirement over time. These studies showed a reduction of between 11% and 20% in the false beliefs over the course of the approximately one and one-half year corrective advertising effort, according to Dr. Mazis, and support the conclusion that embedded advertising-based beliefs do not change quickly, even in the face of corrective advertising (Mazis Tr. 1261-63).

III. CONCLUSIONS OF LAW

A. Introduction

Doan's has been marketed for over 90 years. Ciba purchased the Doan's brand in early 1987 for approximately $35 million because it believed that Doan's could be successfully marketed if its old fashioned image could be changed (F 8-10).

The so-called Attitude & Usage study ("A&U") which was conducted for Ciba shortly after its purchase of Doan's tested consumer awareness of Doan's and its competitors (F 233). Among other things, the study concluded that Doan's should position itself "as a more effective product." The results of this study convinced Ciba to embark on the eight year comparative ad campaign which featured the challenged ads (F 236-37).

B. The Challenged Ads Conveyed The Superiority Claims

1. Legal Standard

Section 5 of the FTC Act prohibits material and deceptive representations or omissions which are likely to mislead reasonable consumers into unwarranted beliefs about the advertised product. Cliffdale Associates, Inc., 103 F.T.C. 110, 164-65 (1984). Appeal dismissed sub nom. Koven v. FTC No. 84-5337 (11th Cir. Oct. 10, 1984) ("Deception Statement").

The Commission deems an ad to convey a claim if consumers, acting reasonably under the circumstances, would interpret it to convey that claim, even if a challenged, misleading claim is accompanied in the same ad by non-misleading claims. Kraft, Inc., 114 F.T.C. 40, 120 n.9 (1991), aff'd, 970 F.2d 311 (7th Cir. 1992), cert. denied, 507 U.S. 909 (1993); Thompson Medical, 104 F.T.C. at 789 n.7, 818 (1984).

Both express and implied ads may be deceptive, Fedders Corp. V. FTC, 529 F. 2d 1398, 1402-03 (2nd Cir.), cert. denied, 429 U.S. 818 (1977), and intent to convey a claim need not be established, Kraft, Inc., 114 F.T.C. at 121; however, if an advertiser intends to make a claim, it is reasonable to conclude that the ads make that claim. Thompson Medical, 104 F.T.C. at 791.

2. Facial Analysis

Despite Dr. Jacoby's and respondents' argument to the contrary (F 97), the Commission has often held that facial analysis of a challenged ad may be the basis for concluding that it conveys a challenged claim to consumers, and that extrinsic evidence of its meaning is not necessary. Kraft, Inc., 114 F.T.C. at 121; Thompson Medical, 104 F.T.C. at 789.

Facial analysis of the challenged ads supports the conclusion that they make a claim of superior efficacy by referring to Doan's as the "back specialist" which has an ingredient not found in competing analgesics (F 88-89, 91, 93). See American Home Products Corp. v. Johnson & Johnson, 654 F. Supp. 568 (S.D.N.Y. 1987).

Dr. Mazis also concluded that several of the challenged ads made the superiority claim. For example, he testified that the "Graph" ad, which refers to an "ingredient that [other] pain relievers don't have" conveys the message that Doan's is unique and different, and coupling the claim with references to back pain, conveys the net impression that Doan's is more effective for back pain relief than other pain relievers mentioned in the ad (F 98).

3. Copy Test Evidence

Methodologically sound copy tests of challenged ads are often resorted to as evidence of the messages which they convey. Thompson Medical, 104 F.T.C. at 790.

The parties rely on two kinds of copy tests: Those which were conducted in the ordinary course of business by or for Ciba, and those which were designed and administered for purposes of this proceeding.

Prior to their dissemination, the "Graph," "Black & White Back" and "Ruin A Night's Sleep" ads were copy tested by Bruno & Ridgeway, a consumer research company.

If its "main idea" and "other idea" questions are netted, the copy test of the "Graph" ad indicates that 38% of respondents exposed to it were coded as answering that it communicates the claim that Doan's was "Superior to other products" (F 122), a quite high response to open-ended questions (F 124). Stouffer Food Corp., Dkt 9250 (Sept. 26, 1994).

The "Black & White Back" copy test found that 46% of the respondents who saw this ad gave answers that were coded as "superiority over other products." If responses to all of the open-ended questions are netted, 62% of the respondents took away a superior efficacy claim (F 137-38).

The copy test for the "Ruin A Night's Sleep" ad produced similar results: 25% of respondents gave answers that were coded "superiority over other products" (F 146).

The 1991 copy test of the challenged FSI's revealed that between 47% and 59% of respondents strongly or somewhat agreed that Doan's is better for back pain than other pain relievers, a response whose magnitude confirms that the claim was conveyed (F 168-69). See Thompson Medical, 104 F.T.C. at 797, 805-06 (22% of those viewing the ad believed Aspercreme contained aspirin). See also Warner-Lambert, 86 F.T.C. 1398, 1504 (1975).

U.S. Research conducted a mall test of a Doan's ad, "Activity–Playtime" and an FSI. Fifty-seven percent of the "Activity–Playtime and 40% of the FSI respondents took the superior efficacy claim from these ads (F 180). See also F 181, 183, 185.

The part of Dr. Jacoby's copy test for respondents which measured the communication of the challenged ads "Activity–Playtime" and "Muscles" showed that 35% of the respondents viewing "Activity–Playtime" and 19% of those viewing "Muscles" took away the superiority claim from open-ended questions (F 191-92).

The results of the copy tests relied on by complaint counsel provide solid evidence that the challenged ads conveyed the superiority message, as did Ciba's dissemination of ads which it knew conveyed a false superior efficacy claim. ABSI, Dkt 9275, slip op. At 40 (March 3, 1997); Thompson Medical, 104 F.T.C. at 791. (If an advertiser intends to make a particular claim, it is reasonable to interpret the ads as making that claim.) Furthermore, the ads were a significant factor in creating the superiority belief (F 342). Warner- Lambert, 86 F.T.C. at 1503.

C. The Superior Efficacy Claim Is Unsubstantiated

The parties have stipulated that two well controlled clinical studies are required to substantiate a superiority claim for an analgesic like Doan's. JX 1 ¶¶ 6, 9; see Thompson Medical, 104 F.T.C. at 822-825. The parties also stipulated that there are no scientific studies demonstrating the therapeutic superiority of magnesium salicylate (Doan's active ingredient) over aspirin, acetaminophen (the active ingredient in Tylenol), ibuprofen (the active ingredient in Advil and Motrin) or naproxen sodium (the active ingredient in Aleve) for the relief of back pain. JX 1 ¶ 9. Nothing in the FDA analgesics monograph supports the superior efficacy of magnesium salicylate. Respondents knew that they possessed no substantiation for the superior efficacy claim (F 101, 102, 103).

D. The Superior Efficacy Claim Is Material

For deception to occur the challenged representation or omission must be material, i.e., likely to affect consumer choice or conduct with respect to a product.

Respondents' ads make claims regarding the efficacy or comparative efficacy of Doan's. They may be considered presumptively material because they relate to the central characteristics of that product, Deception Statement, 103 F.T.C. at 182, because they involve an important

health claim, Kraft, Inc., 114 F.T.C. at 135-36, and because respondents intended to make a superior efficacy claim (F 104).

E. Corrective Advertising Is Not Warranted

In Warner-Lambert, 86 F.T.C. at 1499-1500, the only litigated case in which corrective advertising was ordered, the Commission stated with respect to Listerine's forty-year deceptive ad campaign:

> [I]f a deceptive advertisement has played a substantial role in creating or reinforcing in the public's mind a false and material belief which lives on after the false advertising ceases, there is clear and continuing injury to competition and to the consuming public as consumers continue to make purchasing decisions based on the false belief. Since the injury cannot be averted by merely requiring respondent to cease disseminating the advertisement, we may appropriately order respondent to take affirmative action designed to terminate the otherwise continuing ill effects of the advertisement. 86 F.T.C. at 1499-1500.

There is strong academic support for the imposition of corrective ads in the appropriate

That the remedy sought by complaint counsel is drastic[2] is shown by the Commission's failure to enter a corrective advertising order in cases where some or all of the conditions for doing so existed. See e.g., Bristol Myers Co., 102 F.T.C. at 21 (1983), aff'd, 738 F.2d 554 (2d Cir. 1984), cert. denied, 469 U.S. 1189 (1985); Sterling Drug, Inc., 102 F.T.C. 395 (1983), aff'd, 741 F.2d 1146 (9th Cir. 1984), cert. denied, 470 U.S. 1084 (1985); American Home Prods. Corp., 98 F.T.C. 136 (1981), aff'd as modified, 695 F.2d 681 (3d Cir. 1982).

The parties agree that not every case of deception warrants corrective advertising: some unique circumstances must exist before that remedy is adopted. Complaint counsel have not shown what is memorable about an ad campaign, which, while successful in retaining market share (F 333), created no significant increase in sales (JX 2-B, ¶¶ 16, 19; Scheffman Tr. 2543-46).

I therefore reject corrective advertising as an appropriate remedy in this case.

F. The Appropriate Order

1. Introduction

Because respondents' violations were serious, deliberate, and transferable, a comprehensive "fencing-in" order is appropriate. See Thompson Medical, 104 F.T.C. at 843-44.

2. The Violations Were Serious And Deliberate

The challenged ads ran for eight years and were extensively disseminated (F 23). Total

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[2] Although both corrective advertising and affirmative disclosure are forms of fencing-in relief . . ., the standard for imposing corrective advertising is significantly more stringent than that for an affirmative disclosure. . . . [which] requires only that the disclosure be 'reasonably related' to the alleged violations. In my view, it is important to distinguish between corrective advertising and affirmative disclosures because the Commission should not evade the more demanding standard for corrective advertising where it is clearly applicable.

California SunCare, Inc., 61 Fed. Reg. 64521, at 64523-24 (Dec. 5, 1996) (Statement of Commissioner Roscoe B. Starek, III) (concurring in part, dissenting in part).

Consumers could not evaluate the efficacy of Doan's and could not make informed decisions about purchasing the product. Thompson Medical, 104 F.T.C. at 834; American Home Prods v. FTC

C. At the time respondents made these representations, they did not possess or rely upon a reasonable basis that substantiated such representations.

D. Respondents' representations were material.

E. The acts and practices of respondents as herein found were all to the prejudice and injury of the public and constitute unfair and deceptive acts and practices and false advertisements in or affecting commerce in violation of Sections 5 and 12 of the Federal Trade Commission Act.

F. The accompanying order is necessary and appropriate under applicable legal precedent and the facts of this case.

ORDER

For purposes of this Order:

1. "Doan's" shall mean any over-the-counter analgesic drug, as "drug" is defined in the Federal Trade Commission Act, bearing the Doan's brand name, including, but not limited to, Regular Strength Doan's analgesic, Extra Strength Doan's analgesic, and Extra Strength Doan's P.M. analgesic.

2. "Competent and reliable scientific evidence" shall mean tests, analyses, research, studies, or other evidence based on the expertise of professionals in the relevant area, that has been conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results.

3. "Advertisement" shall mean any written, oral or electronic statement, illustration or depiction which is designed to create interest in the purchasing of, impart information about the attributes of, publicize the availability of, or effect the sale or use of goods or services, whether it appears in a brochure, newspaper, magazine, free standing insert, marketing kit, leaflet, circular, mailer, book insert, letter, catalogue, poster, chart, billboard, public transit card, point-of-purchase display, package insert, package label, product instructions, electronic mail, website, homepage, film, slide, radio, television, cable television, program-length commercial or "informercial," or in any other medium.

I.

IT IS ORDERED that respondents Novartis Corporation, and Novartis Consumer Health, Inc., corporations, their successors and assigns, and their officers, agents, representatives and employees, directly or through any corporation, subsidiary, division or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of Doan's or any other over-the-counter analgesic drug, in or affecting commerce, as "drug" and "commerce" are defined in the Federal Trade Commission Act, do forthwith cease and desist from representing, in any manner, directly or by implication, that such product is more effective than other over-the-counter analgesic drugs for relieving back pain or any other particular kind of pain, unless, at the time of making such representation, respondents possess and rely upon competent and reliable scientific evidence that substantiates the representation. For purposes of Part I of this Order, "competent and reliable scientific evidence" shall include at least two adequate and well-

controlled, double-blinded clinical studies which conform to acceptable designs and protocols and are conducted by different persons, each of whom is qualified by training and experience to conduct such studies, independently of each other.

II.

IT IS FURTHER ORDERED that respondents Novartis Corporation, and Novartis Consumer Health, Inc., corporations, their successors and assigns, and their officers, agents,

promulgated by the Food and Drug Administration, or under any new drug application approved by the Food and Drug Administration.

IV.

IT IS FURTHER ORDERED that for a period of five (5) years after the last date of dissemination of any representation covered by this Order, respondents, or their successors and assigns, shall maintain and upon request make available to the Federal Trade Commission for inspection and copying:

A. All materials that were relied upon in disseminating such representations; and

B. All tests, reports, studies, surveys, demonstrations or other evidence in their possession or control that contradict, qualify, or call into question such representation, or the basis relied upon for such representation, including complaints from consumers.

V.

IT IS FURTHER ORDERED that respondents shall:

A. Within thirty (30) days from the date of entry of this Order, provide a copy of this Order to each of their current principals, officers, directors and managers, and to all personnel, agents, and representatives having sales, advertising, or policy responsibility with respect to the subject matter of this Order; and

B. For a period of ten (10) years from the date of entry of this Order, provide a copy of this Order to each of their future principals, officers, directors, and managers, and to all personnel, agents, and representatives having sales, advertising, or policy responsibility with respect to the subject matter

or dissolution of subsidiaries or affiliates, or any other corporate change that may affect compliance obligations arising out of this Order.

VII.

IT IS FURTHER ORDERED that this Order will terminate twenty (20) years from the date of its issuance, or twenty (20) years from the most recent date that the United States or the Federal Trade Commission files a complaint (with or without an accompanying consent decree) in federal court alleging any violation of the Order, whichever comes later; **provided, however**, that the filing of such a complaint will not affect the duration of:

A. Any paragraph in this Order that terminates in less than twenty (20) years;

B. This Order's application to any respondent that is not named as a defendant in such complaint; and

C. This Order if such complaint is filed after the Order has terminated pursuant to this Paragraph.

Provided further, that if such complaint is dismissed or a federal court rules that the respondents did not violate any provision of the Order, and the dismissal or ruling is either not appealed or upheld on appeal, then the Order will terminate according to this Paragraph as though the

complaint was never filed, except that the Order will not terminate between the date such complaint is filed and the later of the deadline for appealing such dismissal or ruling and the date such dismissal or ruling is upheld on appeal.

VIII.

IT IS FURTHER ORDERED that respondents shall, within sixty (60) days from the date of entry of this Order, and at such other times as the Federal Trade Commission may require, file with the Commission a report, in writing, setting forth in detail the manner and form in which they have complied with this Order.

Lewis F. Parker
Administrative Law Judge

Dated: March 9, 1998