THE ECONOMICS OF REGULATING DECEPTION

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Introduction

Deception is the deliberate manipulation of information for the purpose of gaining some advantage.[1] In order to understand the economics of deception, it is necessary to start with the economics of information. There have been several major analyses of the implications of the economics of information for the regulation of deceptive advertising.[2] However, since these were written, there has been significant research on the economics of information. This research can be used to generate additional insights on the proper scope of regulation of deception. This article points out some of the theoretical conclusions from this new literature, and places these conclusions in a policy context.

The earlier literature derived two major policy conclusions. First, truthful information regarding price should not be restricted by regulatory authorities. Second, deception is most likely and most harmful in the case of "credence" goods, and regulation is most useful (if it is useful at all) in the case of these goods.

In the next two sections, I discuss these issues by examining advertising of prices, regulation, and types of goods. I then examine regulation of true information about characteristics of goods other than price, address policies of mandating disclosure of "negative" information, and discuss remedies. The final section restates the key policy conclusions.[3]

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[1]While humans engage in deception in many dimensions for many types of advantage, here I will confine myself to commercial deception through advertising.

[2]See, for example, Schwartz and Wilde (1979); Jordan and Rubin (1979); Beales, Craswell, and Salop (1981).

[3]The economic literature on advertising is voluminous, and I mention only those parts that are relevant to issues of deception. For some general surveys, see Comanor and Wilson (1979), McAuliffe (1987), and Ekelund and Saurman (1988).

First, I introduce some institutional background. There are at least five sources of regulation of advertising: the Federal Trade Commission; other federal agencies, such as the Food and Drug Administration; state attorneys general; industry self-regulation, under the auspices of the National Advertising Review Board (NARB) or the National Advertising Division (NAD) of the Council of Better Business Bureaus (American Bar Association 1989); and private civil litigation under the Lanham Act and other statutes or common law doctrines.

Of all of these regulatory bodies, the FTC is now the only organization with responsibility for advertising regulation that explicitly considers economics in its decisionmaking. As Buc (1989, p. 29) says, "the consumer protection work at the FTC, unlike any other consumer protection work at any other agency, federal or state, is carried out in a context that is informed by and affected by the antitrust and economics work of the Commission." The extent to which the FTC does rely on economics may come as a surprise to some who are not familiar with the internal workings of the agency. For 1989, there were 10.7 economist workyears assigned to Consumer Protection issues, out of 60 total economist workyears; the number has been as high as 16.4 (American Bar Association 1989, Table 2, p. 168). Economists are involved in examining all advertising cases at the FTC. Moreover, economists make independent recommendations to the Commission regarding these cases. While the current regime at the FTC may utilize less formal input from economists than has been true in the recent past, nonetheless, economists do participate in all cases. There is an equally strong role for economics in rulemakings, and the inputs of the economists, including cost-benefit analyses, are part of the public record for these proceedings.

To the extent that it is efficient to regulate advertising, it is desirable to have economic input into the process. Therefore, one recommendation is that either the other regulatory bodies should adopt a more explicit use of economics or the FTC should be given more responsibility for such regulation (see Calvani 1989). In what follows, I will from time to time indicate ways in which FTC regulation differs from regulation by other agencies.

Regulation of Price Advertising

"Deceptive pricing" is the advertising of prices that are not actually common transaction prices. Ads like "Regularly $50, now $25" or "$50 elsewhere, here $25" might be considered deceptive unless "enough" sales had occurred at the $50 price, where enough can be

defined in various ways. The FTC seldom if ever brings deceptive pricing cases, and has not for many years. This is because the Commission generally recognizes that any advertising that stresses prices is likely to ultimately lead to lower prices for consumers.

If a product usually sells for $25 and the firm advertises it as being normally $50, on sale for $25, this ad will have no immediate benefits. That is, consumers are not given any new options, since $25 is the normal price. This is why such ads are sometimes challenged as being deceptive. Nonetheless, the process started by this ad will likely lead ultimately to lower prices for consumers. Price conscious consumers will be drawn to this firm since it is stressing price in its ads, and all consumers will be given some information about the distribution of prices in the marketplace. Other firms will be forced to respond to the ad, and some will respond by actually lowering prices below their current level, in part because of the price competition started by the information conveyed in the ad. Ultimately, even the firm initially advertising a price of $25 may be forced to sell for $20 as price advertising spreads throughout the industry. On the other hand, if the ad is initially stopped as being "deceptive," information about low prices is less likely to spread.

One general point, which will recur in the analysis, is that in analyzing advertising it is important to distinguish markets that are in equilibrium from those that are not. For a market to be in disequilibrium implies some informational failure, and advertising, by providing information, can move markets toward equilibrium (Ekelund and Saurman 1988). For example, a market may be in a disequilibrium with prices above the equilibrium level. Advertising may be an effective method of moving from the high priced disequilibrium to the low priced equilibrium. During the transition some ads may appear deceptive, but stopping these ads may have the effect of retarding the movement toward the new equilibrium. Schwartz and Wilde (1979, p. 667) indicate that high price equilibria are unstable, so that advertising of better prices or terms can destroy a "monopoly" equilibrium in an industry.

Though the FTC does not generally bring cases involving deceptive pricing, the states often do. There are two types of cases. One allegation is that goods are not truly available at the advertised price. A second argument is that prices are deceptive because consumers view price as a signal of quality and a fictitious price will mislead consumers into overestimating the quality of the good. I consider each type of case.

Lack of Availability

The recent National Association of Attorneys General (NAAG) airline pricing guides and efforts by NAAG to regulate auto rental

prices and disclosures both deal with availability at advertised prices. In both instances, the allegations are that the products are not available at the advertised price. These cases will likely have the ultimate effect of raising prices paid by consumers by reducing incentives of sellers to advertise, and thus offer, low prices. The airline guides deal with, among other issues, low fares that are available only on a limited basis. The auto rental guidelines deal with issues including the "collision damage waiver." In both cases, the ads are true but, according to the NAAG, incomplete. However, discouraging these ads is likely to lead to higher prices in both industries.

For example, consider the airlines. New reservation systems are quite sophisticated and enable airlines to track reservations on each flight on a real time basis. If a flight is not selling as well as expected, it is possible for the airline to offer more discounts on that flight. Thus, advertised low prices may be available only on an irregular basis. However, if consumers call and ask for such fares, travel agents will be able to determine which flights have low fares available. If advertising of these fares is outlawed, then airlines will have reduced incentives to offer such low rates.

A recent Symposium on the NAAG Guidelines indicates the nature of the debate. A defender of the NAAG policies (Hanaway 1989) argues about particular prices and about protection from "unfair and deceptive advertising." An argument against such regulation (Versfelt 1989) points out that the NAAG Guidelines increase the burdens of price advertising, "so that price competition decreases and prices rise." It may be that consumers would be willing to pay higher prices for car rentals and airfares in order to avoid advertising they view as "deceptive," and it may be the job of their political representatives (either in the state attorneys general offices or at the FTC) to make this choice for them. However, it should be an informed choice, and without some explicit consideration of economics, decisionmakers will not be aware of the tradeoffs.

Price as Information

The other argument regarding deceptive pricing is that consumers may be misled about quality. This was the issue in the recent consent decree signed by Sears in New York, where Sears promised to reduce its advertising of sales and specials. There are two problems with cases based on this argument. First, there is no persuasive evidence that consumers are deceived by these ads. Second, there are large social costs from preventing this type of advertising, even if there is deception.

There is a substantial marketing literature examining the effects of price ads on consumer expectations of quality. This is not an appropriate place to summarize this literature, particularly as there are two recent summaries available. Both indicate that the results of the empirical literature examining this issue are at best inconclusive. Zeithami (1988, p. 2) argues that "research on these concepts [price, quality, and value] has provided few conclusive findings." Similarly, Monroe and Krishnan (1985, p. 229) indicate: "We have not been able to identify conceptually or empirically when buyers will infer product quality on the basis of price. . . . Considering previous studies individually, it is troubling to find such inconsistency in the results across studies."

Others are even more skeptical of the possibility of price advertising's causing consumer harm. Liefeld and Heslop (1985, p. 874) find that "consumers are very suspicious of price claims made in a sale situation and discount their perceptions of the ordinary price by amounts which were in this case excessive, leading them to seriously understate the true ordinary selling price." Blair and Landon (1981, p. 68) conclude, "The effects found in this study imply that market injury from false reference claims is possible but not guaranteed." Thus, the evidence for the existence of consumer deception associated with price advertising is highly uncertain.

Even if some consumers are deceived by some comparative price advertising, the costs of limiting or forbidding such advertising are likely to be substantial. For example, consider the issue of the volume of sales that must occur at some price before it can be advertised as the "regular" or "normal" price, a common feature of attempts to regulate deceptive pricing. A firm might engage in predictable seasonal promotions, such as sales of tires or white sales of household furnishings. If consumers are aware that such sales occur, they will refrain from buying except during the sale period. Thus, there will be relatively few units sold at "regular" prices, even though these prices may be commonly available. In such circumstances, any attempt to limit advertising would have one of two affects. The firm might be forced to offer less frequent specials so that more items would be sold at the normal price, a course of action that would clearly harm consumers. Alternatively, the firm might cease advertising the regular price, but if, for example, this price is comparable to other prices in the market, then consumers would be denied valuable information.

Moreover, even if consumers are deceived, there is no evidence that they are harmed. In one experimental study (Urbany et al. 1988), which did find consumers deceived by price ads, it was nonetheless

found that there was no measurable injury even to those consumers who were deceived. The authors found that there is some effect even of unrealistic exaggerated prices and that "consumers can be skeptical of advertised sale offers but can still be influenced by them." Nonetheless, even given this strong finding of deception, it was still determined that there is "no significant difference between the ending bank balances" of subjects in groups with and without advertised reference prices.

Interestingly, the authors attribute their results regarding deception in part to the fact that their subjects may have believed that it is illegal to exaggerate reference prices, and that the law is strictly enforced. This indicates that incomplete enforcement of deceptive pricing laws may actually be harmful. If consumers are normally skeptical of such ads, then they cause little if any injury. However, partial enforcement may lead consumers to overestimate the level of enforcement and relax their normal skepticism. This will be particularly likely if there is wide publicity given to the few enforcement efforts that do occur. This is itself likely, given the political orientation of many state enforcement officials.

Schmalensee (1978) presents a model where there may be losses to consumers from deceptive advertising, and where losses are greater as consumers believe ads. Here we argue the converse: losses may be greater as consumers believe that there is enforcement of rules against deception. Viscusi (1985) has found that consumers who believe that the government is enforcing safety standards at a greater level than is true may be "lulled" into accepting greater risk, and it is plausible that similar results apply to advertising.

The basic problem with policies against deceptive pricing is that, in general, it is discount firms and firms stressing price that engage in these promotions. As a result, any effort to limit such advertising is likely to lead to higher prices in the market. As Robert Pitofsky (1977, p. 688), a former FTC Commissioner and an advocate of rigorous enforcement of consumer protection regulations, has argued, "As long as consumers are accurately informed of the offering price, they can make sensible decisions, and the transactions may still be at prices lower than could be obtained at most other outlets in the marketing area." Pitofsky views reduced enforcement of deceptive pricing claims as a gain for consumers. This is especially true since the possible gains from such enforcement are doubtful and speculative, while the costs are obvious and substantial.

Regulation and Types of Goods

A public authority charged with advertising regulation has a substantial amount of discretion. The nature of language is such that

almost any claim could be interpreted as being deceptive or misleading under some readings, so that there are a large number of cases that could be brought (Craswell 1985). Moreover, most cases brought by the government are settled through consent decrees, so that there is little litigation over the issue of deception.[4] In this circumstance, it is important for regulatory officials to have a strong theoretical basis for bringing some cases and not others. Economics provides this theoretical basis. Economists argue that the basis for regulation should be the effect of claims on consumer welfare, and economics provides a framework for determining which types of ads are more likely to reduce consumer welfare.

Economic analysis indicates that there are three types of characteristics of goods with respect to advertising. These are called "search," "experience," and "credence" characteristics.[5] Search characteristics can be determined before the associated goods are purchased; an example is the color of a suit. Goods must be purchased and used before experience characteristics can be evaluated; an example is the cleansing power of a soap. For credence characteristics, the consumer may never know if the characteristic exists, even after purchase; an example is unnecessary repair to a TV (or unnecessary surgery), for the TV (or the body) will work afterwards even if the repair was unneeded.

Given this classification, some principles of regulation of advertising are instantly apparent. First, for search characteristics, there is no need for regulation. Consumers can immediately determine if the good possesses the advertised characteristic, and cannot be deceived. Moreover, since this is so and firms understand that it is so, there is no incentive for deceptive advertising with respect to these characteristics. Transaction price is a search characteristic (i.e., consumers will know the transaction price before purchase), which is why some attempts by the states to regulate advertising of transactions prices, discussed above, are unneeded and counterproductive. Second, for inexpensive goods, there is little cost to deception with respect to experience characteristics. The consumer will be deceived at most one time with respect to such goods, and therefore in general losses

[4]This may be because of the high reputation cost to a firm from being named as engaging in "deception" (Peltzman 1981). Mathios and Plummer (1989) generally find that firms that contest FTC orders and lose end up with greater capital losses than firms that consent without a contest, although if firms are rational they should have chosen the response that would minimize the losses.

[5]For the discussion of search and experience goods, see Nelson (1970, 1974). For credence goods, see Darby and Karni (1973). For an application to regulation of advertising, see Jordan and Rubin (1979).

will be small.[6] Regulators should concentrate on relatively expensive experience goods and particularly on credence goods.

This analysis has additional implications. In particular, it points to the importance of reputation as a protection against deception and to the importance of advertising in generating a reputation (see Rubin 1990, chap. 8). Economists had long been puzzled by apparently non-informative advertising. Nelson showed that in certain circumstances the very existence of advertising would itself provide information. Advertising would only be worthwhile if it led to repeat sales for experience goods, but firms could expect repeat sales only if the product were of sufficiently high quality. Therefore, the willingness of a firm to spend money on advertising would itself provide information to the market that the firm expected repeat sales because it believed that its products were of high quality.

Problems of assuring or guaranteeing quality arise in many markets. The problem was first analyzed by George Ackerlof (1970) in a famous article dealing with "Lemons."[7] A lemons market is defined as a market that fails in that only low-quality items are sold, even though consumers would be willing to pay high prices for high-quality items. Three conditions are necessary to generate a lemons market. First, consumers must be unable to determine quality before purchase. Second, it is necessary that higher quality goods cost more to produce than lower quality. Finally, there cannot be a credible way for a firm to guarantee quality. If these three conditions are met, then the market mechanism may break down. This will happen because no firm will be able to convincingly promise high-quality items. As a result consumers cannot be sure of obtaining the higher quality and so will not pay the higher price for quality items. Thus, even though consumers would be willing to pay a higher price in order to obtain quality, there will not be an effective way in which this desire can be satisfied. It is in this sense that the market may malfunction.

The lemons problem identified by Ackerlof exists only if firms cannot convincingly communicate to consumers the level of quality in their products. If firms can produce high-quality products and convince consumers that they are doing so, then the market failure disappears. There is a substantial literature devoted to the economics of information that demonstrates ways in which markets can and

[6]In Schmalensee (1978) there are losses to consumers from deceptively advertised experience goods, with losses increasing as consumers believe ads.

[7]The "lemons" in the title refers to the used car market example Ackerlof discussed in the article. Under the conditions in the article, only "lemons" will be sold in this market.

do solve the problem (see Ippolito 1986). The implications of this literature for advertising regulation have not been fully explored.

Klein and Leffler (1981) explicitly related Nelson's discussion of advertising to Ackerlof's lemons problem. They showed that the mechanism identified by Nelson and related mechanisms could be used to solve the lemons problem. Investments in non-salvageable firm-specific capital (capital that would become worthless if the firm were to shut down) would serve to guarantee quality since the firm would lose the value of these investments if consumers dissatisfied with low-quality products forced it to shut down by withdrawing patronage. In addition to advertising, including endorsements by celebrities, such capital includes investments in establishing trademarks and brand names, and investments in physical assets such as signs and decor.

In two articles, Shapiro (1982, 1983) showed that firms could invest in establishing a reputation for being quality producers and that what might appear to be excess profits would actually be a return on this investment. Generalizations of these results were provided by Allen (1984) and by Kihlstrom and Riordan (1984). Milgrom and Roberts (1986) showed that the results were robust to allowing price variation, and that in this situation price itself could sometimes serve as an additional signal of quality. Lynch, Miller, Plott, and Porter (1986) provided an experimental test of these models.[8] They found that it is possible to generate lemons markets in laboratory settings, that truthful advertising will eliminate problems associated with such markets, and that reputations will sometimes serve to eliminate these problems.

Arguments regarding incentives to produce quality are routinely accepted in the economics literature. For example in a recent article on trademarks Landes and Posner (1987, p. 270) indicate that "creating such a reputation [for high quality] requires expenditure on product quality, service, advertising and so on." This article also discusses the importance of creation of property rights in trademarks and brand names. It is only if such property rights are created that firms have proper incentives to maintain quality.

Producing high-quality products will not be worthwhile unless the firm is able to convince consumers that its products are indeed of high quality. The major mechanisms available for providing convincing evidence of quality are investments in firm-specific, non-salvageable assets. The most important investments of this sort are in advertising

[8]Lynch and Porter were FTC economists when this research was undertaken.

the brand name of the product, for such investments are non-salvageable in that they become worthless if the firm ceases to exist.

This means that product reputations are an important guarantor of quality. One potential function of agencies regulating advertising is to prevent firms from exploiting this brand name capital. For example, a firm might suffer business reverses and plan on leaving a market. However, if the firm has established a reputation in this market, it may be worthwhile for the firm to draw down this reputation capital by offering relatively shoddy goods and thus implicitly deceiving consumers. It might be worthwhile for regulatory agencies to police the market to prevent this sort of behavior, although by the time the deception is detected the firm may have exited.

Once it has been decided to confine analyses to particular types of ads and product characteristics, however, the problem is not solved. Any deceptive ad will deceive some and inform others. Therefore, a balancing test of some sort is required in order to determine if a case is worth bringing. Recently, an economic analysis of deception has provided exactly this sort of balancing test: "an advertisement is legally deceptive if and only if it leaves some consumers holding a false belief about a product, and the ad could be cost-effecitvely changed to reduce the resulting injury" (Craswell 1985, p. 657). This criterion for deception essentially says that an ad is deceptive only if the costs of changing it are less than the benefits. Included in the cost of changing the ad is any information lost by those consumers who were not deceived by the initial ad and who would find a proposed substitute less informative. This cost-benefit criterion is a useful guideline for exercise of prosecutorial discretion, and a guideline based on an explicitly economic analysis.

True Claims about Characteristics Other Than Price

The FTC generally allows any advertising which is truthful, with only a few exceptions, such as mandated disclosure, discussed below. The FDA, on the other hand, greatly restricts even truthful advertising. For example, as of now, advertising of true claims for prescription medicines are greatly restricted by the FDA. If a direct-to-consumer ad for a prescription drug mentions both the name and the use of the drug, it must also provide an extensive discussion of contraindications and side effects. These disclosures are commonly pages of small print. As a result, prescription drug ads generally indicate either the name of the drug (usually for price comparison purposes) or that one should "see your physician" for some unnamed treatment for particular symptoms. There are exceptions, such as the current print

ad campaign for Rogain, Upjohn's prescription baldness cure. These ads do contain the complete set of warnings in small print. TV ads for prescription drugs are effectively forbidden by the disclosure requirements.

There are both health and economic benefits to be expected from prescription drug advertising, and the FDA is not providing net benefits to consumers by effectively forbidding such ads (Masson and Rubin 1985, 1986). Direct-to-consumer advertising of prescription drugs could provide at least three sorts of health benefits. First, consumers may suffer symptoms of a treatable disease without realizing that these are symptoms. An example is the thirst associated with diabetes. Advertising of particular drugs associated with treatment of diabetes could alert consumers to this relationship.

Second, consumers may know that they have some condition but not know that it is treatable. Upjohn's baldness drug or Merrell Dow's nicotine gum[9] are examples of prescription drugs that many consumers might choose to buy if they were made aware of their existence and properties through a well-designed advertising campaign.

Third, some drugs may have less undesirable side effects than others for the same disease, and advertising could inform consumers of this fact. For example, some antihistamines are less likely than others to cause drowsiness, and some antihypertensives are less likely than others to cause impotence. Advertising of these drugs could provide benefits to consumers both by reducing side effects and, in some cases, by improving treatment for consumers who have ceased taking medication because of the side effects.

In addition to providing health benefits, increased advertising would lead to lower prices for prescription drugs. Advertising could inform consumers of substitution possibilities and thus put pressure on prices. As of now, many retailers advertise prices of drugs by name, but they cannot indicate the use of the drug. Some consumers may recognize that the advertised drug is the one that they are taking, but others will not and will not be able to benefit from the low prices.[10]

Recently, nine major drugs that may shift from prescription to over-the-counter (OTC) status in the next few years have been identified (Waldholz 1989). Studies of such reclassification in the past indicate

[9]It is particularly ironic that cigarette advertising is common, but advertising of a remedy is very difficult.

[10]For some studies of the effect of advertising on prices, see Benham (1972), Steiner (1973), Marvel (1976), Farris and Albion (1980), Kwoka (1984), and Haas-Wilson (1986).

that they could provide large benefits to consumers (Temin 1983). If it is felt that moving to OTC status would not be desirable even for these drugs, a middle ground would be advertising to consumers of the benefits of the prescription drug. In this way, although consumers would still need to rely on physicians in order to receive the drug, consumers themselves would have more voice in deciding to use the medicine. The FDA denies this option through its policy of forbidding advertising of Rx drugs.

The FDA has advertising jurisdiction over some aspects of OTC drugs and also over some aspects of food advertising, particularly with respect to health claims. The FDA is sometimes unwilling to allow true claims about even OTC drugs. It is continuing its policy of discouraging truthful advertising of the large effects of aspirin in reducing heart attacks, in spite of overwhelming scientific evidence about the truth of this claim (Waldholtz 1989). In recent years, the FTC, which shares jurisdiction in a complex way with the FDA (discussed in Calfee and Pappalardo 1989), has suggested more leniency in allowing true advertising claims than has the FDA. Part of this disagreement is because economists at the FTC focus on benefits as well as costs of advertising and therefore are more likely to advocate allowing true claims.

An issue that arises in discussing "true" claims is the standard of truth. Many claims about product characteristics are uncertain and their validity is probabilistic. Many health claims are of this sort: it is not certain whether or not some claim is true. The proper standard of proof in this case is a cost-benefit test. That is, health claims would be allowed if the expected value (in terms of health outcomes) is positive. If there is some chance that a drug might save lives and if it has relatively insignificant side effects, then a claim might be allowed even if there is a relatively small probability of its being true. The FDA often seems to require a higher standard, under which a claim would not be allowed unless there were perhaps a 95 percent chance that it is true. This would deny consumers much valuable information (Calfee and Pappalardo 1989).

Deception by Omission and Mandated Disclosures

So far, I have dealt with deception in the form of false statements. However, a further class of acts that are sometimes viewed as deceptive are statements that are true but incomplete in some allegedly material way. For these cases, regulatory agencies impose various remedies. Sometimes sellers are held to commit deception by omission. In other cases, there is some mandated disclosure associated

with an ad. These mandated disclosures may be required "across-the-board" for all advertising of a product, or may be "triggered" by some claim (see Beales, Craswell, and Salop 1981).

An example is the recent case filed by several states against Campbell's. The allegation is that Campbell's ads for its soups were deceptive by omission. Campbell's advertised that its soups were healthy because they contained fiber. The states alleged deception because the ads did not disclose other, negative health information regarding the products. Several states have recently signed an agreement with Campbell's under which the firm will pay $315,000 and stop making certain health claims (Koenig 1989).

An example of mandated disclosure is the set of warnings on cigarette packs and in cigarette advertising. These disclosures are across-the-board since any ad for a cigarette requires a health warning. Triggered disclosures are disclosures required only if some other claim is made. For example, under the Truth-in-Lending Act, whenever a statement about interest rates is made, there must also be statements about the amount of down payment and the number and size of monthly payments.

While such disclosure remedies are common, economic analysis casts doubt on their general utility.[11] There is much support in the recent literature for the proposition that, as long as deception is not allowed,[12] there are incentives for sellers to disclose even the negative attributes of their products. This is because consumers will rationally assume that any advertisement which omits a critical piece of information (say, the durability of a product) will imply that the value of that attribute for that product is at the lowest level. As a result, producers of products with quality levels above the minimum will have incentives to advertise this fact, and in the limit the market will provide complete information. The models that prove this result are quite general, and the result seems robust.[13] Indeed, this is probably the most significant result that had not been considered in the earlier literature on deception.

[11]It is useful in many cases for government to devise an appropriate metric, or scoring system, for measuring some attribute. Truth in Lending requires the use of the Annual Percentage Rate as the interest rate; the "R-value" rule requires the use of R values for measuring the effectiveness of insulation. See Beales, Craswell, and Salop (1981, p. 523).

[12]This restriction has little force because if deception is allowed, then disclosure rules will serve no function because sellers will deceptively disclose.

[13]This result has been shown in Grossman (1981), Milgrom (1981), Jovanovic (1982), and Milgrom and Roberts (1986). Jovanovic shows that in many circumstances there will actually be too much information disclosed. For a summary discussion, see Spulber (1989, pp. 449–55).

At first, this proposition may seem unrealistic. However, consider price. The price of a product is a negative characteristic; we would all prefer to get products free. Nonetheless, sellers do routinely advertise prices. As the theory would predict, the advertising is driven by those firms with the lowest prices (that is, the least bad value for a negative attribute). Higher priced sellers may not advertise price at all, but when a consumer observes a product being advertised with no price information, the normal assumption is that it is not a discount price, and may be a high price.

Another example is the advertising of tar and nicotine content of cigarettes (Calfee 1986). In the 1950s (and perhaps earlier) consumers began to fear the health effects of smoking, and began to believe that tar and nicotine were undesirable.[14] As a result, cigarette companies began to advertise the levels of tar and nicotine, with the advertising being stimulated by those brands with the lowest levels. The process was greatly slowed down in 1959 when the FTC virtually stopped such advertising. Nonetheless, there was a substantial incentive for advertisers to publicize the negative aspects of their products, as long as some brands had less negative characteristics than others.

From a theoretical perspective, the process of advertising negative characteristics is the obverse of the lemons problem, discussed above. In a lemons market, information is not verifiable, and as a result only low-quality products are sold because sellers cannot convince buyers to pay for high-quality products. The process discussed in this section requires some form of verification, but the theory indicates that if there is some method of checking on claims, then sellers will offer complete information about both high- and low-quality products. Indeed, the analysis is just the mirror image of the lemons analysis. That analysis shows that if the lemons problem can be solved, sellers of high-quality products will have incentives to reveal that their products are indeed of high quality. But this means in the limit that any seller of a product which is of any quality above the minimum will indicate quality. Consumers may then assume that sellers who do not disclose quality have products of minimum quality, and the informational problem is solved.

In making policy with respect to disclosure, it is important to distinguish between equilibrium and disequilibrium situations. At equilibrium, there will be a substantial amount of disclosure in markets. However, many interesting policy issues occur in periods of

[14]The process described here generally requires at least some consumer information regarding the negative characteristic. However, regulation is unlikely to occur in an environment where there is a total lack of such knowledge.

disequilibrium. Decisionmakers in regulatory agencies may observe this disequilibrium and formulate incorrect policies. It is possible for these policies to lead to consumer injury by delaying or preventing movements toward equilibrium that would occur. The disequilibrium may be with respect to advertising, but it may be in terms of actual product characteristics as well. Advertising affects sales at current prices of existing products. It also influences characteristics and prices of products that firms will offer in the future. Advertising changes future product characteristics because a firm will only produce products or establish prices that it expects to be able to advertise. Thus, interferences with the ability of firms to advertise product characteristics may also have adverse effects on the actual menu of products offered in the market.[15]

A disequilibrium is likely in a market that has changed in some way. Possible changes are in product characteristics, in information about products, or in consumers' tastes. Because there has been some change, existing products will not perfectly satisfy consumers' desires. Nonetheless, producers of those products that are closest to satisfying new desires will have an incentive to advertise this fact. In such circumstances, some advertisers may initially offer partial information to consumers. At some point other advertisers will compete by offering more complete information, and others may compete by further changing the product to reflect changed tastes. The ultimate equilibrium will occur with relatively full information and with the optimal set of products being offered. However, if the process is stopped because regulatory authorities think that the partial information is deceptive, then the full information equilibrium will never be reached, and the best set of products may not be sold.

A good example is the history of advertising of the fiber content of breakfast cereals (see Ippolito and Mathios 1990). This advertising was contrary to the FDA's policies regarding advertising of health claims for foods. Nonetheless, once the advertising began, cereals with higher fiber content increased sales, and new cereals with increased fiber were marketed. Moreover, during the same period, levels of sodium and fat in cereals also decreased. Advertising did a more effective job of spreading this information to consumers than had governmental attempts at communication.

Another example of a change in product characteristics caused by advertising is cigarette advertising, mentioned above. When advertising began, tar content of filter cigarettes was virtually no lower

[15]For a discussion in the context of health claims, see Calfee and Pappalardo (1989, p. 29).

than that of regular cigarettes. Nonetheless, over a short period (1957–59) as a result of heavy advertising of tar and nicotine content, levels (weighted by sales) fell by 40 percent. The first cigarettes to be advertised had perhaps only marginally lower tar levels than other brands, and when regulators looked at this advertising they ultimately stopped it as being deceptive. The long-run effect of the advertising before it was stopped was to actually change product characteristics. As sellers competed by advertising tar and nicotine levels, some producers found it worthwhile to reduce levels in order to be able to advertise lower amounts. Other firms responded, and the ultimate result was reduced levels of tar and nicotine. The benefits to consumers of this dynamic effect of the advertising greatly outweighed any potential harmful effects from any alleged initial deception.

Today we are at the beginning of a new period in advertising. Because of increased health concerns by consumers, producers of foods are increasingly advertising the health benefits of their products. Since such advertising is relatively new, we are now in a disequilibrium situation, with products not yet reformulated to account for the new set of tastes. Therefore, advertisers may not yet be providing the full disclosure that we can expect at equilibrium. Such advertising is regulated by the FTC, the FDA, and the states. The FTC generally allows truth as a defense, while the FDA bans much truthful advertising. In the case of health claims for foods, it is important to consider the long-run equilibrium-creating effects of such advertising.

Regulators may be risking the benefits of long-term dynamic competition by focusing on short-term deception. For example, consider the Campbell's Soup case. If the states' claims are true and Campbell's does have some unhealthy ingredients, even in the absence of regulation we could confidently rely on some one or more of its competitors to advertise a soup that does not have these ingredients. If no one makes such a product now, we can confidently rely on the incentive of someone to begin making the product and advertising it in response to Campbell's ads. The result of the competition, as in the case of prices or of tar and nicotine content, would be to benefit consumers, in this case by ultimately leading to production of healthier products.

Moreover, such competition can be remarkably rapid. For example, recently some food producers began advertising that their products had no cholesterol, a true claim. This advertising sensitized consumers to the dangers of saturated fats. Some advertisers did not indicate that the products were formulated with palm and coconut

oils, and that apparently these oils have many of the harmful effects of cholesterol. Other advertisers, however, began to advertise exactly this: "Our product has no cholesterol *or tropical oils.*" This campaign was in large part financed by the soy bean industry (Purushothaman 1989). Within a very short time, this claim became common.

Moreover, not only did products that had originally not contained tropical oils advertise this, but, as the theory would predict, other manufacturers began to reformulate their products without these oils; firms (including Kellogg, PepsiCo, and others) removed tropical oils from their products. Imports of palm oil fell 44 percent from 1986 to 1987. Had a regulatory authority stopped claims of "No cholesterol" when they began, then the process of advertising "No tropical oils" might well have been delayed or stopped because it would have been more difficult to sensitize consumers to the dangers of saturated fats of all sorts.

The Center for Science in the Public Interest (CSPI), in its comments on a proposed FDA rule regarding health claims on food labels (and also in advertising) ignores the possibility that advertising of health claims might be an evolutionary process (Jacobson 1987). The CSPI is in general hostile to such claims, even if they are true.[16] It suggests, among other things, that producers making health claims should be required to disclose all negative information as well, even though CSPI admits that "in most cases, the food manufacturer will choose not to carry a health claim if required to make such a disclosure" (Jacobson 1987, p. 8). Thus, the CSPI would prefer no health claims to partial claims and is not willing to allow for increased disclosure as advertising drives products and information to a new equilibrium. The result of adopting the policy advocated by CSPI would be not only a reduction in advertising of health claims but also a reduction in the number of relatively healthy products available since firms would not make products that they could not advertise.[17]

There is an additional danger from mandated disclosure, well illustrated in the food context. Our knowledge of nutrition and health is now sketchy and we as a society are continually learning more. For

[16]The recommendation of the petition is a quote from the *New York Times*: "If the Food and Drug Administration cannot write better rules, it had better continue the ban on health claims by writing none" (Jacobson 1987, p. 4).

[17]As an aside, note that the CSPI also recommends an extremely high level of substantiation for health claims. They would require "general agreement among qualified experts," rather than "substantial" scientific evidence. This higher level of substantiation would result in greatly reduced numbers of such claims, since it takes time to reach general agreement (Jacobson 1987, p. 8). This higher level is equivalent to denying many claims that pass a cost-benefit test, as discussed above.

example, we now know (or believe) that certain saturated oils are similar to cholesterol in effect. However, if there were mandated disclosures for *cholesterol* content, then it might have been difficult for advertisers to begin advertising "No tropical oils." Apparently, it is difficult for cigarette manufacturers to advertise carbon monoxide levels and to compete on the basis of less of this chemical because of current disclosure regulations (Calfee 1986). Policy should be clear in allowing advertising to change as knowledge changes if disclosure is mandated.[18]

Remedies

Some remedies for deception that have been used or proposed are, in increasing order of severity, cease and desist orders, corrective advertising, consumer redress, and fines. In order to evaluate these remedies, it is useful to set forth a theory as to the goal of the remedy. The ultimate goal, of course, is maximization of consumer welfare and this can be achieved if it does not pay for firms to engage in acts that are likely to lower welfare. Policies should therefore be aimed at making sure that harmful acts do not pay.

What is relevant is that a remedy provide the correct amount of deterrence. For the types of activities discussed in this paper, it is possible to have either underdeterrence or overdeterrence. Underdeterrence is the situation in which penalties are too low, so that too much deception occurs. Overdeterrence occurs when penalities are too high. While it may appear that it is impossible to have "too little" deception, it is nonetheless possible to overdeter deceptive advertising. This is because, as indicated at many points in this paper, the line between deception and useful information is not always clear, and one result of overdeterring deception through excessive penalties would be the suppression of provision of information that many consumers will find useful.[19]

[18]Although this paper deals with advertising, a disgression on labeling is useful because Congress has recently passed the "Nutrition Labeling and Education Act of 1990," which deals with some of the issues discussed here. The act requires provision of information on "total fat, saturated fat, cholesterol, sodium, total carbohydrates, complex carbohydrates, sugars, dietary fiber, and total protein" (sec. 2). Note that this list freezes in law the current understanding of nutrition, even though this understanding is changing at a rapid rate. (The act does allow the Secretary of the Department of Health and Human Services to change labeling requirements.) For health claims to be allowed, there must be "significant scientific agreement, among experts" (sec. 3) which, as indicated above, is too restrictive a standard.

[19]On the general issue of optimal deterrence, see Becker (1968), Posner (1986, chap. 7), and Polinsky and Shavell (1979). For a discussion of overdeterrence of "white collar crime," see Rubin and Zwirb (1987); advertising is discussed on pp. 904–5.

The traditional FTC remedy for deception was a cease and desist order that required the firm to stop the offending ad. In general, such orders include language forbidding the practice in question in the future and are enforced by fines. This remedy is relatively mild and therefore unlikely to overdeter, although there is evidence dealing with the stock market effects of these orders that indicates that they may be much more costly than is apparent (Peltzman 1981, Mathios and Plummer 1989). The Magnuson-Moss FTC Improvements Act of 1975 has given the Commission broader powers, including the power to enforce rules with monetary penalties and also the power to seek redress for fraud under some circumstances. The Commission relies heavily on the theory of optimal deterrence in computing fines, and the economists are deeply involved in these computations.

For most deception cases, the Commission still relies on cease and desist orders. In most cases, this is the appropriate remedy. As indicated above, a determination that an ad is deceptive is difficult, and many ads may be innocently written and later interpreted as being deceptive. Even when using their best efforts, firms will sometimes err and produce an ad that is later held to be deceptive. Since this is so, any penalties more severe than an order to stop could easily cause firms to reduce the amount of potentially actionable material in their ads; this would be done by simply reducing the information content of the ads, and relying instead on puff or image advertising.

The Commission has also reduced its reliance on corrective advertising. This is appropriate since most evidence indicates that the effects of advertising are short lived;[20] therefore, the effects would likely have dissipated before the corrective ad would appear. The only purpose of a corrective ad would be additional deterrence. But if this goal is desired, it can be achieved more efficiently through direct methods.

The FTC has powers to name advertising agencies as well as advertisers in complaints for deception. If agencies have skills in assuring that ads are not illegally deceptive, then finding them liable would seem to increase the ability of the Commission to deter deception. However, advertisers have contractual agreements with agencies. Therefore, if advertisers want agencies to help them comply with the law, they can contract for these services. It would even be possible for an advertiser to contract with an agency for indemnification by the agency in the event of liability. More generally, it would not be efficient for agencies to determine the truth or degree of substantiation for each ad they produce. Imposing liability would

[20]See Ehrlich and Fisher (1982), McAuliffe (1987, p. 69), and Thomas (1989).

increase the costs of advertising since agencies would be forced to make an independent investigation of each ad.

Holding agencies liable would perhaps increase deterrence, but as we have seen there is no evidence that deception is being underdeterred, and some fear of overdeterrence. Moreover, if it is desired to increase deterrence, then this can be done directly—for example, by giving increased publicity to Commission findings of deception. Since orders with respect to agencies would cover ads in many areas and for many types of products, overdeterrence is particularly likely. Therefore, there is no general argument for finding agencies liable. For many years, the Commission had not named agencies, for essentially this reason. Recently, the FTC seems to have changed this policy (King 1990), but this change is unwise. Advertising agency liability adds to costs and provides no benefit.

For those acts that are to be punished by a fine, it is important to use the correct fine. First, it is appropriate to restrict the use of fines to true fraud (deception where the firm is consciously attempting to deceive) since this reduces the chances of overdeterring provision of true information. Second, the correct fine is one that is just equal to the (expected) harm caused by the deception. Such a fine will provide firms with the correct incentives. Since some who engage in deception will not be caught, the actual fine must be greater than the observed harm for those who are detected. If, for example, one offender of three is detected, then the fine must be equal to three times the harm caused by those who are punished. In this case, the probabilistic value of the fine to someone considering violation will just be equal to the harm his act will cause, and the result will be that firms will not undertake acts that impose net harms on consumers. As indicated above, this is the exact goal of deterrence. (For a discussion of computation of probabilities, see Feinstein 1990.)

Conclusion

The most harmful regulatory policy toward advertising is the suppression of true information.[21] Consumers have greatly benefitted by increased price advertising as a result of various policy initiatives. The FTC, both in its enforcement policies and in its submissions to other regulatory bodies, is increasingly encouraging disclosure. Other regulatory bodies (the states with respect to true price claims, the FDA with respect to true health claims) have not fully absorbed this lesson. While it has been long kown that true information about

[21]This conclusion is supported by Schwartz and Wilde (1979), and by Beales, Craswell, and Salop (1981).

price is useful, the newer literature indicates that this point is more general, and that *all* true information should be encouraged.

There are powerful incentives for disclosure of even adverse information. Firms will disclose approximately optimal amounts of information, and markets will use this information and provide the correct set of products. Rules mandating disclosure are generally unnecessary, and often harmful. Inefficient policies may limit the amount of information that consumers will receive. Moreover, inappropriate rules regarding disclosure can thwart the tendency of markets to provide the correct set of products for consumers. No regulatory agency has yet absorbed this lesson.

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