

Targeted Advertising and Social Status

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The Issue

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- Audi's television commercial during Super Bowl XLII
- Vogue Magazine's 2008 fall fashion section
- Advertising campaigns for Nike Air Jordan shoes, Apple iPhone

What makes these examples different?

The Idea

Non-targeted advertising can exploit consumers' desire for social status

- Informative advertising allows consumers to buy the good, but also to recognize it
- Consumption can give social status if it signals wealth - if it is visible (Veblen, Frank (1985), Ireland (1994))
- Observers can only understand if they can recognize the good
- Firm advertises a high-end good to those who do not buy, to increase the social status (WTP) of those who do

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Examples were of visible goods, often associated with status

Other Explanations

Alluded to in Kapferer and Bastien (2009). Similarity with Kraemer (2006), otherwise absent from economics literature on advertising.

1) Cost Reasons

- Esteban, Hernandez and Moraga-Gonzalez (2006), Esteban, Gil and Hernandez (2001)

2) Signaling Product Characteristics

- Nelson (1974), Milgrom and Roberts (1986)

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The Model

Supply

- Monopolist, produces m varieties of a visible status good
- Faces a market of t types of consumers, differing only in wealth
- For each variety $x_k \in M$, firm sets p_k and decides to which types $a(x_k)$ it will advertise
- Cost of advertising is small but strictly positive
- There is also a composite good, price normalized to 1

The Model

Demand

- Wealth evenly distributed between w_L and w_H
- Consumers are initially uninformed about all varieties. A consumer becomes informed about variety x_k iff the firm advertises to his type.
- Type j takes action $\alpha_j \in \{(x_k) \in M \cup \{\emptyset\}\}$: to purchase zero or one unit of one variety of which he is informed
- Remaining wealth spend on composite good (strictly concave)

Intrinsic Utility: $V(w_j - p_{\alpha_j}) + u_0 1_{\alpha_j \neq \{\emptyset\}}$

Status Utility

- $\lambda > 0$ multiplied by average belief of other consumers about type j 's wealth minus $(w_L + w_H)/2$

Bayes' Rule:

- Type i conditions his beliefs about j on the variety j buys, and on the varieties i recognizes
- If j buys a variety of which i is informed \rightarrow average wealth of those who buy that variety
- If j does not buy a variety of which i is informed \rightarrow average wealth of all who do not buy such a variety

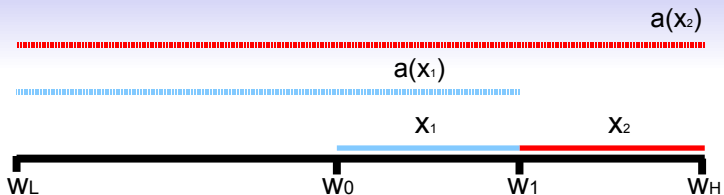
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Consumers who only buy the composite good, and those who buy X_1 are fully informed. They believe consumers in each market segment have the average wealth of those in that segment

Consumers who buy X_2 cannot recognize X_1 . They believe anyone who buys the composite good or X_1 has wealth $(W_L + W_1)/2$

Results, Single Variety

In equilibrium, the firm sets p_0 so that all consumers with wealth over some critical type w_0 buy. It advertise to all consumers.

Intuition:

- Standard monopoly effect and status effect move in same direction
- WTP is increasing in wealth, so sell to those over a critical type
- Status utility from buying is then positive, and from not buying is negative
- Advertise to all consumers, to increase status incentive to buy

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Results, Multiple Varieties

Say λ is small. Then in equilibrium, the firm sets p_k so consumers on $[w_{m-1}, w_H]$ buy variety x_m and those on $[w_{k-1}, w_k)$ buy variety x_k for $k \neq m$. It advertises x_k to all consumers with $w < w_k$.

Intuition:

- Advertising x_k to poorer consumers reduces their utility, but not their WTP
- Unravelling
- Further differentiates essentially identical goods
- Tension between status effects and price discrimination

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Multiple Varieties - continued

Poorer consumers receive more ads, but mostly for varieties they cannot afford

Consumers are better able to distinguish between those who are wealthier than they are, than those who are poorer

Beliefs of poorest consumers have the largest effect on willingness to pay for a variety

Further Issues

What if λ is large?

- Trade-off between exploiting status effects and price discrimination may now be different
- Example: advertise each variety to all consumers
- There, advertising to wealthier consumers than those who buy does not reduce the ability to price discriminate by very much

Further Issues

What if consumers could search at small cost?

- Idea that advertising and search can be substitutes
- Firm may not advertise to consumers if it expects them to search themselves
- If search costs are sufficiently low, the firm may not advertise to all consumers who buy
- Would still advertise to all consumers who do not buy

Welfare

The poorest consumers to buy each variety would have higher utility if the firm did not sell the status good

- Lowest type to buy any variety is indifferent with only buying the composite good
- That gives lower status utility than if the firm did not sell the status good
- Drives up the price, leaving even some consumers with high status worse off

Welfare

Measure change in consumer welfare by compensating variation (CV). Let $V(w) = \ln(w)$.

For λ small, $CV < 0$ and non-targeted advertising can increase social welfare

- Sale of the status good is welfare increasing just like when $\lambda = 0$
- Non-targeted advertising transfers status utility from poor to wealthy consumers

For λ large, $(\pi - CV) < 0$ and non-targeted advertising decreases social welfare

- Consumers with below average status would need increasingly large compensating transfers.

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Thanks