Conspicuous Consumption and the Strength of Social Ties

MPhil Thesis Defense

Nick Vikander

Tinbergen Institute, vikander@tinbergen.nl

September 18, 2007

Defining terms (1)

Conspicuous Consumption

- A type of status-driven consumption
- Consuming $\longrightarrow$ demonstrate wealth to others $\longrightarrow$ achieve social status
- Luxury cars and homes, designer clothes, electronics. Visibility
- Veblen (1899): The Theory of the Leisure Class

Defining terms (2)

Social Ties

- People's social relationships with one another
- Strength: "[A] combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterize the tie." (Granovetter 1973)
- Friends and acquaintances

Outline of Presentation

1. What I do in this thesis
2. The type of results I obtain
3. A few questions related to motivation
4. Why make the connection between status-driven consumption and social ties?
5. Why model it the way I do?
6. How to interpret the existence results
7. The formal model
8. Results
9. Perspectives

1. What I do in this thesis

Game theoretic model that links status-driven consumption and the strength of people's social ties

Main elements:

- Consumers differ in type (talent) which is linked to both income and status
- Utility both directly from consumption and from status
- What do consumers choose? Whether to have strong or weak social ties, and how to split income between visible and non-visible consumption
- Strong ties: low income, status follows directly from talent
- Weak ties: higher income, status determined by inference of talent through visible consumption - signaling
- No intrinsic utility to social ties

2. The type of results I obtain (1)

Following Ireland (1994), I look for separating equilibria. What kind of equilibria exists?

- Strong ties, low income, undistorted consumption? Generally, no.
- Weak ties, high income, distorted consumption? Yes, if income gain is large enough.

2. The type of results I obtain (2)

What does the weak ties equilibrium look like?

- Distortions: all except the lowest type consumer
- Welfare: higher income pushes up, distortions drive down
- People may be worse off than with low-income and strong ties
- Everyone would be better off if they could obtain high income with no need to signal

3. A few questions related to motivation

Come back to the formal model, assumptions driving the results

First, address the issue of motivation

- Why make the connection between status-driven consumption and strength of social ties?
- Why model it in this way? Conspicuous consumption as a signalling issue, necessary with weak ties (high income) but not with strong ties (low income)
- How can I interpret the existence results? Weak ties equilibrium

4. Why make the connection?

The two strands of literature are generally distinct, yet anecdotal evidence suggests conspicuous consumption may be more prevalent in large, dynamic social settings where ties are weak.

- Areas with high labour mobility, Frank (1985)
- Urban centers rather than rural areas, Veblen (1899). Also:

> *"The serviceability of consumption as a means of repute, as well as the insistence on it as an element of decency is at its best in those portions of the community where the human contact of the individual is widest and the mobility of the population is great."*

5. Why model it in this way? (1)

Model status-driven consumption in terms of signaling: common approach, idea of information transmission

- Veblen: visible consumption contributes to status to the extent it is seen and admired by others
- Ireland (1994): consumers separate to distinguish themselves from lower types
- Bernheim (1994): consumers conform and avoid extremes
- Bagwell and Bernheim (1996): Veblen effects

Signal what?

5. Why model it in this way? (2)

Also think of social ties in terms of information transmission - but distinct types of information

Strong ties make signaling redundant:

- By their very nature, better at transmitting information about intimate personal characteristics (talent, natural work ethic)
- These same characteristics can relate to status, reducing need to signal

Weak ties give higher income:

- Better at transmitting novel information from one part of a social network to another
- Why? "Because our close friends tend to move in the same circles in which we move, the information they receive overlaps considerably with what we already know" (Granovetter 2005)
- Financially advantageous - job offers (Granovetter, Lin), model deterministically

6. How to interpret the existence results? (1)

Recall results:

- Strong ties, low income, no distortions through signalling? Generally, not an equilibrium.
- Weak ties, high income but distortions through signalling? An equilibrium if income gain is large enough.

My interpretation: can help explain difference between large, dynamic, urban settings on the one hand, and small, traditional rural settings on the other.

Why? Key model assumptions more plausible in the former than the later.

6. How to interpret the existence results? (2)

1) Social ties is a choice variable

- Freedom to choose in an urban setting
- Contrast with rural life: more social control mechanisms (Bouffard and Muftie, 2006)

2) Weak ties make status depend on signalling

- Large social setting, anonymity of the city
- Contrast with idea that in a village, "through the medium of neighborhood gossip ... everybody's affairs, especially everybody's pecuniary status, are known to everybody else" (Veblen).

3) Weak ties yield higher income

- New opportunities more likely to arise quickly and in a different part of the social system

7. The Formal Model (1)

- Consumers differ in terms of type τ (talent), distributed over $[0, \tau_{\max}]$
- Strategy: choose social ties θ_S or θ_W, consumption goods v (observable) and w (unobservable)
- Simplify here, let θ be unobservable

Choosing social ties affects budget set: Income $I = y_0 + \theta\tau$

- Income greater with high talent, weak ties (since $\theta_W > \theta_S$)

7. The Formal Model (2)

Choosing social ties affects utility function

- If consumer τ chooses weak ties then his utility is:

$$(1)\ U(v, \theta_W) = \lambda f(v, w) + (1 - \lambda) g(\phi(v))$$

where f is consumption utility, g is status utility, ϕ are beliefs, λ is relative weight of consumption utility.

- If consumer τ chooses strong ties along with everybody else, his utility is:

$$(2)\ U(v, \theta_S) = \lambda f(v, w) + (1 - \lambda) g(\tau)$$

- If consumer τ chooses strong ties and a fraction R of total consumers choose weak ties, his utility is a weighted average of (1) and (2), with weight $\alpha(\theta_S, R)$ on (1). $\alpha(\theta_S, R)$ is increasing with R.

7. The Formal Model (3)

- Assumptions on the utility function: concavity, complementary, lowest type consumer
- Bayes-Nash equilibrium
- Look for separation in v with differentiable inference function $\phi(v)$
- All consumers will be recognized as their true type

8. Results (1)

Existence

1) No consumer ever chooses strong ties in equilibrium

- Can consume more of v and w, appears to be a higher type consumer

2) Given θ_S, if θ_W is above a certain level then a weak ties equilibrium exists. This level is decreasing in $\alpha(\theta_S, 1)$

- When $\alpha(\theta_S, 1)$ is large, status level of deviant to strong ties still depends largely on signaling - makes deviations unattractive

8. Results (2)

Consumption and Welfare

3) All consumers except for the lowest type distort their visible consumption in the weak ties equilibrium

- Credibility, prevent marginally lower type from imitating

4) θ_W may be large enough such that the equilibrium exists, but some consumers are still worse off than with low-income and strong ties

- Role of $\alpha(\theta_S, 1)$: if it equalled zero this could not occur

5) All consumers except for the lowest type would have higher utility if they did not need to signal with weak ties

6) Total utility is increasing in type/income, but consumption utility may not be

- Both due to distortions

Perspectives

1) Evolution

2) Networks and signaling

3) Social norms

Thank you