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Is more always better?: A survey on positional concerns

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Abstract

We use survey data to provide some empirical information about concerns regarding relative standing. Respondents chose between a world where they have more of a good than others and one where everyone's endowment of the good is higher, but the respondent has less than others. Questions asked about education, attractiveness and intelligence for one's child and oneself, income, vacation time, approval and disapproval from a supervisor, and papers to write. Half of the respondents preferred to have 50% less real income but high relative income. Concerns about position were strongest for attractiveness and supervisor's praise and weakest for vacation time.

JEL classification: D0 (General Microeconomics); D1 (Household Behavior)

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> "It is hard to understand how anyone can say that it is fair to oppose a cut in the capital gains tax that has so many advantages and hurts no one – just because it benefits high-income taxpayers more than others."
>
> Martin Feldstein (1994)

1. Introduction

People care about their relative position in society for many reasons. For example, a high standing in society can yield respect, admiration and power. How well an individual

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feels that he is doing in society is typically affected more by his relative position than by his absolute wealth. Yet relative position has received little attention in economics. Economists generally assume that utility is a function of the individual's endowment, independent of his relative position.

Envy is one reason individuals care about their relative status.[1] It creates distortions in the economy and its presence raises important policy questions (Frank, 1985a; Bannerjee, 1990; Elster, 1991; Choi, 1993). The few economists who have treated the subject suggest that envy is powerful and pervasive. For example, Bannerjee writes that "it seems unquestionable that, for some people at least, the pleasure they get out of a particular consumption bundle will be less if they feel that everybody around them has more than (they), than if they feel that they are pretty much on a par with the rest of their group." Frank (1985a) declares that "someone whose close associates all earn $50,000 a year is likely to feel actively dissatisfied with his material standard of living if his own salary is only $40,000... Yet that same person would likely be content if his closest associates earned not $50,000 but $30,000 a year."

We use survey data to provide some empirical information about concerns regarding relative standing, which we will call positional concerns. We asked respondents which of two worlds they would prefer to live in: in one world they have more of a certain good than others in society; in the other world everyone's endowment of the good is higher, and although the respondent has more than he had in the first world, he now has less than other people.[2]

We explore four hypotheses:

1. Position matters for many goods and attributes. In other words, people will not overwhelmingly prefer a situation in which everyone, including themselves, has more of some beneficial commodity or attribute. Their relative position also matters.
2. Position matters much more for some goods and attributes than it does for others. In some cases, people show strong preferences for greater absolute levels of attributes or goods, even if it means that they are worse off when compared to others.
3. Positional concerns have different impacts for goods compared to bads. Compared to goods, people seem to care more about the absolute amount of bads rather than the relative amount.
4. Position matters more when choosing for one's child than when choosing for oneself. Conventional wisdom indicates that we wish our children to have every possible advantage. Frank (1985b), for example, claims that "of almost overriding importance in the structure of human motivation will be a taste for seeing to it that one's children are launched in life as successfully as possible," which depends on their relative,

[1] Following Varian (1974), social welfare theorists use a criterion called 'envy-free' to distinguish among Pareto-optimal allocations. In this usage, one individual envies another if his utility would be higher with that person's bundle than with his own. With the more common definition of envy, which we are using, an individual can envy someone for certain portions of his endowment without necessarily wishing to exchange bundles, and he can envy someone simply for being above him, rather than for the size of his bundle.

[2] At first glance, it may appear that since each individuals's endowment has increased, the second world is Pareto superior. However, as will be shown, an individual who is above average in the first world and below average in the second world, does not necessarily consider herself better off. Hence, we will not describe the second world as Pareto superior.

rather than absolute, levels of skills and endowment. He gives a child's education as an example of a good for which interpersonal comparisons loom the largest.

2. Literature review

The importance of relative standing has a long if checkered history in economic theory. Veblen (1899) popularized the concepts of conspicuous consumption and conspicuous leisure, emphasizing the importance of actions designed to display one's relative position in society. James Duesenberry (1949), used the idea of the 'demonstration effect' to explain how a family's consumption is influenced by the purchases of its neighbors. And John Kenneth Galbraith (1958) argued that most consumer demands do not stem from innate needs, but are largely determined by society.

Robert Frank's *Choosing the Right Pond* (1985a) is the most comprehensive recent exploration of concerns about relative standing. In his work, positional[3] externalities are said to occur when 'one person's action alters an important frame of reference for others' (Frank, 1991). The 'positional treadmill' is the process by which each person strives to gain advantage, but since all are trying to get ahead, all remain in the same relative position (Frank, 1985a). Like others (Hirsch, 1976; Sen, 1983), Frank notes that positional concerns may be completely rational, in that high relative standing may be crucial to achieving many desirable objectives. For example, good looks have been found to command a 5 percent wage premium for both sexes in all occupations, while ill-favored workers received a 'plainness penalty' of up to 10 percent (Hamermesh and Biddle, 1994).

Frank argues that positional concerns can explain many real world phenomena. For example, he claims that intrafirm wage profiles are flatter than standard theory predicts (Frank, 1985a). Lower productivity workers are paid more than their marginal product, to compensate them for their low status, and higher productivity workers earn less, willingly transferring part of the surplus they create in return for their higher status.

Survey data suggest that happiness is affected by relative, rather than absolute, income levels (Easterlin, 1973; Duncan, 1975–76; Easterlin, 1995). At any point in time, the rich tend to be happier than the poor. But over time, the proportion of people reporting that they are happy does not increase with increases in the average income of society. In a large body of literature, Bernard van Praag and Arie Kapteyn, along with various co-authors, develop and test a model in which an individual's satisfaction with a certain level of income is influenced by his own current and past income and the (weighted) incomes of others (see, e.g. Kapteyn and Wansbeek, 1985).

Using data on sisters, Neumark and Postlewaite (1993) tested a model in which a woman's decision to enter the labor market was affected by the family's concern about its relative income. They hypothesized that a woman might choose to work because her sister had raised her family's standard of living by entering the labor market. They found that women's employment decisions were influenced by the employment decisions of

[3] The term 'positional' has not been applied uniformly. Positional goods were initially defined, by Hirsch (1976), as those that are in fixed supply or subject to congestion with increased use.

their sisters, controlling for family factors that might lead sisters to behave similarly. Andrew Abel (1990) found that a utility function that incorporates other people's consumption as well as one's own, which he terms a desire to 'catch up with the Joneses' was most successful in explaining the equity premium puzzle.

A series of experiments by Frohlich and Oppenheimer (1992) explored the principles people use to determine the just distribution of income when they are unaware of their position in the distribution, as described by Rawls (1971). Their subjects preferred to maximize income with the minimum income exceeding a chosen amount (nearly 75 percent opted for this rule) rather than to maximize the minimum income (Rawls's criterion) or to maximize income within a range of incomes or to maximize income with no constraint on minimum income or range. In our study, if respondents used the rules agreed upon by the Frohlich and Oppenheimer study participants, they would overwhelmingly select the nonpositional state of the world. However, unlike the Frohlich and Oppenheimer study, our respondents are aware of what their position in the income distribution will be.

Our survey attempts to identify what things create positional externalities and when we might find ourselves on a positional treadmill. To what extent are positional externalities imposed when I work harder and raise my income, take extra vacation time, receive praise from my supervisor, or have cosmetic surgery?

Some researchers have used direct questions to explore positional concerns about income. Zeckhauser (1991) asked his students informally whether they would rather have per capita income be $25,000 in Japan and $24,000 in the United States or $22,000 in Japan and $23,000 in the United States. He reports that while many prefer the United States to be more prosperous, their views sometimes shift when he chides them for being envious. Tversky and Griffen (1991) asked subjects whether they would rather work at Magazine A, where their salary is $35,000, but colleagues earn $38,000, or Magazine B, where they are paid $33,000, and other workers earn $30,000. Magazine A was chosen by 85 percent, although, interestingly, in another group, 64 percent believed they would be happier at Magazine B.

Frank (1985a) asked his readers to speculate whether they would prefer to earn $100,000 as a high-income resident of Earth, or to emigrate to another planet, where they would earn $1,000,000, but be among the worst off in the society. In his thought experiment, Frank presents one's endowment as a bundle; income, intelligence, house and neighborhood, children's intelligence, even wit and charm are all equal or greater on the new planet. But compared to other inhabitants, one is above average on Earth and below average on the new planet.

Relative standing in attributes other than income can influence behavior. It may be comparisons in the nonpecuniary aspects of life on the new planet that lead Frank's readers to remain earthbound. Elster notes that we may envy ''another person's success, happiness, intelligence, health, good looks, sunny disposition, character, knowledge, wealth, before-tax income, after-tax income, material possessions, power, title, job, or status – or even his freedom from enviousness.'' He presents a systematic breakdown of goods, beginning with whether they are transferable. All can inspire envy.

We have discovered only one empirical work on the existence or extent of positional concerns about items other than income. Frank (1985b) has tested the proposition that

spending on nonpositional goods is higher in a close-knit group (because members realize that additional positional consumption will leave rankings within the group unchanged) by showing that union contracts spend more on unobservables. In addition to assuming that unobservables are nonpositional, Frank (1985a) has declared that such things as insurance, leisure time, and safety devices are not positional. These propositions have not been established empirically.

It is particularly important to ask whether leisure is a positional good. Positional concerns about income can cause people to work too many hours, giving them higher absolute income but little change in relative income. This dynamic is based on the assumption that positional concerns for income loom larger than positional concerns for leisure – an assumption that has never been tested.[4]

3. Methods

In February 1995, 257 faculty, students and staff at the Harvard School of Public Health responded to a survey. The survey consisted of twelve questions in the same format (see Appendix A). Each question presented two states of the world. In each state of the world, respondents were told how much they had of a certain good, bad, or personal attribute, and how much the typical other person in society had. Amounts were structured so that in one case, the 'positional' case, the respondent had more than others in society. In the other case, the 'absolute' case, amounts for both respondents and others were greater than in the positional case, but respondents had less than others in society. Two examples are given below:

A: Your current yearly income is $50,000; others earn $25,000.
B: Your current yearly income is $100,000; others earn $200,000. (Prices are what they are currently and prices (therefore the purchasing power of money) are the same in states A and B.)

A. You have 2 weeks of vacation; others have 1 week.
B: You have 4 weeks of vacation; others have 8 weeks.

Here State A is the positional and State B, the absolute case. Respondents were asked to indicate which of the two worlds they would prefer to live in. Questions were asked about education, attractiveness and intelligence for one's child and oneself, income, vacation time, approval and disapproval from a supervisor, and papers one had to write.

It has been shown that people tend to view gains differently from losses and to prefer the status quo, even when the status quo is established merely through the premise of a hypothetical survey question (Tversky and Kahneman, 1981; Samuelson and Zeckhauser, 1988). To account for such effects, we created two versions of the survey, which differed only in the order in which the two states of the world were presented. Respondents seemed to view the first state as the status quo and to decide whether they would prefer to change to the second state.

[4] We thank an anonymous referee for emphasizing this point.

When the positional state of the world is first, the second state has more for everyone. This configuration will be called the 'gain' survey, because absolute amounts are higher for goods (lower for bads) in the second state than in the first state. When the positional state is listed second, everyone's endowment is greater in the first state. This arrangement will be called the 'loss' survey, because amounts are lower for goods (higher for bads) in the second state.

If relative standing matters not at all to an individual, or the gain to himself outweighs the desire for higher status, he should choose the world where he (and everyone else) has more. Altruism would also lead him to favor that world. If he prefers the world in which he has relatively more than others, his desire for higher standing in society must be stronger than his own desire for more in absolute terms combined with any altruistic feelings he has toward others.

Subjects were also asked their age, gender, years of education, nationality, number of children, family income (for students, their income before beginning graduate school), and whether they were faculty, student or staff.

An important limitation of our evidence is that we report answers to purely hypothetical questions, rather than observing actual behavior. Respondents may not have thought out their answers completely. However, respondents were clearly intrigued by the questions, and enjoyed contemplating, discussing and defending their choices. The survey became the talk of the school.

4. Results

Approximately 50 percent of the respondents preferred a world in which they had half the real purchasing power, as long as their relative income position was high (Table 1).

Positional answers were much more common for certain questions than for others. Respondents preferred lower absolute levels of physical attractiveness, both for

Table 1
Positional concern by type of good

	Percentage giving 'Positional' answer	
	'Gain' (N=146)	'Loss' (N=101)
Child's attractiveness	80	56
Praise from supervisor	77	58
Own attractiveness	75	55
Child's intelligence	71	52
Own intelligence	68	49
Child's education	56	40
Income	56	38
Own education	50	31
Berated by supervisor	33	40
Papers to write	31	24
Vacation (Q 3)	18	14
Vacation (Q 11)	18	10

themselves and their children, and fewer times receiving praise from a supervisor, if it meant that they would have more than others in society. By contrast, respondents tended to select more weeks of vacation time, even though others in society had even more time for vacations than they. This finding suggests that in their pursuit of high relative income people are unlikely to be restrained by a desire for greater relative leisure.

In their informal comments after completing the survey, respondents volunteered that their positional choices were not motivated primarily by envy. Many seemed to see life as an ongoing competition, in which not being ahead means falling behind. In their view, consistent with theorists who emphasize the instrumental nature of positional concerns, a higher relative standing leads to such desirable outcomes as access to better jobs and education, improved marital prospects and the opportunity to pass these advantages to one's children.

The pattern of answers – with physical attractiveness and intelligence among the most positional goods and vacation time the least – suggests that positional concerns loom larger for goods that are crucial in attaining other objectives than for goods that are desirable primarily in themselves. Respondents' interest in their relative standing may be a rational reaction to the way the world works.

A bias for choosing the state listed first was evident in our results. The proportion of positional answers differed substantially according to the order of the states of the world (Table 1). For nearly every question, subjects were more likely to select the positional situation when it was presented first (the 'gain' context) rather than second. However, the ordering of goods by percentage choosing the positional case was largely unchanged by whether the positional state was listed first or second.

Respondents were asked about attractiveness, intelligence and years of education for their children as well as for themselves. In each case, positional answers were more common when choosing for one's child. For example, in the 'gain' context, 80 percent chose the positional state for their child's attractiveness, vs. 75 percent for their own attractiveness. The size of the difference varied by survey format, with average percent positional answers for the child questions being quite higher in 'gain' responses ($p<0.01$ in a pairwise t-test) but only marginally higher in 'loss' responses ($p=0.21$). The probability of answering positionally when considering one's children was not affected by whether the respondent actually had any children (not shown).

Respondents appeared to differentiate bads from goods. The answers for two bads – being berated by one's supervisor and having to write papers – were among the least positional. Whatever order the states were listed in, between two-thirds and three-quarters of respondents preferred the state in which they were berated less often and had fewer papers to write, although others received even fewer of these 'bads.'

The probability of choosing the positional case did not differ by any demographic category (not shown), except that students were more likely to make positional choices than either faculty or staff (Table 2). Relative standing may be more important to students because they feel themselves in constant competition with one another, to earn approval and good grades while in school and to establish themselves in society after graduation.

Controlling for income and age in a multiple logistic regression, the largest and most significant effects of student's status were seen for questions on their own attractiveness and their child's attractiveness. Positional concerns about physical attractiveness may

Table 2
Effect of student status on positional concerns

	Percentage giving 'Positional' answer[a]		Logistic regression results[b]	
	Students (N=159)	Others (N=79)	Coefficient for student	Pseudo R^2
Child's attractiveness	76	49***	1.24***	0.13
Praise from supervisor	73	54**	0.60	0.08
Own attractiveness	73	49***	0.97**	0.10
Child's intelligence	67	48*	0.66	0.06
Own intelligence	64	49*	0.47	0.07
Child's education	54	33**	0.73*	0.06
Income	52	35*	0.69*	0.04
Own education	47	26**	0.74*	0.07
Berated by supervisor	43	20**	0.89*	0.07
Papers to write	27	28	0.07	0.01
Vacation (Q 3)	20	10	0.79	0.02
Vacation (Q 11)	17	10	0.48	0.02

[a] Weighted to correct for proportions answering in 'gain' and 'loss' frame.
[b] Controlling for 'gain'/'loss' frame, income (dummy variable for income of 20,000 or less), and age (dummy variable for age under 30). Regressions with an additional dummy for age over 45 yielded very similar results.
*p<0.05; **p<0.01; ***p<0.001.

weigh more heavily on students because they were less likely to be married, even controlling for age; unfortunately, we did not ask for respondents' marital status.

Other samples might yield somewhat different results. Our respondents have more education than the typical individual and perhaps differ in other characteristics. However, it is not clear how the characteristics of the sample affect the results. We might expect that individuals of high standing are more likely to answer positionally, because we know that people prefer to maintain the status quo. But we might expect individuals of low relative standing to be more likely to answer positionally, because they may be keenly aware of the importance of high status.

Similarly, variations in the questions posed might affect the proportions choosing the positional state. Results were very similar in the two questions asked regarding vacation time. However, it may be that people are less sensitive to changes in the magnitude for vacation time than for other goods, such as income. Indeed, we could imagine that by systematically adjusting the figures for income, we could discover the point for each individual at which he is indifferent between the two states of the world. Using these indifference points, we might be able to rank people by concern for relative standing in the same way that they are classified by their time preference or level of risk aversion. Attitude toward risk is considered an important dimension along which people differ. Attitude toward relative standing may be equally important in affecting satisfaction and behavior (Elster, 1991).

5. Conclusion

Both absolute well-being and relative position seem to matter to people. Our evidence indicates that positional concerns are extremely important. In our survey, half of the

respondents said they would prefer a world in which they have 50 percent less real income, so long as they have high relative income.

Concerns about position were strongest for physical attractiveness and praise from a supervisor. By contrast, vacation time did not evoke widespread concern for relative standing. Positional concerns appeared stronger for goods than for bads. Finally, although differences were not consistently significant, people were slightly more likely to select a higher relative position with a lower absolute quantity when choosing for their children than for themselves.

Ignoring positional concerns may lead to incorrect descriptive explanation. The effects of government fiscal policy can not be accurately evaluated without including reactions to changes in relative position (Ng, 1987). For example, positional concerns may explain the reluctance of suburban tax payers to help improve sub-standard schools in rural and inner-city areas. It is probably not apathy or lack of awareness of the problem but the desire not to foster additional competition for their own suburban children (Kozol, 1991).

Ignoring positional concerns can also lead to flawed policy prescriptions. People have a keen interest in being above average in looks as well as income and education. The powerful concern for greater relative physical attractiveness can lead everyone to expend resources simply to remain in the same relative position (Wolf, 1991). Including cosmetic surgery in insurance contracts, for example, may lower the out-of-pocket price, increase the quantity of services consumed and enlarge the deadweight loss.

In the opening quotation, Martin Feldstein asks how anyone can oppose a cut in the capital gains tax, since it would help the rich and would not hurt the poor. But benefits to the rich will hurt the poor if the poor, like everyone else, care about their relative standing. The majority of respondents to our survey rejected the prospect of everyone becoming richer if it was accompanied by a fall in their own relative standing. For them, a policy that increased their absolute income but lowered their relative income did not make them feel better off.

Appendix A (Survey Instrument)

In the questions below, there are two states of the world (State A and State B). You are asked to pick which of the two you would prefer to live in. The questions are independent. For each question, circle either A or B, or if undecided, both A and B. ‘Others’ is the average other person in society.

1. Note that prices are what they are currently and prices (the purchasing power of money) are the same in States A and B.
   A: Your current yearly income is $50,000; others earn $25,000.
   B: Your current yearly income is $100,000; others earn $200,000.
2. A: You have 12 years of education (high school); other have 8.
   B: You have 16 years of education (college); other have 20 (graduate degree).
3. A: You have 2 weeks of vacation; others have 1 week.
   B: You have 4 weeks of vacation; others have 8 weeks.

4. A: You are berated by the supervisor twice this year; others are berated once.
   B: You are berated by the supervisor 4 times this year; others are berated 8 times.
5. Assume intelligence can be described by IQ on current tests.
   A: Your IQ is 110; others average 90.
   B: Your IQ is 130; others average 150.
6. Assume physical attractiveness can be measured on a scale from 1 (lowest) to 10 (highest).
   A: Your physical attractiveness is 6; others average 4.
   B: Your physical attractiveness is 8; others average 10.
7. A: You are praised by the supervisor twice this year; others are not praised.
   B: You are berated by the supervisor 5 times this year; others are praised 12 times.
8. A: Your child has 12 years of education (high school); other people's children have 8.
   B: Your child has 16 years of education (college); other people's children have 20 (graduate degree).
9. A: Your child's IQ is 110; other people's children average 90.
   B: Your child's IQ is 130; other people's children average 150.
10. A: Your child's attractiveness is 6; others average 4.
    B: Your child's attractiveness is 8; others average 10.
11. A: You have 1 week of vacation; others have none.
    B: You have 2 weeks of vacation; others have 4 weeks.
12. A: You have to write 2 papers; others have to write 1 paper.
    B: You have to write 3 papers; others have to write 4 papers.

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