Running head: STATUS QUO LABEL BIAS

Loss Aversion and Status Quo Label Bias

Avital Moshinsky

National Institute for Testing and Evaluation

Maya Bar-Hillel

The Hebrew University

May 26, 2009

2

Abstract

Many factors contribute to status quo perseverance, some justifiable, some not. We focus on

an advantage accruing to a policy from just calling it status quo, which is that the mere label

makes it look better. When comparing pros and cons of competing policies, labeling one

"status quo" sets it up as the reference point with respect to which pros and cons are

potentially either losses or gains. Since "losses loom larger than gains", pros one has weigh

more than pros one does not, while the reverse holds for cons, thereby tilting the overall

balance of pros and cons in favor of the policy designated as status quo. Direct evidence for

this account is presented by showing that: (a) A policy's attractiveness increases when it is

labeled status quo; (b) A policy's attractiveness is predictable from its pros and cons; and (c)

The magnitude of status quo enhancement is predictable from a quantitative model that

measures aversion to potential losses (accruing to having it replaced). Alternative processes,

which may be valid in other paradigms, are obviated in the present one.

Key words: social policies, status quo bias, loss aversion.

Loss Aversion and Status Quo Label Bias

In defining inertia, Newton (1729) stated: "The innate force of matter is a power of resisting, by which every body, as much as in it lies, endeavors to preserve in its present state" (in Motte, 1846, p. 72). Persistence in the absence of external influences, and resistance to them, characterize the social world as well as the physical one. But whereas in the physical world inertia is a property of objects, in the social world, it is a property not of *states*, but of the *actors* upon those states. Inertia in the social domain has been called *status quo bias* – even though it isn't necessarily always a bias. First and foremost, the status quo may have achieved its status through superiority over alternatives. Once in place, stability may be valued in itself, or transaction costs may be prohibitively high. To obvious economic and political costs entailed by any action, and policy change in particular, one may add social and personal costs such as the need for accountability (e.g., Lerner & Tetlock, 1999; Tetlock & Boetgger, 1994) and responsibility costs (e.g., Howard, Matheson & North, 1972). That said, this paper will target a genuine bias in evaluating status quo policies.

Three types of tendencies confer advantage to status quo:

1. Tendencies to refrain from action altogether (e.g., Anderson, 2005; Ritov & Baron, 1992). In a seminal paper, Samuelson and Zeckhauser (1988) noted: "Most real decisions ... have a status quo alternative -- that is, doing nothing or maintaining one's current or previous decision" (p. 7). Indeed, since status quo is almost always also the default, any tendencies against action or choice (such as: decision aversion¹; choice deferral; omission bias; inaction inertia) uphold the status quo.

¹An anecdote exemplifying decision aversion is related by Richard Feynman: "Chicago were looking for someone to take [Fermi's] place. ... they asked me if I wanted to know the salary. 'Oh, no!' I said. "... I've decided not to decide any more; I'm staying at Caltech for good." (1985, p. 236).

- 2. Tendencies towards particular actions ("to follow customary company policy, to elect an incumbent to still another term in office, to purchase the same product brand, or to stay in the same job", Samuelson & Zeckhauser, p. 8) -- in particular routinization of choice (e.g., Betsch, Haberstroh, Glöckner, Haar & Fiedler, 2001) -- also uphold status quo.
- 3. A third type of tendency makes status quo look better than it would otherwise. Social psychologists such as Jost and his colleagues offered a motivated account for this tendency system justification theory (e.g., Jost, Banaji & Nosek, 2004) which posits a psychological need to view the existing order in a positive light.

Some advantages that accrue to states that are already in place ("what is, is right", Pope, 1735) extend readily to possessions ("what's mine, is good"), accounting for people's excessive attachment to objects they already own. But to explain why people like their owned objects more, social psychologists added a new account (e.g., Barone, Shimp & Sprott, 1999; Beggan, 1992), that derives from self-evaluation: "I like it, because I like myself" (Gawronski, Bodenhausen & Becker, 2007).

Economists noted a similar phenomenon – people's reluctance (outside of markets) to sell or trade goods they own, manifested in the positive difference between selling prices and buying prices. This *endowment effect* (Thaler, 1980) is strikingly demonstrated in the following experiment. Students were shown coffee mugs and chocolate bars, both retailing for similar prices at the university bookstore. They were then randomly given the one or the other, and allowed to exchange it if they so wished (Knetsch & Sinden, 1984; Kahneman, Knetsch & Thaler, 1990). In both groups, almost all declined, preferring to walk away with their endowed good.

It was noted that status quo bias is to policies what endowment effect is to commodities (e.g., Thaler, Kahneman & Knetsch, 1992). A favored cognitive account for both is based on

two ideas from Prospect Theory (Kahneman & Tversky, 1979) – *loss aversion* and *reference dependence*, as follows.

Relative pros and cons of the competing policies -- or objects -- are compared. Due to reference-dependence (Tversky & Kahneman, 1991; Kahneman, 1992), this comparison is not invariant irrespective of where one stands when contemplating it (hence the bias). From a position of having A, pros of B which one would acquire in an exchange constitute gains, but pros of A that would be surrendered if B replaces A are experienced as losses. That is reference dependence. Similarly, cons of A which would be shed in an exchange constitute gains, whereas cons of B acquired in a change would be losses. The pros and cons in question could either be related to the possible moves ("exchange" vs "stay") or to their outcomes ("new" vs "old", respectively). The former is a decision bias, supporting inertia: "[I]ndividuals have a strong tendency to remain at the status quo, because the disadvantages of *leaving it* loom larger than the advantages" (Thaler, Kahneman and Knetsch, 1992, p. 68, italics ours). The second is a judgment bias: "The commission option is represented as a gain in some dimension and a loss in the other, relative to the omission (default), which is taken as the reference point" (Baron and Ritov, 1994, p. 479). Both exist (e.g., Schweitzer, 1994). Now loss aversion kicks in. "Because the negative utility of losses is greater than the utility for equivalent gains, people will prefer the default" (Baron and Ritov, 1994, p. 479).

It follows that a policy would be *liked better* as status quo than otherwise. This straightforward prediction has not, however, been tested directly, but only inferred (e.g., "Those who were given lottery tickets *seemed to like them more* than those who were given money"; Thaler, Kahneman & Knetsch, 1992, p. 64, italics ours; see, however, Strahilevitz & Loewenstein, 1998). As an inference, it is unparsimonious, given all the other reasons for status quo bias. But it can be shown independently.

Let *status quo label bias*, or *SQLB*, denote the difference between the attractiveness of some policy when it is status quo and its attractiveness when it is not. SQLB is to status quo bias, SQB, what enhanced attractiveness is to enhanced durability. SQLB necessarily contributes to SQB, but not vice versa². The present study hypothesizes that SQLB exists, namely, a policy is *liked more* when it is labeled status quo; we also hypothesize that SQLB's magnitude is directly related to loss aversion. These hypotheses are tested in Study 1. Study 2 shows that alternative accounts for our results can be ruled out in the present paradigm.

Study 1

Method

Stimuli. In experimental studies of status quo bias, respondents were randomly endowed with hypothetical policies (e.g., Ritov & Baron, 1992; Samuelson & Zeckhauser, 1988; Schweitzer, 1994; Tetlock & Boetteger, 1994), and made hypothetical choices. Allocating participants into real states-of-affairs at random is problematic, because experimenters typically have no control over the policies governing their respondents' circumstances. Johnson and his colleagues solved this by considering striking quasicontrolled data (Johnson & Goldstein, 2003; Johnson, Hershey, Meszaros & Kunreuther, 1993). Our solution was choosing issues regarding which our respondents by-and-large did not know the prevailing policies. Consequently they also were not a priori more familiar with, accustomed to, or committed to (Samuelson & Zeckhauser, 1988) any policy.

Table 1 about here

² Consider a metaphor for the two effects. In a perfect pan balance, order in which objects are placed on the pans is irrelevant. However, when the fulcrum is rusty, the second weight must overcome friction in addition to the first's weight, giving the latter an advantage. If the first weight is analogous to SQ, friction is analogous to SQ bias in choice. SQLB in this metaphor would be like a weightless sticker, which, when affixed to a weight, nonetheless brings it down. Both being first, and carrying a sticker, confer an advantage to the target weight, but are nonetheless distinct.

All the policies we ran appear in Table 1, just as described to our respondents. Nothing was said about what their costs, consequences, implications, side effects, etc. might be.

Participants and procedure. Respondents were 899 undergraduate students from The Hebrew University (53% female; most 21 - 25 years old) ³. They were approached after classes in their lecture halls and asked to linger and answer a short questionnaire. We promised that one respondent in each hall, determined by lottery, would win a monetary prize (unlinked to performance). Prizes (in New Israeli Shekels) were about 2-times-N (rounded up), where N was the number of respondents in the hall, and the average prize was about 100 NIS (then about \$25). The task rarely took over 10 minutes. Students were randomly assigned to questionnaires.

Tasks. Each questionnaire addressed a single row of Table 1, opening with the phrase "According to the prevailing policy in Israel today …", and describing it briefly (e.g., that there are certain restrictions on advertising alcohol on TV). This was followed by a sentence saying: "A suggestion has been put forth to change it…", briefly describing the proposed change (e.g., to remove the restrictions). Respondents were asked, in this order, to:

- 1. "Please list advantages (if any) and disadvantages (if any) of the proposal described above [respondents were asked either about the prevailing policy, or about the alternative policy, but not both]. After doing so, please indicate next to each of the items in your list its importance, on the following scale: 4 very important, 3 important, 2 not so important, 1 unimportant".
 - 2. "In your opinion, which policy is better? (Please mark X in the proper place)The current policy _______ ".

³Exact Ns are reported for each data point in the Results. Occasional disparities reflect occasional missing data.

We call this dependent variable "popularity".

3. "How would you evaluate the [current/proposed] policy? (Circle the relevant digit in the following scale)

Very bad - | 1 2 3 4 5 6 | - Very good "

We call this dependent variable "attractiveness".

In addition, respondents were asked (on another page) whether they knew what the prevailing policy actually was. After questionnaires were returned, respondents were debriefed.

Manipulation check. The percent of respondents who claimed knowledge of the prevailing policy ranged from 5% (Arts and Crafts) to 30% (Prostitution), with a mean of 19%. This overestimates their real knowledge: Most who claimed to know the prevailing policy thought it was the policy we labeled as SQ (none spontaneously challenged the information given, true or false), but under 40% were correct. Be that as it may, we calculated results both with and without these respondents. Results did not differ.

Design. Overall design was a 10 (policy issues) – by – 2 (which policy was presented as the prevailing one) – by – 2 (for which policy pros and cons were elicited) between-subjects design.

Results

1. SQLB exists: Policies are liked better when they are labeled SQ.

Figure 1 shows the popularity of policy A. Popularity was measured by the percentage of respondents who judged a policy better than its alternative. The policy denoted A is that policy in a policy pair whose popularity as status quo was the higher of the pair. We measured popularity once when A was labeled the prevailing policy, or SQ (left bar in a pair), and once when A was presented as the alternative policy, or NSQ (for Not Status Quo -- right

bar in a pair)⁴. By denotation, all left bars are necessarily greater than 50%. Issues are ordered in decreasing popularity as SQ (i.e., decreasing in height of the left bars).

Figure 1 about here

The critical finding is that 9 of the 10 left-side bars are larger than the right-side bars (the child-testimony bars are tied). In other words, a policy's popularity, measured by the percent of respondents who liked it better than its competitor, increased when it was presented as SQ (exact binomial test, p=0.02). This is the hypothesized SQLB effect. In size, the status quo label added up to 36% to a policy's popularity (Advertizing Alcohol). A parametric test showed that its mean magnitude, 19%, is significant as well as large (t=5.15, df=9, p<0.001, Cohen's d= 2.13, Cohen, 1988).

With a single exception (Mandatory Rescue), even the right-side bars are greater than 50%. In other words, the same policy, A, was more popular whether it was designated SQ or not. So SQLB did not typically cause preference reversals (only once, Mandatory Rescue, was a B policy more popular as SQ), just preference shifts.

Besides measuring the policies' comparative popularity (task 2), we also separately measured each policy's attractiveness (task 3). SQLB shows up in the attractiveness ratings as well. Table 2 shows the mean rating of each policy, once when it was labeled SQ, and once when it was not. Each of the 20 rows of the table constitutes a different group of respondents. Each respondent rated both competing policies. Half were told that the policy labeled A is the status quo, and half were told that the policy labeled B is the status quo. The SQLB hypothesis is that any policy will be given a higher rating if it is the status quo than if it is not.

⁴All numbers reported throughout the paper are rounded. Calculations were done with unrounded numbers.

Consider, for example, the first policy issue, advertising alcohol on TV. The rating of Policy A ("with restrictions") was 4.66 when it was SQ, and only 3.74 when B ("without restrictions") was SQ. The difference of 0.92 is A's benefit from being labeled SQ, and is positive, as predicted by the SQLB hypothesis. Similarly, B's benefit from being labeled SQ is 3.50 minus 2.10, which is also positive, as expected. Looking throughout the table, we find that 16 of the 20 comparisons it affords are positive (exact binomial test, p=0.01). So, as hypothesized, being SQ usually enhanced a policy's rating. We reduced the SQLB in each policy pair to a single number by summing A's and B's SQLBs. The result is in the rightmost column.

Table 2 about here

For a parametric test, we averaged all ratings for Policy A as SQ (3.99) and as not SQ (3.69 – see the final rows of Table 2), and subjected the difference to a t-test (t=3.51, df=893, p=0.0002, d=0.23). Similarly for Policy B (t=8.03, df=897, p<0.0001, d=0.54). The SQLB effects were significant.

Since the comparison task and the ratings task are two ways to tap the same effect, it is not surprising that the results for the two tasks are similar. Pearson's correlation between SQLB in the popularity measure (Figure 1, the difference between left and right bars) and in the attractiveness measure (Table 2, rightmost column) over the 10 policy pairs is 0.86 (significantly positive by r-Pearson test, p<0.0005).

2. Balanced pros and cons predict a policy's attractiveness.

Recall that respondents listed pros and cons of one of the two contending policies, and assigned importance weights to each feature listed. Can a policy's attractiveness be modeled as a function of its weighted pros and cons? For each policy-by-status (i.e., separately for the policy-qua-SQ, and for the policy-qua-NSQ), the sum of importance weights given to its listed cons was subtracted from the sum of importance weights given to its listed pros, to

derive a "net balance" (within respondent, sum was chosen, not mean, because pros could outweigh cons by sheer numbers or by importance or by both; across all respondents, these sums were, of course, averaged).

The numbers thus obtained were correlated with the mean attractiveness rating of this policy-by-status 5 . Pearson's correlation was 0.65 (r-Pearson test, p<0.0005). Correlation across 560 individual participants 6 between the net balance of the considerations they listed for their respective target policy, and the rating they gave it, was 0.52 (r-Pearson test, p<0.0001). The balance of pros and cons thus accounts for 25%-40% of the variance in policy attractiveness (depending on the target correlation).

3. Loss aversion predicts the magnitude of SQLB.

Pros and cons do not map directly onto gains and losses, respectively. The former are attributes of a state, whereas the latter are attributes of a change of state. When contemplating a change from SQ, the status quo, to NSQ, the alternative, giving up the pros of SQ is a potential loss (they will be lost in the exchange), but acquiring the pros of NSQ is a potential gain. Similarly, giving up the cons of SQ is a potential gain, whereas acquiring the cons of NSQ is a potential loss (see Table 3).

Table 3 about here

To map pros and cons onto potential losses and gains, in each policy pair, the SQ-pros were combined with the NSQ-cons as potential losses, whereas the union of SQ-cons and NSQ-pros yielded potential gains. Subtracting the weights of these losses from the weights of these gains in effect gives us loss aversion for that issue. This result was correlated with both

pros and cons bothered to give them weights, for a total of 560 participants for this correlation.

⁵ There were 10 issues, and 20 policies, each of which was presented either as a SQ or as a NSQ, for a total of 40 policy-by-status cases. But due to a technicality, in 4 issues out of the total 10, participants listed pros and cons only for the NSQ policy, thereby reducing the number of pairs which figured in this correlation to just 32.

⁶ Not all of the participants who rated a policy bothered to list its pros and cons, and not all of those who listed

measures of SQLB, that of popularity (Figure 1), and that of attractiveness (Table 2). The respective correlations between the magnitude of loss aversion and the magnitude of these two SQLB measures across the 10 issues were, respectively, 0.59 and 0.72 (both r-Pearson tests significant, p<0.0001). In other words, the larger the loss aversion evident in respondents' evaluation of their policy pair, the greater the advantage bestowed by the SQ label.

Study 2

Although we showed that loss aversion accounts for a sizable proportion of the variance in SQLB, could the effect nonetheless be rather due primarily to some social mechanism that presumes in favor of status quo (system justification theory, norm compliance, deference to authority, etc.)? In other words, perhaps when a policy is labeled SQ, it becomes better liked due to the respondent's inference that its very status is evidence of its merit (e.g., system-justification), rather than due to some biased calculation of this merit (i.e., loss aversion).

To address this possibility, it is necessary to see whether SQLB survives when the loss aversion mechanism is blocked while the viability of social presumptions is maintained. This we did by retaining the questions' original formulations yet describing the target policies in a manner that prevents their specific pros and cons from coming to mind. If consideration of pros and cons is blocked, then the loss aversion mechanism cannot kick in, because it requires the pros and cons to operate on. In Study 2, we report several different attempts to do just that – to block loss aversion without blocking social considerations, and then to test whether SQLB survives.

A total of 352 students answered the various questionnaires in Study 2. They were recruited and run similarly to Study 1 (but without monetary reward; these tasks were much shorter).

The first two questions explored only the conversational implicatures (Grice, 1975) of our paradigm's original template. The social cues were preserved in the very words of Study 1, but policies were stripped of any concrete content. Twenty two respondents answered the following question (the distribution of their results, here and below, appears in parentheses):

Suppose you are told that: "The prevailing policy in Israel is such-and-such." And in addition are told that: "A suggestion has been made to change it to so-and-so".

- What does this formulation make you think?

The prevailing policy is the better of the two. (2)

The proposed alternative is the better of the two. (20)

For another 29 students, the question following the same opening phrases was:

- Which of the following inferences seems to you more reasonable?

The prevailing policy is probably better, because those who decided

in its favor must have had their reasons. (3)

The prevailing policy is probably not so good, because there are those

who consider replacing it. (26)

Similar, though somewhat attenuated, results were obtained even when the phrase about a suggested change to the status quo was dropped for the next group of 25 respondents, leaving SQ unchallenged.

Suppose you are told that: "The prevailing policy in Israel is such-and-such".

- What does this formulation make you think?

The prevailing policy is better than some alternative policy. (8)

The prevailing policy is worse than some alternative policy. (17)

Finally, there wasn't even mention of any alternatives, just a direct query about trust in SQ. Even in this much weakened version, most of the 33 new respondents did not accept the suggestion that being status quo is a good reason to think well of it.

Suppose you are told that: "The prevailing policy in Israel is such-and-such."

- Which of the following inferences seems to you more reasonable?

The prevailing policy is probably good, because those who decided in

its favor must have had their reasons, which can be trusted. (14)

The prevailing policy is probably not so good, because those who decided in its favor must have had their reasons, which cannot be trusted. (19)

Odd as it is to say nothing substantive about the prevailing policy (or its alternatives), it gets to the heart of the matter – do the questions trigger any presumption in favor of SQ? Clearly, even when explicitly given possible arguments for answering thus, most respondents actually tended *away* from SQ (82 out of a total of 109 - 75%; z-test, p < 0.0001).

A second series of questions mimicked the precise format of our original questionnaires, except for omitting the specific details of the competing policies. For example, respondents were told: "A certain policy prevails in Israel regarding the advertising of alcohol on TV. A suggestion has been made to introduce some changes in it". Just as in the original questionnaires of Study 1, respondents were asked:

"How would you evaluate the [current/proposed] policy?

(Circle the relevant digit in the following scale)

Very bad - | 1 2 3 4 5 6 | - Very good "

Deliberately, we stated neither what the prevailing policy is, nor what the proposed changes are. One can hardly list pros and cons of an unspecified policy, hence no such list was requested.

The same was done for two more issues. Finally, a totally abstract and contentless issue was presented (verbatim: "The prevailing policy in Israel is such-and-such. A suggestion has been made to change it to so-and-so"). The results are the numbers displayed in the top of Table 4's cells.

The bottom numbers were obtained in the same way, except the phrase "A suggestion has been made to introduce some changes in it" was omitted. In other words, although the

(unspecified) status quo is compared to a (similarly unspecified) alternative, no statement explains where the alternative comes from.

Table 4 about here

If our questions elicit presumptions that status quos are based on good justifications, we should find SQLB in Table 4, as we did in Table 2. But the table shows no systematic SQ advantage. Overall, respondents split almost evenly between the contending policies in the popularity percentages 7 (proportions test, NS). In the attractiveness ratings, if anything it was the NSQ that was favored (see Totals -- for the top row, t=0.64, df=216, NS; for the bottom row, t=-1.89, df=266, p<0.03). Since the social context of the questions was preserved entirely, opportunity for social presumptions favoring SQ to kick in was not less than in the original questions. But the loss aversion mechanism was blocked – without pros and cons there is no grist for its mill – thus obliterating SQLB.

General Discussion

In real-world contexts, it is not always easy to determine whether a particular manifestation of reluctance to change, or resistance to change, or even aversion to deciding altogether, is rational or justifiable. Clearly, some changes are good and others bad, just as some resistance to change is good and some bad (see, e.g., Ford, Ford & D'Amelio, 2008). Moreover, certain changes are good in some ways and bad in others simultaneously, and may also be good for some while they are bad for others. We wouldn't even argue that the fact that being status quo enhances likeability is necessarily irrational. We know, for example,

-

⁷ Our raw ratings data show that this is not merely the effect of random choice between tied options. Only 18% of the respondents gave the same rating to both options, and most gave ratings that differed by 2 points or more.

that "familiarity breeds liking" (Zajonc, 1968; Bornstein, 1989) -- often for excellent reasons; and one is naturally more familiar with status quo than with its virtual alternatives.

Yet the effect reported here, due to the particular methodology whereby it was elicited, can only be regarded as a bias. Indeed, it is a form of the notorious framing effect (Tversky & Kahneman, 1981), that pervasive and troublesome violation of invariance which here causes the selfsame policy to be rated differently, simply because the judge changes the position wherefrom judgment is rendered.

The design of this study strips away many factors and reasons for favoring status quo. By employing a rating task rather than a decision task, it rendered irrelevant all costs, considerations, and biases that accrue to decision making, simply because no decision making was required. By using issues regarding which our respondents did not know the true facts of the matter, we neutralized the "mere exposure effect". A "motivated taste" account, whereby "if you can't have what you love, love what you have", or "if you can't have what you want, don't want it" is here implausible, because the text explicitly suggests that change is possible — it has even been already proposed. Finally, control questions where loss-aversion was blocked while leaving social cues intact ruled out those presumptive social advantages to SQ that are variations of the so-called naturalistic fallacy.

We do not dispute the literature about the various effects abovementioned, which we believe are genuine, and do contribute to status quo perseverance. Our claim here is that even when they are nullified, the mere fact of labeling a policy "status quo" enhances its likeability, by providing a biased viewpoint from which its relative pros and cons are evaluated. "How much do you like it?", we claim, is not independent of where one stands – in cognitive terms, rather than social ones – when pondering one's reply.

Gal (2006) calls loss aversion an "illusion", declaring it superfluous on ground of parsimony. A propensity to retain status quo rather than change it, says Gal, explains

everything that loss aversion has been hitherto invoked to explain. He pointed to "a paradoxical situation: loss aversion is cited as the explanation for ... the endowment effect [and] status quo bias ... and, circuitously, the same phenomena are cited as evidence for the existence of loss aversion" (p. 2). For example, Thaler (1980) stated that via loss aversion, "goods that are included in the individual's endowment will be *more highly valued* ... because removing a good from the endowment creates a loss while adding the same good ... generates a gain" (p. 44), but confirmed this prediction from people's reluctance to trade endowed goods. Our results are not circuitous. Enhanced valuation of SQ was not inferred from Gal's primary variable, choice inertia, but rather measured directly by valuations. Loss aversion was not inferred from these valuations, but from directly measured losses and gains. Thus, though our study was not motivated by a desire to defend the principle of loss aversion, it shows a manifestation of loss aversion that is neither illusory nor superfluous.

In economic theory, revealed preferences rely on belief that observed, or explicit, choice reveals unobserved, or implicit, valuation. It is routine for economists to infer that if rational people exhibit a preference for retaining the status quo over changing it, then, modulo transaction costs, they must prefer the status quo itself to the alternative. Psychologists, however, are intimately acquainted with the many ways in which people are not rational (i.e., inconsistent); and in particular with elicitation dependence (i.e., with how inconsistent preferences are constructed, rather than revealed, by changing choice elicitation methods; see e.g., Gregory, Lichtenstein & Slovic, 1993). In such cases, valuations cannot be inferred from choice, any more than they can predict choice. Status quo certainly has advantages in choice as well as in valuation. The reasons, however, are not necessarily the same, and they are better studied independently.

References

- Anderson, C.J. (2003). The psychology of doing nothing: Forms of decision avoidance result from reason and emotion. *Psychological Bulletin*, *129*, 139-166.
- Baron, J. & Ritov, I. (1994). Reference points and omission bias. *Organizational Behavior* and Human Decision Processes, 59, 475-498.
- Beattie, J., Baron, J., Hershey, J.C. & Spranca, M. (1994). Determinants of decision seeking and decision aversion. *Journal of Behavioral Decision Making*, 7, 129-144.
- Beggan, J.K. (1992). On the social nature of nonsocial perception: The mere ownership effect. *Journal of Personality and Social Psychology*, 62, 229-237.
- Betsch, T., Haberstroh, S., Glöckner, A., Haar, T. & Fiedler, K. (2001) The effects of routine strength on adaptation and information search in recurrent decision making. *Organizational Behavior and Human Decision Processes*, 84, 23-53
- Bornstein, R. F. (1989). Exposure and Affect: Overview and Meta-Analysis of Research, 1968-1987. *Psychological Bulletin*, 106(2), 265-289.
- Coate, S. & Morris, S. (1999). Policy persistence. *American Economic Review*, 89(5), 1327-1336.
- Coch, L. & French, Jr., J.R.P. (1948). Overcoming resistance to change. *Human Relations*, *1*(4), 512-532.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Feynman, R.P. (1985). "Surely You're Joking, Mr. Feynman!": Adventures of a Curious Character. NY: W.W. Norton & Company.
- Ford, J.D., Ford, L.W. & D'Amelio, A. (2008). Resistance to change: The rest of the story.

 *Academy of Management Review, 33(2), 362-377.
- Gal, D. (2006) Psychological law of inertia and the illusion of loss aversion. *Judgment and Decision Making*, 1, 23-32. Available at http://journal.sjdm.org/06002/jdm06002.htm.

- Gregory, R., Lichtenstein, S. & Slovic, P. (1993). Valuing environmental resources: A constructive approach. *Journal of Risk and Uncertainty*, 7, 177-197.
- Grice, H. P. (1975). Logic and Conversation. In P. Cole and J. Morgan (eds.), *Syntax and Semantics*, Vol. 3, NY: Academic Press, 41-58.
- Howard, R.A., Matheson, J.E. & North, D.W. (1972). The decision to seed hurricanes. *Science*, 176,1191-1201
- Johnson, E. J. & Goldstein, D. (2003). Do defaults save lives? Science, 302, 1338-1339.
- Johnson, E.J., Hershey, J., Meszaros, J.& Kunreuther, H. (1993). Framing, probability distortions, and insurance decisions. *Journal of Risk and Uncertainty*, 7, 35-51.
- Jost, J.T., Banaji, M.R., Nosek, B.A (2004). A decade of system justification: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, 25, 881-919.
- Kahneman, D. (1992). Reference points, anchors, norms, and mixed feelings. *Organizational Behavior and Human Decision Processes*, *51*, 296-312.
- Kahneman, D., Knetsch, J.L. & Thaler, R.H. (1990). Experimental tests of the endowment effect and the Coase theorem. *Journal of Political Economy*, *98*, 1325-1348.
- Kahneman, D. & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263-291.
- Kahneman, D. & Tversky, A. (1982). The psychology of preferences. *Scientific American*, 246, 160-173.
- Knetsch, J. L. & J. A. Sinden (1984). Willingness to pay and compensation demanded:Experimental evidence of an unexpected disparity in measures of value. *Quarterly Journal of Economics*, 99, 507-521.
- Kraus, S. & Wang, X. T. (2003). The psychology of the Monty Hall problem: Discovering psychological mechanisms for solving a tenacious brain teaser. *Journal of*

- Experimental Psychology: General, 132 (1), 3-22.
- Lerner, J. S. & Tetlock, P. E. (1999). Accounting for the effects of accountability.

 *Psychological Bulletin, 125(2), 255-275.
- Newton, I. (1729). *Mathematical Principles of Natural Philosophy* (translated into English by Andrew Motte, 1846), First American Edition: New York.
- Pope, A. (1735) An Essay on Man.
- Ritov, I. & Baron, J. (1992). Status quo and omission bias. *Journal of Risk and Uncertainty*, 5, 49-61.
- Samuelson, W. & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk* and *Uncertainty*, 1, 7-59.
- Schweitzer, M. (1994). Disentangling status quo and omission effects: An experimental effect. *Organizational Behavior and Human Decision Processes*, 58, 457-476.
- Strahilevitz, M. & Loewenstein, G. (1998). The effect of ownership history on the valuation of objects. *Journal of Consumer Research*, 25, 276-289.
- Tetlock, P. E. & Boettger, R. (1994). Accountability amplifies the status quo effect when change creates victims. *Journal of Behavioral Decision Making*, 7, 1-23.
- Thaler, R. (1980) Toward a positive theory of consumer choice, *Journal of Economic Behavior and Organization*, 1, 39-60.
- Thaler, R., Kahneman, D. & Knetsch, J. L. (1992). The endowment effect, loss aversion and status quo bias. In R. Thaler, *The Winner's Curse*. Princeton: Princeton University Press, 63-78.
- Tversky, A. & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science, New Series, 211(4481)*, 453-458.
- Tversky, A. & Kahneman, D. (1991). Loss aversion in risky and riskless choice: A reference

- dependent model. Quarterly Journal of Economics, 107, 1039-1061.
- Tykocinski, O. E., & Pittman, T. S. (1998). The consequences of doing nothing: Inaction inertia as avoidance of anticipated counterfactual regret. *Journal of Personality and Social Psychology*, 75, 607-616.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9(2), 1-27.

Author Note

Avital Moshinsky, National Institute for Testing and Evaluation, Jerusalem, Israel;
Maya Bar-Hillel, The Hebrew University, Jerusalem, Israel.

This work was supported by grants from The Sturman Center for Human

Development, The Center for the Study of Rationality, and The Eshkol Institute for

Economics, Social and Political Research in Israel (all three of The Hebrew University), and

by a grant from The Israel Foundation Trustees. We thank the Israeli National Institute for

Testing and Evaluation for their support. This paper is based on a PhD dissertation carried out

by the first author under the supervision of the second author.

Correspondence concerning this article should be addressed to Maya Bar-Hillel , The Center for Rationality, The Hebrew University, Jerusalem 91904, Israel. E-mail: maya@huji.ac.il

Table 1

The social policy issues and their alternatives

Policy issue	Policy options (the true SQs are marked with a *)					
1. Advertising alcohol on TV	* Impose certain restrictions on advertising alcohol on TV, regarding content, age of models, and hours of airing.					
	Allow the advertising of alcohol on TV without restrictions.					
2., 3. Arts and crafts in	Devote 5 hours a week to extracurricular classes such as sports, art, drama, music, etc.					
elementary school ^{a, b}	Devote 7 (3) hours a week to these classes, taking 2 hours from (adding 2 hours to) academic studies.					
4. Affirmative action in college admissions	* University admissions will be determined by a score combining mean matriculation grade and Psychometric Entrance Test grade, as well as taking into account certain socio-economic factors of some candidates deemed worthy of preferential treatment.					
	University admissions will be determined by a score combining mean matriculation grade and Entrance Test grade only.					
5. Feeding alley	Allowed.					
cats ^b	Prohibited.					
6. Legalizing prostitution	* Allow prostitution, if it is done without public disturbance, in a private location, and with nobody but the prostitute gaining monetarily from it.					
	Forbid prostitution by law.					
7. Rescuing people in peril	* A person who does not voluntarily try to prevent damage is held legally responsible, and can be sued.					
	No legal responsibility on a person who could have, under certain circumstances, acted to prevent damage to people or property. I.e., even if that person did not so act, he or she cannot be sued.					
8. Owning	Prohibited.					
Rottweiler dogs as pets ^b	Allowed.					
9. Taking testimony from child victims of sexual abuse	* Child victims will be interrogated by specialized child interrogators, not by the police. If the case goes to court, the interrogator will testify for the child (except in special cases where the interrogator determines that the child can testify him or herself). Since this testimony is indirect, additional incriminating evidence will be required to convict.					
	Same procedure as from adults. Child victims will be interrogated by the police, and if the case goes to court, will testify in court. Since this is direct testimony, no other evidence will be required for conviction.					
10. Statute of limitations on civil suits	* Civil suits will be subject to a binary standard of statute of limitations, as follows: suits regarding land 15 years, and all other suits 7 years.					
	Civil suits will be subject to different statutes of limitations for the different possible categories (e.g., breach of contract 6 years; accidents 3; bodily injury 3; rentals 6; breach of trust indefinite; land 12; etc.).					

Table 2

Mean attractiveness ratings for the 20 policies -- as SQ and as NSQ

	Policy rating	polic	еу А	policy B				
Policy issue		mean	SD	N^{a}	mean	SD	N^{a}	SQLB effect
	The status quo is:							
1. Advertising alcohol	A - With restrictions	4.66	1.0	58	2.10	0.9	59	2.32
on TV	B - No restrictions	3.74	1.4	58	3.50	1.2	58	
2. Arts and crafts hours	A - 7 hours a week	4.00	1.2	29	2.53	1.1	30	1.58
in school, 7 vs 5	B - 5 hours a week	3.86	1.4	29	3.97	1.0	29	
3. Arts and crafts hours	A - 5 hours a week	4.10	1.0	30	2.43	1.3	30	1.32
in school, 5 vs 3	B - 3 hours a week	4.14	1.0	29	3.79	1.1	28	
4. Affirmative action in	A - Yes	4.02	0.9	42	2.58	1.3	43	1.31
university admissions	B - No	3.74	1.2	43	3.61	1.0	44	
5. Feeding alley cats	A - Allowed	4.34	1.3	32	2.56	1.3	32	1.68
	B - Prohibited	3.48	1.6	29	3.38	1.5	29	
6. Legalizing	A – Yes, with restrictions	3.53	1.2	60	2.91	1.5	60	0.52
prostitution	B - Prohibited altogether	3.51	1.6	59	3.41	1.5	59	
7. Rescuing people in	A - Mandatory	4.11	1.3	56	3.26	1.6	57	1.43
peril	B - Not mandatory	3.28	1.4	66	3.86	1.2	66	
8. Owning Rottweilers	A - Prohibited	3.66	1.5	29	3.14	1.2	29	- 0.26
as pets	B - Allowed	3.81	1.5	32	3.03	1.3	31	
9. Taking testimony from child sex victims	A - Special procedure	3.90	0.9	60	3.20	1.2	59	0.24
	B - Same as from adults	3.85	1.3	60	3.39	0.9	60	
10. Statute of limitations on civil suits	A - 2-tier limitations	3.66	1.1	50	3.33	1.3	51	0
	B - Multiple limitations	3.77	1.1	44	3.44	1.2	45	
Overall	A	3.99	1.2	446	2.85	1.4	450	0.97
	В	3.69	1.4	449	3.52	1.2	449	

^a Variability of the *N*s is due to accidental technical reasons. *N*s may differ from Figure 1 due to occasional missing data.

^aThis policy produced 2 separate policy pairs -- 5 hours vs. 7, and 5 hours vs. 3. It thus counts as two policies.

^bPolicies on these issues vary across municipalities and across schools.

Table 3
From pros and cons to losses and gains

	A is SQ	A is NSQ
Pros of A	Losses "Oh, what a pity!"	Gains "Most welcome"
Pros of B	Gains "Good riddance"	Losses "Oy, spare me!"

Table 4
Weights of arguments for and against 5 weekly school hours of Arts & Crafts

Argument	SQ = 3 hours a week "Discuss 5 hours"	SQ = 7 hours a week "Discuss 5 hours"		
A & C broaden horizons	pro (gain) - 3.5	con (loss) - 3.5		
A & C take time from academics	con (loss) - 3.4	pro (gain) - 2.5		
A & C are fun and promote class cohesion	pro (gain) - 2.6	con (loss) - 3.1		
A & C hours are totally useless	con (loss) - 2.8	pro (gain) - 2.5		

Table 5

Popularity and attractiveness of a "prevailing" policy SQ and a "challenger" NSQ

Policy	Number (%) liking	Number (%) liking	Rating of SQ		Rating of NSQ		N
	SQ more	NSQ more	mean SD		mean SL		
Advertizing alcohol							
Change proposed	19 (63)	11 (37)	3.8	1.1	3.4	1.3	30
No change mentioned	18 (55)	15 (45)	3.8	1.2	3.7	1.3	33
Arts & crafts in school							
Change proposed	13 (46)	15 (54)	3.8	1.2	3.9	1.4	28
No change mentioned	11 (35)	20 (65)	3.8	1.3	4.2	1.3	31
Rescuing people in peril							
Change proposed	14 (50)	14 (50)	3.8	0.8	3.6	1.0	28
No change mentioned	21 (58)	15 (42)	3.9	1.4	3.6	1.3	36
"Such-and-such"							
Change proposed	11 (48)	12 (52)	3.5	1.1	3.7	1.1	23
No change mentioned	9 (26)	25 (74)	3.2	1.4	4.3	1.3	34
Total							
Change proposed	57 (52)	52 (48)	3.7	1.1	3.6	1.2	109
No change mentioned	59 (44)	75 (56)	3.7	1.3	4.0	1.3	134

Note. The *N*s differ due to accidental technical reasons.

Figure Caption

Figure 1. Percent of respondents who think policy A is better, when it is labeled SQ (left bars), and when it is not (right bars).

