

Errata: A Theory of Nonseparable Preferences in Survey Responses

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A Theory of Nonseparable Preferences in Survey Responses

Dean Lacy

"A Theory of Nonseparable Preferences in Survey Responses" (*American Journal of Political Science* 45(2):239– 258) contains several printing errors, including the omission of all "not equal to" and "greater than or equal to" symbols that were to appear in the text. The following are corrections:

On page 240, the sentence in the last two lines of the first column should read:

"To define nonseparable preferences formally, let $J = \{1, ..., J\}, J \ge 2$, be a set of issues."

On page 246, in the second line after the heading "A Model of the Survey Response," the text should read:

"..., $J = \{1, ..., J\}, J \ge 2$ is a set of issues"

Also on page 246, in the sixth line after the heading "A Model of the Survey Response," the text should read:

"... $\{o_j^1, \dots, o_J^L\}$ is a set of possible outcomes on issue *j*, $L \ge 2 \dots$ "

Also on page 246, in the second line of the second paragraph after the heading "A Model of the Survey Response," the text should read:

"... about M issues, $M \ge 2$..."

Also on page 246, in the fourth line of the second paragraph after the heading "A Model of the Survey Response," the text should read:

"... of responses $R_I = (r_i^1, \ldots, r_i^N), N \ge 2$."

Also on page 246, in the second column, first paragraph after *Assumption 2*, footnote 78 should be numbered footnote 7.

On page 247, first column, the result should read:

Result: $r_i^*(q_j > q_k | \mathbf{r}_{ik}^*) \neq r_i^*(q_j < q_k | \mathbf{s}_{ik})$ if and only if *i* has nonseparable preferences for issues *j* and *k*, and $\mathbf{r}_{ik}^* \neq \mathbf{s}_{ik}^*$.

On page 250, in footnote 15 "(Lacey 2001)" should be "(Lacy 2001)."

On page 257, Appendix B should read:

Proof: Drop *i*. For sufficiency, if *i*'s preference for issue *j* is nonseparable from issue or set of issues *k*, then there exists an \mathbf{o}_k and \mathbf{o}'_k such that $(o_j, \mathbf{o}_k) \succeq_i (o'_j, \mathbf{o}_k)$ and $(o'_j, \mathbf{o}'_k) \succ_i (o_j, \mathbf{o}'_k)$, which, by Assumption 3, implies $(r_j, \mathbf{r}_k) \succeq_i (r'_j, \mathbf{r}_k)$ and $(r'_j, \mathbf{r}'_k) \succ_i (r_j, \mathbf{r}'_k)$. If $q_j > q_k$, then $r^*_j = r^*(q_j | \mathbf{r}^*_k)$. If $q_j < q_k$, then $r^*_j = r(q_j | \mathbf{s}_k)$. If $\mathbf{r}^*_k \neq \mathbf{s}_k$, then $r^*(q_j > q_k | \mathbf{r}^*_k) \neq r^*(q_j < q_k | \mathbf{s}_k)$. For necessity, if $\mathbf{r}^*_k = \mathbf{s}_k$, then $r^*_i(q_j > q_k | \mathbf{r}^*_k) = r^*_i(q_j < q_k | \mathbf{s}_k)$. For the second necessary condition, if *i*'s preference for *j* is separable from *k*, then $(r_j, \mathbf{r}_k) \succeq_i (r'_j, \mathbf{r}'_k)$ and $(r_j, \mathbf{r}'_k) \succeq_i$ (r'_i, \mathbf{r}'_k) , which implies $r^*_i(\cdot) = r^*_i(\cdot)$.

In the context of the spatial model, the same result can be proved as follows:

Proof: Individual *i*'s preferences are representable by the quadratic utility function:

$$U_{i}(o_{j}|o_{k}) = -[a_{ikk}(o_{k}-\theta_{ik})^{2} + 2a_{ijk}(o_{k}-\theta_{ik})(o_{j}-\theta_{ij}) + a_{iii}(o_{i}-\theta_{ii})^{2}]$$

Maximizing this function with respect to o_j , dropping *i*, and rearranging terms:

$$o_j | o_k = \Theta_j - \left(\frac{a_{jk}}{a_{kk}}\right) (o_k - \Theta_k)$$

which is *i*'s constrained ideal point on issue *j*. Person *i*'s response on *j*, conditional on her beliefs about the status quo on *k*, substituting s_k for o_k , is:

$$r(q_j|s_k) = \Theta_j - \left(\frac{a_{jk}}{a_{jj}}\right)(s_k - \Theta_k)$$

But *i*'s response on *j* conditional on a previous response of r_k^* to *k*, substituting r_k^* for o_{k^2} is:

$$r(q_j | r_k^*) = \theta_j - \left(\frac{a_{jk}}{a_{jj}}\right)(r_k^* - \theta_k)$$

If preferences for *j* and *k* are nonseparable, then $\left(\frac{a_{jk}}{a_{jj}}\right)$ is nonzero. If $(s_k - \theta_k) \neq (r_k^* - \theta_k)$ and if $\left(\frac{a_{jk}}{a_{jj}}\right) \neq 0$, then $r(q_j | s_k)$

 $\neq r(q_i | r_k^*)$. For necessity, if the respondent's preferences are

separable, then
$$\left(\frac{a_{jk}}{a_{jj}}\right) = 0$$
 and $r(q_j|s_k) = r(q_j|r_k^*)$.

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