Errata (April 16, revised May 27, 2000) for R. Duncan Luce *Utility of Gains and Losses,* Erlbaum, 2000,

p. 92, line before (3.26) should read:
pose the utility of a trinary lottery with one consequence 0 and either $x > 0 > y$ or $p + q < 1$ (with no constraint on x, y) is given by

p. 151, last line, the subscript on $\mathcal{B}^+$ should be 2, not 1.

p. 246, last line of Proposition 7.3.3 should begin $U_-(g \ominus f)$.

p. 258, Part (ii) of Proposition 7.4.6 is in error. Replace by:

(ii) *Suppose* $\delta\delta' > 0$, $f \succsim e$, *and* $f \succsim g$, *then*

$$\begin{aligned}
0 &= B^2[W^+_{\mathbf{E}}(C) + W^-_{\mathbf{E}}(\overline{C}) - W^+_{\mathbf{E}}(C)W^-_{\mathbf{E}}(\overline{C})] \\
&\quad - sgn(\delta)B\left\{[1 + sgn(\delta)F]\, W^+_{\mathbf{E}}(C) + [1 + sgn(\delta)G]\, W^-_{\mathbf{E}}(\overline{C})\right. \\
&\qquad \left. -sgn(\delta)(F + G)W^+_{\mathbf{E}}(C)W^-_{\mathbf{E}}(\overline{C})\right\} \\
&\quad + sgn(\delta)[FW^+_{\mathbf{E}}(C) + GW^-_{\mathbf{E}}(\overline{C}) - sgn(\delta)FGW^+_{\mathbf{E}}(C)W^-_{\mathbf{E}}(\overline{C})]. \qquad (7.42)
\end{aligned}$$

$$\begin{aligned}
0 &= S^2W^+_{\mathbf{E}}(\overline{C})W^-_{\mathbf{E}}(C) - sgn(\delta)S\left\{[1 - sgn(\delta)F]\, W^+_{\mathbf{E}}(\overline{C}) + [1 - sgn(\delta)G]\, W^-_{\mathbf{E}}(C)\right. \\
&\quad \left. +sgn(\delta)(F + G)W^+_{\mathbf{E}}(\overline{C})W^-_{\mathbf{E}}(C)\right\} + sgn(\delta)\,[1 - sgn(\delta)F]\, GW^+_{\mathbf{E}}(\overline{C}) \\
&\quad + sgn(\delta)\,[1 - sgn(\delta)G]\, FW^-_{\mathbf{E}}(C) + FGW^+_{\mathbf{E}}(\overline{C})W^-_{\mathbf{E}}(C). \qquad (7.43)
\end{aligned}$$

p. 259, In Table, replace bottom two B entries by 0.363 and 0.279 and bottom two S entries by 0.513 and 0.320.

Replace from "For the C/C case..." until the end of the subsection by:

Using the same technique for the $\delta\delta' > 0$ cases, and letting $d = sgn(\delta)1$

$$\begin{aligned}
0 &= (B - B_0)\left\{(B + B_0 - d - F)W^+\right. \\
&\quad \left. +[(B + B_0 - d) - (B + B_0 - F)W^+]W^-\right\} \\
&\quad + GW^-[d - FW^+ - B(1 - W^+)].
\end{aligned}$$

Let $p \to 1$, and so $W^+ \to 1$ and $W^- \to 0$. For $d = 1$, the dominant term of $B - B_0$ is $(B + B_0 - 1 - F)W^+ < 0$ and the rest is $GW^-[1 - FW^+ - B(1 - W^+)]$. So for a non-monotonicity the latter term would have to be < 0, i.e.,

$$B > \frac{1 - FW^+}{1 - W^+} \geq \frac{1 - FW^+}{1 - FW^+} = 1,$$

which is impossible when $\delta > 0$. So monotonicity holds in the C/C case. Consider $d = -1$. Because as $p \to 1$, we easily see that $B \to F$ and so $(B + B_0 + 1 - F)W^+ > 0$ and $GW^-[-1 - FW^+ - B(1 - W^+)] < 0$, so again $B > B_0$, i.e., monotonicity also holds in the V/V case.

For sales,

$$\begin{aligned}
0 &= W^-[(S - S_0)(-d) - G(F - S)] \\
&\quad + W^+\{(S - S_0)[(S + S_0)W^- - d + F(1 - W^-)] + G[W^-(F - S) + d - F]\}
\end{aligned}$$

As $p \to 1, W^+ \to 0$, $W^- \to 1$ and the dominant term is

$$0 = W^-[(S - S_0)(-d) - G(F - S)].$$

Because $-G(F - S) < 0$, the equation holds only if $(S - S_0)(-d) > 0$. So for $d = 1$, i.e., $\delta > 0$, $S - S_0 < 0$ which is non-monotonicity and for $d = -1$, i.e., $\delta < 0$, $S - S_0 > 0$ which is monotonicity.

So in summary, for all cases of duplex decomposition with mixed concave and convex utility functions a non-monotonicity is predicted as $p \to 1$ for both buying and selling prices. For the C/C and V/V cases monotonicity is predicted in all cases except for C/C selling prices.

p. 267-268. Replace part (ii) by:

(ii) Applying Theorem 7.3.8 to

$$e \sim (f \ominus b, C; g \ominus b)$$

and using Proposition 7.3.3 with $\delta\delta' > 0$ yields for $B > 0$

$$\begin{aligned} 0 &= \frac{F - B}{1 - sgn(\delta)B} W^+_{\mathbf{E}}(C) + \frac{G - B}{1 - sgn(\delta)B} W^-_{\mathbf{E}}(\overline{C}) \\ &- sgn(\delta) \frac{F - B}{1 - sgn(\delta)B} W^+_{\mathbf{E}}(C) \frac{G - B}{1 - sgn(\delta)B} W^-_{\mathbf{E}}(\overline{C}). \end{aligned}$$

Some algebra yields the result.

Using the same method on

$$e \sim (s \ominus f, C; s \ominus g) \sim (s \ominus g, \overline{C}; s \ominus f),$$

yields

$$\begin{aligned} 0 &= \frac{S - G}{1 - sgn(\delta)G} W^+_{\mathbf{E}}(\overline{C}) + \frac{S - F}{1 - sgn(\delta)F} W^-_{\mathbf{E}}(C) \\ &- sgn(\delta) \left(\frac{S - G}{1 - sgn(\delta)G} \right) W^+_{\mathbf{E}}(\overline{C}) \left(\frac{S - F}{1 - sgn(\delta)F} \right) W^-_{\mathbf{E}}(C). \end{aligned}$$

Again the result follows by algebra.