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ERRATUM

Weak Superiority, Imprecise Equality and the Repugnant Conclusion – Erratum

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The author has made the following corrections to the original published article

1. ***Step 7 in the proof of Observation 6 is erroneous.* This means that the observation does not hold as it stands. Consequently, the concluding paragraphs of Section 5 which introduce and explain Observation 6 (starting with 'Finally, I need …' on p. 304) should be disregarded. Instead, the following text should be inserted:***

Neither *Observation* 3 nor *Observation* 4 assumes *Non-diminishing Marginal Value*. But it does make a difference to assume *Non-diminishing Marginal Value*. Suppose first we accept *Conditions* 3 and 4 (i.e. *Constant Marginal Value*) together with *the Archimedean Property* (*Condition* 8). Consider an infinite standard sequence ***q***, 2***q***, 3***q***, …, *n****q*** according to *Definition* 9, where *n* is any integer, and let ***b*** be an object which is better than ***q***. If ***b*** were lexically better than ***q***, then the standard sequence ***q***, 2***q***, 3***q***, …, *n****q*** would be strictly bounded; but since it is infinite, ***b*** being lexically better than ***q*** would violate *the Archimedean Property*. Hence, under *Constant Marginal Value*, *the Archimedean Property* excludes any case of lexical betterness. This follows directly from the assumptions and does not depend on any *Continuum Argument*.

Suppose next that we accept *Constant Marginal Value* (*Conditions* 3 and 4) but reject the *Archimedean Property* (*Condition* 8). This will allow for cases of lexical betterness, since a strictly bounded standard sequence does not have to be finite. However, here *Observation* 6* applies:

> *Observation* 6*: Assume ***x*** is better than ***y***. *Condition* 3 and *Condition* 4 (*Constant Marginal Value*), *Condition* 1 and the rejection of *Condition* 8 (*Archimedean Property*) implies that, if ***x*** is lexically better than ***y***, then ***x*** is also strictly lexically better than ***y***, i.e. if for some *m* and all *n*, *m****x*** is better than *n****y***, then ***x*** is better than *n****y***.

> *Proof*: See Appendix 2.

Now, because *Observation* 6* holds under these assumptions, any instance of lexical betterness will collapse into strict lexical betterness and thus involve a much stronger discontinuity in value than needs to be the case with *Diminishing Marginal Value*.

*I am grateful to Johan Jacobsson for pointing this out to me. As *Observation* 1 in Jensen, 'Millian Superiorities' shows, a result similar to that of *Observation* 6 can be proved by assuming *Strong Independence* (*Condition* 6). But this does not prohibit the special case of *Non-diminishing Marginal Value* (suggested to me by Jacobsen), which is discussed below.

Suppose finally that we allow for *Non-diminishing Marginal Value*. There are many possibilities to consider, but I shall concentrate on a simple case allowing for lexical betterness, but not strict lexical betterness. In what follows, *Non-diminishing Marginal Value* refers to this particular case. Suppose that an inferior object $\boldsymbol{y}$ has *Constant Marginal Value* and there is a superior object $\boldsymbol{x}$, for which there is m, such that for all n, $m\boldsymbol{x}$ is better than $n\boldsymbol{y}$; assume that $\boldsymbol{x}$ has *Constant Marginal Value* and thus is exchangeable with $\boldsymbol{y}$ up to m-1; for m-1 $\boldsymbol{x}$ has infinite marginal value, such that the difference in value between $m\boldsymbol{x}$ and $(m\text{-}1)\boldsymbol{x}$ cannot be bridged by any real number of $\boldsymbol{y}$s; and $\boldsymbol{x}$ has *Constant Marginal Value* for numbers greater than m.

Compare with the case where $\boldsymbol{x}$ is lexically better than $\boldsymbol{y}$, but $\boldsymbol{x}$ and $\boldsymbol{y}$ has *Diminishing Marginal Value*. In that case, the step from $(m\text{-}1)\boldsymbol{x}$ to $m\boldsymbol{x}$ creates an upper limit, such that the value of $\boldsymbol{y}$s, no matter how many, never can reach it, but still get arbitrarily close. Now, with the case of $\boldsymbol{y}$ having *Constant Marginal Value*, the step from $(m\text{-}1)\boldsymbol{x}$ to $m\boldsymbol{x}$ necessitates a discontinuity in value so serious, that even if the value of $\boldsymbol{y}$s approaches infinity, the value of $m\boldsymbol{x}$ simply remains incommensurable herewith.

Reconsider the discussion of *Observation* 4. Let $\boldsymbol{b}$ be lexically better than $\boldsymbol{q}$ with the properties described above for $\boldsymbol{x}$ and $\boldsymbol{y}$, respectively. In the first case, $\boldsymbol{b}$ will be exchangeable with any $\boldsymbol{x}$ belonging to $\{\boldsymbol{x} \mid \boldsymbol{b}$ is better than $\boldsymbol{x}$ and $\boldsymbol{x}$ is better than $\boldsymbol{q}\}$, and any $\boldsymbol{x}$ in this set will be lexically better than $\boldsymbol{q}$, and exchangeable with any other $\boldsymbol{x}$ of lower value in the set. This will imply, for all $\boldsymbol{x}$ in the set, an infinite value increase at some stage similar to that of $\boldsymbol{b}$, where for each successive $\boldsymbol{x}$, there is some number n, such that this $n\boldsymbol{x}$ is better than $m\boldsymbol{b}$ as well as the $n\boldsymbol{x}$ of all its predecessors in the set. In the second case, $\boldsymbol{b}$ will just be lexically better than any $\boldsymbol{x}$ of the set, which all can be assumed to have *Constant Marginal Value*.

2. ***Since the proof of Observation 11 is analogous to that of Observation 6, it also contains an erroneous step 5. Hence the last paragraphs of Section 6 on p. 309 (starting with 'Finally, I shall …') should also be disregarded. Moreover, following up on the analysis of Non-diminishing Marginal Value above, I should like to add to the discussion of Observation 9 with Corollaries. On p. 308, after the third paragraph after the Corollaries 3, I should like to insert the following:***

However, as far as *Non-diminishing Marginal Value* is concerned, I believe nothing has been obtained. Assume the case where $\boldsymbol{m}$ is lexically better than $\boldsymbol{q}$, and that there is a zone of radical imprecise equality in between. If we have *Constant Marginal Value*, $\boldsymbol{m}$ will be strictly lexically better than $\boldsymbol{q}$, cf. *Observation* 6*. If we have the case described above, where $\boldsymbol{q}$ has *Constant Marginal Value*, then for some m-1, $(m\text{-}1)\boldsymbol{m}$ has infinite marginal value. Either way, the zone of radical imprecise equality will have to bridge an infinitely large value difference. I shall suggest that this is not possible.

In order for $\boldsymbol{m}$ to be minimally exchangeable with an $\boldsymbol{x}$ in the zone, there should be some n, such that $m\boldsymbol{m}$ is not better than $n\boldsymbol{x}$. If $\boldsymbol{x}$ has *Constant Marginal Value*, this does not appear possible, since in that case $m\boldsymbol{m}$ seems infinitely better than any $n\boldsymbol{x}$. But if $\boldsymbol{m}$ is not minimally exchangeable with $\boldsymbol{x}$, it is lexically better than $\boldsymbol{x}$. By the same token, if $\boldsymbol{m}$ *is* minimally exchangeable with $\boldsymbol{x}$, then $\boldsymbol{x}$ will be lexically better than $\boldsymbol{q}$, because for some $m_{\boldsymbol{x}}$, $m_{\boldsymbol{x}}\boldsymbol{m}$ seems to be infinitely better than any number of $\boldsymbol{q}$s. Hence, even if there is a zone of radical imprecise equality, we end up with lexical

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betterness obtaining between neighbouring (or very close) objects, which the introduction of imprecise equality was supposed to avoid.

As far as *Diminishing Marginal Value* is concerned, this …

Continue from where the above was inserted, with 'can all be said to soften …'

3. ***On p. 310, last paragraph of Section 7, read:***

And importantly, he appears to be unaware of the implications of assuming *Non-diminishing Marginal Value* spelled out above.

4. ***Also, on p. 310, disregard the first two paragraphs of Section 8. Instead, read:***

The greatest challenge for Parfit comes from assuming *Non-diminishing Marginal Value*. As I have demonstrated, this has the implication that the strategy of introducing imprecise equality to avoid lexical betterness between neighbouring (or close) objects fails. Hence, the objection to lexical betterness, which Parfit set out to meet, still remains.

5. ***On p. 314, in the second paragraph of Section 10, disregard the sentence 'Moreover, it was proved that the condition of Non-diminishing Marginal Value implies that lexical betterness collapses into strict lexical betterness.' Instead, insert the following sentence at the end of the paragraph:***

Moreover, it was demonstrated that the condition of *Non-diminishing Marginal Value* implies a more serious discontinuity.

6. ***Also on p. 314, disregard the sentence making up the fifth paragraph. Instead read:***

Moreover, it is argued that assuming *Non-diminishing Marginal Value* will imply that one case of lexical betterness between neighbouring (or close) objects will remain.

Supplementary material. The supplementary material for this article can be found at https://doi.org/10.1017/S0953820822000048

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