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CORRECTION

Correction to: Parallel axiomatizations of weighted and multiweighted Shapley values, random order values, and the Harsanyi set

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I am grateful to André Casajus who pointed out to me that the original **WSMon** is equivalent to **SMon** and Counterexample (5) does not satisfy **SMon**, leading to the following errata:

1. p. 4, lines −5 to −4, "...the possibility that at most the marginal contribution to one coalition may rise, her..." should be "...the possibility that the marginal contribution to one coalition T and all coalitions containing T may rise by the same amount, her...".
2. p. 10, line −13 to −9, "**Weakly strong monotonicity,** ...and all other..." should be

   Weakly strong monotonicity, WSMon. For all $v, w \in \mathbb{V}$, $i \in N$, $c \in \mathbb{R}_+$, and $T \in N\backslash\{i\}$, such that $MC_i^w(R) = MC_i^v(R) + c$ for all $R \supseteq T, R \subseteq N\backslash\{i\}$, and $MC_i^w(S) = MC_i^v(S)$ for all $S \subseteq N\backslash\{i\}$, $S \not\supseteq T$, we have $\varphi_i(w) \geq \varphi_i(v)$.

   As long as at most one player's marginal contributions to a coalition T and all coalitions containing T increase by the same amount and all other...".
3. p. 11, line 17, "...is negative." should be "...is negative for **Mar** in general and for **SMon** at least for two-player games.".
4. p.11, lines −15 to −13, "Obviously, ...multiweighted Shapley values!" should be "Furthermore, look at the TU-value $Sh^{\bar{\xi}}$, defined as follows for the player set $N := \{i, j\}$:

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$$Sh_i^{\bar{\xi}}(v) := \begin{cases} v(\{i\}) + \frac{1}{3}\Delta_v(\{i,j\}), \text{ if } \Delta_v(\{i,j\}) < 0, \\ Sh_i(v), \text{ otherwise, and} \end{cases} \tag{6}$$

$$Sh_j^{\bar{\xi}}(v) := \begin{cases} v(\{j\}) + \frac{2}{3}\Delta_v(\{i,j\}), \text{ if } \Delta_v(\{i,j\}) < 0, \\ Sh_j(v) \text{ otherwise.} \end{cases} \tag{7}$$

Obviously, the Sh^{ξ} satisfy **E**, **Mar**, **SSS**, and **WSS** but, whenever the relative weights according to ξ are not constant, the Sh^{ξ} are no weighted Shapley values, indeed the Sh^{ξ} are not even multiweighted Shapley values! For a player set with only two players, $Sh^{\bar{\xi}}$ satisfies additionally **SMon**.".

5. p. 15, lines 5–14, replace **Lemma 4.2** and the proof with "**Lemma 4.2.** If $i \in N$, $v, w \in \mathbb{V}$, $c \in \mathbb{R}_+$, and $T \subseteq N\backslash\{i\}$, then $MC_i^w(R) = MC_i^v(R) + c$ for all $R \supseteq T, R \subseteq N\backslash\{i\}$, and $MC_i^w(S) = MC_i^v(S)$ for all $S \subseteq N\backslash\{i\}$, $S \not\supseteq T$, if and only if $\Delta_w(T \cup \{i\}) = \Delta_v(T \cup \{i\}) + c$ and $\Delta_w(Q \cup \{i\}) = \Delta_v(Q \cup \{i\})$ for all $Q \subseteq N\backslash\{i\}$, $Q \neq T$."
   and adapt the proof accordingly.
6. p. 15/16, **Proof of Proposition 3.5** must be adapted accordingly.
7. p. 17, replace lines −10 to −9 with "• **CDDep/MDep**: Let $|N| = 2$. The TU-value $Sh^{\bar{\xi}}$, defined by (6)/(7), satisfies all axioms but **CDDep** and **MDep**."

Additional errors

8. p. 16, line −11, "Lemma 4.1" should be "Proposition 3.4".
9. p. 18, line −1, "**CDDep**." should be "**CDDep** whenever ξ is not constant."