Corrigendum*
for “Comparing uncertainty aversion towards different sources”

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A general remark first: in the paper, we assume continuity of the utility functions (p.3). Our proofs implicitly assume a stronger condition, smoothness (precisely, that the utility is at least twice continuously differentiable). Smoothness ensures that, if \( u \) is not concave, then there exists a nonpoint interval on which it is strictly convex. Indeed, if \( u \) is not concave, then there exists \( x \) such that \( u''(x) < 0 \) and therefore, by continuity of \( u'' \), there exists a neighborhood around \( x \) where \( u \) is strictly convex.

Second, in most of the paper, we use two preference relations but in subsection 4.1, both relations are restrictions of a general relation to two sub-domains. Theorem 5 refers to \( \succsim_A \) and \( \succsim_B \), but it could simply refer to \( \succsim \). Statement (i) of Theorem 5 should therefore read:

\[
\forall p \in [0, 1], F \in \Sigma, \text{ and } x, y, \text{ and } z \in X, (z \succsim x_p y \text{ and } z \succsim y_p x) \Rightarrow (z \succsim x_F y \text{ or } z \succsim y_F x).
\]

Appendix A.5.2., proving (i) \( \Rightarrow \) (ii) for Theorem 5 is not correct. Here is a correct proof:

**Proof.** Not (ii) \( \Rightarrow \) there exists a non-point interval \( [b, c] \) in the image of \( u \) on which \( \varphi \) is strictly convex. Let \( x, y, z \in X \) be uniquely defined by \( u(x) = b, u(y) = c, u(z) = \frac{b+c}{2} \).

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Consequently, we have $z \sim x \frac{1}{2} y$ and $z \sim y \frac{1}{2} x$ and therefore:

$u(z) = \frac{1}{2} u(x) + \frac{1}{2} u(y)$. Now consider event $E$ such that $\int_\Delta P(E)d\mu = \frac{1}{2}$. $E$ exists by the richness condition. We obtain:

$u(z) = \left(\int_\Delta P(E)d\mu\right) u(x) + \left(1 - \int_\Delta P(E)d\mu\right) u(y) = \int_\Delta (P(E)u(x) + (1 - P(E)) u(y)) d\mu$. Strict convexity of $\varphi$ on $[b, c]$ implies:

$\varphi(u(z)) < \int_\Delta \varphi (P(E)u(x) + (1 - P(E)) u(y)) d\mu,$

and therefore: $z \prec x_E y$.

Similarly,

$u(z) = \left(1 - \int_\Delta P(E)d\mu\right) u(x) + \left(\int_\Delta P(E)d\mu\right) u(y) = \int_\Delta ((1 - P(E)) u(x) + P(E)u(y)) d\mu$. Strict convexity of $\varphi$ on $[b, c]$ implies:

$\varphi(u(z)) < \int_\Delta \varphi ((1 - P(E)) u(x) + P(E)u(y)) d\mu,$

and therefore: $z \prec y_E x$.

Hence we proved not (ii) $\Rightarrow$ not (i). \qed