When better seems bigger: ESM 1

Analyses

Given that the data are nested: multiple ratings made by individuals, we opted for linear mixed models in IBM SPSS version 21's Mixed procedure. The Mixed procedure allows handling correlated and hierarchical data and unequal variances, which suits our data because we have repeated measurements of respondents over multiple players. We use a restricted maximum likelihood (REML) approach to estimate parameter estimates (SE), which has the advantage that it can produce less biased estimates of the random components of random regression coefficients for small samples, as it takes the number of parameters used in model estimation into consideration (Bickel, 2007). The Mixed procedure uses the Satterthwaitte approximation for calculating degrees of freedom to produce a more accurate *F*-test approximation (IBM SPSS version 21; Littell, 2006; Verbeke & Molenberghs, 2009; West, Welch, & Galecki, 2006). Next to the *F*-test statistic, goodness of fit statistics Akaike information criterion (AIC; Akaike, 1974) and Bayesian information criterion (BIC; Schwarz, 1978) are reported. Both BIC and AIC prevent overfitting the model by introducing a penalty term for the number of parameters in the model. The penalty term is larger in BIC than in AIC. SPSS presents these fit criteria in smaller-is-better forms.

For all mixed model analyses, we used the following set of models: (1) fixed main effects only; (2) fixed main effects and random intercepts; (3) random slopes of main effects and random intercepts (participant height, weight, and gender were always included as fixed variables only).

For the winner/loser effects analyses in Study 2, we centered the height and weight variables with the mean over both parts of the study. We conducted two repeated measures mixed model analyses for estimated height and estimated weight each: an unstructured model allowing for different variances between measurements in time (UNR; model 1), and an autoregressive model where the variance is the same for each measurement in time (AR1; model 2). The units of analysis were time (before match/after match), self-reported fandom and height, weight, and performance estimations for the four players of each team combined made by the participants.

For all three studies, all reported *p* values are two tailed, unless noted otherwise. We applied a bootstrapping procedure (1,000 resamples, 95% CI bias corrected and accelerated for all best models (not the repeated measures models) and the ANOVA's in Study 3. All estimation variables were centered by subtracting the mean of all scores for a specific variable from the individual score of that variable (*grand mean centering*). Self-reported height and weight of the participants was transformed into *z*-scores separately for men and women.

Study 1 + 2 – REML and ML estimations

As a maximum likelihood (ML) estimation is argued to be better for model comparison (Zuur, Ieno, Walker, Saveliev, & Smith, 2009), we ran all the models of Study 1, and the first two models of Study 2 again with an ML estimation. For each of the four dependent variables, the comparatively best model was the same with either a REML or an ML estimation.

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