Reliability

To test reliability of the coded variable *CRIED*, 60 observations were randomly drawn from the sample of 900 observations. The drawn subsample was split evenly between the end of event and medal ceremony. Two students from the Master in Sports Management study program at Molde University College were asked to watch the videos corresponding to the drawn observations and independently code crying (=1 if the athlete cried during either the end of event or medal ceremony and 0 if the athlete did not cry). We estimated an average duration of 10 minutes to watch a single video, for a total duration of 600 minutes or 10 hours. Each student was paid NOK 1500 (approximately USD 150) for completing the task. The enclosed Excel file "reliability.xls" contains the results of the coding exercise alongside the original coded variable.

From this dataset, we estimated various interrater agreement coefficients, their standard errors, and their confidence intervals. Statistics were estimated for a total of 3 raters and there were no missing values. We used the Stata command *kappaetc* for this exercise, available from the SSC archive.[1] The results are presented in Table 1. The results show a percentage agreement between the 3 raters of 86% and a Brennan and Prediger coefficient kappa of 71%. These alongside the other statistics presented in Table 1 indicate substantial agreement between the raters.[2]

Table 1: Interrater agreement coefficients

Interrater agreement — Number of subjects = 60; Ratings per subject = 3; Number of rating categories = 2

	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Percent Agreement	0.8556	0.0358	23.93	0.000	0.7840	0.9271
Brennan and Prediger	0.7111	0.0715	9.94	0.000	0.5680	0.8542
Cohen/Conger's Kappa	0.6869	0.0760	9.03	0.000	0.5347	0.8390
Scott/Fleiss' Kappa	0.6848	0.0775	8.83	0.000	0.5296	0.8400
Gwet's AC	0.7334	0.0703	10.43	0.000	0.5927	0.8740
Krippendorff's Alpha	0.6866	0.0775	8.85	0.000	0.5314	0.8417

[1] To install this command within Stata, type *ssc install kappaetc* in the command window.

[2] For details on how to interpret the Cohen/Conger's kappa statistic (and other kappa statistics, in general), see `https://www.statology.org/cohens-kappa-statistic/`.