Correction of Table I in Cycling meets Technology:A Cooperative Cycling Cyber-physical System

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6/6/2018

Submitted to IEEE Transactions on Intelligent Transportaion Systems

We appreciate the comments of reviewer 1, who pointed out that "the simulated results are in fact too optimistic to be regarded as reliable or realistic". We revisited the datasets and estimations of the empirical studies and the simulator, and we found out that we made a mistake. The results initially reported in *Table I. Comparison of precision and accuracy from experiments and simulations* are from a preliminary calibration dataset derived from one follower node of a single run of the simulator. The **corrected Table I** now compares the empirical studies made with five pairs of subjects and the average of 30 runs of the simulator. We adopted the sugestion of reviewer 1 and renamed "consistency" the metric "precision".

The comparison shows that the reaction of simulated cyclists to CACC stimuli is 7% more consistent than the one of actual cyclists, but the accuracy of their acceleration reaction is almost the same. An independent samples two-tailed t-test conducted to compares difference between the mean accuracy of empirical and simulator datasets shows that there is not a significant difference between the two samples, t(598) = 0.07, p < 0.05, CI = $0.21 < \mu_1 - \mu_2 < 0.27$. Moreover, the confidence intervals suggest that there is a high probability of not rejecting the null hypothesis ($\mu_1 - \mu_2 = 0$) if the mean of the simulator dataset falls between 0.21 and 0.27.

We apologize for the missunderstanding and also confirm the existance of the datsets of the empirical study named *preliminary* and *final*. Both are available for reviewers scrutiny at http://github.com/jsalam/datasets_TransactionsITS.

Table 1: Comparison of consistency and accuracy from experiments and averaged simulations

Condition	Hit	Miss	Consistency	Accuracy	SD_Accuracy
Empirical studies	363.0	207.0	0.637	0.241	0.310
Simulator (Avg. 30 Runs)	354.7	141.8	0.714	0.242	0.033

```r
# T-test
t_value <- (0.241 - 0.242 )/sqrt(((0.31 ^ 2)/570) + ((0.033^2)/30))

# Two-tailed critical values
criticalT_value_at_fivePercent <- 1.960

abs(t_value)
```

```
## [1] 0.06986067
```

```r
# Reject null hypothesis
abs(t_value) > criticalT_value_at_fivePercent
```

```
## [1] FALSE
```

```r
# Confidence intervals
upperMu <- 0.241 + criticalT_value_at_fivePercent * sqrt(((0.31 ^ 2)/570) + ((0.033^2)/30))
```

```r
upperMu
```

```
## [1] 0.2690558
```

```r
lowerMu <- 0.241 - criticalT_value_at_fivePercent * sqrt(((0.31 ^ 2)/570) + ((0.033^2)/30))
lowerMu
```

```
## [1] 0.2129442
```

R Project file

R Project: *Study5A verificacion datos Alexis.Rproj.*

References

Aberson, C. (2002). Interpreting Null Results: Improving Presentation and Conclusions with Confidence Intervals. JASNH, Vol 1, No. 3, pp 36-42.

Honel, D. (2010). Confidence Intervals on Effect Size. Avalilable at (http://www.uvm.edu/~dhowell/methods7/Supplements/Confidence Intervals on Effect Size.pdf)