

Erratum: Evaluating Data-type Heterogeneity in Interactive Visual Analyses with Parallel Axes

In the article by José et al. [JL22], values within Tables 6 and 7 are incorrect.

Incorrect version was:

Table 6: P-values and effect size for hypotheses related to accuracy. For p-values, green denotes that the hypothesized relationship is maintained, while for effect size, green denotes a large effect size (≥ 3) using odds ratio as effect size index [SF12]. *A relationship Coor-PCP \succ HPCP was observed.

Objectivity	Hypotheses	Relationships					
Objective	H1 Discrete \succeq Hybrid	Hybrid \succ Numerical					
	p-value 0.8,1,0,0.60.9075	0.8,1,0,0.63.7e-10					
	effect size 0.7321	0.8,1,0,0.6 9.8043					
Objective	H2 HPCP \succeq Coor-PCP	Coor-PCP \succeq PS	PS \succ PCP	PCP \succeq MCA			
	p-value 0.8,1,0,0.6 0.6726	0.8,1,0,0.6 1	0.8,1,0,0.60.009796	0.8,1,0,0.60.006119			
	effect size 2.0975	1	0.8,1,0,0.65.1250	0.8,1,0,0.63.625			
Mixed objectivity	H5 Discrete \succeq Hybrid	Hybrid \succ Numerical					
	p-value 0.8,1,0,0.60.1249	0.5					
	effect size 1.7272	1.670					
Mixed objectivity	H6 HPCP \succeq Coor-PCP	Coor-PCP \succeq PS	PS \succ PCP	PCP \succeq MCA			
	p-value 0.0446/0.9777*	0.8,1,0,0.6 0.8511	0.2881	0.8,1,0,0.60.2733			
	effect size 0.444	0.8681	1.3208	1.598			
Subjective queries	H9 Discrete \succeq Hybrid	Hybrid \succ Numerical					
	p-value 0.8,1,0,0.6 0.5905	1					
	effect size 1.4201	0.6538					
Subjective queries	H10 HPCP \succeq Coor-PCP	Coor-PCP \succeq PS	PS \succ PCP	PCP \succeq MCA			
	p-value 0.8,1,0,0.60.279	0.8,1,0,0.6 1	0.4216	0.8,1,0,0.6 0.7842			
	effect size 2.1029	1	0.5604	1.3508			

Table 7: P-values and effect size for hypotheses related to timing. For p-values green denotes that the hypothesized relationship is maintained, while for effect size, green denotes a large effect size (≥ 0.8) using Cohen's d index for computing effect size [SF12, Coh13].

Objectivity	Hypotheses	Relationships			
Objective	H3	Hybrid > Numerical	Numerical \geq Discrete		
	p-value	0.8,1.0,0.6 7.43e-5	0.8,1.0,0.60.3338		
	effect size	0.6675	0.2486		
Objective	H4	HPCP \geq Coor-PCP	Coor-PCP > PCP	PCP \geq MCA	MCA \geq PS
	p-value	0.8,1.0,0.6 0.9957	0.8,1.0,0.6 0.0065	0.8,1.0,0.60.9462114	0.8,1.0,0.60.9851
	effect size	0.0877	0.6236	0.339	0.0411
Mixed objectivity	H7	Hybrid > Numerical	Numerical \geq Discrete		
	p-value	0.8,1.0,0.6 0.0011	0.8,1.0,0.6 0.0757167		
	effect size	0.5969	0.3992		
Mixed objectivity	H8	HPCP \geq Coor-PCP	Coor-PCP > PCP	PCP \geq MCA	MCA \geq PS
	p-value	0.8,1.0,0.60.98317	0.8,1.0,0.60.0599	0.8,1.0,0.60.9947	0.8,1.0,0.60.2631
	effect size	0.1876	0.7094	0.0981	0.4628
Subjective queries	H11	Hybrid > Numerical	Numerical \geq Discrete		
	p-value	0.8,1.0,0.6 0.0205	0.8,1.0,0.60.8557		
	effect size	0.5388	0.1271		
Subjective queries	H12	HPCP \geq Coor-PCP	Coor-PCP > PCP	PCP \geq MCA	MCA \geq PS
	p-value	0.8,1.0,0.6 0.9919	0.1208	0.8,1.0,0.60.4598	0.8,1.0,0.60.6959
	effect size	0.2698	0.6872	0.4686	0.3978

The correct version is:

Table 6: P-values and effect size for hypotheses related to accuracy. For p-values, green denotes that the hypothesized relationship is maintained, while for effect size, green denotes a large effect size (≥ 3) using odds ratio as effect size index [SF12]. *A relationship Coor-PCP > HPCP was observed.

Objectivity	Hypotheses	Relationships			
Objective	H1	Discrete \geq Hybrid	Hybrid > Numerical		
	p-value	0.9075	3.7e-10		
	effect size	0.7321	9.8043		
Objective	H2	HPCP \geq Coor-PCP	Coor-PCP \geq PS	PS > PCP	PCP \geq MCA
	p-value	0.6726	1	0.009796	0.006119
	effect size	2.0975	1	5.1250	3.625
Mixed objectivity	H5	Discrete \geq Hybrid	Hybrid > Numerical		
	p-value	0.1249	0.5		
	effect size	1.7272	1.670		
Mixed objectivity	H6	HPCP \geq Coor-PCP	Coor-PCP \geq PS	PS > PCP	PCP \geq MCA
	p-value	0.0446/0.9777*	0.8511	0.2881	0.2733
	effect size	0.444	0.8681	1.3208	1.598
Subjective queries	H9	Discrete \geq Hybrid	Hybrid > Numerical		
	p-value	0.5905	1		
	effect size	1.4201	0.6538		
Subjective queries	H10	HPCP \geq Coor-PCP	Coor-PCP \geq PS	PS > PCP	PCP \geq MCA
	p-value	0.279	1	0.4216	0.7842
	effect size	2.1029	1	0.5604	1.3508

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Objectivity	Hypotheses	Relationships			
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	<i>p</i> -value effect size	7.43e-5 0.6675	0.3338 0.2486		
Objective	H4	HPCP \succeq Coor-PCP	Coor-PCP \succ PCP	PCP \succeq MCA	MCA \succeq PS
	<i>p</i> -value effect size	0.9957 0.0877	0.0065 0.6236	0.9462114 0.339	0.9851 0.0411
Mixed objectivity	H7	Hybrid \succ Numerical	Numerical \succeq Discrete		
	<i>p</i> -value effect size	0.0011 0.5969	0.0757167 0.3992		
Mixed objectivity	H8	HPCP \succeq Coor-PCP	Coor-PCP \succ PCP	PCP \succeq MCA	MCA \succeq PS
	<i>p</i> -value effect size	0.98317 0.1876	0.0599 0.7094	0.9947 0.0981	0.2631 0.4628
Subjective queries	H11	Hybrid \succ Numerical	Numerical \succeq Discrete		
	<i>p</i> -value effect size	0.0205 0.5388	0.8557 0.1271		
Subjective queries	H12	HPCP \succeq Coor-PCP	Coor-PCP \succ PCP	PCP \succeq MCA	MCA \succeq PS
	<i>p</i> -value effect size	0.9919 0.2698	0.1208 0.6872	0.4598 0.4686	0.6959 0.3978

The article has been corrected online.

Reference

- [JL22] JOSÉ M., LARS L. Evaluating Data-type Heterogeneity in Interactive Visual Analyses with Parallel Axes. *Computer Graphics Forum* 41, 1 (2022), 335-349.