Web Appendix 1: Cultural Profiling of our Two Country Contexts

The United Kingdom and Ghana represent two contrasting cultural contexts, offering an opportunity to explore whether differences in cultural values align with established theoretical dimensions. Hofstede's (2001) framework identifies five key cultural dimensions: power distance, collectivism vs individualism, long term vs short term orientation, uncertainty avoidance, and masculinity vs femininity. While more recent Hofstede scores (Hofstede, 2024) suggest that the UK and Ghana may differ on some of these dimensions, particularly collectivism and power distance, we sought to examine these differences directly rather than relying on secondary data. To do so, we conducted our own exploratory analysis across all five cultural dimensions, without making any a priori assumptions about where differences would emerge.

Scale	**M**		**SD**		**Cronbach's Alpha**		**Independent Samples T-Test**	
	U.K.	Ghana	U.K.	Ghana	U.K.	Ghana	t	df
Power Distance	2.1	5.9	1.0	.86	.769	.623	36.41***	214
Collectivism	3.0	5.5	1.4	1.1	.840	.692	18.58***	219
Long Term Orientation	4.3	4.1	1.3	1.2	.825	.508	-1.40	385
Uncertainty Avoidance	5.4	5.3	.78	1.1	.627	.524	-.85	385
Masculinity	2.8	3.0	1.3	1.6	.803	.722	1.20	224

Table 1: Details of Cultural Dimensions Scales

We recruited university students from classroom settings in the UK (n = 283) and Ghana (n = 104) and administered surveys in person during class time, with the support of course instructors. Participation was voluntary, and responses were anonymous. The sample sizes, though unequal, fall within accepted practices for preliminary studies (Barbarossa et al., 2018). All materials were administered in English, which is the first language in the UK and the official language of instruction in Ghana, minimizing comprehension-related measurement issues.

We measured all five dimensions using a four-item, seven-point Likert-type scale adapted from Yoo et al. (2011). Despite somewhat lower reliabilities on some dimensions, particularly in the Ghanaian sample, all Cronbach's alpha values fell within acceptable thresholds for preliminary studies (Nunnally, 1975). We then examined whether the two groups differed significantly across each dimension, and whether these dimensions were significantly interrelated.

The results of the independent samples t-tests revealed significant differences between the UK and Ghana on power distance ($t(214) = 36.41$, $p < .05$) and collectivism ($t(219) = 18.58$, $p < .05$), but no significant differences on long term orientation ($t(385) = -1.40$, $p > .05$), uncertainty avoidance ($t(385) = -0.85$, $p > .05$), or masculinity ($t(224) = 1.20$, $p > .05$).

	Power Distance	Collectivism	Long Term Orientation	Uncertainty Avoidance	Masculinity
Power Distance	1				
Collectivism	.781**	1			
Long Term Orientation	.055	.051	1		
Uncertainty Avoidance	-.094	-.090	.122*	1	
Masculinity	.232**	.186**	-.001	.049	1

Table 2: Correlation Matrix of Cultural Dimensions

As shown in Table 2, power distance and collectivism were strongly correlated (.781), replicating Hofstede's earlier findings and indicating that differences between the two contexts are reflected primarily in these two dimensions. To further examine the uniqueness of each dimension, we regressed power distance on collectivism to isolate the variance not explained by collectivism, and conducted an independent samples t-test on the residuals. A significant difference remained between the UK and Ghana samples ($t(224) = 14.73$, $p < .05$), indicating that while both dimensions capture meaningful variation between the two contexts, power distance also represents a distinct source of cultural variation.

Web Appendix 2: Confirmatory Factor Analyses

Item Label	Item	Pooled	U.K.	Ghana
First Order Loadings				
Com1	I think both me and my university help each other without expecting anything in return	.957	.841	.974
Com2	I root for the success of my university and it roots for my success	.629	.508	.898
Com3	Both me and my university don't expect anything in return for what we give to each other	.677	.713	.651
Exc1	I receive from my university as much as I give to it	.805	.791	.791
Exc2	There is a balance to what I offer to my university and what it offers to me	.772	.742	.764
Exc3	The benefits I get from my university are equivalent to what I give (e.g., money, effort, time) to my university	.764	.688	.827
Anx1	I find others reluctant to get as close as I would like	.680	.753	.629
Anx2	My desire to get close to people sometimes scare them away	.784	.804	.703
Anx3	I worry a partner will not want to stay with me	.633	.605	.761
Int1	My university represents who I am	.883	.856	.868
Int2	My university reflects my personality	.916	.899	.877
Int3	My university reflects my personal image	.871	.853	.849
Ext1	My university is reasonably priced	.870	.843	.791
Ext2	My university offers good value for money	.903	.878	.878
Ext3	Graduating from my university will be worth the money I have spent	.610	.544	.652
Pas1	I take pleasure in being a student at my university	.708	.703	.627
Pas2	I am passionate about my university	.880	.884	.860
Pas3	I idealize my university's image	.797	.698	.789
Comit1	If I decide to continue with further study (e.g., masters, PhD), I would choose to study at my current university	.737	.727	.656
Comit2	My current university will continue to be my first-choice university	.837	.897	.828
Comit3	I will continue to feel committed to my university after I graduate	.716	.568	.753
SConn1	My university is part of me	.823	.811	.741
SConn2	Being a student at this university makes a statement about who I am	.778	.704	.803
SConn3	By being a student at my university, I feel I am part of a shared community	.708	.635	.684
Trust1	My university experience always meets my expectations	.776	.702	.751
Trust2	My university is reliable	.865	.837	.840
Trust3	My university can always be trusted	.833	.795	.832
Trust4	My university can be counted on to satisfy my needs	.827	.817	.750
Second Order Loadings				
Passion		.925	.912	.745
Commitment		.759	.615	.759
Self-Connection		.885	.872	.729
Trust		.768	.664	.747

Note: All factor loadings are significant at $p < 0.05$

Web Appendix 3: U.K. and Ghana Sample Correlations and Measurement Properties

	1	2	3	4	5	6	7	8	9	**10**
1. Intrinsic	1	.419	.415	.438	-.017	.402	.409	.445	.451	.551.
2. Extrinsic	.223	1	.378	.489	-.047	.374	.326	.356	.487	.496
3. Communal	.405	.324	1	.254	.085	.263	.279	.202	.314	.343
4. Exchange	.301	.480	.591	1	-.134	.384	.296	.307	.463	.465
5. Anxious	-.033	-.053	-.050	-.059	1	-.063	-.006	-.045	-.165	-.087
6. Passion	.542	.352	.468	.414	-.109	1	.509	.461	.451	.773
7. Commitment	.355	.299	.348	.324	-.077	.540	1	.446	.455	.806
8. Self-Connection	.655	.267	.374	.302	-.057	.650	.434	1	.451	.752
9. Trust	.346	.447	.482	.504	-.178	.561	.389	.415	1	.756
10.CBR	.597	.431	.527	.486	-.132	.862	.766	.787	.743	1
M	4.28/ 5.60	4.46/ 5.76	4.40/ 4.82	4.54/ 5.50	3.39/ 3.34	5.29/ 6.38	5.04/ 6.11	5.13/ 6.26	4.94/ 6.04	5.10/ 6.20
SD	1.38/ 1.11	1.24/ 1.02	1.10/ 1.73	1.20/ 1.12	1.32/ 1.39	1.05/ 0.71	1.25/ 0.88	1.13/ 0.72	1.12/ 0.73	0.90/ 0.59
α	0.91/ 0.90	0.79/ 0.81	0.70/ 0.87	0.78/ 0.84	0.75/ 0.74	0.79/ 0.79	0.75/ 0.78	0.75/ 0.78	0.86/ 0.87	.794/. 771
CR	0.91/ 0.90	0.81/ 0.82	0.74/ 0.89	0.79/ 0.84	0.77/ 0.74	0.81/ 0.81	0.78/ 0.79	0.76/ 0.79	0.87/ 0.87	.83/.8 6
AVE	0.76/ 0.75	0.59/ 0.61	0.49/ 0.73	0.55/ 0.63	0.53/ 0.49	0.59/ 0.59	0.55/ 0.56	0.52/ 0.55	0.62/ 0.63	.56/.6 0

[a] Correlations above the diagonal are for the Ghana sample, correlations under the diagonal are for the U.K. sample

[b] The first number reports the results from the U.K. sample, the second number reports the results from the Ghana sample

Web Appendix 4: Mediation Analysis

		Direct Effect (p-value)	Unstandardized Indirect Effect	LLCI	ULCI
Pooled Sample	Communal → Intrinsic → CBR	.06 (.07)	.09	.05	.13
	Exchange → Extrinsic → CBR	.21 (.00)	.07	.05	.10
	Communal → Intrinsic → Passion	.05 (.16)	.12	.08	.17
	Exchange → Extrinsic → Passion	.21 (.00)	.04	.02	.07
	Communal → Intrinsic → Commitment	.09 (.04)	.12	.08	.17
	Exchange → Extrinsic → Commitment	.13 (.04)	.09	.03	.16
	Communal → Intrinsic → Self-Connection	-.01 (.76)	.12	.08	.17
	Exchange → Extrinsic → Self-Connection	.05 (.34)	.12	.04	.19
	Communal → Intrinsic → Trust	.09 (.02)	.12	.07	.17
	Exchange → Extrinsic → Trust	.33 (.00)	.06	.03	.10
U.K. Sample	Communal → Intrinsic → CBR	.14 (.04)	.13	-.01	.38
	Exchange → Extrinsic → CBR	.17 (.02)	.05	.02	.13
	Communal → Intrinsic → Passion	.13 (.10)	.11	-.00	.29
	Exchange → Extrinsic → Passion	.16 (.05)	.05	.01	.12
	Communal → Intrinsic → Commitment	.12 (.17)	.06	.01	.17
	Exchange → Extrinsic → Commitment	.09 (.29)	.05	.01	.13
	Communal → Intrinsic → Self-Connection	.06.(.41)	.27	.00	.62
	Exchange → Extrinsic → Self-Connection	.04 (.61)	.03	-.03	.11
	Communal → Intrinsic → Trust	.16 (.04)	.04	-.00	.13
	Exchange → Extrinsic → Trust	.30 (.00)	.12	.05	.30
Ghana Sample	Communal → Intrinsic → CBR	.08 (.24)	.04	.02	.08
	Exchange → Extrinsic → CBR	.23 (.01)	.05	.01	.10
	Communal → Intrinsic → Passion	.07 (.37)	.04	.01	.11
	Exchange → Extrinsic → Passion	.27 (.00)	.02	-.06	.09
	Communal → Intrinsic → Commitment	.10 (.21)	.09	.03	.21
	Exchange → Extrinsic → Commitment	.03 (.73)	.09	-.01	.24
	Communal → Intrinsic → Self-Connection	-.06 (.46)	.10	.04	.20
	Exchange → Extrinsic → Self-Connection	.05 (.60)	.07	-.01	.18
	Communal → Intrinsic → Trust	.08 (.24)	.04	.01	.11
	Exchange → Extrinsic → Trust	.26 (.00)	.10	.02	.23

Wed Appendix 5: Goodness of Fit Tests for Proposed Model and Rival Models

		χ^2(df)	CFI	TLI	RMSEA	$\Delta\chi^2$	Δdf	AIC	BCC
Proposed Model	Pooled	1412.87(438)	.93	.93	.05	-	-	1656.872	1667.753
	U.K.	1353.78(438)	.88	.88	.06	-	-	1597.784	1614.665
	Ghana	662.611(438)	.94	.95	.04	-	-	906.611	941.773
Rival Model A	Pooled	1466.07(443)	.92	.92	.06	53.20***	5	1700.071	1710.506
	U.K.	1396.83(443)	.87	.87	.07	43.05***	5	1630.829	1647.018
	Ghana	693.22(443)	.94	.94	.05	30.609***	5	903.913	937.633
Rival Model B	Pooled	1440.61(443)	.92	.92	.05	27.74***	5	1674.607	1685.042
	U.K.	1388.92(443)	.87	.87	.07	35.14***	5	1622.915	1639.103
	Ghana	669.913(443)	.94	.94	.04	7.302	5	903.913	937.633
Rival Model C	Pooled	1467.463(446)	.92	.91	.06	54.591***	8	1704.463	1714.631
	U.K.	1483.833(446)	.86	.84	.07	130.049***	8	1711.833	1727.607
	Ghana	685.123(446)	.94	.93	.05	22.512**	8	913.123	945.979

Web Appendix 6: Structural Equation Model Results for Each Dimension of the CBR

DV: Passion	Pooled		U.K.		Ghana		Multi group Comparisons (U.K. vs Ghana)	
	β	Critical Ratio	β	Critical Ratio	β	Critical Ratio	$\Delta\chi^2$	Δdf
Hypothesized Paths								
Communal → Intrinsic	.27	5.96***	.35	3.74***	.34	4.94***	1.60	1
Exchange → Intrinsic	.38	7.88***	.11	1.21	.45	6.47***	4.14*	1
Communal → Extrinsic	.12	2.60**	-.03	-.26	.25	3.63***	3.90*	1
Exchange → Extrinsic	.59	10.45***	.54	5.11***	.56	6.72***	.15	1
Intrinsic → Passion	.48	11.13***	.47	8.70***	.25	2.98**	7.55**	1
Extrinsic → Passion	.17	3.64***	.13	2.45*	.08	.83	.85	1
Exchange×Anxious → Intrinsic	-.02	-.39	.19	1.27	-.26	-2.45*	4.65*	1
Communal×Anxious → Extrinsic	.00	.00	-.23	-1.44	-.03	-.42	1.82	1
Control Paths								
Anxious → Intrinsic	.01	.17	.01	.15	.23	1.99*	2.45	1
Anxious → Extrinsic	.02	.44	.00	.06	.22	1.86	2.59	1
Exchange×Anxious → Extrinsic	-.04	-.84	.20	1.28	-.26	-2.37*	5.36	1
Communal×Anxious → Intrinsic	.01	.23	-.16	-1.10	-.02	-.33	1.03	1
Communal → Passion	.05	1.40	.13	1.66	.08	1.14	.90	1
Exchange → Passion	.21	3.93***	.16	1.93	.29	3.04**	.05	1
Year → Passion	-.03	-1.08	-.03	-.76	.02	.40	.66	1
Student Status → Passion	-.03	-1.11	-.01	-.30	.02	.26	.12	1
	$\chi^2_{(DF)}$	$523.94_{(187)}$	$\chi^2_{(DF)}$	$575.48_{(187)}$	$\chi^2_{(DF)}$	$278.17_{(187)}$		
	CFI	0.96	CFI	0.91	CFI	0.96		
	TLI	0.95	TLI	0.89	TLI	0.96		
	RMSEA	0.05	RMSEA	0.06	RMSEA	0.04		

DV: Commitment	Pooled		U.K.		Ghana		Multi group Comparisons (U.K. vs Ghana)	
	β	Critical Ratio	β	Critical Ratio	β	Critical Ratio	$\Delta\chi^2$	Δdf
Hypothesized Paths								
Communal → Intrinsic	.27	5.95***	.34	3.68***	.34	4.93***	1.33	1
Exchange → Intrinsic	.38	7.90***	.12	1.31	.45	6.44***	3.94*	1
Communal → Extrinsic	.12	2.63**	-.02	-.23	.25	3.63***	3.91*	1
Exchange → Extrinsic	.59	10.44***	.54	5.14***	.56	6.71***	.14	1
Intrinsic → Commitment	.33	7.16***	.28	4.91***	.32	3.63***	.01	1
Extrinsic → Commitment	.18	3.34***	.13	2.29*	.19	1.97*	.00	1
Exchange×Anxious → Intrinsic	-.02	-.40	.19	1.30	-.26	-2.42*	4.75*	1
Communal×Anxious → Extrinsic	.00	.03	-.22	-1.41	-.02	-.33	1.80	1
Control Paths								
Anxious → Intrinsic	.01	.22	.01	.21	.23	1.97*	2.29	1
Anxious → Extrinsic	.02	.42	.00	.07	.22	1.86	2.57	1

Exchange×Anxious → Extrinsic	-.04	-.86	.19	1.25	-.26	-2.41*	5.33*	1
Communal×Anxious → Intrinsic	.01	.22	-.17	-1.13	-.02	-.29	1.11	1
Communal → Commitment	.09	2.09*	.12	1.38	.11	1.39	.38	1
Exchange → Commitment	.13	2.03*	.09	1.07	.06	.64	.28	1
Year → Commitment	-.01	-.23	.05	1.11	-.09	-1.52	3.28	1
Student Status → Commitment	-.18	-5.24***	-.20	-4.37***	.03	.55	4.20*	1
	$\chi^2_{(DF)}$	$498.14_{(187)}$	$\chi^2_{(DF)}$	$507.27_{(187)}$	$\chi^2_{(DF)}$	$278.03_{(187)}$		
	CFI	0.96	CFI	0.92	CFI	0.97		
	TLI	0.95	TLI	0.91	TLI	0.96		
	RMSEA	0.05	RMSEA	0.06	RMSEA	0.04		

DV: Self-Connection	Pooled		U.K.		Ghana		Multi group Comparisons (U.K. vs Ghana)	
	β	Critical Ratio	β	Critical Ratio	β	Critical Ratio	$\Delta\chi^2$	Δdf
Hypothesized Paths								
Communal → Intrinsic	.28	6.04***	.36	3.84***	.34	4.95***	1.81	1
Exchange → Intrinsic	.38	7.90***	.11	1.19	.45	6.46***	4.18*	1
Communal → Extrinsic	.12	2.64**	-.02	-.21	.25	3.63***	3.85*	1
Exchange → Extrinsic	.59	10.41***	.54	5.11***	.56	6.71***	.10	1
Intrinsic → Self-Connection	.72	16.80***	.73	13.58***	.43	4.69***	17.13***	1
Extrinsic → Self-Connection	.13	3.00**	.05	1.03	.18	1.90	.68	1
Exchange×Anxious → Intrinsic	-.02	-.44	.18	1.23	-.26	-2.39*	4.48*	1
Communal×Anxious → Extrinsic	.00	.06	-.22	-1.42	-.03	-.40	1.76	1
Control Paths								
Anxious → Intrinsic	.01	.18	.01	.17	.23	1.97*	2.35	1
Anxious → Extrinsic	.02	.41	.00	.06	.22	1.86	2.59	1
Exchange×Anxious → Extrinsic	-.04	-.88	.20	1.26	-.26	-2.45*	5.33*	1
Communal×Anxious → Intrinsic	.02	.30	-.16	-1.06	-.02	-.32	.96	1
Communal → Self-Connection	-.01	-.31	.06	.82	-.05	-.68	1.03	1
Exchange → Self-Connection	.05	.95	.04	.51	.06	.63	.00	1
Year → Self-Connection	-.02	-.80	-.02	-.48	.03	.54	.50	1
Student Status → Self-Connection	-.04	-1.49	-.02	-.46	.03	.44	.31	1
	$\chi^2_{(DF)}$	$542.01_{(187)}$	$\chi^2_{(DF)}$	$600.17_{(187)}$	$\chi^2_{(DF)}$	$259.60_{(187)}$		
	CFI	0.95	CFI	0.91	CFI	0.97		
	TLI	0.94	TLI	0.88	TLI	0.96		
	RMSEA	0.05	RMSEA	0.07	RMSEA	0.04		

DV: Trust	Pooled		U.K.		Ghana		Multi group Comparisons (U.K. vs Ghana)	
	β	Critical Ratio	β	Critical Ratio	β	Critical Ratio	$\Delta\chi^2$	Δdf
Hypothesized Paths								
Communal → Intrinsic	.27	5.91***	.34	3.67***	.33	4.90***	1.42	1
Exchange → Intrinsic	.38	7.92***	.11	1.27	.46	6.46***	4.40*	1
Communal → Extrinsic	.11	2.57**	-.03	-.31	.25	3.62***	4.05*	1
Exchange → Extrinsic	.59	10.48***	.55	5.17***	.57	6.70***	.09	1
Intrinsic → Trust	.19	5.05***	.14	2.90**	.19	2.46*	.12	1
Extrinsic → Trust	.29	6.28***	.25	4.46***	.27	3.13**	.31	1
Exchange×Anxious → Intrinsic	-.02	-.34	.20	1.34	-.26	-2.44*	5.00*	1
Communal×Anxious → Extrinsic	.00	-.02	-.23	-1.47	-.03	-.38	1.92	1
Control Paths								
Anxious → Intrinsic	.01	.34	.02	.30	.23	1.99	2.21	1
Anxious → Extrinsic	.02	.45	.00	.05	.22	1.82	2.46	1
Exchange×Anxious → Extrinsic	-.04	-.83	.20	1.31	-.26	-2.37*	5.51*	1
Communal×Anxious → Intrinsic	.01	.13	-.18	-1.17	-.03	-.35	1.18	1
Communal → Trust	.09	2.45*	.16	2.06*	.08	1.24	1.58	1
Exchange → Trust	.33	6.18***	.30	3.66***	.28	3.12**	1.44	1
Year → Trust	-.07	-2.37*	-.06	-1.68	-.05	-.98	.33	1
Student Status → Trust	.07	2.52*	.13	3.29**	.01	.14	.90	1
	$\chi^2_{(DF)}$	$578.01_{(187)}$	$\chi^2_{(DF)}$	$604.26_{(187)}$	$\chi^2_{(DF)}$	$291.26_{(187)}$		
	CFI	0.96	CFI	0.92	CFI	0.97		
	TLI	0.95	TLI	0.90	TLI	0.96		
	RMSEA	0.05	RMSEA	0.06	RMSEA	0.04		

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