Analysis Report

This report is structured as follows.

Contents

Sample Characteristics

The following analysis was conducted using R version 4.3.2. The initial sample consisted of 1,243 individuals. However, a series of exclusions were applied to ensure the integrity of the data. First, individuals who did not provide consent were removed, reducing the sample size to 1,032. Next, those who did not respond to the salary negotiation variable were excluded, resulting in a sample of 895 individuals. Following this, a comprehension check was administered, and 813 participants remained after excluding those who failed this check. Finally, individuals who self-excluded from the analysis were removed, leading to a final sample size of 810 participants.

Regarding the characteristics of the sample (table below), the majority of participants indicated fluency in the local language (98.8%). The sample was composed of 39.8% males, 59.6% females, and 0.6% identifying as diverse. The vast majority of participants were employed (94.6%), while 1.6% were university students, 0.2% were school students, and 3.6% fell into other categories.

In terms of negotiation experience, 69.3% reported having negotiated before, while 30.7% had no prior experience. The level of experience in negotiation ranged from 1 (8.6%) to 7 (4.0%), with the most frequent levels being 2 (23.5%), 3 (20.7%), and 5 (19.0%).

Participants' occupations were diverse, with 35.0% engaged in interactive activities such as advising, educating, or healing others, 24.7% involved in organizing or administrative tasks, and 17.5% engaged in entrepreneurial or commercial activities. Additionally, 9.8% were involved in scientific research or data handling, 5.6% in practical activities related to tools, 2.9% in creative or artistic work, and 4.6% in other occupations.

The vast majority of participants (95.6%) had never worked in the energy industry, while 4.4% had prior experience in that sector. Finally, participants were asked to indicate how closely their real salary considerations aligned with the negotiation scenario presented. The most common responses were 1 (44.8%), 5 (13.0%), and 6 (9.6%).

Category	Level	Count	Percentage
Language	Yes	800	98.8
	No	10	1.2
Gender	Male	322	39.8
	Female	483	59.6
	Diverse	5	0.6
job	School	2	0.2
	University	13	1.6
	Employed	766	94.6
	Other	29	3.6
Ever Negotiated	Yes	561	69.3
	No	249	30.7
Experience in Negotiation	1	70	8.6
	2	190	23.5
	3	168	20.7
	4	138	17.0
	5	154	19.0
	6	58	7.2
	7	32	4.0
Occupation type	Practical activity; dealing with things and tools	43	5.6
	Researching, observing activity; scientific handling of data	75	9.8
	Creative, artistic activity	22	2.9
	Interactive activity; advising, educating, healing people	268	35.0
	Entrepreneurial, commercial activity	134	17.5
	Organizing, administrative activity	189	24.7
	Other	35	4.6
Ever Worked Energy Industry	Yes	36	4.4
	No	774	95.6
Real Salary Consideration	1	363	44.8
	2	70	8.6
	3	59	7.3
	4	59	7.3
	5	105	13.0
	6	78	9.6
	7	76	9.4

The following descriptive statistics were computed for key variables in the dataset. The average age of participants was 47.44 years (SD = 10.85), with a median age of 48 years. The average number of working hours reported was 36.05 hours per week (SD = 7.28), and the median number of working hours was 39 hours per week.

In the Salary Negotiation Scenario variable (Salary.Negotiation.Scenario_v_633), the mean response was $75,593.83 (SD = $11,322.74), with a median of $75,000. The Actual Request variable (Actual.Request_v_482) had a mean of $77,940.74 (SD = $10,968.39) and a median of $78,000. The standard error of the mean (SEM) for these variables ranged from 0.26 for working hours to 397.84 for the Salary Negotiation Scenario, indicating the precision of the estimates provided in this analysis.

Variable	Mean	Median	SEM	SD
Age	47.441	48.000	0.381	10.846
working.hours	36.047	39.000	0.263	7.277
Salary.Negotiation.Scenario_v_633	75593.827	75000.000	397.840	11322.739
Actual.Request_v_482	77940.741	78000.000	385.390	10968.387

Outlier Screening

Outliers were evaluated using Z-scores for each of the key variables in the dataset. Specifically, 16 outliers were identified in the GRDS variable, with Z-scores ranging from 3 to 5. Additionally, five outliers were detected in the Forcing variable, with Z-scores ranging from 3 to 3.13, and three outliers were noted in the Yielding variable, with Z-scores ranging from 3 to 3.18.

For GRDS, the mean score was 7.63 (SD = 3.45) with a median of 6. The distribution exhibited a positive skewness of 1.54 and high kurtosis of 5.87, indicating a distribution with more extreme values and a longer tail on the right side. For GRD, the mean was 11.06 (SD = 5.31), with a median of 10, skewness of 0.45, and kurtosis of 2.33, suggesting a more symmetric distribution.

In the Forcing variable, the mean was 12.30 (SD = 2.65) with a median of 12, and both skewness (-0.08) and kurtosis (3.38) were close to normality. Similarly, the Yielding variable had a mean of 12.92 (SD = 2.81) with a median of 13, skewness of -0.13, and kurtosis of 3.06, also indicating a near-normal distribution. Masculinity Implications had a mean of 12.01 (SD = 8.31) with a median of 10, skewness of 0.87, and kurtosis of 2.77, suggesting moderate asymmetry and tail weight.

Given the presence of these outliers and the skewness and kurtosis observed in the data, bootstrap methods were employed in the regression models to account for non-normality and provide more robust estimates of the standard errors and confidence intervals. This approach is particularly appropriate for datasets where traditional parametric assumptions may not hold, enhancing the reliability of the regression results.

Variable	Mean	Median	SEM	SD	Skewness	Kurtosis
GRDS	7.632	6.000	0.121	3.453	1.539	5.874
GRD	11.064	10.000	0.187	5.313	0.452	2.332
Forcing	12.300	12.000	0.093	2.651	-0.075	3.377
Yielding	12.919	13.000	0.099	2.807	-0.134	3.059
Masculinity_Implications	12.010	10.000	0.292	8.308	0.872	2.768

Reliability Test

Cronbach's alpha was calculated to assess the internal consistency of the scales used in this study. A reliability analysis was performed on the GRDS, GRD, Forcing, Yielding, and Masculinity Implications subscales, as well as the total scores. The internal consistency for each variable is reported below.

For the GRDS subscale, the overall Cronbach's alpha was 0.803, indicating acceptable internal consistency. Item-total correlations (ITC) for the individual items in the GRDS subscale ranged from 0.630 to 0.886, with most items contributing positively to the overall reliability of the scale. The GRD subscale demonstrated excellent internal consistency with a Cronbach's alpha of 0.922, and item-total correlations ranging from 0.859 to 0.890, further supporting the reliability of this scale.

The Forcing subscale exhibited a Cronbach's alpha of 0.760, indicating adequate reliability. The item-total correlations ranged from 0.677 to 0.811, suggesting that all items contributed moderately to the scale's reliability. The Yielding subscale demonstrated somewhat lower reliability, with a Cronbach's alpha of 0.714, but remained within the acceptable range. Item-total correlations for the Yielding subscale ranged from 0.724 to 0.811.

The Masculinity Implications subscale showed high reliability, with a Cronbach's alpha of 0.866, indicating strong internal consistency. Item-total correlations ranged from 0.792 to 0.877, suggesting that all items contributed positively to the reliability of the scale.

Overall, the reliability analyses indicate that the scales used in this study possess acceptable to excellent internal consistency, as reflected in the Cronbach's alpha values across the different subscales. These results support the use of these measures for further analyses.

Variable	Mean	SEM	StDev	ITC	Alpha
GRDS_GRD_1	1.574	0.034	0.965	0.793	
GRDS_GRD_2	1.456	0.029	0.812	0.630	
GRDS_GRD_3	1.491	0.031	0.885	0.720	
GRDS_GRD_4	1.499	0.031	0.880	0.803	
GRDS_GRD_5	1.660	0.035	1.007	0.785	
GRDS_Total	7.632	0.121	3.453		0.803
GRDS_GRD_6	2.262	0.044	1.260	0.886	
GRDS_GRD_7	2.181	0.042	1.185	0.859	
GRDS_GRD_8	2.130	0.041	1.152	0.873	
GRDS_GRD_9	2.191	0.041	1.163	0.861	
GRDS_GRD_10	2.368	0.044	1.253	0.890	
GRD_Total	11.064	0.187	5.313		0.922
Forcing_Yielding_v_648	2.746	0.031	0.878	0.786	
Forcing_Yielding_v_649	2.917	0.031	0.889	0.771	
Forcing_Yielding_v_650	3.557	0.028	0.809	0.677	
Forcing_Yielding_v_651	3.080	0.032	0.898	0.811	
Forcing_Total	12.300	0.093	2.651		0.760
Forcing_Yielding_v_652	3.116	0.033	0.953	0.745	
Forcing_Yielding_v_653	3.532	0.033	0.951	0.729	
Forcing_Yielding_v_654	3.869	0.031	0.884	0.743	
Forcing_Yielding_v_655	2.401	0.036	1.031	0.724	
Yielding_Total	12.919	0.099	2.807		0.714
Masculinity.Implications_v_662	3.060	0.089	2.534	0.877	
Masculinity.Implications_v_663	2.698	0.079	2.261	0.792	
Masculinity.Implications_v_664	3.494	0.094	2.665	0.875	
Masculinity.Implications_v_665	2.758	0.083	2.353	0.834	
Masculinity_Implications_Total	12.010	0.292	8.308		0.866

Descriptive Statistics

Descriptive statistics were calculated to compare the means and standard deviations (SD) across different categorical variables, including language proficiency, gender, and experience in the energy industry. The focus is on notable differences in these groups. The analysis revealed several noteworthy findings.

Regarding gender differences, females had a lower mean score (M = 7.530, SD = 3.335) in the GRDS variable compared to males (M = 7.904, SD = 3.514). Additionally, the Masculinity Implications scores for females (M = 13.447, SD = 8.700) were substantially higher than those of males (M = 9.863, SD = 7.192), indicating a possible perception difference between genders in this area.

In terms of language proficiency, participants who did not speak the primary language had higher GRDS scores (M = 9.500, SD = 4.790) compared to those who did (M = 7.609, SD = 3.430). The difference in GRD scores followed a similar pattern, with those who did not speak the primary language scoring higher (M = 13.300, SD = 6.413) compared to the primary speakers (M = 11.036, SD = 5.297). These differences suggest a possible impact of language on these specific negotiation-related variables.

When comparing participants who had worked in the energy industry with those who had not, the means were similar across most variables, with only slight differences. Participants with energy industry experience had a slightly higher mean Yielding score (M = 13.556, SD = 2.645) compared to those without such experience (M = 12.889, SD = 2.812). However, their Masculinity Implications score was lower (M = 9.389, SD = 6.371) than participants with no energy industry experience (M = 12.132, SD = 8.370), indicating a potential divergence in perceptions related to gender roles in this specific industry.

Variable	Language				Gender					
	Yes		No		Female		Male		Diverse	
	M	SD	M	SD	M	SD	M	SD	M	SD
GRDS	7.609	3.430	9.500	4.790	7.530	3.335	7.904	3.514	0.000	0.000
GRD	11.036	5.297	13.300	6.413	11.186	5.480	11.053	4.911	0.000	0.000
Forcing	12.300	2.663	12.300	1.418	12.346	2.775	12.214	2.419	13.400	4.669
Yielding	12.915	2.804	13.200	3.190	12.694	2.913	13.267	2.627	12.200	0.837
Masculinity_Implications	11.994	8.326	13.300	6.848	13.447	8.700	9.863	7.192	11.400	8.173

Variable	Ever Worked Energy Industry			
	No		Yes	
	M	SD	M	SD
GRDS	7.615	3.443	8.000	3.688
GRD	11.043	5.317	11.528	5.283
Forcing	12.292	2.651	12.472	2.688
Yielding	12.889	2.812	13.556	2.645
Masculinity_Implications	12.132	8.370	9.389	6.371

For job type, individuals in the "Other" category showed higher GRDS scores (M = 9.241, SD = 4.650) compared to those employed (M = 7.563, SD = 3.381). Those in the "University" category also had a higher GRD score (M = 12.615, SD = 5.796) compared to individuals employed (M = 10.973, SD = 5.283). However, individuals in the "School" category had a lower GRD score (M = 7.500, SD = 3.536). These differences suggest that job type may play a role in influencing negotiation-related variables.

Regarding negotiation experience, individuals who had previously negotiated showed slightly lower GRDS scores (M = 7.513, SD = 3.251) than those who had not negotiated before (M = 7.900, SD = 3.863). A similar pattern emerged for the GRD variable, where experienced negotiators had lower GRD scores (M = 10.900, SD = 5.195) compared to those without negotiation experience (M = 11.434, SD = 5.563). In contrast, individuals with negotiation experience demonstrated higher Yielding scores (M = 13.155, SD = 2.719) compared to those without (M = 12.386, SD = 2.931), suggesting possible differences in how individuals approach yielding during negotiations.

When considering occupation types, individuals involved in "Creative, artistic activity" had notably higher GRDS scores (M = 8.182, SD = 5.569) and GRD scores (M = 13.182, SD = 6.780) compared to other occupational categories. The highest Masculinity Implications scores were also observed in this category (M = 15.318, SD = 10.035), highlighting the significant variability in gender role perceptions across different occupations. On the other hand, those involved in "Practical activity; dealing with things and tools" exhibited relatively lower Masculinity Implications scores (M = 9.837, SD = 6.761).

Variable	Job								Ever Negotiated			
	Employed		Other		University		School		No		Yes	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
GRDS	7.563	3.381	9.241	4.650	8.154	4.100	7.500	3.536	7.900	3.863	7.513	3.251
GRD	10.973	5.283	13.034	5.641	12.615	5.796	7.500	3.536	11.434	5.563	10.900	5.195
Forcing	12.289	2.642	12.069	2.672	13.462	3.178	12.500	2.121	12.586	2.660	12.173	2.640
Yielding	12.949	2.819	12.690	2.238	12.308	2.898	8.500	2.121	12.386	2.931	13.155	2.719
Masculinity_Implications	11.932	8.207	15.862	####	8.538	7.160	8.500	3.536	12.277	8.436	11.891	8.255

Variable	Occupation													
	Organizing, administrative		Entrepreneurial, commercial activity		Interactive activity; advising, educating, healing		Practical activity; dealing with things and tools		Researching, observing activity; scientific handling of data		Other		Creative, artistic activity	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
GRDS	7.931	3.839	7.306	3.201	7.474	3.038	8.279	3.112	6.973	3.067	7.229	2.941	8.182	5.569
GRD	11.005	5.355	10.172	4.887	11.321	5.464	9.837	4.191	11.067	5.323	11.000	4.646	13.182	6.780
Forcing	11.974	2.575	12.104	2.302	12.451	2.781	11.977	2.006	12.640	3.070	12.371	2.636	13.409	2.684
Yielding	12.894	2.853	13.313	2.743	12.948	2.905	13.116	2.674	12.520	2.728	12.743	2.694	12.682	2.784
Masculinity Implications	12.677	8.371	11.194	7.974	11.832	8.018	9.837	6.761	11.747	8.310	12.343	9.324	15.318	10.035

Model Results - Men

In the present analysis, multiple linear regression models were employed to assess the impact of two predictors, GRDS (Gender Role Discrepancy Scale) and GRD (Gender Role Discrepancy), on five response variables: Salary Negotiation Scenario (v 633), Actual Request (v 482), Forcing, Yielding, and Masculinity Implications. The models were fitted separately for male and female participants using R version 4.3.2. Bootstrapping was employed to obtain confidence intervals for the model coefficients.

For men, the results revealed no significant effects of GRDS or GRD on the Salary Negotiation Scenario or Actual Request, with p-values of 0.962 and 0.349 for GRDS and GRD in the Salary Negotiation Scenario, and 0.838 and 0.171 for the Actual Request. However, significant effects were observed in the Forcing and Yielding models. In the Forcing model, both GRDS ($\beta = 0.084$, $p = 0.042$) and GRD ($\beta = 0.075$, $p = 0.010$) were significant predictors, with confidence intervals excluding zero. Similarly, in the Yielding model, GRDS ($\beta = 0.101$, $p = 0.027$) and GRD ($\beta = -0.073$, $p = 0.024$) were significant predictors. The Masculinity Implications model revealed a significant effect of GRDS ($\beta = 0.537$, $p < 0.001$) but not GRD ($p = 0.488$).

Response Variable	term	estimate	std.error	statistic	p.value	CI Lower	CI Upper	R Squared
Salary.Negotiation.Scenario v 633	(Intercept)	78805.702	1839.535	42.840	0.000	74893.902	82851.153	
	GRDS	9.591	199.162	0.048	0.962	-484.588	456.806	0.003
	GRD	-133.702	142.510	-0.938	0.349	-409.503	152.267	
Actual.Request v 482	(Intercept)	82122.007	1780.466	46.124	0.000	78740.923	86001.467	
	GRDS	-39.452	192.767	-0.205	0.838	-449.431	380.144	0.008
	GRD	-189.065	137.934	-1.371	0.171	-453.736	70.439	
Forcing	(Intercept)	10.720	0.378	28.360	0.000	9.984	11.480	
	GRDS	0.084	0.041	2.043	0.042	-0.001	0.168	0.053
	GRD	0.075	0.029	2.576	0.010	0.018	0.139	
Yielding	(Intercept)	13.282	0.417	31.841	0.000	12.329	14.079	
	GRDS	0.101	0.045	2.228	0.027	0.013	0.195	0.022
	GRD	-0.073	0.032	-2.269	0.024	-0.146	-0.001	
Masculinity Implications	(Intercept)	4.957	1.108	4.472	0.000	2.807	7.104	
	GRDS	0.537	0.120	4.479	0.000	0.223	0.862	0.079
	GRD	0.060	0.086	0.694	0.488	-0.126	0.250	

Model Results - Women

For women, the results were notably different. GRDS significantly predicted outcomes in both the Salary Negotiation Scenario ($\beta = -672.693$, $p < 0.001$) and Actual Request ($\beta = -590.899$, $p < 0.001$), with confidence intervals that did not include zero. GRD also significantly predicted Salary Negotiation Scenario ($\beta = 294.097$, $p = 0.003$). In the Forcing model, both GRDS ($\beta = 0.100$, $p = 0.013$) and GRD ($\beta = 0.084$, $p = 0.001$) were significant predictors. However, in the Yielding model, only GRD ($\beta = -0.065$, $p = 0.013$) was significant. The Masculinity Implications model revealed a significant effect of GRDS ($\beta = 0.417$, $p = 0.001$), while GRD was not significant ($p = 0.132$).

Response Variable	term	estimate	std.error	statistic	p.value	CI Lower	CI Upper	R Squared
Salary.Negotiation.Scenario v 633	(Intercept)	76181.316	1373.233	55.476	0.000	73322.954	78949.737	0.040
	GRDS	-672.693	160.726	-4.185	0.000	-954.746	-360.088	
	GRD	294.097	97.807	3.007	0.003	76.319	503.438	
Actual.Request v 482	(Intercept)	79498.060	1333.136	59.632	0.000	76758.867	82248.144	0.029
	GRDS	-590.899	156.033	-3.787	0.000	-879.946	-319.679	
	GRD	153.903	94.951	1.621	0.106	-47.472	339.836	
Forcing	(Intercept)	10.654	0.341	31.206	0.000	9.994	11.310	0.057
	GRDS	0.100	0.040	2.500	0.013	0.019	0.187	
	GRD	0.084	0.024	3.454	0.001	0.033	0.136	
Yielding	(Intercept)	13.615	0.366	37.238	0.000	12.897	14.334	0.019
	GRDS	-0.025	0.043	-0.594	0.553	-0.105	0.060	
	GRD	-0.065	0.026	-2.505	0.013	-0.126	-0.008	
Masculinity Implications	(Intercept)	9.008	1.080	8.339	0.000	7.129	11.099	0.040
	GRDS	0.417	0.126	3.298	0.001	0.159	0.655	
	GRD	0.116	0.077	1.510	0.132	-0.043	0.261	

Diagnostic plots were used to evaluate the assumptions of model residuals. These charts include the Residuals vs. Fitted plot, the Q-Q plot of residuals, the Scale-Location plot, and the Residuals vs. Leverage plot.

The Residuals vs. Fitted plots indicated a fairly random distribution of residuals across all models, suggesting no obvious patterns, which supported the assumptions of linearity and homoscedasticity (constant variance of residuals). The Q-Q plots showed that the residuals followed a near-normal distribution, with most points falling on the diagonal line, indicating that the assumption of normality was met. The Scale-Location plots further supported the homoscedasticity assumption, as the residuals appeared to be spread equally along the fitted values. Lastly, the Residuals vs. Leverage plots did not show any points with excessive leverage or large Cook's distances, suggesting there were no highly influential points that disproportionately affected the models. All assumptions were met, and the use of bootstrapping further strengthened the robustness of the models.

Hypotheses Tests

Men

Hypothesis 1: The more men experience gender role discrepancy stress (GRDS), the higher is the salary they aim for in a negotiation (i.e., goal).
Not supported: Coefficient = 9.59, p = 0.962.

Hypothesis 2: The more men experience gender role discrepancy stress, the higher is the salary they intend to ask for in a negotiation.
Not supported: Coefficient = -39.45, p = 0.838.

Hypothesis 3a: The more men experience gender role discrepancy stress, the greater is their willingness to engage in "forcing."
Supported: Coefficient = 0.084, p = 0.042.

Hypothesis 3b: The more men experience gender role discrepancy stress, the lower is their willingness to engage in "yielding."
Supported: Coefficient = -0.073, p = 0.024.

Hypothesis 4: The more men experience gender role discrepancy stress, the more do they perceive negotiations to have masculinity implications.
Supported: Coefficient = 0.537, p < 0.001.

Women

Hypothesis 1: The more women experience gender role discrepancy stress (GRDS), the higher is the salary they aim for in a negotiation (i.e., goal).
Not supported: Coefficient = -672.69, p < 0.001 (opposite direction).

Hypothesis 2: The more women experience gender role discrepancy stress, the higher is the salary they intend to ask for in a negotiation.
Not supported: Coefficient = -590.90, p < 0.001 (opposite direction).

Hypothesis 3a: The more women experience gender role discrepancy stress, the greater is their willingness to engage in "forcing."
Supported: Coefficient = 0.100, p = 0.013.

Hypothesis 3b: The more women experience gender role discrepancy stress, the lower is their willingness to engage in "yielding."
Not supported: Coefficient = -0.025, p = 0.553.

Hypothesis 4: The more women experience gender role discrepancy stress, the more do they perceive negotiations to have masculinity implications.
Supported: Coefficient = 0.417, p = 0.001.