



THE MASLACH BURNOUT INVENTORY–GENERAL SURVEY: VALIDATION ACROSS DIFFERENT OCCUPATIONAL GROUPS IN POLAND

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Abstract

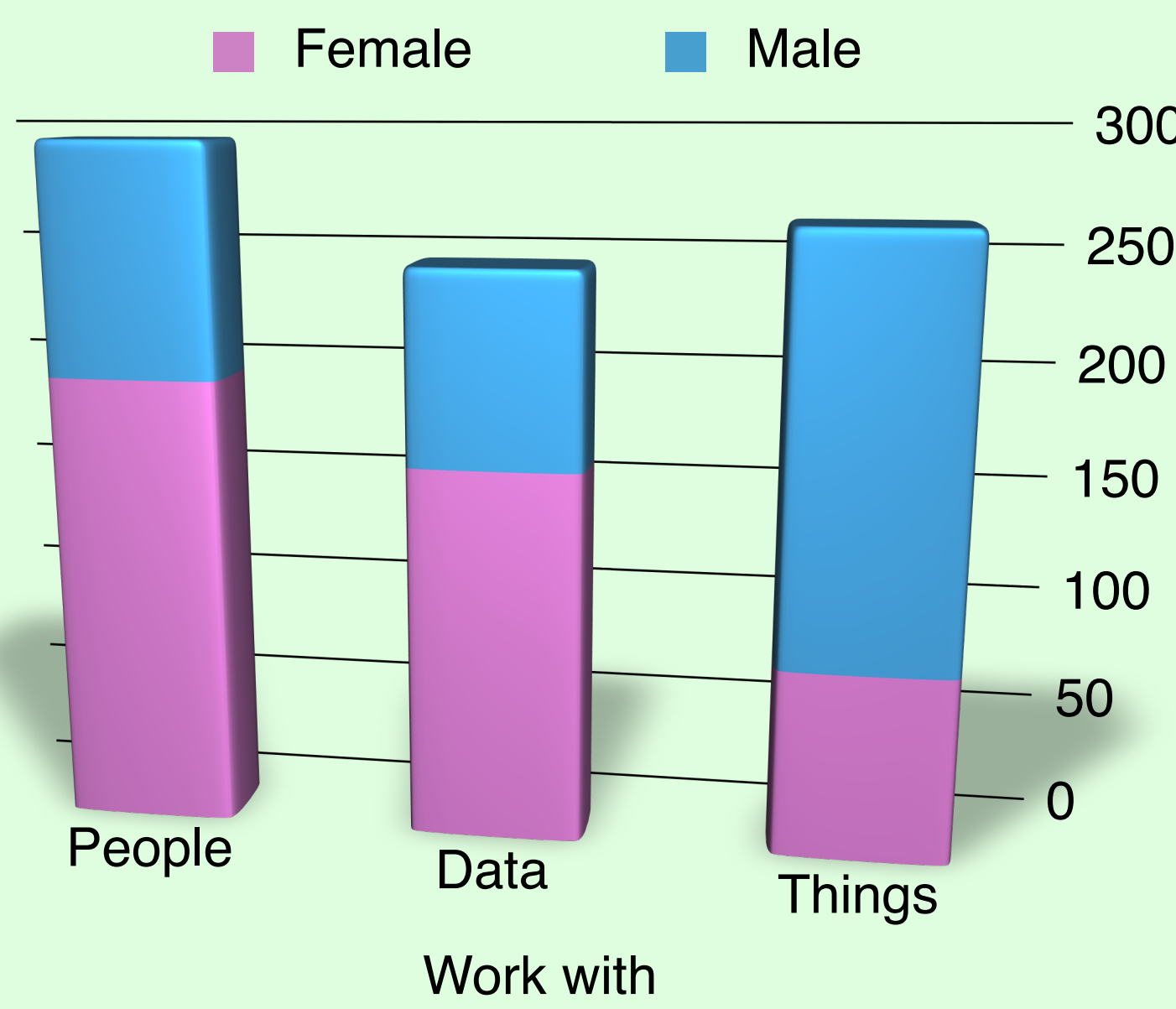
Our work concerns the psychometric evaluation of the Polish version of a self-report questionnaire to measure burnout. Although the Maslach Burnout Inventory (MBI) is the most commonly employed measure of burnout, researchers have been troubled by some of its psychometric limitations. The aim of this study is to examine the MBI-GS factor structure in three occupational groups (both within the human services sector and elsewhere), and to evaluate its reliability (internal consistency). In evaluating factorial validity, we carried out an explanatory analysis and a number of confirmatory analyses. An additional aim was to explore the

relationships between biographic characteristics (gender, age, work experience, employment level, and occupation) and burnout.

The results of the confirmatory analyses show that all three models fit the data almost acceptably, both in the total sample (N=839) and in the separate occupational groups, and that the fit of the three-factor solution appears to be somewhat better than that of the one- and two-factor solutions. When the initial model failed to fit the data well, we had to eliminate two items with weak reliability. The results then confirmed the factorial validity of the MBI-GS—as expected, the MBI-GS consists of three scales that are moderately correlated.

Sample

The research, which was carried out during 2009 and the first half of 2010, involved 1,016 employees of Polish firms. Listwise deletion of missing values on burnout subscales and outliers yielded a final sample of 839 participants. The respondents ranged in age from 19 to 66 years, with an average age of 35 (SD = 10.96). Women comprised 55% of the sample, and men 45%. They were all working people, with various career lengths (ranging from half a year to 45 years, although 3–5 years was the largest interval, accounting for 24% of participants). The women were on average a little bit older than the men, and connected with this, they had also had longer careers—the average age of the surveyed women was 36, while for men this figure was 34 (t(847) = 3.59; p < 0.001). Polish statistical office (GUS) data indicate that in Poland, men predominate among employees (at 57.5%), yet in the surveyed group, there is a preponderance of women.



Sample structure

Kind of job	Female		Male		Total
	Count	% female	Count	% male	
Data	161	66.0%	83	34.0%	244
People	195	66.3%	99	33.7%	294
Things	81	30.9%	181	69.1%	262
Total	458	54.6%	381	45.4%	839



Results

Our psychometric results confirm the factorial validity of the MBI-GS—as expected, the MBI-GS consists of three scales that are moderately correlated. The 3-factor structure of the MBI-GS (with minor modifications) was validated. The three-dimensional model fit increased when items MG6 and MG13 were omitted, providing a mediocre but acceptable fit. These results indicated that the proposed three-factor structure of the MBI-GS based on 14 items could be replicated in the total sample, as well as across different occupations.

Empirical structure of factors

	Factors		
	1	2	3
MG1	0.696		
MG2	0.783		
MG3	0.713		
MG4	0.786		
MG6	0.507	0.496	
MG8		0.531	
MG9		0.611	
MG14		0.711	
MG15		0.769	
MG7			0.514
MG10			0.689
MG11			0.654
MG12			0.587
MG16			0.613
MG5			0.463
MG13			

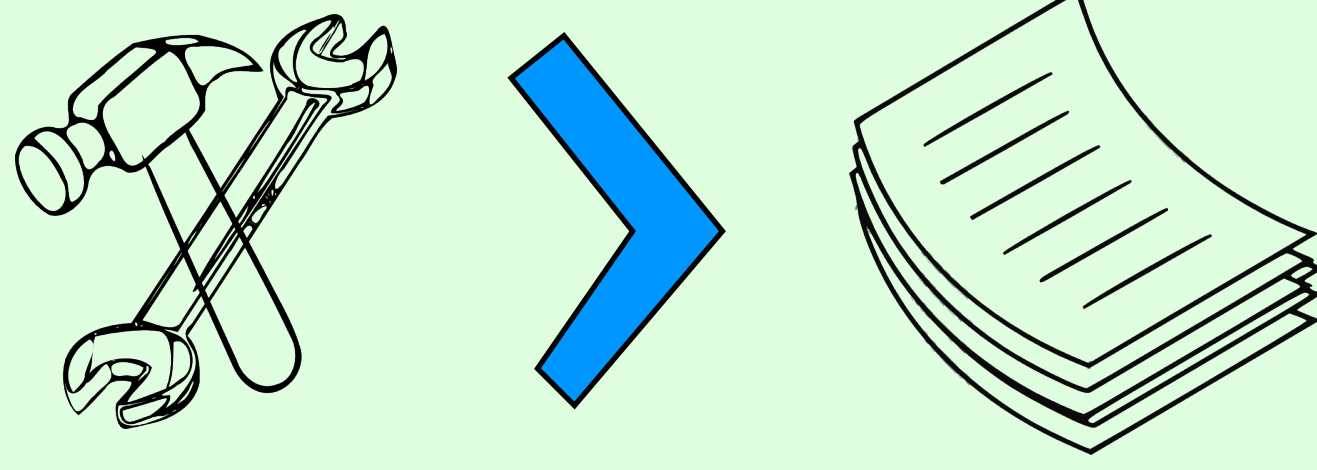
Loadings have been sorted, and those lower than .3 have been deleted

Indices of overall fit for alternative factor structures of the MBI-GS

Fit index	One factor	Two factors	Three factors			
			full	w/o MG6	w/o MG13	w/o MG6&MG13
χ^2 (df)	2830.9 (104)	636.6 (44)	998.9 (101)	5076 (105)	916.6 (87)	637.4 (74)
CFI	.52	.81	.84	.86	.85	.88
NNFI	.44	.76	.81	.85	.82	.86
AIC	56769	38216	54933	51570	50749	47383
RMSEA	.162	.116	.094	.085	.098	.087
90% CI	.157–.167	.108–.124	.089–.099	.079–.091	.092–.104	.081–.094
SRMR	.143	.128	.076	.061	.077	.060

Group

Between the individual professional groups, there were significant differences in the level of burnout on the exhaustion ($F(3, 850) = 4.48, p < .01$) and cynicism ($F(3, 850) = 3.1, p < .05$). In this subgroup there were no differences between the sexes in the level of burnout in any of the dimensions subscales occurred. As the post hoc analyses carried out using Tukey's HSD test showed, production workers significantly differed from the two remaining groups in feeling more **exhausted** ($M_{\text{WORK}} = 2.71, SD = 1.36$), as did those who work with data ($M_{\text{DATA}} = 2.3, SD = 1.21$); the same was true for **cynicism** ($M_{\text{WORK}} = 2.13, SD = 1.22, M_{\text{DATA}} = 1.85, SD = 1.14$). These professional groups did not however differ significantly in their feeling of professional efficacy.

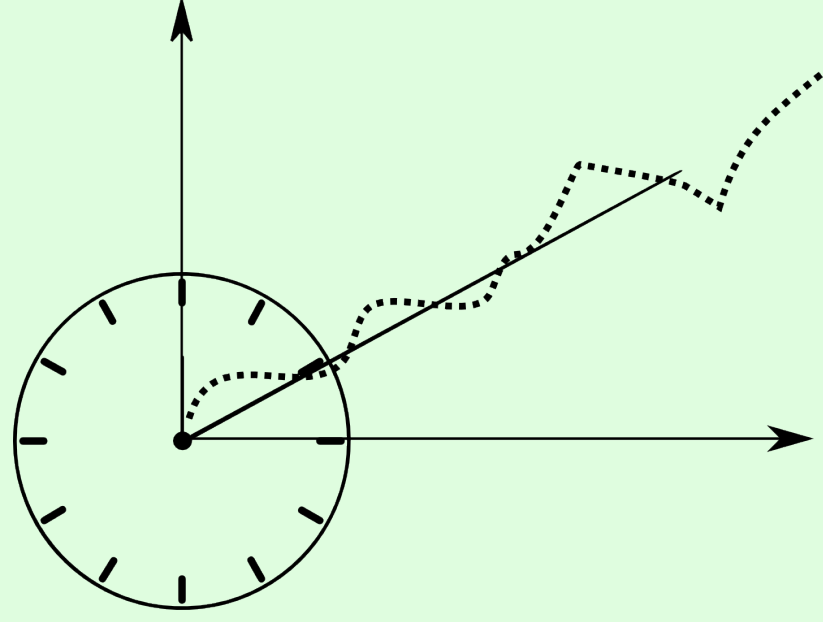


Social services workers

The group of social services workers does not differ from the remaining two groups in its level of burnout, which confirms the assumption that professional burnout does not so much result from the specific nature of working with people, but rather from a mismatch between the work and the worker.

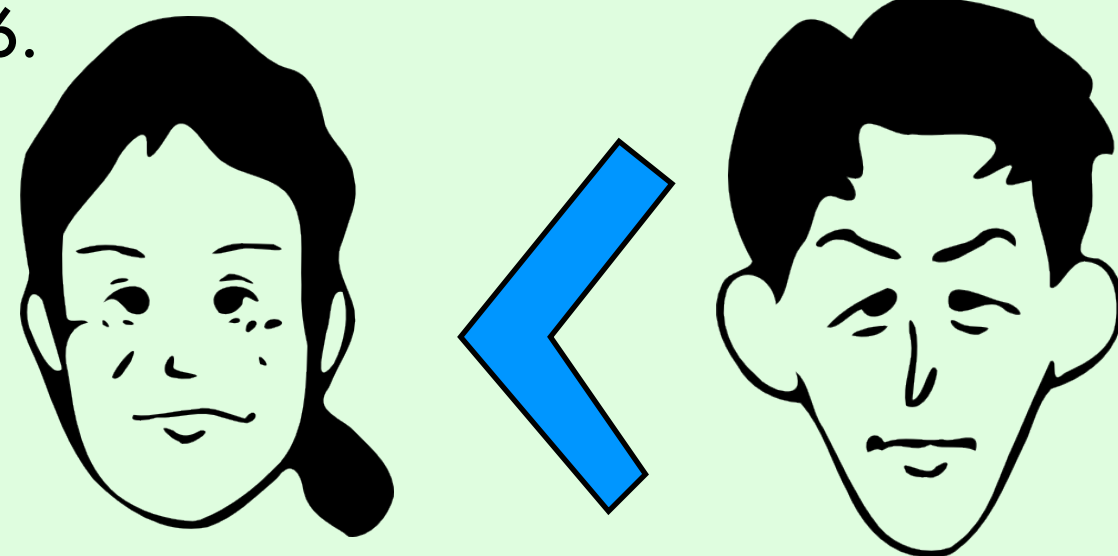
Age

The relationship between age and burnout turned out to be relevant for cynicism ($r = .081, p < .05$) and efficacy ($r = -.124, p < .01$), although as can be seen, the dependencies are weak. Length of career was connected only with the level of cynicism ($r = .072, p < .05$; there is dependency between age and career length, $r = .713, p < .001$).



Gender

On the **cynicism** scale, women gained somewhat lower results ($M = 1.93, SD = 1.15$) in comparison to men ($M = 2.09, SD = 1.27$) ($t(981) = 1.97, p < .05$), although the size of the effect is not great—Cohen's $d = .13$, effect size $r = .06$.

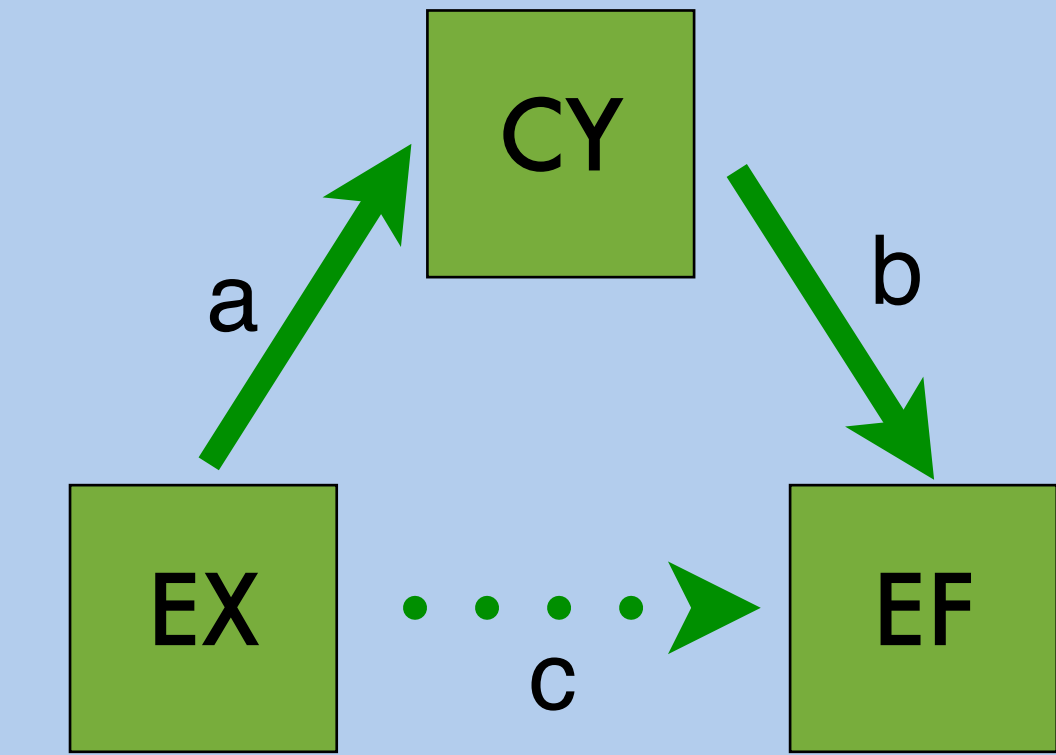


Descriptive statistics, intercorrelations, and reliability for exhaustion, cynicism, and professional efficacy

Variable	M	SD	Correlation with		Reliability		
			latent variable	CY	EF	after removing subsequent items	
EX	2.66	1.35	.90	0.377*	-0.057	.819	.822, .815, .816, .811, .848
CY	1.69	1.29	.92		-0.344*	.736	.755, .737, .714, .711, .726, .726,
EF	4.354	0.96	.88			.641	.675, .624, .787, .662, .642

*p < .001; EX = exhaustion; CY = cynicism; EF = professional efficacy

The moderate, or rather low, intercorrelations between the factors of the MBI-GS suggest that we can accept the assumption that the individual factors are orthogonal.



The effect of EX on EF is mediated by the value of CY

Mediation path	Sobel test indices	Coefficients
EX ~ EF	c	-.078***
EX ~ CY	a	.448***
CY (EX) ~ EF	b	-.263***
EX (CY) ~ EF	c'	.040 n.s.
Indirect effect = -.12, SE = .014; Z = -.8.38***		

Conclusion A



Psychometrically speaking, we are dealing with an instrument that is composed of three separate dimensions, although for practical purposes practitioners want the three factors to be collapsed into one—which would justify using a composite burnout score (one based on the scores from the three separate dimensions). It seems more appropriate to think of burnout not as a unitary phenomenon, but rather as three separate concepts.

$$1 + 1 + 1 \neq 3$$

Acknowledgements

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