



Autonomous and controlled regulation in Russian employees: the role of personality resources

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Personality resources

- Personality resources: personality characteristics associated with effective self-regulation in different domains of activity:
 - e.g.: hardiness, optimism, self-efficacy, tolerance for ambiguity, mindfulness.
- Functions of personality resources:
 - support of sustained motivation;
 - flexible activity regulation (evaluation, activity change, support of activity persistence).

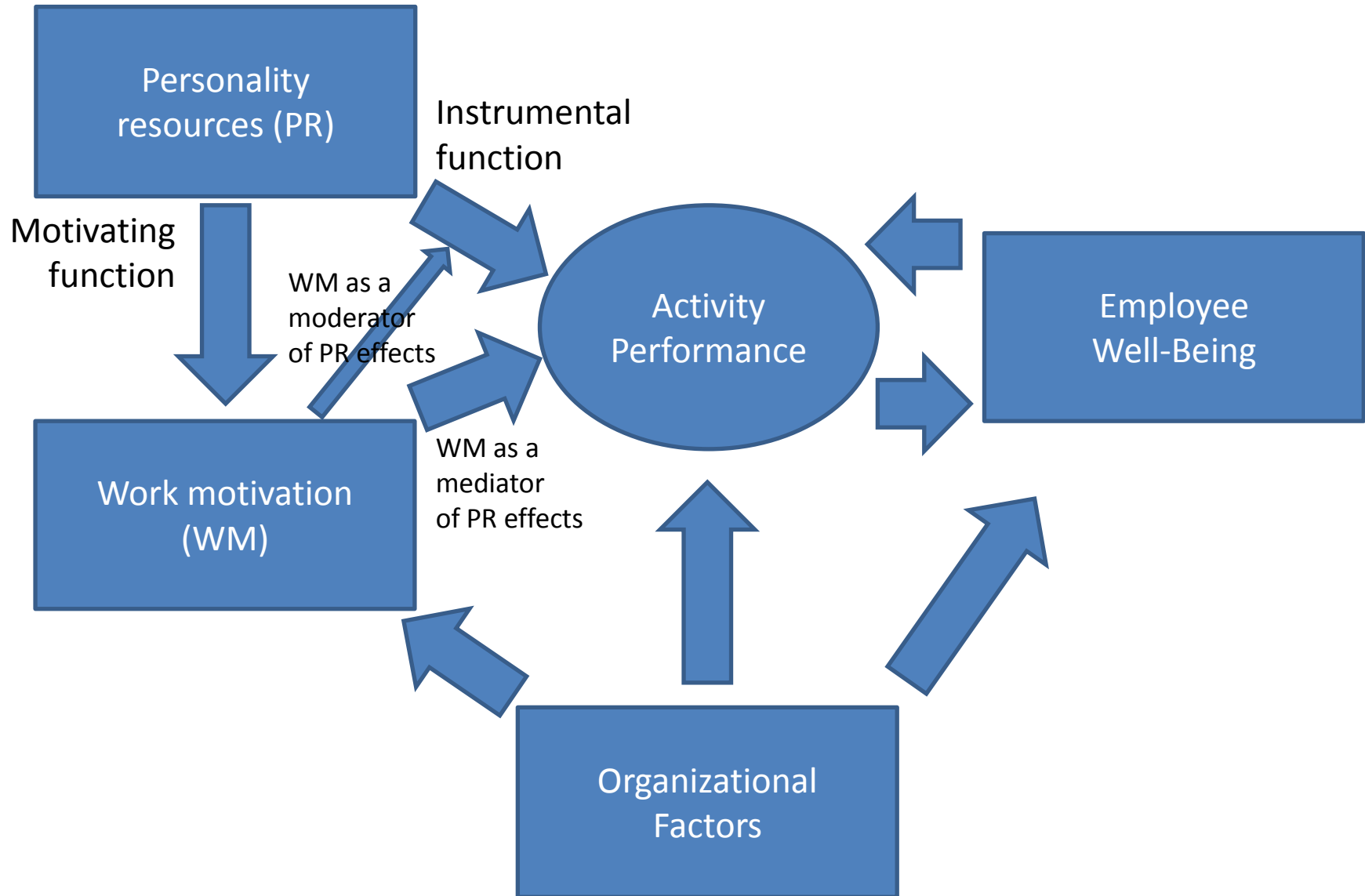
Integral conceptions of personality resources

- **Psychological Capital** (F. Luthans et al.) = self-efficacy + hope + hardiness + optimism.
- **Core Self-Evaluations** (T. Judge et al.) = internal locus of control + emotional stability + self-efficacy + self-esteem.
- **Personality Potential** (D. Leontiev): a complex, dynamic system of resources relevant to situations of uncertainty (choice), goal achievement, and coping.

Questions

- Are personality resources associated with autonomous vs. controlled motivation in the work domain?
- What contributes more to employee engagement and well-being, motivation or personality resources?
- Are the effects of personality resources and motivation on well-being synergic?

Theoretical Model



Present Study: The Sample

- Employees of a power-generating company.
- 6 different regions of Central and North-West Russia.
- 4,708 respondents
- 66% Male
- Age 18-75 (M=42.5, SD=11.2)
- Education: mostly secondary (38%) and high (38%)
- Positions: blue-collar workers (55%), specialists (26%), managers (19%)
- Anonymous online questionnaire.

The Measures: Motivation

- Based on SDT, we formulated 24 items after the SIMS model (Ryan & Connell, 1989)
- Why are you working in this organization?
 - **Intrinsic motivation:** “Because I enjoy my work”, “Because the things I do at work are interesting to me”;
 - **Identified motivation:** “Because this work corresponds to my life goals”, “Because this work gives me career perspectives”;
 - **Extrinsic motivation:** “Because I am afraid I may not be able to get another job”, “Because I have to work”;
 - **Amotivation:** “Because I need to do something in my spare time”, “I don’t know why I am working here”.

The Measures: Motivation

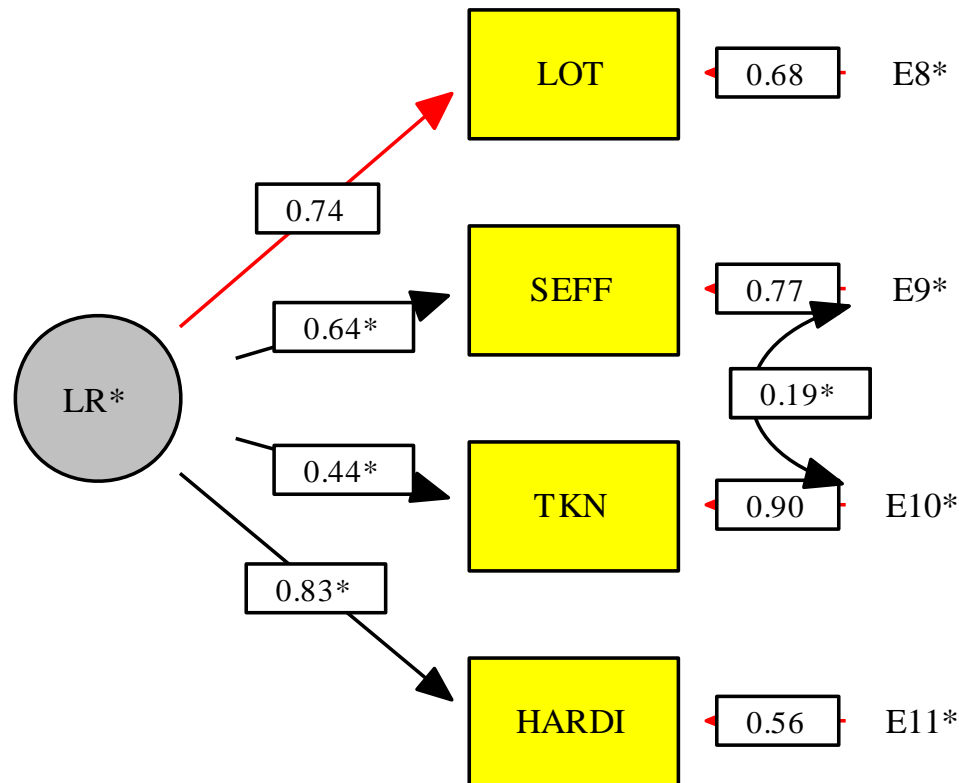
- 14 items retained after exploratory analyses
- A 4-factor measurement model fit the data quite well: $\chi^2=832,29$, $df=68$, $p<.001$; RMSEA=.049 (90% CI: .046...052); CFI=.973; TLI=.963; SRMR=.041

Scale	N	alpha	Descriptives		Correlations			
			M	SD	IM	IdM	EM	AM
1. Intrinsic	3	.93	3,80	.97	--	.63	-.36	-.37
2. Identified	4	.83	3,10	.97		--	-.35	-.27
3. Extrinsic	4	.82	2,69	1,09			--	.44
4. Amotivation	3	.62	1,70	.74				--

The Measures: Personality Resources

- **Dispositional Optimism:** Life Orientations Test (Scheier & Carver, 1984 / Gordeeva, Osin, Sychev, 2010), $\alpha = .86$
- **Generalized Self-Efficacy:** GSE Scale (Schwartz, Jerusalem, Romek, 1995), $\alpha = .92$
- **Hardiness:** The Hardiness Test (Maddi / Osin, Rasskazova, 2013), $\alpha = .91$
- **Tolerance for Ambiguity:** A short version of MSTAT-I (McLain, 1993 / Osin, 2010), $\alpha = .75$

Personality Resources: A single factor



EFA: 1 principal component explains 59% of the variance, CFA indicates good fit (S-B Chi-sq=0,08; df=1; p=0,77; CFI>0,999; NFI>0,999; RMSEA<0,001)

The Measures: Well-Being at Work

- **Job Satisfaction Questionnaire** (Ivanova, Rasskazova, Osin, 2012), satisfaction with: Relations with colleagues ($\alpha = .71$), Management ($\alpha = .69$), Work Conditions ($\alpha = .75$), Salary ($\alpha = .85$), Work Process ($\alpha = .84$).
- **Utrecht Work Engagement Scale (UWES)** (Schaufeli et al. / Kutuzova, 2006), $\alpha = .94$
- **Emotions at Work** (Prigozhin): 3 Positive ($\alpha = .84$), 3 Negative ($\alpha = .84$).
- **Organizational Commitment Questionnaire** (Potter et al. / Dominyak) ($\alpha = .85$).

The Measures: Well-Being at Work

- **Satisfaction with Life Scale** (Diener et al., 1984 / Leontiev & Osin, 2008), $\alpha = .83$
- **Basic Need Satisfaction (SATIS)** (Leontiev): 1-item measures of the importance and satisfaction of 15 basic needs on a 5-point scale;
- **Work-Life Balance** (Hayman, 2005 / Osin & Ivanova):
 - Personal Life Suffers Because of Work ($\alpha = .87$);
 - Work Suffers Because of Personal Life ($\alpha = .83$).

Results: Three parts

1. Work motivation and personality resources as **independent predictors** of well-being at work.
2. Work **motivation as a mediator** of the effect of personality resources upon well-being at work.
3. Work **motivation as a moderator** of the effect of personality resources on well-being at work.

1. Work motivation and personality
resources as independent
predictors of well-being at work

Work Motivation and Demography

	Intrinsic	Identified	External	Amotivation
Gender (1=M, 2=F)	0,07***	0,03*	0,02	-0,08***
Age	0,07***	-0,15***	0,19***	0,05**
Education	0,00	0,14***	-0,22***	-0,10***
Position (1-7)	0,13***	0,20***	-0,23***	-0,12***
Years in Position	0,01	-0,19***	0,20***	0,09***
Overtime Work	-0,06***	-0,04*	0,12***	0,02

Spearman correlations, N=4708, *** p<.001, **p<.01, *p<.05

Work Motivation and Resources

All correlations $p < .001$	Intrinsic	Identified	External	Amotivation
Dispositional Optimism	0.28	0.32	-0.36	-0.32
General Self-Efficacy	0.25	0.25	-0.20	-0.12
Tolerance for Ambiguity	0.16	0.23	-0.24	-0.06
Hardiness	0.40	0.38	-0.45	-0.40

Pearson correlations, N=4708, all significant $p < .001$

Work Motivation and Well-Being

All correlations $p < .001$	Intrinsic	Identified	External	Amotivation
Satisfaction with Life	0.36	0.40	-0.26	-0.18
Work Engagement	0.55	0.49	-0.30	-0.32
Job Satisfaction	0.63	0.66	-0.35	-0.39
WLB: Work as Obstacle to Life	-0.28	-0.19	0.21	0.32
WLB: Life as Obstacle to Work	-0.23	-0.11	0.26	0.44

Pearson correlations, N=4708, all significant $p < .001$

Predictors of employee well-being

- Hierarchical multiple regression:
 - Step 1. Controlling for Age, Gender, Education;
 - Step 2. Controlling for Region and Branch;
 - Step 3. Controlling for Position and Experience;
 - Step 4. Contribution of Personality Resources;
 - Step 5. Contribution of Work Motivation.
- Dummy coding used for nominal variables.

DV: Satisfaction with Life

Predictors	R ² (Δ R ²)	β coefficients
Gender, Age, Education	.02 (.02***)	.08***, -.06***, .08***
Region Division	.03 (.01***)	(dummy codes)
Position Experience	.04 (.01***)	.09*** -.05**
Optimism, Self-Efficacy, Amb. Toler., Hardiness	.21 (.17***)	.14***, .02 n.s. -.04*, .32***
Intrinsic m., Identified, External, Amotivation	.27 (.07***)	.12***, .20***, -.02 n.s., .07***

DV: Work Engagement (UWES)

Predictors	R ² adjusted (ΔR^2)	β coefficients
Gender, Age, Education	.04 (.04***)	.15***, .10***, .10***
Region Division	.06 (.01***)	
Position Experience	.07 (.02***)	.14*** -.01 n.s.
Optimism, Self-Efficacy, Amb. Toler., Hardiness	.25 (.18***)	.09***, .08***, .07***, .30***
Intrinsic m., Identified, External, Amotivation	.43 (.17***)	.27***, .22***, -.01, -.08***

DV: Job Satisfaction (Sum)

Predictors	R ² adjusted (ΔR^2)	β coefficients
Gender, Age, Education	.02 (.02***)	.07***, .00 n.s., ,10***
Region Division	.03 (.01***)	
Position Experience	.05 (.02***)	.15*** -.05**
Optimism, Self-Efficacy, Amb. Toler., Hardiness	.32 (.27***)	.14***, .01 n.s., .00 n.s., .43***
Intrinsic m., Identified, External, Amotivation	.59 (.27***)	.26***, .38***, .03 n.s., -.09***

Predictors of employee well-being

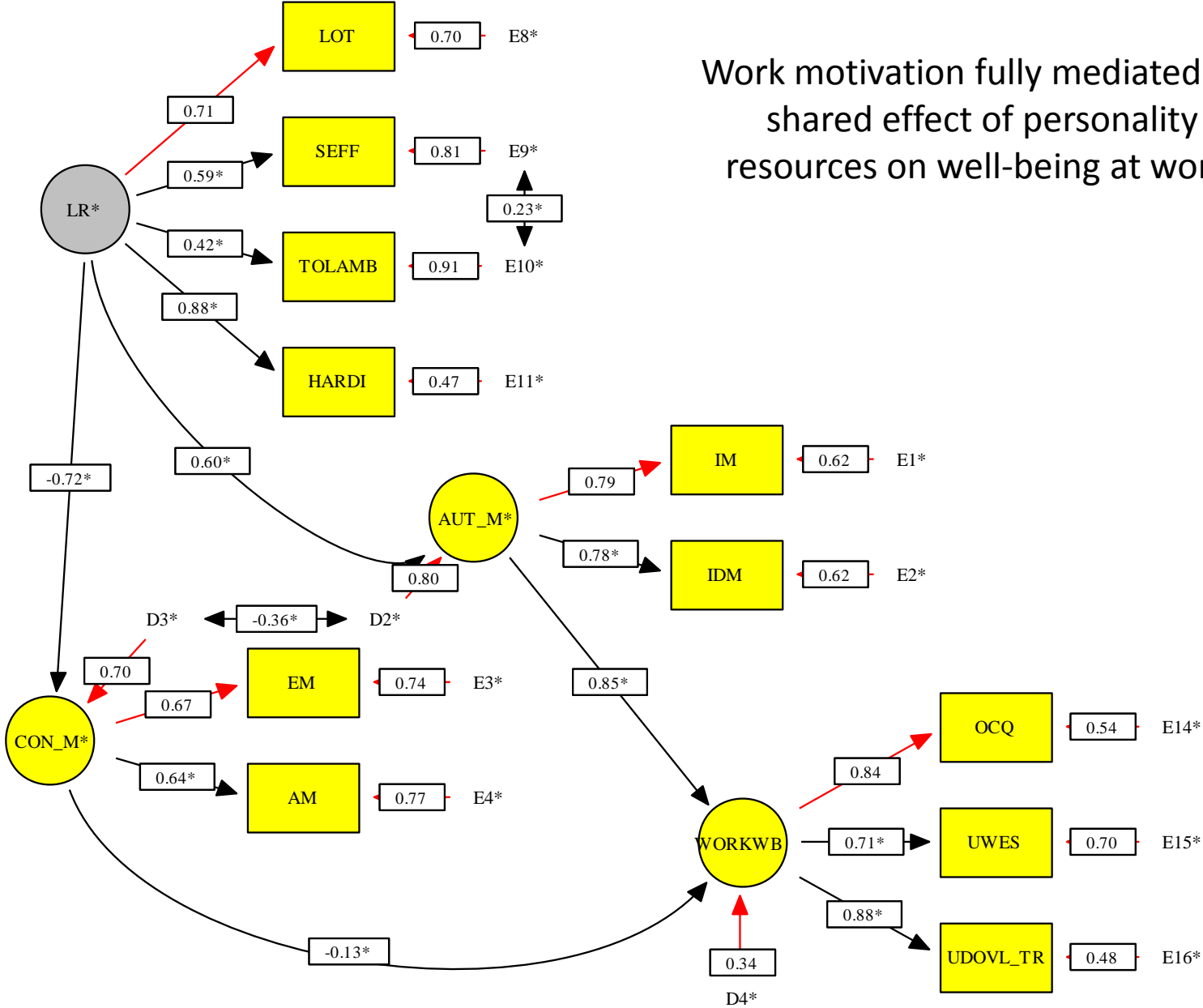
- **Both** motivation and personality resources were **significant predictors** of WB.
- Controlling for demography and personality resources, **work motivation explained** a fair share of **unique variance** in WB.
- **No significant interaction effects** between motivation and personality resources were found.
- When motivation and personality resources were entered simultaneously, the **contribution of personality resources was weaker** (→ evidence in favour of mediation).

2. Motivation as a mediator of association between personality resources and work well-being

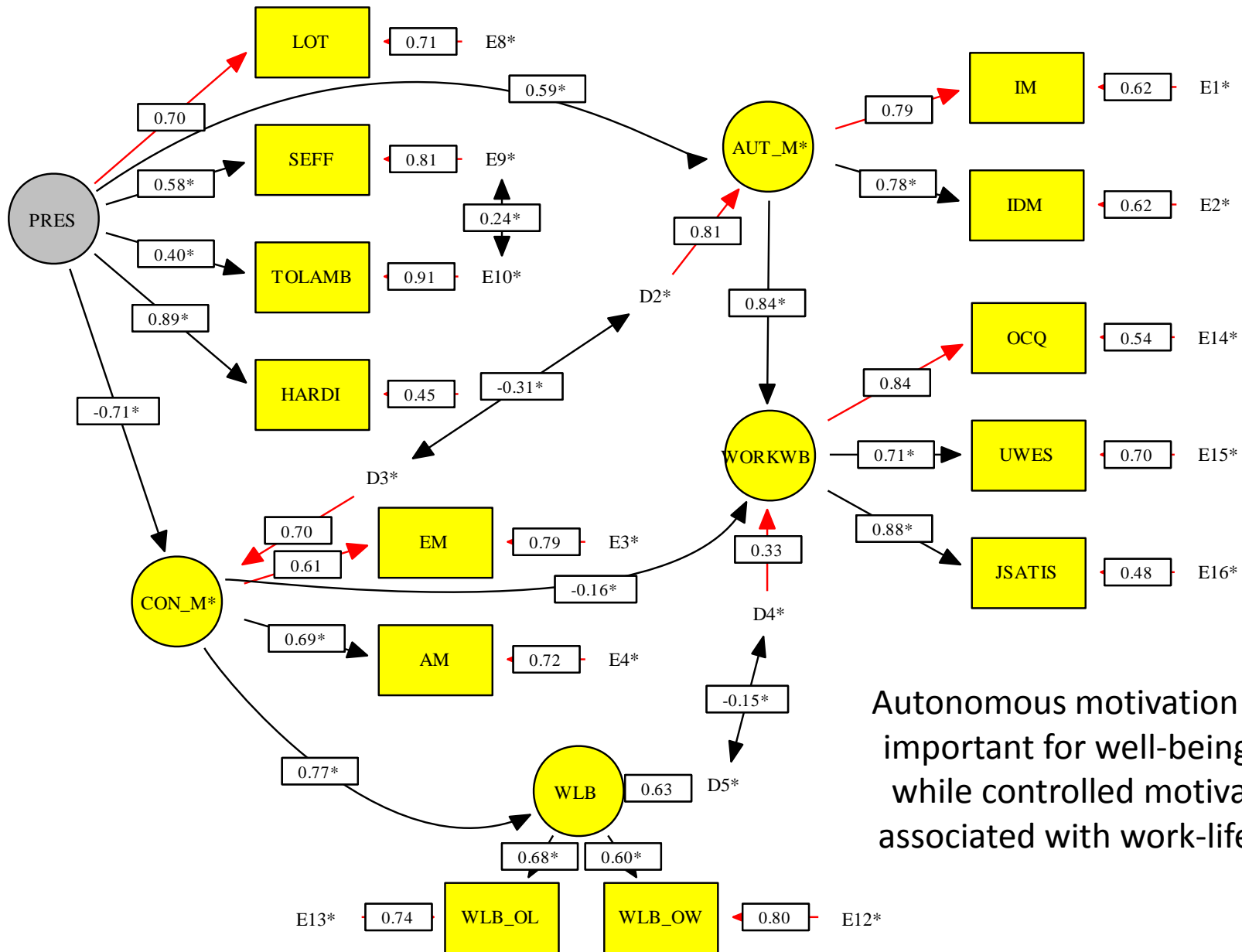
Motivation as a mediator

- In the regression models, some personality resources (hardiness and optimism) showed higher unique contribution to employee well-being.
- Structural equation modelling was used to model only the shared variance of personality resources.

Work motivation fully mediated the shared effect of personality resources on well-being at work.



S-B Chi-sq=845,79; df=38; p<0,001; CFI=0,955; NNFI=0,935; RMSEA=0,067



Autonomous motivation was more important for well-being at work, while controlled motivation was associated with work-life balance.

S-B Chi-sq=1029,31; df=56; p<0,001; CFI=0,952; NNFI=0,933; RMSEA=0,061

Motivation as a mediator

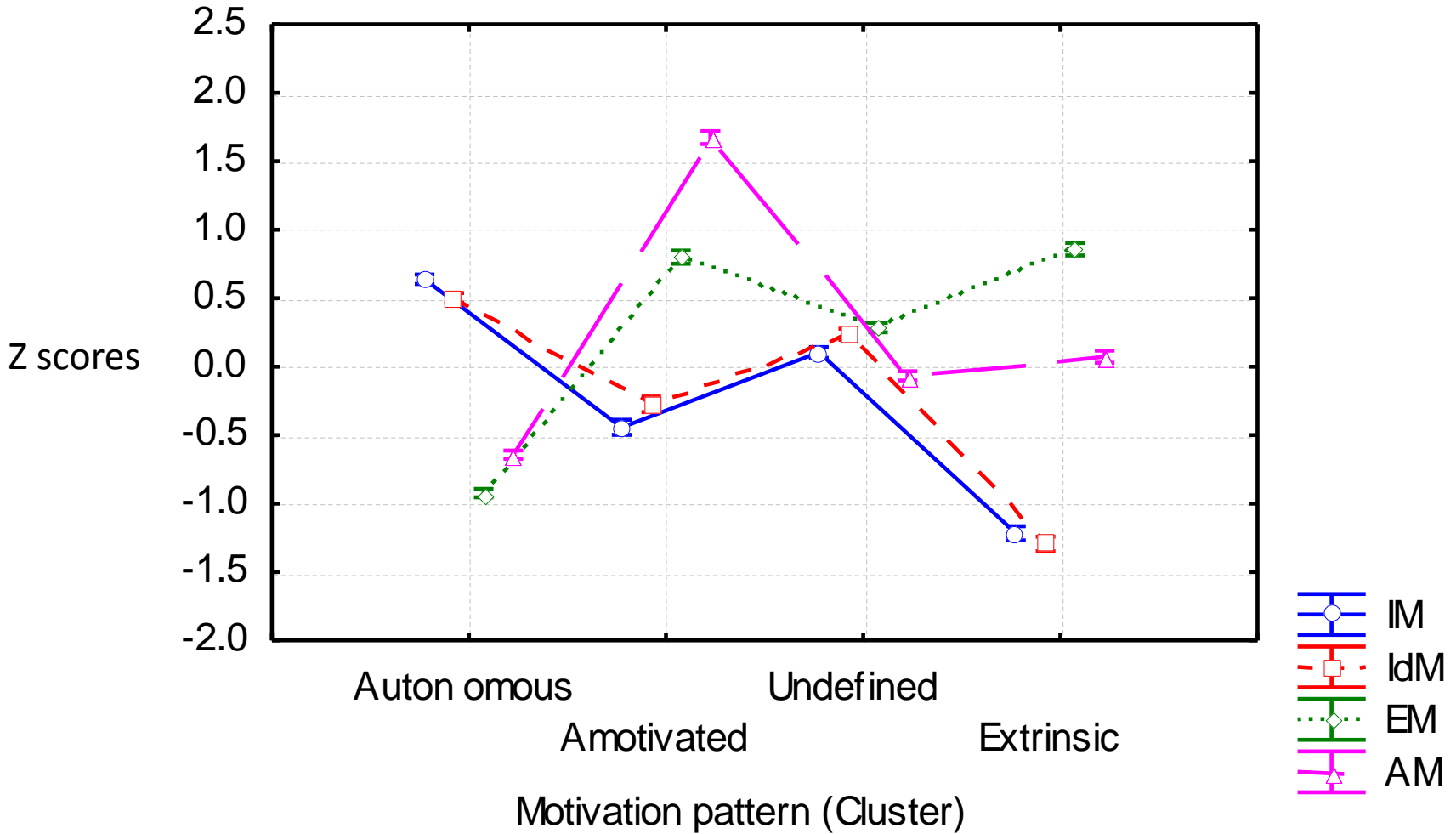
- When personality resources are modelled as a whole (shared variance), their association with well-being at work is fully mediated by autonomous work motivation.
- Autonomous work motivation is a better predictor of well-being at work, and controlled work motivation is a better predictor of work-life imbalance.

3. Interactions between personality resources and work motivation in predicting employee well-being

Motivation patterns

- No interaction effect were found in regression, but what if **relative contribution of each type of motivation** is more important?
- **Person-oriented approach** (Magnusson, Bergman).
- **Hierarchical cluster analysis** of the 4 motivation scales (Ward's method, Squared Euclidean distances, Z scores by variable)
- A **4-cluster model** was chosen for simplicity

Four motivation patterns



Motivation patterns and well-being

	Autonom. (N=1793)	Undefined (N=1402)	Extrinsic (N=801)	Amotivated (N=711)
Satisfaction with Life	0.33	0.05	-0.63	-0.24
Positive Affect at Work	0.38	0.05	-0.61	-0.37
Negative Affect at Work	-0.30	0.01	0.30	0.40
Work is an Obstacle to Life	-0.31	0.03	0.24	0.45
Life is an Obstacle to Work	-0.40	0.06	0.06	0.81
Organizational Commitment	0.53	0.06	-0.84	-0.50
Work Engagement	0.47	0.07	-0.74	-0.47
Satisfaction with Salary	0.30	0.04	-0.60	-0.15
Satisfaction with Job Setting	0.43	0.04	-0.68	-0.38
Satisfaction with Management	0.40	0.02	-0.50	-0.48
Satisfaction with Colleagues	0.36	-0.01	-0.40	-0.44
Satisfaction with Work Process	0.52	0.12	-0.98	-0.45

Z scores by variable, highest and lowest highlighted, all differences $p < .001$

Motivation patterns and Personality Resources

	Autonom. (N=1793)	Undefined (N=1402)	Extrinsic (N=801)	Amotivated (N=711)
Self-Efficacy	.28	-.08	-.37	-.15
Optimism	.43	.03	-.45	-.52
Hardiness	.53	-.07	-.53	-.60
Tolerance for Ambiguity	.23	-.06	-.34	-.09

- Extrinsically motivated employees are less satisfied with work, while amotivated employees experience have more problems with work-life balance and negative affect at work.
- Different personality resources are associated with these two problematic motivation patterns.

Z scores by variable, highest and lowest highlighted, all differences $p < .001$

Demographics and Motivation

- The associations were similar with the variable-level results. The employee position was the strongest correlate.

Position	Autonomous	Undefined	Extrinsic	Amotivation
Blue-collar (N=2570)	30.5%	29.0%	21.7%	18.8%
Qualified specialists (N=1236)	45.5%	31.2%	12.2%	11.2%
Low-level managers (N=612)	45.6%	32.2%	11.8%	10.5%
Mid- and top-managers (N=289)	57.8%	25.7%	7.3%	9.3%

Interactions between Motivation Patterns and Personality Resources

- **ANCOVA** was used with a **Heterogeneous Slopes** model.
- Hypothesis: **different slopes of association between personality resources and employee well-being** in different motivation clusters.
- ‘Undefined’ cluster used as a baseline; **3 contrasts**: autonomous vs. undefined, extrinsic vs. undefined, amotivated vs. undefined.

DV: Satisfaction with Life

Predictor (Whole model $R^2=.20$)		β coefficient
Motivation cluster membership	Autonomous (vs. U)	.21***
	Extinsic (vs. U)	-.28***
	Amotivated (vs. U)	.00
Covariate: Personality resources factor		.30***
Interaction term: Cluster membership x Personality Resources	Autonomous (vs. U)	.03
	Extrinsic (vs. U)	-.05**
	Amotivated (vs. U)	.02

= for employees who are extrinsically motivated, higher personality resources do not predict higher life satisfaction as much

DV: Work Engagement (UWES)

Predictor (Whole model $R^2=.28$)		β coefficient
Motivation cluster membership	Autonomous (vs. U)	.37***
	Extinsic (vs. U)	-.31***
	Amotivated (vs. U)	-.12***
Covariate: Personality resources factor		.29***
Interaction term: Cluster membership x Personality Resources	Autonomous (vs. U)	-.03
	Extrinsic (vs. U)	-.01
	Amotivated (vs. U)	.06**

= in employees with amotivation the role of personality resources in predicting work engagement is higher: personality resources play a non-specific motivational function (in any activity)

DV: Job Satisfaction

Predictor (Whole model $R^2=.39$)		β coefficient
Motivation cluster membership	Autonomous (vs. U)	.43***
	Extinsic (vs. U)	-.41***
	Amotivated (vs. U)	-.11***
Covariate: Personality resources factor		.31***
Interaction term: Cluster membership x Personality Resources	Autonomous (vs. U)	.07***
	Extrinsic (vs. U)	-.04**
	Amotivated (vs. U)	.00

= IM employees with higher PR are more likely to be happy with their job, while EM employees with higher PR are more likely to be unhappy with it

DV: Life is an Obstacle to Work

Predictor (Whole model R ² =.20)		β coefficient
Motivation cluster membership	Autonomous (vs. U)	-.34***
	Extinsic (vs. U)	-.08***
	Amotivated (vs. U)	.37***
Covariate: Personality resources factor		-.22***
Interaction term: Cluster membership x Personality Resources	Autonomous (vs. U)	.08***
	Extrinsic (vs. U)	.03
	Amotivated (vs. U)	-.10***

= although personality resources are associated with better work-life balance, employees with high intrinsic work motivation and high PR are more likely to see life as an obstacle to work (the role association of PR with WLB in this group is weaker)

Interaction Effects

- These associations are **reproduced in workers and managers independently**.
- A short summary of findings:
 - If you work because you like your job, the higher personality resources you have, the more you love your job (PR contribute to performance?);
 - if you work for money, the higher personality resources you have → the more you tend to question the value of your job (PR contribute to flexible self-regulation = evaluation of ongoing activity);
 - if you do not know why you work, higher personality resources may help you to stay engaged at work.

Overall Findings

- Work motivation and personality resources **independently predict** employee well-being.
- The **shared variance** of personality resources is **fully mediated** by work motivation:
 - motivating function of PR is fully mediated;
 - instrumental function of specific PR to performance is partially or not mediated.
- Motivation has some **moderating effect** on the way personality resources come into play in the work context.

Perspective Research Questions

- What is the role of basic need satisfaction and organizational structure in supporting autonomy at work?
- Could other self-regulation resources (such as mindfulness) better explain the moderation effects?
- Could these associations be partially explained by social desirability?

More Complicated Questions

- Does it make sense at all to try to integrate personality resources?
- Does it make sense to model them as a single-factor structure?
- The role of specific personality resources (e.g., general causality orientations) within the more general resource and activity context.



Thank you!

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