Professional Agency and Work Engagement: A Longitudinal Examination

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Contributing to professional agency research and theory

Importance of professional agency is largely addressed in workplace and learning studies (e.g. Billett, 2011; Goller & Paloniemi, 2017).

However:

- It is mainly elaborated as rational and goal-oriented actions neglecting its relation to emotion-related constructs like work engagement (e.g. Hökkä et al., 2023).

- quantitative longitudinal evidence of continuities and the nature of agency at workplaces are missing.

- little is known about the role of various background variables connected to professional agency.

Therefore: This study explores the relationship between *professional agency* and *work engagement* by implementing *two-wave panel design.*

Professional Agency

- In this study we understand professional agency through behavioural lenses and rely on subject-centered socio-cultural approach (Eteläpelto et al., 2013) that emphasize professional agency as *purposeful actions at work* and *identity negotiation*.

- We adopt a theoretical model of professional agency that includes three dimensions: *influencing* at work, *participation* at work, and *negotiating professional identity* (Vähäsantanen et al., 2021).

SOCIOCULTURAL CONDITIONS OF THE WORKPLACE
· Material circumstances
· Physical artefacts
· Power relations
· Work cultures
· Dominant discourses

PROFESSIONAL AGENCY
is practised when professional subjects and/or communities exert influence, make choices and take stances in ways that affect their work and their professional identities

PROFESSIONAL SUBJECTS
· Professional identity
· Professional knowledge and competences
· Work history and experience

Eteläpelto et al., 2013

Work engagement

- Well established and extensively studied *emotion-related* phenomenon at workplace contexts.
- Initially viewed as stable, more recent studies highlight its dynamic and situation-specific aspects.
- Work engagement is associated with positive outcomes like *job performance and well-being.*

Connection between agency and engagement

1. Exploring their relationship helps reveal how employees' *influence at work interacts with their emotional investment and energy.*

2. This offers insights into how to support sustainable professional growth.

Context: intervention study

- This study is part of two Finnish research projects (TUNTO, TUNTO2) focused on emotional agency in organizations during 2018-2023.

- Five diverse organizations participated: healthcare, real estate, industry, technological research and development, trade.

- In each organization *an emotion-based workplace intervention was conducted over six months period.*

Research design, methods and questions

The hypothesized model
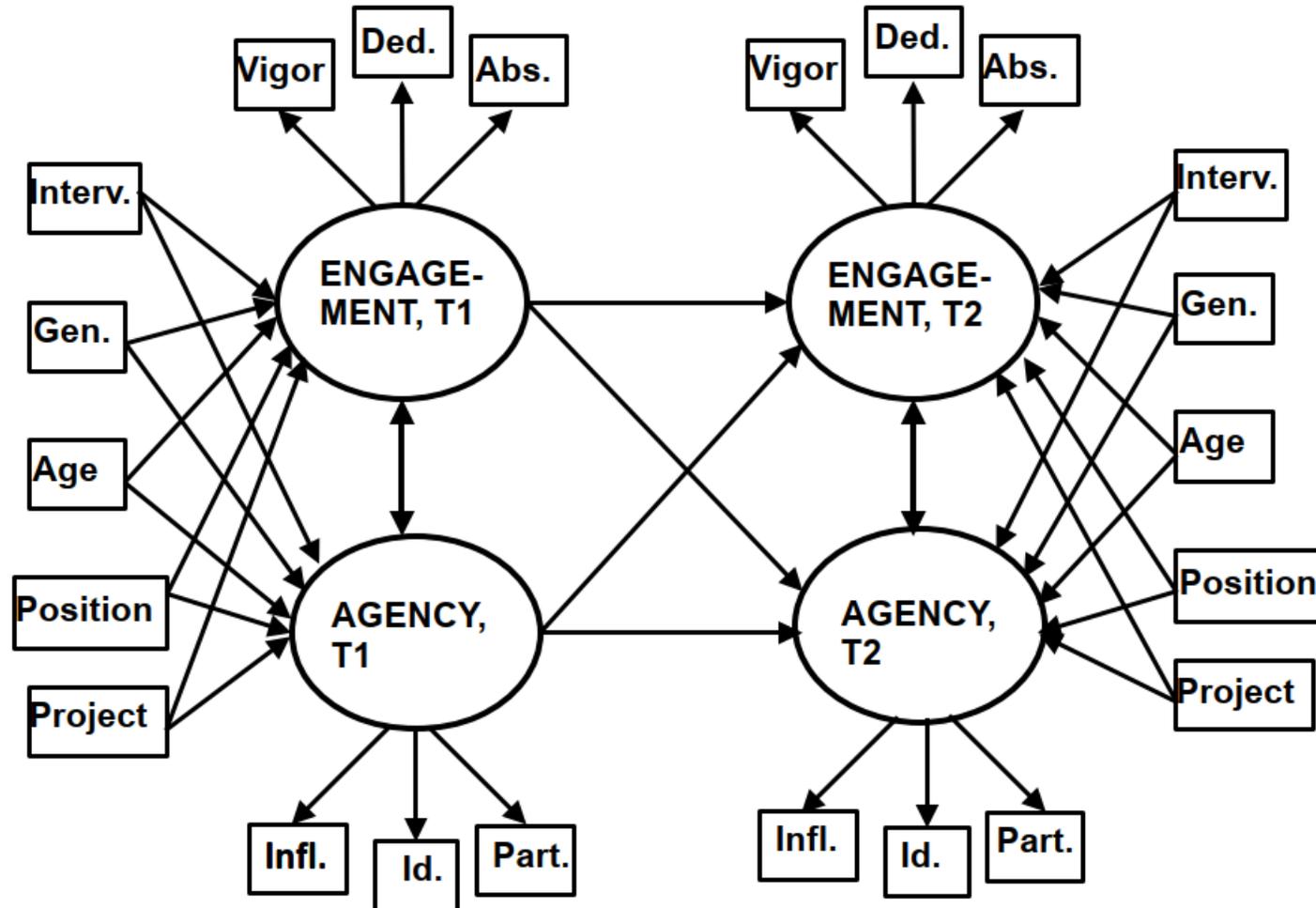
Note. Covariates were allowed covariate with each other. Ded = Dedication, Abs. = Absorption, Inf. = Influencing, Id. = Identity, Part. = Participation, Interv. = Participation in the intervention, Gen. = Gender, Position = Supervisor or not, and Project = Project that an employee participated.

Methods (1/2)

Sample:

- Quantitative questionnaire data from five Finnish organizations was collected (N=1306).
- In total 570 responses from both of the time points.

- 53% (n=693) of the respondents were men and 42% (n=550) were women.
- Age-range varied between 20 to 79 years (mean = 46; sd = 11,4).
- Leadership position held by 15% (n=201) of the respondents.
- 17 % (n=218) respondents had participated in the intervention between the time points.

Methods (2/2)

Measures:

The short professional agency questionnaire (short PAM) 9 items, 5-point Likert scale

UWES scale ultra short 3-items measure, 7-point scale

Background variables: Gender, Age, Position, Participation in an intervention

Analysis: CFA, CLPM, bootstrap method, Factorial invariance tests of the latent constructs over the two time points, ESTIMATOR = Maximum Likelihood

Preliminary analysis showed that Identity factor did not fit the data -> Here professional agency includes *influencing* and *participation* to work.

Research questions

1. Does professional agency at time point 1 predict work engagement at time point 2?
2. Does work engagement at time point 1 predict professional agency at time point 2?
3. Which direction of influence is stronger, or are they equal?
4. How are background variables related to professional agency and work engagement at time point 2?

Results

RQ1: Does professional agency predict engagement?

- Employees' professional agency at time point 1 predicted their work engagement at time point 2 ($\beta = .08$, $p < .01$).

- This result held even after controlling for earlier work engagement, gender, age, position, and intervention participation.

- The result suggests that when employees *feel they can influence and participate* in workplace matters, they are *more likely to feel engaged in their work later on.*

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Results – RQ2: Does engagement predict professional agency?

- Employees' work engagement at time point 1 predicted their professional agency at time point 2 ($\beta = .19$, $p < .001$).

- The effect was stronger than the reverse path (i.e. agency -> engagement).

- This result indicates that *engaged employees tend to become more active and influential over time.*

Results – RQ3: Which direction is stronger?

- Bootstrap analysis revealed *no statistically significant difference between the two paths* (95% CI [-.165, .030]).

- This means the *reciprocal effects were approximately equal* in strength: agency → engagement and engagement → agency.

- The results support a *dynamic and mutually reciprocal relationship:* changes in one can lead to changes in the other.

Results – RQ4: Background variables at timepoint 2

- **Higher levels of professional agency**: leaders and males.

- **Higher work engagement**: older employees, leaders and females.

- Those who **participated in the intervention** showed higher scores on both constructs.

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Conclusions

Limitations and Future Directions:

- Only two time points – limits understanding of long-term dynamics.

- Professional agency measure did not include identity-related items.

- This is first study examining longitudinal professional agency with PAM/ short PAM measure – previous cross-sectional studies validated 3 dimensional nature of professional agency (including identity) -> Data, measure, or the nature of identity?

- Future studies should examine *the aspect of identity negotiation* and extend *longitudinal scope.*

Conclusions

Theoretical Contributions:

- The relationship between professional agency and work engagement is *positive and reciprocal.*

- Both constructs are *relatively stable,* yet they can be influenced through workplace interventions.

- This study gives evidence, that *leadership position and gender* relate to *perceived agency* (c.f. Vähäsantanen et al., 2022).

- Furthermore, *older employees' and leaders' higher engagement* in line with previous research (c.f. Amankwah, 2023).

- Evidence, that both professional agency and work engagement *are context specific phenomena.*

Practical implications:

- *enhancing employees' participation and influencing at work supports their emotional investment to work - and vice versa ->* Positive loop for learning at work that organizations can actively support.
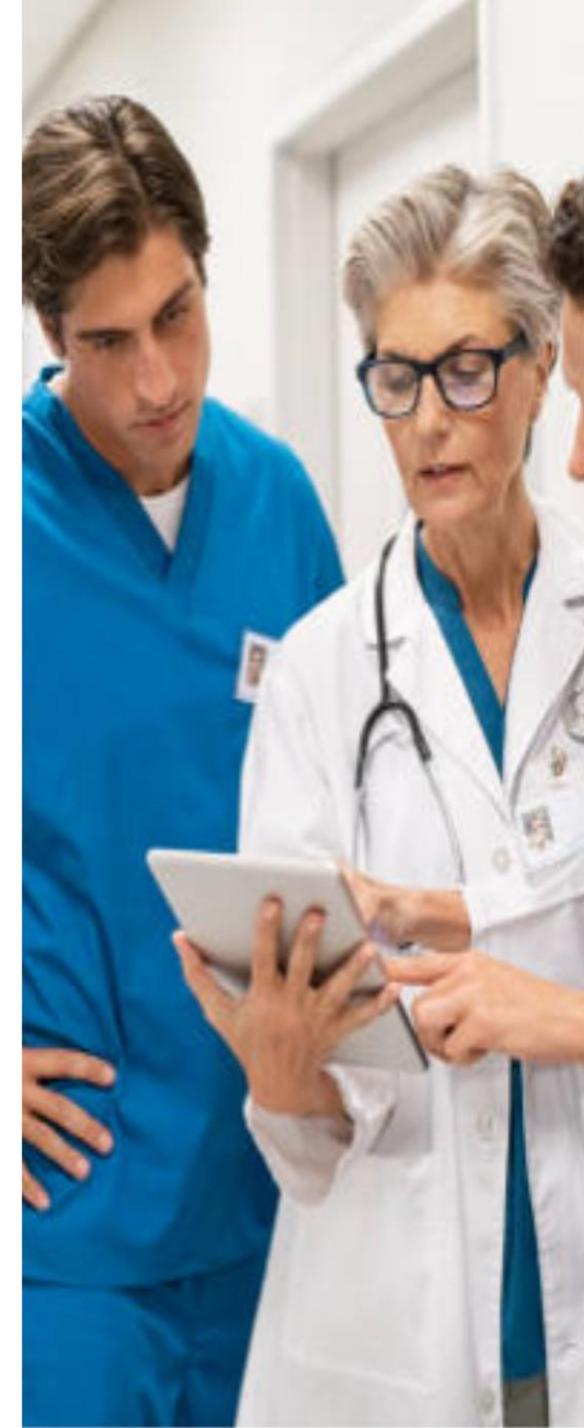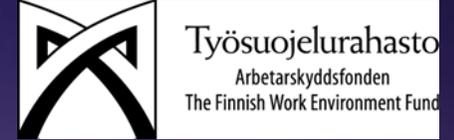
Thank you
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Table 1.

Descriptive Statistics for Continuous and Correlations Between all the Study Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Professional agency T1									
2. Professional agency T2	.71***								
3. Work engagement T1	.46***	.45***							
4. Work engagement T2	.44***	.54***	.81***						
5. Age	$.04^{ns}$	$.04^{ns}$	.06***	.10***					
6. Position	.40***	.42***	.11***	.13***	.09***				
7. Project	$-.01^{ns}$	$-.03^{ns}$	$-.03^{ns}$	$-.09^{ns}$	$-.03^{ns}$	$.00^{ns}$			
8. Participation in an intervention	-.24***	-.24***	-.12***	-.14***	$-.02^{ns}$	-.36***	$.50^{ns}$		
9. Gender (female)	$.00^{ns}$	$-.03^{ns}$	.14***	.11*	$.00^{ns}$	$.00^{ns}$	$-.02^{ns}$	$-.09^{ns}$	
10. Gender (trans/do not tell)	-.07***	-.12**	-.09***	$-.03^{ns}$	-.08***	-.07***	$.00^{ns}$	$.07^{ns}$	-.19***
M	3.63	3.67	5.40	5.43	45.32	-	-	-	-
SD	0.83	0.83	1.20	1.23	11.43	-	-	-	-

Note. Correlations derived from the model 5. The response scale for professional agency varied between 1-5 and for work engagement 1-7. For position 1 = not supervisor and 2 = supervisors, project 1 = *XX* and 2 = *XX*, and for participation in XX intervention 1 = participation and 2 non-participation. For gender, male is the reference category. *$p < .05$, **$p < .01$, ***$p < .001$, $^{ns}p > .05$.

Table 2

Fit Indices for the Estimated Models

	$\chi^2(df)$	RMSEA	CFI	TLI	ΔRMSEA	ΔCFI
Factorial invariance testing						
Model 1: Freely estimated longitudinal measurement model	81.22(24)	.043	.993	.987	-	-
Model 2: Longitudinal measurement model with weak factorial invariance	80.87(27)	.039	.994	.989	-.004	.001
Model 3: Longitudinal measurement model with strong factorial invariance	79.34(32)	.034	.994	.992	-.005	.000
Model 4: Longitudinal measurement model with strict factorial invariance	104.12(37)	.037	.992	.990	.003	-.002
Conditional model with covariates						
Model 5: Model 4 with lagged paths, cross-lagged paths, and covariates added in the model	431.23 (74)	.061	.968	.955	-	-

Note. Autocorrelations among the same observed variable residuals were freely estimated in all models.

Preliminary analysis showed that Identity factor did not fit the data

Fit indices of the measurement model, when Identity is included in the model (threshold for the fit indices = .95):

CFI   0.91
TLI   0.87

Fit indices of the measurement model, when Identity is excluded from the model:

CFI   0.99
TLI   0.99