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N° 27 NEWS FROM THE QUALITY OF WORK INDEX



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TO WHAT EXTENT DO RECIPROCAL
INFLUENCES BETWEEN WORK AND
PRIVATE LIFE HAVE A CONNECTION WITH
THE WELL-BEING OF EMPLOYEES?

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Work and private life can exert reciprocal positive and negative influences on each other. In this newsletter, employees are categorised into five different groups based on four dimensions (work-life conflict, work-life enrichment, life-work conflict, life-work enrichment) using the statistical method of latent profile analysis, which show different configurations of these dimensions: “reciprocal influences that are enriching”, “active life-work imbalance”, “work dominated”, “passive work-life imbalance”, “destructive reciprocal influences”.

In particular, employees aged between 35 and 44, employees who live in Belgium, employees in a managerial position, employees who work in a private company and employees who work in companies with 50 employees or more are disproportionately often in

the group featuring the most unfavourable influences between work and private life (“destructive reciprocal influences”).

Employees in the “enriching reciprocal influences” group have the best average scores on all Well-Being dimensions, while employees in the “destructive reciprocal influences” group have the worst average scores on all dimensions.

The most important factors that determine group membership include the difficulty of taking time off for personal matters, the frequency of working 10 hours or more per day, the length of the commute to work, and the degree to which employees suffer from workaholism.

1. Reciprocal influences between work and private life

Work and private life can influence each other in different ways, both negatively and positively (Powell & Greenhaus, 2010). On the one hand, work demands can eat into the time consecrated for addressing demands in private life (work-life conflict). On the other hand, work can also have a positive effect on private life, e.g. positive experiences at work can lead to a better sense of well-being in private life (work-life enrichment; Hanson et al., 2006). Conversely, demands in private life can also have a disruptive effect on the demands of work (life-work conflict) and positive experiences in private life can have a positive effect on work (life-work enrichment). These different influences between work and private life are strongly related to the well-being of employees (Allen et al., 2020; Amstad et al., 2011; McNall et al., 2010; Nohe et al., 2015). The relationship between work and private life can therefore be described as both bidirectional (work influences private life and vice versa) and dual (conflicting and enriching) (Huyghebaert-Zouaghi et al., 2022). The resulting four dimen-

sions can be used to categorize employees according to how they experience these influences between work and private life (Huyghebaert-Zouaghi et al., 2022; Rantanen et al., 2013; Vaziri et al., 2020).

This newsletter uses the statistical method of latent profile analysis to identify different groups of employees with different work-life influences. The next step is to analyse how these groups differ in terms of demographic variables. A multinomial logistic regression model is then used to analyse the most important factors that determine group membership. Finally, the relationship between group membership and various dimensions of well-being is analysed.

Data is used from the *Quality of Work Survey* (QoW; 2023 campaign; Sischka & Steffgen, 2023; Sischka et al., 2022; Steffgen et al., 2020) – an annual representative survey of employees from Luxembourg – (for details see the Method insert).

2. Groups of employees with different influences between work and private life

Figure 1 shows the profiles identified by the latent profile analysis with regard to various influences between work and private life. Employees in the first group (“reciprocal influences that are enriching”) which accounts for 15.7% of respondents – have below-average work-life and life-work conflicts and report on average the highest enrichment levels from the opposite area of life. The second group (“active life-work imbalance”) – in which just under 43% of respondents

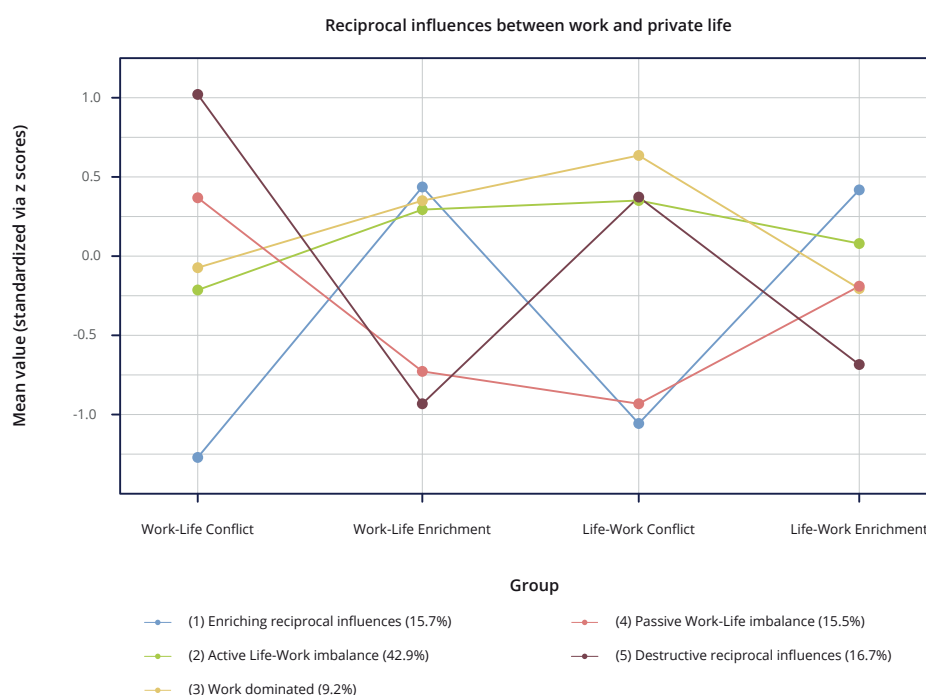
fall – has below-average work-life conflicts but above-average life-work conflicts. At the same time, this group reports above-average work-life and life-work enrichment. Employees in the third group (“work dominated”; 9.2% of respondents) have average work-life conflicts but above-average work-life enrichment. On the other hand, this group has above-average life-work conflicts and below-average life-work enrichment. Compared to other groups, this group’s

In this newsletter, only the masculine generic is used for the purpose of clarifying the text. It refers to any gender identity and thus includes both female and male persons, transgender persons as well as persons who do not feel they belong to either gender or persons who feel they belong to both genders.

private life in particular interferes with work. The fourth group (“passive work-life imbalance”; 15.5%) has above-average work-life conflicts but below-average life-work conflicts. At the same time, this group reports below-average enrichment from the opposite area of life. Employees in the fifth

group (“destructive reciprocal influences”; 16.7%) have both the highest work-life and above-average life-work conflicts and report the lowest work-life and life-work enrichment on average.

Figure 1: Groups of employees with different influences between work and private life



Note: QoW 2023 data; mean values of the (z-standardised) scales. The percentage values following the group names represent the relative frequency of the respective group.

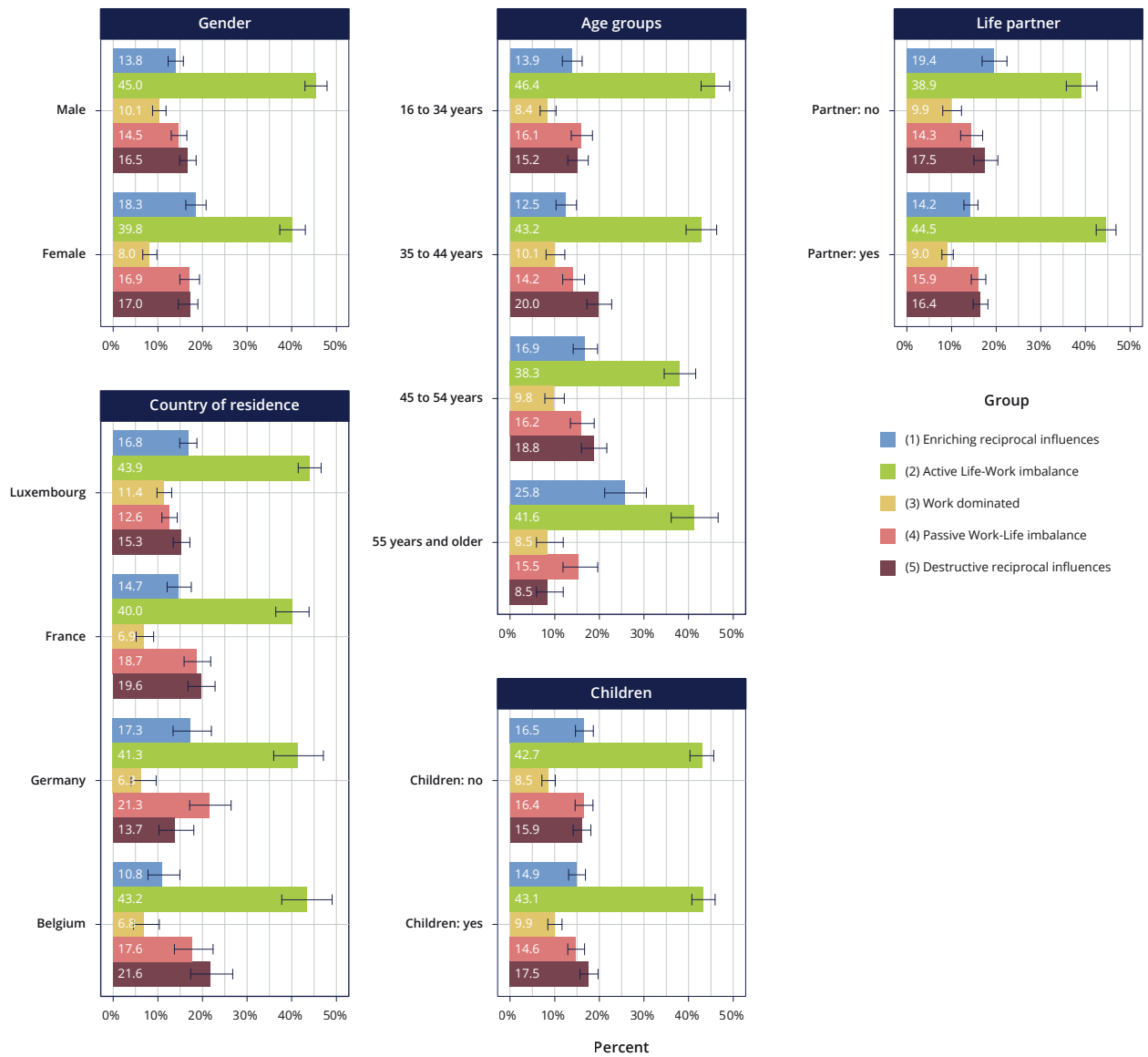
3. Groups of employees with different influences between work and private life, differentiated by demographics

Figure 2 shows the different groups differentiated according to various demographic characteristics. Compared to male employees, female employees are more often in the “enriching reciprocal influences” profile and less often in the “active life-work imbalance” profile. A breakdown by age shows that employees aged between 35 and 44 are more frequently in the “destructive reciprocal influences” profile – in which work and private life primarily have a negative impact on each other. In contrast, employees aged 55 and over are more often in the “enriching reciprocal influences” profile and significantly less often in the “destructive reciprocal influences”

profile compared to employees in other age groups. Employees with a partner are also more often in the “enriching reciprocal influences” profile compared to employees without a partner.

Differentiated by children, there are only minor differences. Employees living in Luxembourg are less likely to be in the “passive work-life imbalance” group compared to employees in other countries of residence. In contrast, employees living in Belgium are more frequently in the “destructive reciprocal influences” group.

Figure 2: Groups of employees with different influences between work and private life differentiated by demographics



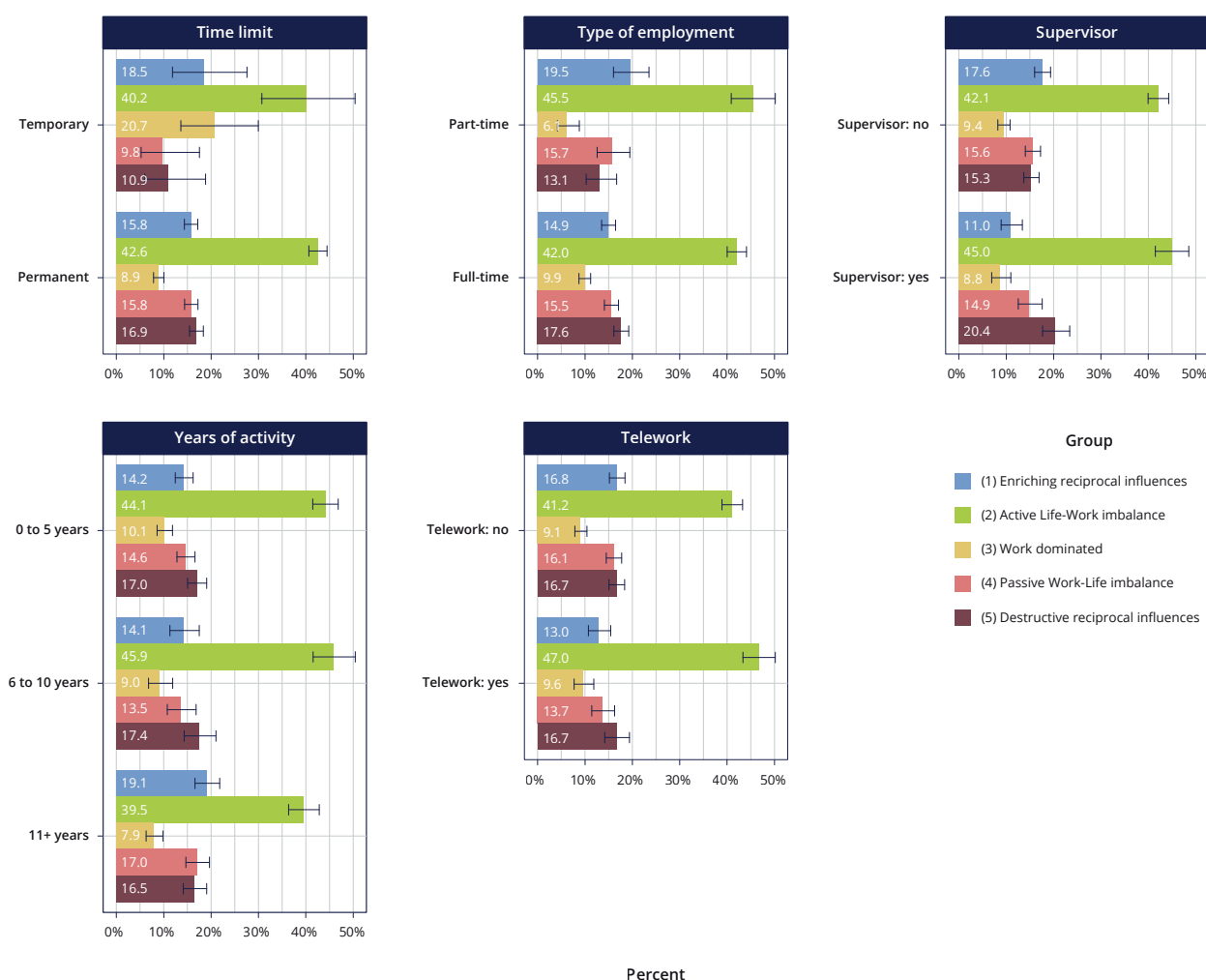
Note: Data from QoW 2023; percentages with 95% confidence interval.

4. Groups of employees with different influences between work and private life, separated by job characteristics

Figure 3 shows the different groups set off by various job characteristics. Employees who only have a fixed-term contract are more often in the “work dominated” group and less often in the two groups that are characterised more by negative reciprocal influences between work and private life (“passive work-life imbalance” and “destructive reciprocal influences”) – compared to employees with a permanent contract. Part-time employees are more likely to be in the

“enriching reciprocal influences” group compared to full-time employees. In turn, employees in a supervisor position are less often in the “enriching reciprocal influences” group and more often in the “destructive reciprocal influences” group – compared to employees who do not have a supervisory position. There are no (statistically significant) substantial differences when individuals are divided by years of service and working from home.

Figure 3: Groups of employees with different influences between work and private life set off by job characteristics



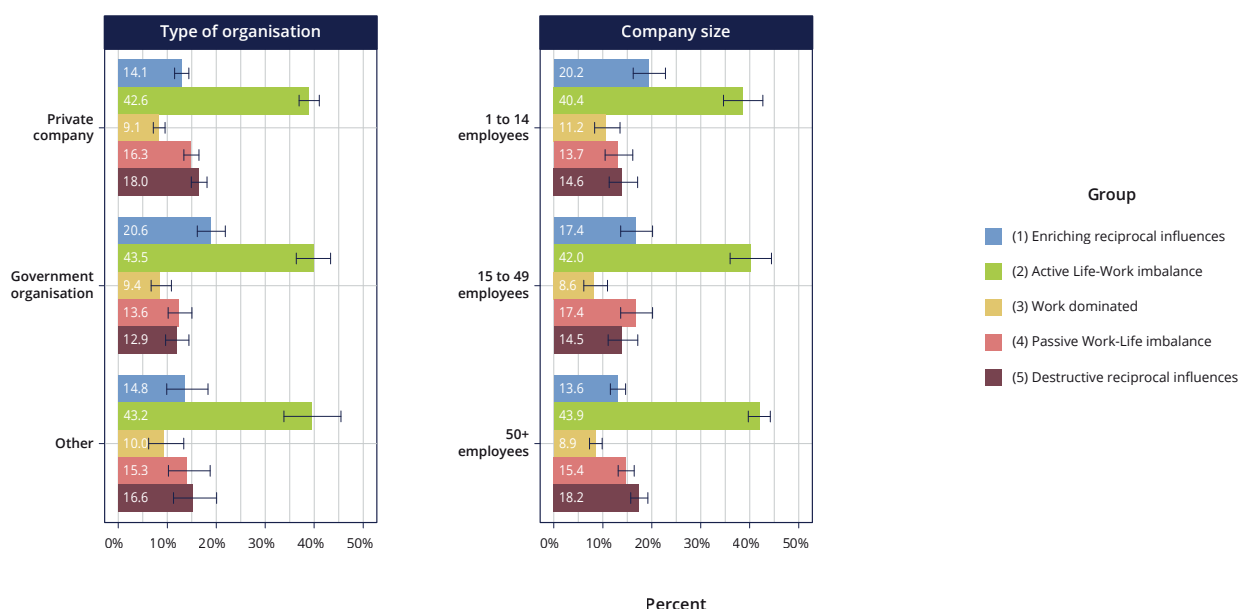
Note: Data from QoW 2023; percentages with 95% confidence interval.

5. Groups of employees with different influences between work and private life, set off by organisational characteristics

Figure 4 shows the different groups divided by various organisational characteristics. Employees who work in a private company are less often in the “enriching reciprocal influences” group and more often in the “destructive reciprocal influences” group compared to employees in public organisations. The size of the company also has an influence on

group membership. Employees who work in companies with 50 employees or more are less likely to be in the “enriching reciprocal influences” group and more likely to be in the “destructive reciprocal influences” group compared to employees in companies with fewer employees.

Figure 4: Groups of employees with different influences between work and private life differentiated by organisational characteristics



Note: Data from QoW 2023; percentages with 95% confidence interval.

6. What explains the membership of employees in groups with different influences between work and private life?

Table 1 shows the results of a multinomial logistic regression model with membership of the “destructive reciprocal influences” group as the phenomenon to be explained. The table shows which variables have an influence on group membership of the “destructive reciprocal influences” group, depending on which group is selected as the reference group. The table shows a rather complex picture: depending on the reference group, other variables are partly related to group membership in the “destructive reciprocal influences” group. However, there are also some variables that play a role in most group comparisons: The more difficult it is for employees to take time off for personal matters, the more frequently they work 10 hours or more per day, the

longer their commute to work, and the more they suffer from “workaholism”, the higher the probability of belonging to the “destructive reciprocal influences” group instead of one of the other groups. The effect of the centrality of work in turn depends on the reference group: The more important work is considered to be for one’s life, the lower the probability of belonging to the “destructive reciprocal influences” group and the higher the probability of belonging to the “active life-work imbalance” and “work dominated” groups. On the other hand, the more important work is considered in one’s own life, the higher the probability of belonging to the “destructive reciprocal influences” group instead of the “passive work-life imbalance” group.

Table 1: Multinomial regression model - Group: Destructive reciprocal influences

	Reference group: (1) Enriching reciprocal influences			Reference group: (2) Active life-work imbalance			Reference group: (3) Work dominated			Reference group: (4) Passive work-life imbalance		
	Coef. (SE)		OR	Coef. (SE)		OR	Coef. (SE)		OR	Coef. (SE)		OR
Intercept	-4.66*** (0.75)			-3.35*** (0.60)			-1.44+ (0.84)			-1.53* (0.69)		
Gender (ref.: male)	-0.15 (0.19)		0.86	0.20 (0.15)		1.22	0.30 (0.22)		1.35	-0.16 (0.17)		0.86
Age	-0.02* (0.01)		0.98	0.01 (0.01)		1.01	0.00 (0.01)		1.00	-0.01 (0.01)		0.99
Partner (ref.: no partner)	0.00 (0.21)		1.00	-0.42* (0.18)		0.66	-0.29 (0.26)		0.75	-0.30 (0.20)		0.74
Children (ref.: no children)	0.38* (0.19)		1.47	0.20 (0.16)		1.23	-0.05 (0.23)		0.96	0.43* (0.18)		1.53
Scope of employment (ref.: part-time)	0.22 (0.26)		1.24	0.42* (0.21)		1.53	-0.18 (0.32)		0.83	-0.06 (0.25)		0.94
Supervisor (ref.: no supervisor)	0.43* (0.20)		1.54	0.23 (0.16)		1.25	0.43+ (0.24)		1.53	0.14 (0.19)		1.15
Home office (ref.: no home office)	0.39+ (0.21)		1.47	-0.02 (0.16)		0.98	-0.02 (0.23)		0.98	0.07 (0.19)		1.07
Influence on working hours	-0.05 (0.08)		0.95	-0.06 (0.06)		0.94	-0.06 (0.08)		0.94	0.16* (0.08)		1.18
Frequency Working 10 hours or more	0.48*** (0.10)		1.61	0.24*** (0.07)		1.28	0.17+ (0.09)		1.19	0.12 (0.08)		1.12
Atypical working hours	0.37+ (0.21)		1.45	0.20 (0.15)		1.22	0.23 (0.22)		1.26	0.34+ (0.18)		1.40
Difficulty taking time off	0.64*** (0.08)		1.90	0.41*** (0.06)		1.51	0.43*** (0.08)		1.54	0.23*** (0.06)		1.26
Autonomy when on holiday	-0.08 (0.08)		0.92	-0.14* (0.06)		0.87	-0.01 (0.09)		0.99	-0.12+ (0.07)		0.88
Travel time to work (in minutes)	0.01** (0.00)		1.01	0.01** (0.00)		1.01	0.01** (0.00)		1.01	0.00 (0.00)		1.00
Workaholism	0.87*** (0.13)		2.38	0.36*** (0.09)		1.43	0.36** (0.13)		1.44	0.11 (0.12)		1.11
Work centrality	0.04 (0.14)		1.04	-0.30** (0.10)		0.74	-0.46*** (0.12)		0.63	0.47*** (0.12)		1.60

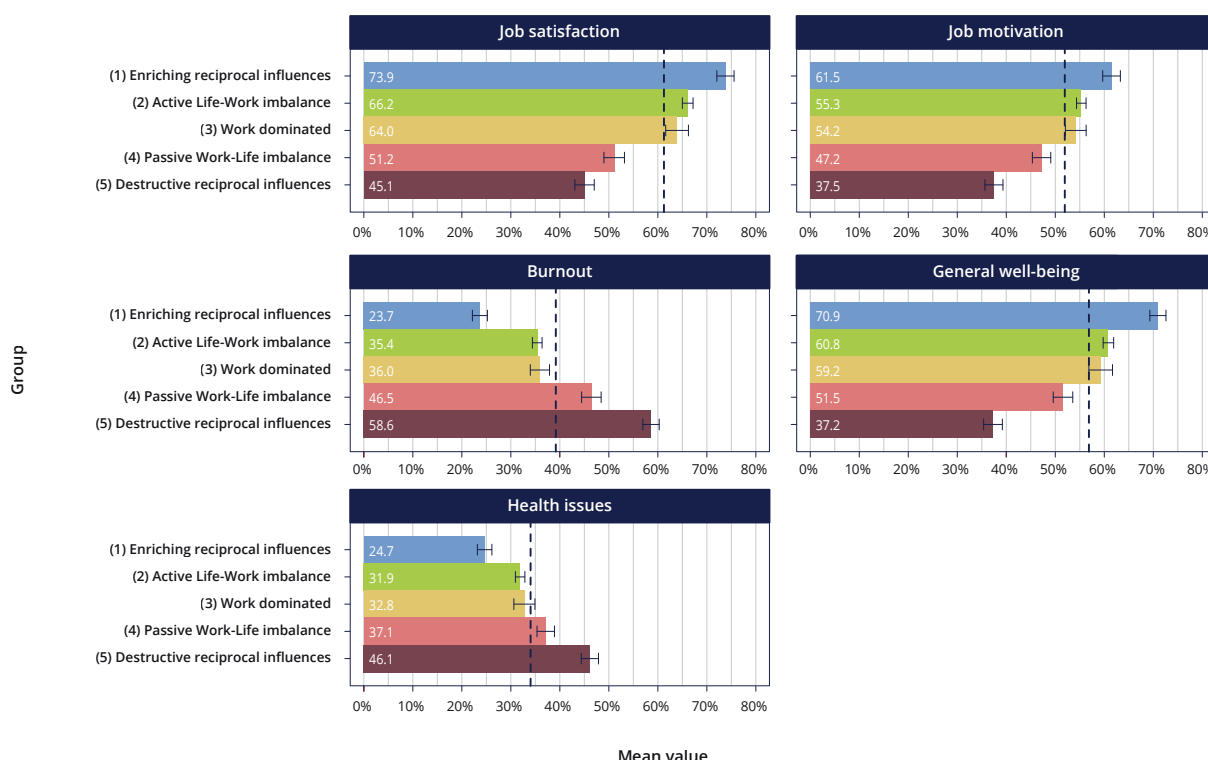
Note: QoW 2023 data; + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; Coef: regression coefficient; SE: standard error; OR: odds ratio. Treatment of missing values: Listwise deletion; $n = 2.568$.

7. Well-being dimensions by groups of employees with different influences between work and private life

Figure 5 shows the correlation between group affiliation and various well-being dimensions. Employees in the “enriching reciprocal influences” group have the best average values on all well-being dimensions, followed by employees in the

“active life-work imbalance” and “work dominated” groups. Employees in the “passive work-life imbalance” and “destructive reciprocal influences” groups, on the other hand, have below-average scores on all dimensions.

Figure 5: Well-Being dimensions



Note: QoW 2023 data; mean value of the scales ranging from 0 to 100 with 95% confidence interval. The grey dashed line represents the overall mean value of the respective scale.

8. Summary

Using the statistical method of latent profile analysis, five groups of employees with different influences between work and private life (work-life conflict, work-life enrichment, life-work conflict, life-work enrichment) were identified, which exhibit different configurations of these dimensions: Employees in the “enriching reciprocal influences” group exhibit low work-life and life-work conflict and high enrichment from both areas of life. Employees in the “active life-work imbalance” group have below-average work-life conflicts and above-average life-work conflicts as well as above-average enrichment. Employees in the “work dominated” group have average work-life conflicts, above-average life-work conflicts, above-average work-life enrichment and below-average

life-work enrichment. Employees in the “passive work-life imbalance” group have above-average work-life conflicts, below-average life-work conflicts and below-average life-work enrichment. Employees in the fifth group, “destructive reciprocal influences”, have very high levels of conflict and at the same time very low levels of enrichment.

In particular, employees aged between 35 and 44, employees with Belgium as their country of residence, employees in a managerial position, employees who work in a private company and employees who work in companies with 50 employees or more are disproportionately often in the group with the most unfavourable influences between work and private life (“destructive reciprocal influences”).

The most important factors determining group membership include the difficulty of taking time off for personal matters, the frequency of working 10 hours or more per day, the length of the commute to work, and the degree to which employees suffer from workaholism.

Group membership is highly correlated with the well-being of employees. Employees in the group with the most unfavourable influences between work and private life ("destructive reciprocal influences") have on average the lowest job satisfaction and work motivation, the lowest general well-being, the highest burnout level and often have health problems.

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Method

For the “Quality of work Index” study on the work situation and quality of work of employees in Luxembourg, around 1,500-2,700 interviews (CATI; CAWI) have been conducted annually since 2013 by Infas (since 2014) on behalf of the Chambre des salariés Luxembourg and the University of Luxembourg (Table 1). The findings presented in this report relate to the 2023 surveys (Sischka & Steffgen, 2023).

Table 2: Methodological background of the QoW survey

Objective of the survey	To investigate the situation and quality of work of employees in Luxembourg		
Conception, Implementation and analysis	University of Luxembourg: Department of Behavioural and Cognitive Sciences, Chambre des salariés Luxembourg, since 2014 Institut infas, previously TNS-ILRES		
Type of survey	Telephone survey (CATI) or online survey (CAWI; since 2018) in Luxembourgish, German, French, Portuguese or English		
Sample size	2023: 2,732		
Note on “Latent profile analysis”	<p>“Latent profile analysis” attempts to summarise the multivariate distribution of values of a series of indicators (here: scales on influences between work and private life) by identifying a number of sub-populations (called profiles) (McLachlan & Peel, 2000). When deciding on the number of profiles, both content-related (interpretability, consistency with theoretical considerations) and statistical (classification diagnostics, fit indices) criteria should be taken into account (Masyn, 2013).</p> <p>The criteria used to determine the number of profiles are the Akaike information criterion (AIC; Akaike, 1987), the Bayesian information criterion (BIC; Schwartz, 1978), the sample-corrected Bayesian information criterion (aBIC; Sclove, 1987) and the Lo-Mendell-Rubin’s corrected likelihood ratio test (LMR-LRT; Lo et al., 2001). Smaller values of AIC, BIC, aBIC indicate a better model fit. A significant LMR-LRT indicates that the more complex model (more profiles) should be favoured over the less complex model. Furthermore, the number of profiles is also determined by the fact that the results are easy to interpret and the cases per class are not too small. In addition, the entropy is also determined for each class solution. Entropy is a general measure of the classification accuracy of the entire sample across all profiles (Masyn, 2013) and can assume values between 0 and 1, with 1 representing a perfect classification. For an introduction to latent profile analysis, see Masyn (2013), Spurk et al. (2020) or Weller et al. (2020). For technical details of the latent profile analysis presented here, see Sischka (2024).</p>		
Scales on influences between work and private life	Scale	Number of items	Note on the scales
	Work-life conflict	3	The scales on influences between work and private life were standardised (z-scores) for the “latent profile analysis”. This means that the variables were transformed so that their mean value is 0 and their standard deviation is 1. This transformation makes it easier to assess differences between the groups.
	Work-life enrichment	3	
	Life-work conflict	3	
	Life-Work enrichment	3	
Well-being scales	Scale	Number of items	Note on the scales
	Job satisfaction	3	The well-being scales are calculated using the unweighted mean value of the associated individual indicators, which assume values between 1 (e.g. “never”) and 5 (e.g. “almost always”). The scale values are then standardised to values between 0 and 100 $[(\text{original scale value} - 1) / 4] * 100$.
	Work motivation	3	
	Burnout	6	
	General Well-Being (WHO-5)	5	
	Health problems	7	

Information regarding predictor variables

Variable/Scale	Item formulation	Categories
Home office	How often do you work at the following locations: ... In your own home (telework)	0 (= never/rarely), 1 (several times a month/several times a week/daily)
Influence on working hours	To what extent can you determine your own working hours?	1 (= to a very low degree), 2 (= to a low degree), 3 (= to a medium degree), 4 (= to a high degree), 5 (= to a very high degree)
Atypical working hours	How many days a month do you work in the evening from 7 pm, or at night from 10 pm or at the weekend?	0 (= no days), 1 (= 1-31 days)
Difficulty taking time off	How difficult is it for you to take an hour off during working hours to take care of personal or family matters? Again, please use a scale from 1: Very difficult to 5: Not difficult at all. You can grade your assessment using the values in between.	1 (= not difficult at all) to 5 (= very difficult)
Autonomy regarding holiday time	How often can you decide when to take holidays or days off?	1 (= never), 2 (= rarely), 3 (= sometimes), 4 (= often), 5 (= almost always)
Commute to work	How long do you spend commuting from home to your workplace on a normal working day?	— minutes
Workaholism	4 items, Cronbach's alpha = 0.71, example item: "I have a strong inner desire to work all the time."	1 (= never true), 2 (= rarely true), 3 (= sometimes true), 4 (= often true), 5 (= always true)
Work centrality	3 items, Cronbach's alpha = 0.84, example item: "The most important things happen at work rather than in my private life."	1 (= to a very low degree), 2 (= to a low degree), 3 (= to a medium degree), 4 (= to a high degree), 5 (= to a very high degree)

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