

Why Are Union Members Unhappy? The case of Australia

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Motivation

- Well documented/stylized fact that union members report lower job satisfaction than their non-union counterparts
 - See Freeman 1978; Borjas 1979; Clark 1997; Heywood, Siebert, and Wei 2002; Guest and Conway 2004; Meng 1990; Renaud 2002; Garcia-Serrano 2009; Miller 2008 (& more recent studies)
- Puzzling
- Competing explanations:
 - ① Sorting of inherently dissatisfied individuals into unions
 - ② Unions might organize in challenging jobs/work environments
 - ③ Union voice/ exit voice effect (causal):
 - '.. Trade unions provide a collective voice alternative to quitting .. and must encourage discontent as a prerequisite for successfully making demands of the firm' (Booth 1995).

Literature

- Existing research: existence and causes of negative association between union membership and job satisfaction
 - Literature is extensive and covers the United States and the United Kingdom (primarily), Germany and Australia (limited)
- Evolution of literature: cross sectional analysis, instrumental variable analysis, panel data analysis and 'quasi-experimental' analysis. Examples:
 - cross-sectional analysis and IV (e.g. US: Borjas (1979); UK: Bender and Sloane (1998), Bryson et al (2004));
 - panel data methods (e.g. UK: Green and Heywood (2015); Germany: Goerke and Huang (2022))
 - quasi experiments (e.g. UK: Bessa et al (2021) - DID)

More Recent Literature

- More recent literature has found somewhat different results
 - United Kingdom - Blanchflower and Bryson (2022), –, cohort effects, NCDS
 - United Kingdom – Bessa et al (2021), 0 effect, quasi-experimental evidence (DID)
 - UK and US – Blanchflower, Bryson and Green (2021):
+ relation since 2000s; older vs. more recent cohorts
 - US: Artz, Blanchflower, Bryson (2022): + after great recession; longitudinal data (different NLSY cohorts); person FE (sorting)
 - Germany – Goerke and Huang (2022), 0 effect, GSOEP, person FE and time-varying IV.
- Key lessons
 - Effect of or role of unions on job satisfaction unresolved
 - Institutional specific – closed versus open shops; measurement of union status (versus coverage) not always clear
 - Role for union voice?

Research Question & contribution

- Questions:

- Are union workers in Australia less satisfied with aspects of their job than their non-union counterparts?
- If so, why might this be the case and what role do unions play in the lower satisfaction reported by union members.
 - Does union voice play a role?

- Contribution:

test the theory that it is union membership (as opposed to sorting) that causes worker dissatisfaction

- ① using measures of worker satisfaction across different aspects of 'jobs'
 - satisfaction with management and work conditions
- ② using rich and detailed information
 - worker, job, contract and firm characteristics, incl. pay-setting instruments, coverage, union-related information
- ③ account for heterogeneity across non-union members
 - desire to join a union: 'marginal' union members
- ④ some insights into dynamics of job satisfaction

Context

Why is the Australian setting interesting?

- Unions involved in 2 types of collective agreements
 - industry/occ-level agreements ('modern awards') or enterprise bargaining
- Weaker link between collective bargaining coverage and union membership than in many other countries
 - high coverage rates (60%) and low membership rates (14%)
 - union-negotiated outcomes apply to all workers in an occ/sector (awards) or firm (enterprise bargaining)
 - 2000-2016: AU had largest ↓ in union membership in OECD but smallest ↓ in union coverage in OECD (except France; Bishop and Chan 2019)
 - Unions continue to play an important role in setting pay and conditions for a large proportion of the workforce
- Union membership = worker's choice; costly; free-riding
- similar to European setting, e.g. Germany, though more decentralized

Australia At Work data

- Panel data; 5 waves, 2007-2011
- Survey of individuals who were either employed or looking for work in March 2006; aged 15-59.
- 8,341 individuals interviewed in March 2007; interviewed annually (Feb-June)
- Rich information: labour contract, formal pay-setting instruments, workplace relations, worker attitudes towards workplace and working conditions; job satisfaction (wave 5 only)
- Distinguish:
 - ① union membership and coverage (e.g. Powdthavee 2011 ; Green and Heywood 2015); Bryson et al. (2010)
 - ② union members vs. non-union members; *and* non-members who want to join a union
→ 'marginal' union members

A@W data: Worker attitude variables

Table 1: Attitude variables by union status (higher score = stronger agreement)

	Union member	Non-union member	Non-member, marginal	Non-member, other
1. Managers consult employees	3.481	3.765	3.514	3.801
2. Managers trusted to be honest	3.259	3.726	3.360	3.779
3. Employees are treated fairly	3.614	3.902	3.514	3.958
4. Unlikely to lose my job	4.270	4.182	3.897	4.223
5. Confident I will not get injured	3.497	3.934	3.561	3.988
6. No more expected for same pay	2.248	2.767	2.369	2.825
Observations	7,454	14,861	1,879	12,982

Note: Lickert-scale 1-5 (strongly disagree - strongly agree); Highest values per row in bold.

- Union members report lower agreement compared to non-members (except job security); significant differences
- Marginal union members are more similar to union members in their attitudes (except for job security)
- *Other* non-members report highest agreement.
- Grouping

Grouped attitude variables

Table 2: Aggregated and normalized attitude variables

	Union member	Non-union member	Non-member, marginal	Non-member, other
Aggregated attitude variables				
Perceptions of management (1–3)	10.355	11.393	10.388	11.538
Perceptions of work conditions (4–6)	10.017	10.883	9.827	11.036
POLS-transformed attitude variables				
Perceptions of management (1–3)	-0.249	0.130	-0.212	0.180
Perceptions of work conditions (4–6)	-0.274	0.130	-0.343	0.199
<i>Observations</i>	7,450	14,834	1,876	12,958
POLS-transformed job satisfaction				
Job satisfaction (w5 only)	-0.069	0.030	-0.160	0.05
<i>Observations</i>	1,406	2,518	305	2,213

Note: Aggregated attitude variables are sums of related items (values 1-15). Transformed variables are normalized (mean = 0, SD = 1). Highest values per row in bold.

- Principal components analysis supports this grouping PCA results
- Probit-adapted OLS-transformation
 - transforms an ordinal variable into a cardinal variable, i.e., an unbounded, normally distributed variable (Ferrer-i-Carbonell and Frijters 2004; Green and Heywood 2015; Bessa et al 2021)
 - with mean of 0 and standard deviation of 1.

Attitude variables and Job Satisfaction

Do attitude variables capture dimensions of job satisfaction?

- Very strong correlation with job satisfaction (JS): JS analysis
 - perceptions of management & work conditions explain 30% of variation in JS (!)
 - while large set of control variables explains only 4.5%
 - all separate attitude measures show strong + corr with JS
 - we do not lose much by aggregating them (PCA-based)
- Conclusions:
 - 1 perceptions of management and work conditions capture important dimensions of job satisfaction
 - 2 Perception of management \approx Satisfaction with Management
 - 3 Perception of work conditions \approx Satisfaction with Work Conditions

Methodology

- Basic OLS equation:

$$\widetilde{W}_{imt} = \varnothing + \beta U_{imt} + \gamma X_{imt} + \delta Z_{imt} + \varepsilon_{imt}$$

with

\widetilde{W}_{imt} = POLS-transformed satisfaction measure for worker i , period t , job m (management, work conditions)

U_{imt} = union status

- U (union member) vs. NM (non-member)
- U vs. MU (marginal union member) vs. NM (other non-member)

X_{imt} = personal characteristics

Z_{imt} = job and firm characteristics, incl. coverage, union present in workplace

- To test for sorting, we include:
 - worker fixed effects, α_i
 - worker-job match effects, μ_{im}

Methodology

- First difference analysis

$$\begin{aligned}\Delta \widetilde{W}_{it} = & \beta_0 + \beta_1(\Delta U_{it} = +1) + \beta_2(\Delta U_{it} = -1) \\ & + \beta_3(\Delta MU_{it} = +1) + \beta_4(\Delta MU_{it} = -1) \\ & + \beta_5 \text{ stay } U_{it} + \beta_6 \text{ stay } MU_{it} + \beta_X \Delta X_{it} \\ & + \Delta \varepsilon_{it}\end{aligned}$$

with

U = union member

MU = marginal union member

reference group = stay NM (non-union member)

Results

Table 3: Employee satisfaction and union membership (POLS regressions)

Panel A – POLS	Satisfaction with	
	Management	Work conditions
Union member	-0.226*** (0.026)	-0.236*** (0.026)
Covered by collective agreement	-0.109*** (0.025)	-0.062* (0.025)
Union present in workplace	0.022 (0.032)	-0.069* (0.033)
Ln hourly wage	0.087** (0.032)	0.161*** (0.032)
Panel B – POLS, worker fixed effects		
Union member	-0.124*** (0.037)	-0.049 (0.037)
Covered by collective agreement	-0.042+ (0.023)	-0.010 (0.023)
Union present in workplace	0.035 (0.031)	-0.021 (0.031)
Ln hourly wage	-0.017 (0.038)	0.000 (0.038)
Observations	16,481	16,501
Panel C – POLS, worker-job fixed effects		
Union member	-0.086+ (0.047)	-0.017 (0.048)
Covered by collective agreement	0.013 (0.025)	-0.017 (0.026)
Union present in workplace	0.063+ (0.033)	0.038 (0.034)
Ln hourly wage	-0.036 (0.045)	0.007 (0.046)
Observations	15,477	15,496
Control variables	yes	yes

Notes: Standard errors in parentheses; ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

- OLS: Union members less satisfied with both outcomes (0.23 of a SD), even with large range of controls (incl. wages)
- FE: magnitude falls - suggests some sorting of "inherently unhappy" workers into unions; and some due to unions in jobs with adverse characteristics.
- Some evidence of persistent difference in satisfaction with management.

Results

Table 4: Employee satisfaction and extended union status (POLS regressions)

Panel A – POLS	Satisfaction with	
	Management	Work conditions
Union member	-0.291*** (0.027)	-0.314*** (0.027)
Marginal union member	-0.396*** (0.036)	-0.476*** (0.035)
Panel B – POLS, worker fixed effects		
Union member	-0.183*** (0.040)	-0.119** (0.040)
Marginal union member	-0.140*** (0.034)	-0.169*** (0.034)
<i>Observations</i>	16,481	16,501
Panel C – POLS, worker-job fixed effects		
Union member	-0.111* (0.049)	-0.053 (0.051)
Marginal union member	-0.062 (0.040)	-0.091* (0.041)
<i>Observations</i>	15,477	15,496
Control variables	yes	yes

Notes: Standard errors in parentheses; ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

- accounting for heterogeneity in non-union membership
- Slightly larger impact than existing literature; consistent with role of union and union voice in fermenting dissatisfaction

Findings

- Dissatisfaction reported by union members persists:
 - ① when accounting for heterogeneity among non-members
→ distinguishing those who do and don't desire membership
 - ② when accounting for worker fixed effects
→ not due to inherently unhappy workers sorting into union membership
 - ③ when accounting for worker-job fixed effects
→ neither due to unions organizing in challenging jobs
 - ④ magnitudes similar but somewhat larger than Green & Heywood (2015; UK)
- And importantly:
 - ⑤ union members report dissatisfaction with management, while
 - ⑥ marginal union members are unhappy with work conditions

⇒ consistent with union voice; suggestive of promoting dissatisfaction with management

Summary & Conclusion

- Test the relation between union membership and satisfaction of workers
- Using rich panel data from Australia @ Work (2007-2011)
- Measures of satisfaction with management and work conditions
- Evidence in favour of sorting of permanently dissatisfied workers into union membership and unions organising in challenging workplaces)
- However, dissatisfaction of union members remains with rich set of controls and when accounting for heterogeneity among non-union members (marginal union members)
- Results are consistent with / suggestive of:
 - union voice, especially with unions promoting dissatisfaction with management
 - workers developing an interest in becoming union members based on dissatisfaction with work conditions

Thanks for your attention!

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Descriptive statistics

Table 5: Personal and job characteristics by union status

	Union member	Non-union member	Non-member, marginal	Non-member, other
Hourly wage	31.826	28.891	26.369	29.257
Age	44.245	39.810	39.449	39.863
Female	0.500	0.491	0.546	0.483
Tenure	11.744	5.700	4.504	5.873
Education: Year 10	0.094	0.121	0.103	0.124
Year 11	0.034	0.054	0.044	0.055
Year 12	0.098	0.171	0.150	0.174
Diploma/certificate	0.176	0.220	0.212	0.222
Trade qualification	0.118	0.090	0.079	0.092
Undergraduate degree	0.264	0.216	0.259	0.210
Postgrad degree	0.215	0.127	0.153	0.123
Full time	0.674	0.662	0.605	0.670
Part time	0.326	0.338	0.395	0.330
Sector: Private	0.337	0.691	0.532	0.714
Public	0.562	0.219	0.339	0.202
NFP	0.101	0.090	0.129	0.085
Position: Managerial role	0.173	0.265	0.179	0.277
Supervisory role	0.198	0.149	0.149	0.149
Contract: Casual	0.061	0.190	0.208	0.188
Fixed term	0.058	0.067	0.112	0.060
Permanent	0.881	0.743	0.680	0.752
Union in workplace	0.820	0.385	0.471	0.372
<i>Workplace agreement type</i>				
Award-only	0.110	0.202	0.207	0.202
Union collective agreement	0.730	0.206	0.329	0.188
Observations	7,455	14,861	1,879	12,982

Sample descriptive statistics

- Union members (vs. non-members):
 - older (4yrs), higher tenure, more educated,
 - more in public sector and under permanent contract
 - more shift and overtime work; less likely in managerial role
- Marginal union members (vs. union members):
 - much younger (5yrs), lower tenure, more casual & fixed term contracts
 - similar educational attainment, similarly unlikely in managerial role,
 - similar attitudes to management and work conditions

Attitude variables and Job Satisfaction

Table 6: Relationship between job satisfaction and attitude variables (Wave 5 only)

Attitude variables	(1)	(2)	(3)	(4)
1. Managers consult employees	–	0.125*** (6.46)	0.103*** (5.42)	–
2. Managers trusted to be honest	–	0.183*** (8.28)	0.146*** (6.67)	–
3. Employees treated fairly	–	0.311*** (14.36)	0.260*** (12.02)	–
4. Unlikely to lose job	–	–	0.137*** (8.62)	–
5. Confident not get sick/injured	–	–	0.073*** (4.53)	–
6. No more expected for same pay	–	–	0.130*** (8.65)	–
Perceptions of management (1–3)	–	–	–	0.394*** (25.16)
Perceptions of work conditions (4–6)	–	–	–	0.210*** (13.55)
Control variables	yes	yes	yes	yes
Observations	3,751	3,727	3,710	3,710
R^2	0.044	0.319	0.360	0.341

Notes: Statistical significance denoted by + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Principal components analysis

Table 7: Attitude variables - Principal components (correlation)

Components	Eigenvalue	Difference	Proportion	Cumulative
Comp1	2.64566	1.72236	0.4409	0.4409
Comp2	0.92331	0.11511	0.1539	0.5948
Comp3	0.80820	0.02019	0.1347	0.7295
Comp4	0.78800	0.30416	0.1313	0.8609
Comp5	0.48384	0.13286	0.0806	0.9415
Comp6	0.35099	–	0.0585	1.0000

Observations: 23,592

Number of components: 6; Rotation - Rho: 1.0000

Table 8: Attitude variables - Principal components (eigenvectors)

Components	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6
Managers consult employees	0.4643	0.0830	-0.3932	0.0189	0.7738	-0.1543
Managers trusted to be honest	0.5087	-0.0244	-0.2921	0.0901	-0.3048	0.7445
Employees are treated fairly	0.5080	-0.0418	-0.1904	0.0720	-0.5281	-0.6480
Unlikely to lose job	0.2585	0.7834	0.5029	0.2569	0.0144	0.0212
Confident won't get sick/injured	0.3354	-0.0788	0.3847	-0.8551	0.0305	0.0351
No more expected for same pay	0.2972	-0.6090	0.5683	0.4350	0.1685	0.0163

Note: The principal components analysis makes use of the normalized attitude variables.

Results: First Differences

Table 9: FD: changes in satisfaction and union status - Job-stayers only

	Satisfaction with	
	Management	Work Conditions
Enter union membership	-0.232** (0.082)	0.071 (0.080)
Exit union membership	0.000 (0.109)	0.063 (0.082)
Enter marginal (desired) union membership	-0.150* (0.074)	-0.241*** (0.065)
Exit marginal (desired) union membership	0.061 (0.066)	-0.057 (0.064)
Remain union member	0.002 (0.050)	0.077 (0.051)
Remain marginal union member	0.008 (0.016)	0.030+ (0.016)
Constant	-0.125** (0.045)	-0.114* (0.045)
Control variables	yes	yes
Observations	7,967	7,963
R ²	0.014	0.010

Standard errors in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

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