



**The relationship of morality, ethics and justice to
Quality of Work-Life**

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Running Head: QWL

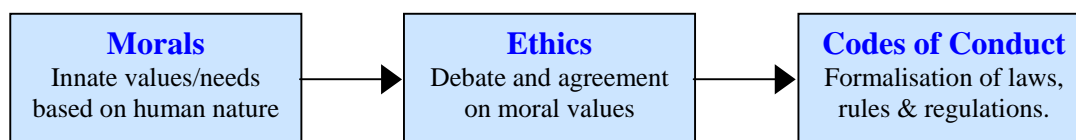
Abstract

This paper summarises a research study that involved the development of a subjective well-being based instrument to measure Quality of Worklife. The study considered moral ethics within the workplace as an important component of quality of worklife. It was conducted with reference to business ethics specifically and it highlighted the incongruent landscape lying between that and personal moral ethics. Through the application of social critical theory and evolutionary psychology, it challenged the orthodoxy concerning the relationships between personal liberty, justice and the neo-liberal market economy. It illuminated the reasons why it is important for business ethics and personal ethics to be brought closer together, and it suggested redefining QWL as a way of improving the relatively low levels of QWL found within Australia.

Introduction

This research study was intended to explicate some of the important links that exist between quality of worklife (QWL), market economics and moral ethics. In this study, moral behaviour is defined as individual action that is considered *good* or at the very least *neutral* with respect to the *common good*. This definition is compatible with Bowie and Dunfee's (2002) definition that stated that individuals hold moral beliefs concerning social rights and wrongs. This definition also does not preclude group behaviour from being judged in moral terms (Trigg 2005; Soares 2003). Furthermore, ethics are seen as agreed-upon social rules, and morals are taken to be aspects of individual values underlying those rules. The definition is consistent with the definition found in Macquarie (Delridge 2003) and also the view adopted for this study in which ethics are underpinned by moral values. Following the above, figure 1 below depicts the general view that lies under the approach taken in this study.

Figure 1 : Relationship between morals and ethics



Source: developed for this study.

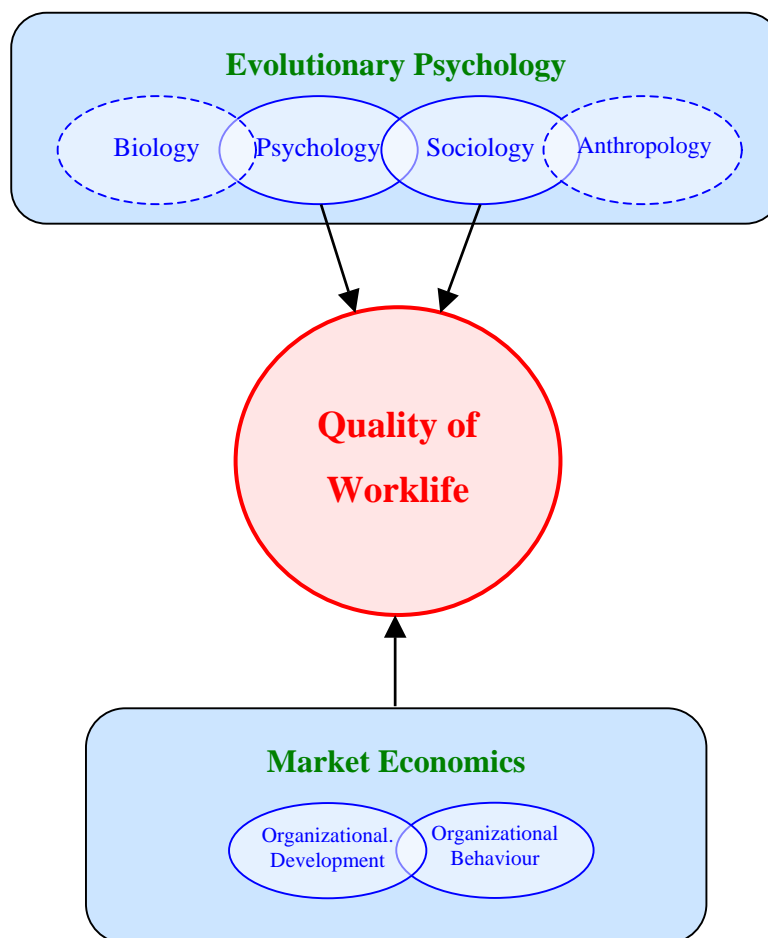
Furthermore, Figure 2 provides a conceptual expansion of these links as explored through the extant literature. The literature review focussed on QWL and generated significant input from the fields of evolutionary psychology and market economics. As reflected in Figure 2, evolutionary psychology (EP) as a multi-disciplinary approach draws heavily from biology, anthropology, psychology and sociology. Diametrically opposed to EP, the field of economics also exerts considerable influence on QWL, mostly by way of the disciplines of organizational development and organizational behaviour.

This study showed that, in order for employees to be able to obtain healthy levels of quality of worklife, they need to experience a sense of organizational justice that is in harmony with their wider personal morality. Ethics provide a link between workplace justice and personal morality, and the requisite congruency between personal and workplace ethics is predicated by EP theory. Laland and Brown (2002) stated that EP theory indicates the presence of an innate sense of justice within the human psyche that has not changed significantly over the

past 10 000 years. It is therefore reasonable that our innate sense of justice should be considered a benchmark against which justice systems and theories be viewed.

The literature search reflected that quality of worklife as a concept evolved out of a rich historical tradition involving the idea of making organizations more humanistic. QWL builds upon older ideas of satisfying basic human needs involving the fairly recent concept of job satisfaction that is closely linked with them. Furthermore, according to Mele (2003), ethics play a central role in achieving quality of worklife.

Figure 2: Conceptual framework



Source: developed for this study.

Organizational justice as a researched concept is relatively new, research having only started in earnest around 1987 (Cropanzano 2001). Also, issues of morality and ethics are central to justice systems, according to most contemporary social justice theories (Hosmer 1991). For example, Hosmer showed that there are certain basic principles needed for a system to be

considered just. These principles require the processes and outcomes of rulemaking or ethics to be consistent, universal, made known, accepted and enforced.

Cropanzano (2001) described organizational justice as:

... psychological enquiry that focuses on perceptions of fairness in the workplace (p. 4).

The instinctual nature of morality makes it difficult to conceive of a justice system without a significant moral component (Krebbbs 1998). EP has also established that this moral component is universally found across all cultures. Specifically, justice scholars such as Greenberg have found that, although values and norms may vary across cultures, the fundamental concepts of morality, fairness and justice exist within all cultures studied (Greenberg 2001). These findings demonstrate that the human brain is to some extent hard-wired with a moral tendency towards fairness and justice. Moreover, because the human mind evolves only slowly, this instinct is sometimes at odds with the rapidly changing demands made by our current social environments that differ so dramatically from those of our prehistoric past. As a result of this mismatch, the contemporary and largely amoral work environment is often experienced by individuals as being psychologically stressful.

In situations where there is a direct conflict between personal morals and business practices, this can often result in significant levels of psychological stress. Given the degree to which organizational life extends into personal lives, the roles morals and ethics play in determining psychological well-being within the workplace is therefore important.

Research problem

Why is ethics, morality and justice important to quality of worklife ?

Research proposition

Ethics involve morality and justice that are innate human traits thus requiring an alignment between business ethics and personal ethics in order to promote and achieve higher levels of quality of worklife.

Hypotheses

H1: Trust in the workplace is positively correlated to QWL.

H2: Democracy in the workplace is positively correlated to QWL.

H3: Cooperation in the workplace is positively correlated to QWL.

H4: Justice in the workplace is positively correlated to QWL.

H5: Self-actualisation is positively correlated to QWL.

Justification for the research

The initial literature review revealed several justifications for undertaking this study;

- Exploring emotional issues
- Enhancing psychological well-being
- Reducing the knowledge gap
- Illuminating competing values
- Re-evaluating socialism
- Renewing social contracts
- Refining the definition of quality of worklife
- Development of an Australian QWL index.

Methodology overview

This study used as its central approach a hybrid research paradigm consisting of Social Critical Theory (SCT) and Evolutionary Psychology Theory (EP). Consequently, instead of relying on extensive ethnographic data, this study used survey generated or quantitative data, analysed by means of structural equation modelling (SEM).

According to Alvesson (2000), the three main tasks of SCT are:

- To investigate the local forms of the phenomenon
- To critique the phenomenon
- To provide a transformative redefinition.

The more general area under investigation was that of moral ethics, while the local form, that this study was primarily concerned with, is that of business ethics. Critique of business ethics was achieved mainly through a comprehensive and critical literature review, while

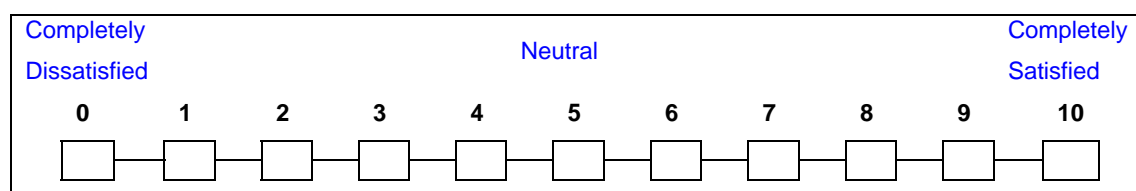
transformative redefinition was sought by linking business ethics to EP and QWL. In particular, QWL provided a practical vehicle for change through the development of a refined QWL measurement instrument.

In line with EP theory, the survey instrument tapped into the following five constructs:

- trust
- democracy
- cooperation
- justice
- self-actualisation.

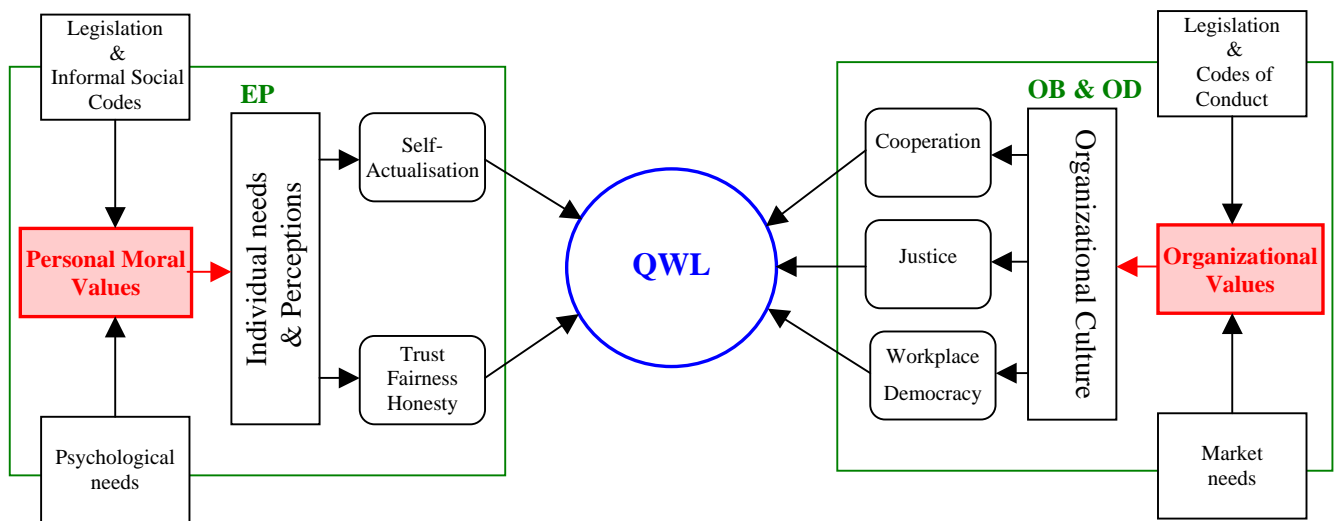
This study adopted the subjective well being (SWB) scale of the Australian Quality of Life Index as its validity and reliability had already been established (Cummins, Van Vugt & Misajon 2002). This scale is comprised of an eleven-point end-defined scale with a neutral midpoint. Figure 3 below shows the scale as adopted.

Figure 3: QWL measurement scale



Source: adapted from Cummings and Gullone (2000, p. 74).

The survey was deployed nationally and in order to maximise the response, the survey was both anonymous and based on a user-friendly internet web page. The survey instrument was developed specifically for this study, to include elements of moral ethics using the theoretical framework of Evolutionary Psychology as per figure 4 below.

Figure 4: Theoretical framework model

Source: developed for this study.

Reliability and validity

Validity was enhanced by comparison to existing questionnaires (Buckingham & Saunders 2004). Construct validity and parsimony achieved by means of Structural Equation Modelling (SEM) to minimise the number of questions, while maintaining adequate validity.

Pre-test

There are good reasons for carrying out a pre-test exercise (Ticehurst & Veal, 2001) such as the following:

- Testing questionnaire wording
- Testing question sequencing
- Testing questionnaire layout
- Estimating response rate
- Estimating questionnaire completion time
- Testing analysis procedure.

Pre-testing was done using snowball sampling to obtain 20 responses and changes made to some questions after feedback and analysis.

Survey method

The survey was self-administered, using electronic means via a dedicated internet web site and the questionnaires were administered anonymously resulting in un-identifiable data. Web surveys have important issues with them that have to be considered in order to ensure valid data (Cobanoglu, Warde & Moreo 2001). The issues as they pertained to this study are dealt with in the following sections within their proper context.

Sampling

Sampling is important in order to obtain a representative and statistically robust data set. Otherwise the finding may not be applicable across the population, as well as possibly being unsuitable for valid statistical analysis. A representative sample should be random, and this is a known problem for most surveys, including internet web-based surveys.

The targeted population was all working Australians over the age of 18 and given the nature of the measure, which is SWB, the unit of analysis is by definition the individual.

The sampling scheme was cross-sectional and, according to Cavana (2001), it is conventional within the social sciences to aim for a confidence level of 95% ($p=0.05$).

Analysis can be sensitive to sample size, therefore it is important to select an optimal sample size to fit the analysis requirements. Bartlett, Kotrlik & Higgins (2001) suggest that for regression type analysis, the sample size should fall between five and ten times the number of variables. Given the number of variables in this study, this would suggest a sample size of around 300.

Data analysis strategy

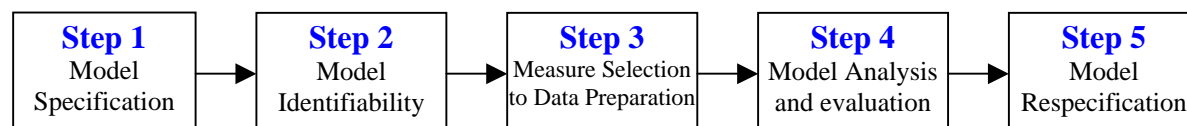
Surveys are a common non-experimental design that produces a large number of variables and this study was no exception. In simple designs, univariate and bivariate analyses are normally sufficient, but they are not sensitive enough to the complexity of designs with a large number of variables (Tabachnick & Fidell 2000). Multivariate techniques reveal the interrelationships of variables and inference, which allows these to be determined more accurately.

As a member of the multivariate family, confirmatory factor analysis is often used to test theories and is performed using structural equation modelling (SEM). Although SEM is often referred to as causal modelling, this is misleading, as SEM alone cannot determine causality. SEM can only test the appropriateness or validity of the model put forward by the hypotheses. SEM can however also be used to modify the model in order to provide a better fit. Planning and developing sound models is therefore essential and Tabachnick & Fidell (2000) caution us that causality is a design issue, not a statistical analysis issue. Causality can be better determined through experimental design using control group techniques, which is not always possible, as was the case with this study. The best that could be hoped for therefore was confirmation and/or refinement of the model that was developed.

Data was directly imported into SPSS for analysis using AMOS5, with minimal requirement for recoding, thereby reducing the effort and transcription errors commonly associated with such a large number of responses.

Abrahamson, Rahman & Buckley (2005) provided a useful roadmap towards implementing SEM that is shown in figure 5 below.

Figure 5: Five steps to SEM



Source: from Abrahamson et al. (2005, p. 566).

This approach shared similarities with approaches advocated by major SEM texts and this study therefore adopted this approach with the following sections detailing the steps as the analysis proceeded.

Step 1 Model specification

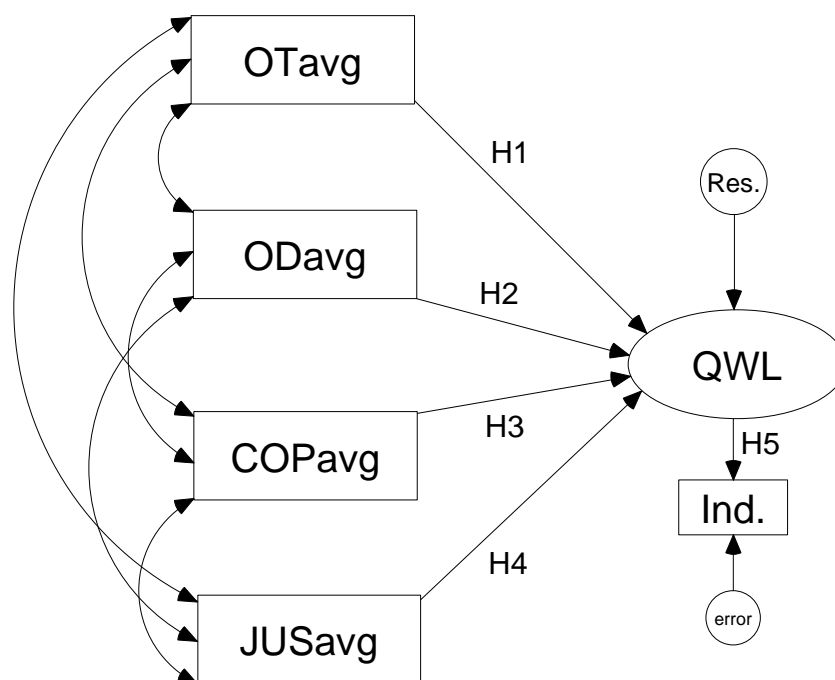
This study originally aimed to collect 300 responses as a minimum in order to perform a full SEM analysis. Unfortunately, response rate was disappointingly low in spite of advertising nationally and extensive usage of personal networks. The final number of responses after 14 weeks of data collection totalled only 73. After the elimination of invalid responses, there remained a total of 60 useable responses. Most SEM studies concentrate on large and

complex models with a high number of parameters that is in line with the typical recommendation made by scholars for a minimum sample size range from 100 to 150 with some insisting on an absolute minimum of 200. However, less complex models with sample sizes as small as 50 can be analysed with reasonable confidence (Hair et al 2006; Bentler & Chou 1987).

Normally, scholars recommend the ratio of sample size to estimated parameters to lie between 10 and 20. However, as Landis, Beal & Tesluk (2000) successfully demonstrated, using suitable composites, this ratio can be relaxed to as low as 4 whilst still producing acceptable results. Similar suggestions were made by Bentler & Chou (1987) in their treatment of practical issues with SEM analyses. The number of estimated parameters within this study were; model 1 = 25, model 2 = 23, to providing ratios of 2.92 and 3.17. As the Landis study showed, there appears to be only gradual degradation of results with the drop of ratio and it can therefore be reasonably assumed that a ratio of 3 is not far enough from 4 to invalidate the results. However, given this less than ideal ratio, results should be interpreted with caution.

The resultant and generic path analysis model is depicted in figure 6 below.

Figure 6: Generic path analysis model



Source: developed for this study.

This model follows directly from the theory development that involved the literature research and the simplest model possible. The five hypotheses suggest that trust (H1), democracy (H2), cooperation (H3), justice (H4) and self-actualisation (H5) relates positively to quality of worklife. Stated differently, the latent variable (QWL) is a function of the four independent variables; trust (OT), democracy (OD), cooperation (COP), justice (JUS). The latent variable QWL in turn results in self-actualisation (ACT) that is reflected by variable indicators (Ind.). Because no model is perfect, the unexplained residual variance is reflected by the error term (Res.)

Step 2 Model identification

An important algebraic issue with SEM is the concept of identification. This study's model is defined as recursive and such models are usually theoretically identifiable. However, in practice there are sometimes problems caused by issues such as multi-collinearity or poor starting values that can make the model unidentifiable (Kline 2005). Texts such as Kline (2005) and Byrne (2001) provide guidelines for dealing with these kinds of problems. However, most software packages such as AMOS will provide warnings and fail to analyse if there is an identification problem.

Step 3 Measure selection, data collection, cleaning and preparation

Measures need to be both reliable and theoretically driven to ensure validity. When measures have poor reliability then statistical bias becomes a problem (Kline 2005). Using SPSS, the composite scales were all submitted for analysis. Out of all the indicators, only two items showed a Cronbach alpha less than 0.7. However, both items were located in separate composites and above the lower level of 0.6 as suggested by Hair et al. (2006) as still acceptable for exploratory research. They were therefore not removed in order to maintain completeness.

Data collection can also influence subsequent analysis if it results in data that is non-normal or non-random that is often a problem with web surveys. Checks for normality were performed and univariate outliers with standardised z-scores higher than 3.29 were eliminated. In addition a multivariate outlier test was also performed using the Mahalanobis check as per the recommendations of Tabachnick & Fidell (2000). The results revealed the highest score being 36.4 and therefore confirmed acceptable normality as this was lower than

the critical value of chi-squared (df) that is 40.70 for this dataset. With respect to the ordinal data, visual checks using scatterplots and histograms of the ordinal data were used to assess randomness and considered acceptable.

Finally, missing data is often present within surveys and this study was no exception. The problem of missing data in this study was addressed by allowing AMOS to estimate missing data using the full information maximum likelihood (FIML) method. Together with maximum likelihood (ML) estimation this provides the least biased results (Arbuckle & Wothke 1999).

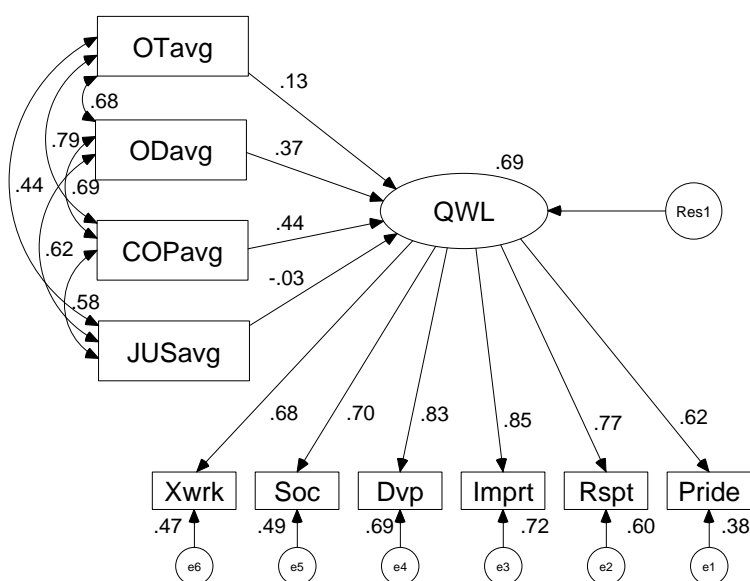
Step 4 Model analysis and evaluation

There are many approaches that can be taken in dealing with the problem of low sample sizes (Rowe 2002; Landis, Beal & Tesluk 2000) of which one is to choose single indicators as surrogate measures of the more complex composite that it belongs to. Choosing the particular indicator can be done in several ways as explained by Landis et al (2000). Accordingly, the first model tapped directly into the constructs of Trust, Democracy, Cooperation, Justice and Self-actualisation.

Model 1 analysis

The resultant analysis from AMOS5 is reflected in figure 7 below. The resultant numbers are all in standardised format making comparisons relatively easy.

Figure 7: Model 1



Source: (developed for this study)

Table 1: AMOS model 1 summary

Number of distinct sample moments:	55
Number of distinct parameters to be estimated:	25
Degrees of freedom (21 – 18):	30
Minimum was achieved	
Chi-square = 66.990	
Probability level = .000	

Source: from AMOS 5 analysis.

Table 2: Model 1 Regression weights

		Estimate	S.E.	C.R. (z-stat)	Hypotheses	Supported
QWL	<--- COPAVG	0.440	.132	2.567	H3	Yes
QWL	<--- ODAVG	0.366	.095	2.481	H2	Yes
QWL	<--- OTAVG	0.134	.109	.908	H1	No
QWL	<--- JUSAVG	-0.035	.085	-.308	H4	No
Social	<--- QWL	0.697	.268	4.456		
DVPMNT	<--- QWL	0.830	.303	5.050		
IMPRT	<--- QWL	0.848	.263	5.123		
RSPT	<--- QWL	0.773	.273	4.807	H5	Yes
PRIDE	<--- QWL	0.617	.162	4.693		
EXWRK	<--- QWL	0.683	.318	4.388		

Source: adapted from AMOS 5 analysis.

Statistics regarding normality confirmed adequate normality and because of the desire to prove causality, the regression weights and squared multiple correlations is of prime interest and is discussed next.

Model 1 discussion

In terms of evaluating the importance of regression weights, the suggestions of Tabachnick & Fidell (2000) was followed in that weights below 0.20 be considered as not supportive of a relationship.

As can be seen from figure 7 above, the overall squared multiple correlation was 0.69. This indicated that 69% of the latent variable was explained by data using this model. This was a

significant result and allowed checking for statistical significance using the z-statistic as a guide. The z-test is equivalent to the critical ratio (C.R.) figure reported by AMOS and is equivalent to the path coefficient divided by its standard error (Norman & Streiner 2003). The well accepted lower cut-off point of 1.96 ($p = <0.05$) is used as a guide to determine whether a result is statistically significant.

In terms of the five hypotheses, the results therefore indicated no support for H1 ($\beta = 0.134$) and H4 ($\beta = -0.035$). It can be seen therefore that within this model two hypotheses are not supported. Furthermore, with small sample sizes, the covariance residuals are a suitable measure of model fit (Byrne 2001) with values below 2 considered a good fit (Arbuckle and Wothke 1999). This model contains 23 residual covariances that exceed 2, therefore there is cause for concern as far as model validity is concerned. A second approach was therefore followed and is described next.

Step 5 model re-specification

Model re-specification typically builds on the results obtained during step 4 and can be either theory driven or exploratory by nature (Abrahamson, Rahman, & Buckley 2005). In this instance, the choice has been made to deploy a more comprehensive theory based driven approach to respecifying the model guided more accurately by the theory development as it originally unfolded.

Model 2 development

Firstly, Rousseau, Sitkin & Camerer (1998) proposed that trust is a component of cooperation. Accepting their argument would require modification of the simple generic model to incorporate indicators of trust to relate to the cooperation construct. Secondly, the model was further modified in line with EP theory and current thought on job satisfaction. Briefly, it reflects the proposal that the core of community interaction be viewed as that comprising of cooperation that is further determined by the element of justice (Krebbs 1999). Similarly, links were drawn by Herriot, Manning & Kidd (1997) between the concepts of psychological contracts and the constructs of equity, fairness, trust and reciprocity. Accepting the arguments put forth by Rousseau et al and Herriot et al, results in QWL being considered more correctly a latent variable. As such, QWL leads to self-actualisation that consists of Pride, Respect, Importance, Social Recognition, Development and a feeling of work being Exciting.

This model was more complex than the first model but more aligned with the extant literature and theory. Scholars often argue that absolute fit should never be the ultimate criteria in terms of determining model acceptability (Kline 2006; Byrne 2001; Arbuckle & Wothke 1999).

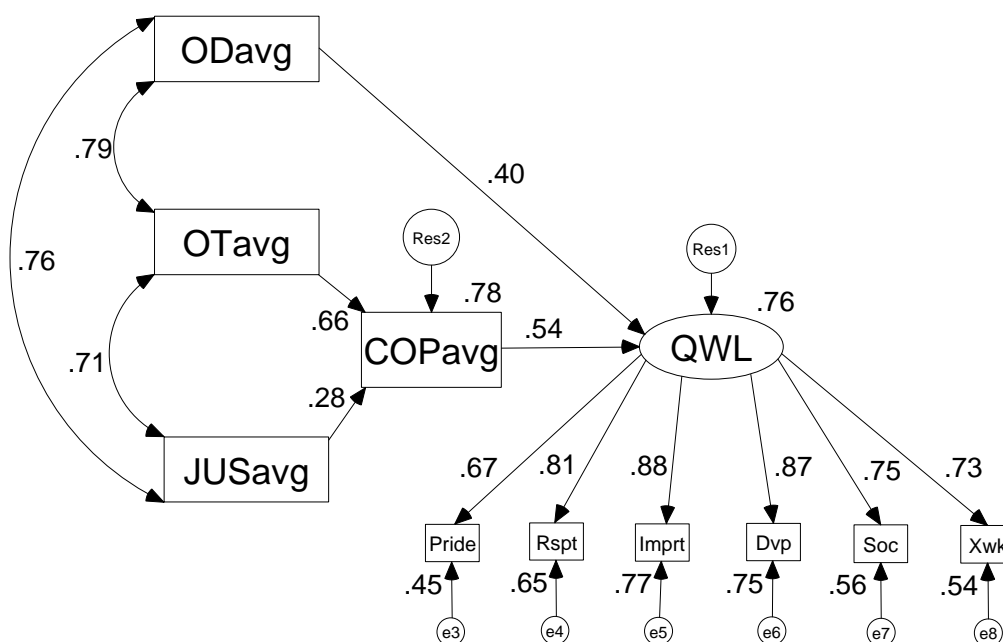
They make the point that often a-priori knowledge is often more appropriate when compared to data driven changes when making changes and comparing model fit. Figure 9 below shows the resultant model depicted by means of AMOS5 graphics.

Model 2 analysis

The resultant analysis from AMOS5 is reflected in figure 9 below. The coefficients are all in standardised format making comparisons relatively easy.

The model's overall squared multiple correlation of 0.76 is acceptable and compares favourably with the first model. It was therefore acceptable as previously to proceed with further analysis.

Figure 9: Model 2



Source: (developed for this study)

Table 3: AMOS model 2 summary

Number of distinct sample moments:	55
Number of distinct parameters to be estimated:	23
Degrees of freedom (36 - 19):	32
Minimum was achieved	
Chi-square = 57.475	
Degrees of freedom = 32	
Probability level = .004	

Source: (from AMOS analysis).

From Table 5 above, as with the previous model, it can be seen that minimum was achieved and the model overidentified. It can also be observed that there has been a small increase in degrees of freedom over the previous model.

Table 4: Model 2 regression weights

	Estimate	S.E.	C.R.	Hypotheses	Supported
COPavg <--- Otavg	0.661	.083	7.624	H1	Yes
COPavg <--- JUSavg	0.282	.085	3.246	H4	Yes
QW <--- COPavg	0.535	.116	4.456	H3	Yes
QW <--- Odavg	0.399	.094	3.450	H2	Yes
Rspt <--- QW	0.857	.107	8.020		
Imprt <--- QW	0.876	.128	8.020		
Dvpmnt <--- QW	0.866	.149	7.893		
Pride <--- QW	0.674	.137	5.621	H5	Yes
SOCIAL <--- QW	0.745	.143	6.396		
EXWRK <--- QW	0.733	.171	6.253		

Source: (adapted from AMOS analysis).

Table 7: Descriptive statistics

Variable	Value
QWL (Quality of worklife)	5.98
OT (Trust)	6.04
OD (Democracy)	6.09
Jus (Justice)	6.43
Cop (Cooperation)	5.85
Act (Self Actualisation)	6.35

Source: from AMOS5

From Table 6 above, it can be seen that all critical ratios are above the cut-off level of 1.96 indicating that all relationships are statistically significant. In addition, all regression weights (β 's) are above 0.2 indicating support for the hypothesised relationships.

Model 2 discussion

The fit summaries have shown that the previous model is not realistic especially given very high covariance residuals. For small sample sizes, most fit indices are not reliable (Kline 2006; Byrne 2001). However, the ECVI and Hoelter indicators are often viewed as better indicators in the case of small sample size (Byrne 2001). The fit indicators for model 2 indicated a good fit in this regard therefore the model is a realistic option. More specifically, with small sample sizes, the covariance residuals are a better measure of model fit (Byrne 2001) with values below 2 considered a good fit (Arbuckle and Wothke 1999). The highest absolute value found in the results was 0.923 therefore indicating acceptable fit.

Notwithstanding the issue of small sample size, model 2 therefore shows a definite improvement with respect to fit given that model 1 contains 23 residual covariances that exceed 2.

Finally, according to convention, the variable COP is considered a mediating variable (Norman & Steiner (2003). In a stricter sense, therefore, different labels (hypotheses) could be assigned to the relationships as depicted within model 2. However, for clarity, the original assignments were retained as it was deemed as providing more clarity without limiting or compromising understanding. This cautious approach was also considered acceptable due to the fact that the sample size was not ideal and further research using larger sample sizes needs to be performed before further model refinement can be attempted. This view is supported by the fact that the model has a strong a-priori theoretical basis and there would be real danger of eliminating or distorting significant relationships if changes are made based on current results.

Conclusions about the research proposition

Ethics involves morality and justice that are innate human traits thus requiring an alignment between business ethics and personal ethics in order to promote and achieve higher levels of QWL.

Market economists following in the tradition of Milton Friedman have traditionally argued that morals have no role to play within the context of business. Mostly, their arguments have been based purely on economic theory with little or no regard for social theory. In fact,

through the concept of externalities, they have conveniently ignored the negative social impacts generated by the application of economic theory. Somewhat myopically therefore, they have not only ignored the negative effects but they have placed them at the doors of others to struggle with.

In disagreeing with the classic and somewhat orthodox economic view, this study proposed that given business consists of communities of workers, the underlying principles of EP theory applies equally to these communities. Important community matters of morals, ethics and justice should therefore be framed in equal terms across working communities and wider social communities.

Following this framework, this study was designed to measure the relationship of associated moral issues like trust, democracy, cooperation, justice and self-actualisation using EP theory as its theoretical basis. By linking the QWL concept to these issues, the confirmatory results have provided support for the position expressed by the research proposition as stated above.

Conclusions about the research problem

Why is ethics, morality and justice important to quality of worklife ?

As the literature critique has shown, social theories, and in particular evolutionary psychology theory, hold that cooperation and tightly coupled issues relating to trust, democracy, justice and self-actualisation are vital ingredients for both sustainable and successful human endeavours. The moral imperative is that these issues be supported in order to maintain healthy social bonds. Without such support, not only does the effected communities risk destructive anti-social behaviour, but many of its members are potentially prevented from living fulfilled lives due to reduced psychological well-being.

Implications for theory

According to the literature, little classification in relation to theory exists within current QWL research (Chulef et al. 2001) with many studies failing to make reference to any specific theory (Bussing et al. 1999). Even though the subject has seen substantial research, it has always remained fragmented and misunderstood due to the lack of a solid theoretical underpinning. Nicholson (1998) proposed that EP might be a good theoretical foundation for doing business research and this study provides support for his view. This study demonstrated that using EP as a theoretical basis on which QWL could be based is well founded.

Furthermore, this study also disagreed with current neo-liberal economic theory as articulated through the literature critique. In particular, it showed that in terms of happiness research, economic theory failed to deliver on its promise. This study provided support for modifying economic theory in order to move away from GDP as a measure of success as suggested by proponents of the General Progress Indicator (GPI) indicator (www.redefiningProgress.org). The use of the GPI or similar index that takes societal measures into consideration is supported by the findings of this study that highlights the important role of communitarian values as underscored by trust, cooperation and democracy within the workplace and by logical extension within the broader community.

Implications for practice and policy

The Australian Quality of life survey provided an interesting benchmark. Results from the 2005 survey shows that personal well-being has a mean of 7.41 compared with a QWL score of 5.98 from this study.

Significantly, the researchers within the AqoL study has determined that their SWB scores exhibit homeostasis that tend to keep the range within 7 to 8. They proposed that scores outside these boundaries are temporary due to short life shocks or, when more persistent, due to prevailing conditions of continued psychological stress (Cummings 1995).

Comparing the two scores would suggest that QWL in Australia is below the comfort level for the average worker. The study therefore supported the idea that the lower levels of satisfaction within QWL is subject to psychological stress. Conversely, in order to improve levels of QWL the satisfaction levels of trust, democracy, cooperation, justice and self-actualisation needs to be raised.

Given the small sample size and perhaps yet incomplete QWL measure as used in this study this statement needs to be taken with some caution. Further research will have to be conducted in order to fully confirm the validity of the discrepancy between the two measures.

The findings of this study provided support for improving democracy within the workplace. The data reports a level of 6.09 that is well below the cut-off level of 7.0 according to the normal AQoL range. The implications of providing workers with increased say and control in the workplace remains contentious in Australia. However increased levels of democracy at

work have been practiced in some European countries for quite some time and further research might well be useful in clarifying the issue. However, there can be little doubt that increasing the level of democratic participation within the Australian workplace has profound practical as well as political implications.

Further suggested research

As with most research, this study cannot stand alone and further research is suggested. Amongst which should be to explicitly compare the Australian situation with that of the Scandinavian countries where a more inclusive work environment exists.

With respect to this study itself, it needs to be replicated with a larger sample to enhance generalisation and precision and perhaps also expanded conceptually to enhance its predictive capability with respect to QWL. In this regard, older job satisfaction concepts generally considered hygienic factors, should be considered for inclusion.

Conclusion

For modern man, work makes up a significant portion of daily life. Workers invest significant amounts of psychological energy within their working communities and form valuable psychological ties with their co-workers. Work has become and is set to remain significant islands of community for most of the world's population.

Modern work is often viewed in isolated ways with issues such as moralism explicitly excluded from the arena because of economic theory. In ignoring such ancient mechanisms of social cooperation, business has created work environments that are far from ideal.

This study has followed in the footsteps of notable scholars within the EP field and has shown that moral ethics is an important part of work and that it directly affects the psychological well-being of workers.

It was the aim of this study to provide still another bit of evidence to help put the human element on the centre stage of work. As with so much in life there needs to be a healthy balance between competing elements. This study has provided quantitative evidence that shows the quality of worklife in Australia is out of balance and requires attention. It is the hope of this study that perhaps a small spark has been generated that will eventually lead to Australian workers been treated more than just means towards various economic ends.

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