

KERRY CHAMBERLAIN AND SHERYL ZIKA

STABILITY AND CHANGE IN SUBJECTIVE
WELL-BEING OVER SHORT TIME PERIODS

(Received 1 May, 1990)

ABSTRACT. Recent research has reported high stability for subjective well-being over periods as long as 9 years, concluding that well-being is essentially unaffected by environmental change. Other research has suggested well-being is responsive to change in life circumstances, and appropriate for use as an adaptational outcome variable. The present research examined the stability of well-being over short periods (3–6 months) using a range of well-being measures. Two different samples, mothers with young children and elderly persons, provided assessments of well-being and every day stressors (hassles) on three occasions, three months apart, as well as the personality measure, sense of coherence. Results demonstrated high consistency in well-being, but also found it to be influenced by environmental events and personality. With prior well-being controlled, current well-being was predicted by current hassles but not by past hassles. Coherence explained limited variance in current well-being with prior well-being controlled. Of the three factors, prior well-being, current hassles, and coherence, prior well-being was the strongest predictor of present well-being. These findings were consistent across the range of well-being measures, and replicated across the samples. Implications for the use of well-being as an adaptational outcome are discussed.

The last two decades have seen a strong interest in research into subjective well-being, and the accumulation of a substantial body of empirical findings in this area (see Diener, 1984; McNeil, Stones, and Kozma, 1986a, for reviews). In much of this research, subjective well-being has been involved as an outcome measure, with studies directed to examining factors which lead to change in levels of well-being.

More recently, attention has focussed on the issue of the stability of well-being. Most researchers have, until recently, considered well-being as a sensitive outcome measure susceptible to change. However, the current weight of evidence concerning consistency and change in well-being indicates that subjective well-being is highly stable. This view is supported by a variety of research findings. Early studies demonstrated well-being measures to have moderate to high levels of test-retest reliability over short to medium periods of time. For example, Campbell, Converse, and Rodgers (1976) report stability coefficients between

0.38 and 0.76 for a range of well-being measures over an eight month period.

More recent studies have used longitudinal research strategies, often following large samples over long periods of time. George and Maddox (1977) found no change in mean levels of morale over a period of five years. Palmore and Kivett (1977) reported that mean levels of life satisfaction did not alter significantly over four years. Atkinson (1982) found life satisfaction to have a retest coefficient of 0.68 over a two year period. Baur and Okun (1983) found life satisfaction to have a stability coefficient of 0.61 over three years, and Reker and Wong (1984) report a retest coefficient of 0.79 for psychological well-being over two years. Kozma and Stones (1984) assessed well-being for three elderly groups, urban, rural, and institutionalized, on two occasions 18 months apart. No significant differences were found for any group between well-being scores on the two occasions, and the strongest predictor of current level of well-being was found to be prior well-being. In an analysis focussing on domain satisfactions rather than global measures, McNeil, Stones, and Kozma (1986b) reported that subjective satisfaction with housing, finances, and religion, although not health, were stable over an 18 month period. Costa *et al.* (1987), reporting a nine year follow-up with a large general population sample, found no significant changes in mean levels of positive affect, negative affect, or total well-being over the period.

These studies are limited because they have focussed on the stability of mean levels of well-being, and have not explored the possibility that well-being may change in predictable ways for some people. A few studies, however, have provided data in a longitudinal framework and also examined change within sub-groups.

Costa, McRae, and Zonderman (1987), in an alternative analysis of their data, explored the stability of well-being measures in sub-groups defined by change in life circumstances. They compared individuals who had a different classification for marital, employment, or residential status between the two assessment occasions with those who had the same status on both occasions. Retest correlations did not differ on any well-being measure for groups defined in this way. Costa, McRae, and Zonderman therefore concluded that well-being has considerable stability, and is not influenced by changes in marital, employment, or

residential status. This study is an advance over previous research in that it attempts to take account of individual change. However, change was assessed at a relatively gross level, as the authors note. In a particular case, an individual may have made more than one change during the decade involved (for example, married, separated, divorced, re-married, or employed, unemployed, reemployed), and reverted to the same status held at the time of first measurement.

Ormel (1983) obtained well-being reports on two occasions one year apart, and constructed a life change rating in terms of improvement or deterioration in living circumstances over the year. This measure was found to be negatively related to current levels of positive affect but only weakly related to negative affect. Atkinson (1982) analyzed change in well-being using a similar strategy. Respondents reported directly on major life events that occurred during the two years between well-being assessments, and estimated whether their current situation was better, worse, or the same as it had been two years previously. Overall well-being levels were found to be quite stable over the period, consistent with the findings reported above. Comparison of well-being levels over time between groups reporting change or no change revealed a significant difference on only one of the three well-being measures, a self anchoring scale of life satisfaction. However, a more detailed analysis between those reporting change for the better, the worse, or no difference, revealed significant associations between the direction of change and levels of well-being on all three well-being measures. Atkinson concluded that well-being was stable over time, but was also sensitive to changing circumstances. Headey and Wearing (1988) also have argued that well-being is generally consistent, but that considerable change can occur for individuals. Their results, collected from a general population sample over periods of up to six years, reveal that about one quarter of individuals report changes of one standard deviation or more in their well-being levels.

These studies considered together suggest that well-being is normally stable over considerable periods of time, particularly if mean levels are assessed. However, the findings demonstrate that sizable amount of well-being variance are unexplained, and that variation in well-being over time does occur. Studies which examine change in circumstances do find evidence of associated change in well-being levels.

These findings are reassuring if we want to continue using well-being measures to assess outcomes. As Atkinson (1982) has noted, good indicators of subjective well-being should, amongst other things, demonstrate stability over time, particularly in unchanging circumstances, and should also be sensitive to changing circumstances and conditions.

The findings of long-term stability in well-being have led to the conclusion that well-being is attributable more to enduring individual dispositions than to the effects of life circumstances (Costa, McRae, and Zonderman, 1987). This view is supported by research demonstrating consistent associations between well-being and personality traits, which persist even when personality is assessed several years earlier (Costa and McRae, 1980; Costa, McRae, and Norris, 1981; Costa, McRae, and Zonderman, 1987). Other researchers (Ormel, 1983; Stones and Kozma, 1986) have suggested that well-being may be better viewed as a stable individual difference variable. McNeil, Stones, and Kozma (1986a) concluded that "... the data are best explained if subjective well-being is viewed as a trait, with its prediction being intrinsically determined, and its function changing from one of 'predicted' to predictor" (p. 61).

The present study examines the stability of well-being over short periods of time, and assesses the effects of external and dispositional influences on well-being stability. Well-being measures were obtained from two groups on three occasions, each three months apart, allowing an examination of stability and an estimate of the predictability of current well-being from prior levels. Because positive and negative factors of well-being are influenced by different variables (Chamberlain, 1988), we examined several well-being measures separately in the study.

Measures of perceived stress (hassles) were also collected on each occasion, allowing the influence of external situational factors on well-being to be examined, both concurrently and controlling for prior levels of stress. Hassles were utilized as the stress measure because they have been shown to be better than life events as predictors of concurrent and subsequent psychological symptoms (Kanner, Coyne, Schaffer, and Lazarus, 1981), and of physical health status (DeLongis, Coyne, Dakof, Folkman, and Lazarus, 1982). This result has been replicated with the present samples (Chamberlain and Zika, 1990). Daily hassles were also

considered to be more appropriate than life events to the time frame of the present study.

A dispositional measure, sense of coherence, was also obtained from participants in both groups, and used to examine the relative contribution of prior well-being, situational, and dispositional factors as influences on current well-being. Sense of coherence is defined as a global personality orientation assessing the extent to which a person views life as comprehensible, manageable, and meaningful (Antonovsky, 1979; 1987). Although limited empirical research has been conducted with the construct, perceiving the world as coherent is considered to be a pervasive disposition influencing all aspects of functioning. Coherence is also considered to intervene in coping processes, and therefore was thought to be a promising construct for relating to well-being change.

Finally, relationship between these variables were examined in two different groups. One, the elderly, has been widely studied in previous research. The other group consisted of mothers who were not in the paid work-force and who were caring for young children. The inclusion of these two groups with very different life circumstances enables cross-validation of the findings.

METHOD

The data reported here were obtained from two semi-longitudinal studies undertaken sequentially in the same year. Both studies focussed on psychological well-being, stressors, and personality, and followed a similar procedure and time frame for data collection. Measures used were either identical or comparable for both studies. Data were collected from two different samples, referred to here as Mothers and Elderly. As the socio-demographic characteristics of the samples were different, data sets were analyzed separately.

Subjects

Mothers sample. Respondents were 194 women who had at least one child under five years and no paid employment outside the home. The mean age of participants was 29 years ($SD = 4.1$ years). Almost all were married ($N = 183, 94\%$), with 4 (2%) being separated or divorced,

and 7 (3%) unmarried. Seventy-four women (38%) had one child only, 70 (36.9%) had two children, 34 (18%) three children, and 16 (8%) had four or more. All but 4 women were of Caucasian origin, and most (73%) described themselves as middle class.

Elderly sample. Respondents were 66 men and 87 women, aged 60 years or older. Their mean age was 69 years ($SD = 5.8$ years). About half were married ($N = 83$, 55%), many were widowed ($N = 42$, 28%), with 14 (9%) separated or divorced, and 11 (7%) single. Almost half (43%) lived alone. Most described themselves as either middle class (54%) or working class (20%), and of Caucasian origin (99%).

Procedures

Mothers were recruited through a child care or educational agency and Elderly were located through a variety of community based organizations for senior citizens. Initial contact involved completion of a structured questionnaire in the presence of a researcher. Respondents were sent two further questionnaires by mail, three months and six months after their first contact.

Return rates for mothers questionnaires were 188 (95%) at Time 2 and 179 (91%) at Time 3. Elderly return rates were 137 (91%) at Time 2 and 129 (86%) at Time 3. All questionnaires took approximately one hour to complete and contained measures of well-being, stress, and personality, as well as demographics and other measures not relevant to this study. With the exception of one well-being measure for the Elderly (see below), both groups completed the well-being and stressor measures at all three times. The personality measure was completed at Time 1 only by both groups.

Measures

Well-being. Three instruments were used to assess psychological well-being. Andrews and Withey's (1976) global measure, Life 3, was used to assess general life satisfaction. Andrews and Withey estimate Life 3 to have a validity coefficient of 0.8 (p. 188) and a reliability of 0.7 (p. 192). Affectometer 2 (Kammann and Flett, 1983) was included to

measure the positive and negative affective components of psychological well-being. This instrument assesses well-being as conceptualized by feelings, using 40 items rated on a 5-point proportion-of-time scale. Affectometer 2 has a reported alpha of 0.95, a 15-week stability coefficient of 0.72, and relatively high correlations with other well-being measures (Kammann and Flett, 1983). The scale was scored to provide separate positive and negative affect scores (Chamberlain, 1988; Diener, 1984). Adjectives and statements can be utilized as parallel forms of the measure (Kammann and Flett, 1983). Mothers completed the adjective form at Times 1 and 3 and the sentence form at Time 2. Elderly participants completed only the adjective form at Time 2, and therefore this scale is not included in their analyses.

The Mental Health Inventory (MHI) (Viet and Ware, 1983) was included as a further measure of the positive and negative dimensions of well-being. The instrument is based on a hierarchical factor model of mental health comprised of a general mental health factor, two higher-order factors labelled psychological distress and psychological well-being, and five lower-order factors. The MHI contains 38 items rated on a five or six point response scale and can be scored at the general, higher-order or lower-order level. Internal consistency estimates range from 0.92 to 0.96 for the higher-order and general factors. Stability coefficients over a 1-year interval are reported in the 0.56 to 0.64 range (Viet and Ware, 1983). For the present analyses the higher-order factors of the MHI were scored.

Stressors. Minor stressors were assessed with the Hassles Scale (Kanner *et al.*, 1981). This checklist asks respondents to rate 117 potential hassles on a three-point severity scale. The items reflect a wide variety of everyday concerns including health, work, family, social activities, finances, practical considerations, and environmental concerns. The scale was revised to make it appropriate for the groups involved, and to avoid problems of confounding between variables. We removed 12 items pertaining to work for both groups, and an additional 3 items focussing on having children and menstrual problems for the Elderly. A further 7 items relating to psychological symptoms and 4 items with a loneliness or social support emphasis were removed to avoid confounding between predictor and outcome variables. The removal of these

items appeared appropriate in light of the evidence for the confounding of the hassles scale with measures of psychological distress (Dohrenwend, Dohrenwend, Dodson, and Shrout, 1984). All analyses involving hassles therefore used the remaining 94 items for Mothers and 91 items for the Elderly as a measure of stressors. The scale was scored for the cumulated severity of hassles (Kanner *et al.*, 1981, p. 9).

Personality. The personality measure used was the Sense of Coherence Scale (SOC), which consists of 39 items, divided into three sub-scales. These assess comprehensibility (the extent to which the world is perceived as sensible, ordered, and predictable), manageability (the degree to which personal resources are perceived as adequate to meet demands), and meaningfulness (the degree to which the world is conceived to make emotional sense, that problems are worthy of commitment, and that challenges are accepted). Alpha coefficients for the full scale range from 0.84 to 0.93, with test-retest reliability reported as 0.63 (Antonovsky, 1983; 1985; 1987).

RESULTS

An initial examination of the stability of the well-being measures was made by calculating correlations between each specific measure of well-being at the different times. These are presented in Table I and provide

TABLE I
Stability coefficients (Pearson *r*'s) for well-being measures

<i>Variable</i>	<i>Time</i> 1—2	<i>Time</i> 2—3	<i>Time</i> 1—3
<i>Mothers</i>			
Life satisfaction	0.62	0.67	0.56
Psychological well-being	0.72	0.78	0.69
Psychological distress	0.65	0.71	0.72
Positive affect	0.63	0.69	0.66
Negative affect	0.56	0.60	0.56
<i>Elderly</i>			
Life satisfaction	0.68	0.75	0.66
Psychological well-being	0.87	0.84	0.85
Psychological distress	0.79	0.86	0.80

stability coefficients for well-being over 3 and 6 month intervals. All well-being measures demonstrate substantial stability, with coefficients ranging from 0.56 to 0.87. Stability is somewhat higher for the MHI subscales, and generally higher in the elderly sample. The results confirm earlier findings with these scales (Andrews and Withey, 1976; Kammann and Flett, 1983; Viet and Ware, 1983), and support the arguments for well-being as a stable entity.

However, the coefficients also suggest that there is considerable scope for the explanation of further variance in well-being scores by variables other than well-being itself. We explored this in two sets of analyses, one examining the effects of the situational measure of stress, and the other examining the effects of the personality trait, sense of coherence.

First, we conducted a series of hierarchical multiple regression analyses involving hassles and well-being. The specific well-being measures for both groups at each follow-up time were the dependent variables in these analyses. Prior well-being (at Time 1) was entered on the first step, and either prior hassles (at Time 1) or current hassles (at the follow-up time) was entered on the second step. Finally, to check the effects of current hassles with prior hassles controlled, hassles at follow-up was entered on the third step following the entry of Time 1 hassles on step 2. This allowed us to estimate the relative contributions of prior well-being, prior hassles, current hassles, and current hassles controlling for prior hassles in explaining variance in current well-being. The R^2 -change values from these analyses are presented in Table II.

The pattern of results obtained presents a clear picture, almost regardless of which well-being measure or which group is considered, or whether the delay is for 3 or 6 months. Prior well-being accounts for substantial variance in current well-being, a finding that simply replicates the Table I results. Prior hassles, with prior well-being partialled out, does not predict current well-being. However, current hassles, with prior well-being partialled out, does predict current well-being. Generally this effect is not large, with current hassles accounting for an additional 1 to 9% of current well-being variance, except in the case of negative affect for the mothers group where 18 to 20% of additional variance is accounted for. Finally, current hassles continue to predict current well-being after variance due to both prior well-being and prior hassles have been removed.

TABLE II

R²-change values for current well-being predicted by prior well-being, prior hassles, current hassles, and current hassles with prior hassles controlled, for both groups at the 3 and 6 month follow-ups

<i>Current well-being variable</i>	<i>N</i>	<i>Predictor</i>			
		<i>prior well-being</i>	<i>prior hassles</i>	<i>current hassles</i>	<i>current/prior hassles</i>
<i>Mothers Time 2</i>					
Life satisfaction	185	0.39***	0.00	0.03***	0.06***
Psychological well-being	186	0.52***	0.00	0.03***	0.06***
Psychological distress	188	0.43***	0.01	0.09***	0.13***
Positive affect	183	0.40***	0.00	0.05***	0.06***
Negative affect	185	0.31***	0.04***	0.20***	0.19***
<i>Mothers Time 3</i>					
Life satisfaction	178	0.31***	0.00	0.05***	0.07***
Psychological well-being	176	0.47***	0.00	0.05***	0.11***
Psychological distress	176	0.52***	0.00	0.08***	0.12***
Positive affect	177	0.43***	0.00	0.05***	0.07***
Negative affect	177	0.31***	0.04**	0.18***	0.16***
<i>Elderly Time 2</i>					
Life satisfaction	126	0.46***	0.00	0.04**	0.04**
Psychological well-being	108	0.75***	0.00	0.01*	0.02**
Psychological distress	111	0.63***	0.00	0.04***	0.05***
<i>Elderly Time 3</i>					
Life satisfaction	127	0.44***	0.02*	0.08***	0.06***
Psychological well-being	112	0.72***	0.00	0.02**	0.03***
Psychological distress	117	0.64***	0.01	0.06***	0.09***

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

Thus, we can conclude that although well-being exhibits substantial stability and is a good predictor of itself, additional variance in well-being levels can be explained by the level of chronic daily stressors experienced by an individual. Further, it appears that this influence is exerted only by *current* daily stressors, with stressors from an earlier time having little or no effect.

To examine the predictive utility of the dispositional influence, sense of coherence, on well-being we conducted another series of hierarchical multiple regression analyses with the same dependent variables as

previously. In these analyses, prior well-being was entered on the first step, followed by sense of coherence scores on the second step. R^2 -change scores from these analyses are presented in Table III, where the effects for prior well-being simply repeat the Table II results.

The findings demonstrate mixed results for sense of coherence as a predictor of current well-being with prior well-being partialled out. Sense of coherence explains very little or no additional variance in the MHI measures, psychological well-being or psychological distress, in either group or at either time. However, it does explain some additional variance for life satisfaction in both groups, and for positive affect and

TABLE III
 R^2 -change values for current well-being predicted by prior well-being and sense of coherence, for both groups at the 3 and 6 month follow-ups

<i>Current well-being variable</i>	<i>N</i>	<i>Predictor</i>	
		<i>prior well-being</i>	<i>sense of coherence</i>
<i>Mothers Time 2</i>			
Life satisfaction	182	0.38***	0.03**
Psychological well-being	173	0.52***	0.01
Psychological distress	174	0.43***	0.01
Positive affect	180	0.39***	0.05***
Negative affect	171	0.31***	0.11***
<i>Mothers Time 3</i>			
Life satisfaction	176	0.31***	0.06***
Psychological well-being	174	0.48***	0.02**
Psychological distress	174	0.52***	0.02*
Positive affect	175	0.43***	0.06***
Negative affect	175	0.32***	0.09***
<i>Elderly Time 2</i>			
Life satisfaction	125	0.46***	0.04***
Psychological well-being	108	0.75***	0.00
Psychological distress	111	0.63***	0.02*
<i>Elderly Time 3</i>			
Life satisfaction	126	0.44***	0.11***
Psychological well-being	112	0.72***	0.01
Psychological distress	117	0.64***	0.02*

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

negative affect in Mothers. These latter measures were not available for the Elderly group. As with current hassles, the additional variance accounted for by the dispositional measure is small, ranging from 2 to 11%. These two analyses, therefore, support previous findings (e.g. McNeil, Stones, and Kozma, 1986a) that the best predictor of well-being is itself.

To test this more directly, we conducted one further analysis. This examined which factor, prior well-being, the external influence of current stressors, or the internal influence of coherence, provided the major contribution to the prediction of current well-being. All three variables were entered simultaneously into a multiple regression analysis for each well-being variable at each follow-up time in turn. Beta weights from these analyses are presented in Table IV.

The results show that when all three influences are examined together, prior well-being is the best predictor of current well-being in almost every case. The exception is with negative affect for mothers where current hassles is the strongest predictor. Current hassles also emerges as a relatively strong predictor of the negative components of well-being, psychological distress and negative affect. Coherence, in this context, again provides mixed results. It has no significant association with the MHI variables, but higher levels of coherence are associated with higher life satisfaction and lower negative affect.

This analysis supports and extends the previous results by demonstrating that prior well-being is the best predictor of current well-being, with current hassles and coherence having lesser roles.

DISCUSSION

Results of the present study support previous findings indicating well-being to be stable. A range of well-being measures were included in the study, and all demonstrated substantial stability over the time periods involved. Further, the results replicate previous research (Costa *et al.*, 1987; McNeil *et al.*, 1986a) in demonstrating that prior well-being is a strong predictor of current well-being. These findings are confirmed for two groups differing substantially in social context and life stage, and argue for the stability of well-being regardless of changes in these factors.

TABLE IV
Beta weights for prior well-being, current hassles, and sense of coherence as predictors of current well-being for both groups at the 3 and 6 month follow-ups

<i>Current well-being variable</i>	<i>N</i>	<i>Predictor</i>		
		<i>prior well-being</i>	<i>current hassles</i>	<i>sense of coherence</i>
<i>Mothers Time 2</i>				
Life satisfaction	182	0.472***	-0.162*	0.137
Psychological well-being	184	0.605***	-0.186**	0.051
Psychological distress	185	0.434***	0.349***	-0.056
Positive affect	180	0.453***	-0.179**	0.185*
Negative affect	182	0.178***	0.444***	-0.275***
<i>Mothers Time 3</i>				
Life satisfaction	176	0.348***	-0.180**	0.226**
Psychological well-being	174	0.517***	-0.210***	0.118
Psychological distress	174	0.466***	0.324***	-0.111
Positive affect	175	0.465***	-0.154*	0.227**
Negative affect	175	0.227***	0.404***	-0.242***
<i>Elderly Time 2</i>				
Life satisfaction	125	0.483***	-0.124	0.247**
Psychological well-being	108	0.767***	-0.120*	0.048
Psychological distress	111	0.616***	0.194**	-0.131
<i>Elderly Time 3</i>				
Life satisfaction	126	0.369***	-0.190**	0.340***
Psychological well-being	112	0.675***	-0.165**	0.088
Psychological distress	117	0.604***	0.265***	-0.064

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

However, the results also demonstrate that well-being is susceptible to change in changing circumstances. Current levels of stressors were found to be an important influence on current levels of well-being. Previous longitudinal research examining the effects of situational change on well-being levels had found either no effects (Costa, McRae, and Zonderman, 1987) or limited effects on well-being (Atkinson, 1982; Ormel, 1983). In the present study, situational change was assessed from the perspective of minor daily events rather than major life events as in prior research. Minor events are more appropriate for

the brief time intervals involved here, and have been shown to be more sensitive than major events as indicators of life change (DeLongis *et al.*, 1982; Kanner *et al.*, 1981). The assessment of situational change from a major events perspective may be one of the reasons for the failure to find clear effects in previous research.

The focus on minor events provides evidence for the effects of situational factors on well-being levels, but also suggests that these effects are limited in duration. Our findings indicate that it is current situational change which influences well-being rather than change in the past. This may be because present life change is more proximal to the well-being estimation, and adaptation or adjustment to past change may have already occurred. Several researchers have suggested that adaptational processes are important influences on well-being levels (Brickman, Coates, and Janoff-Bulman, 1978; Diener, 1984), although the scope and duration of these processes have not been clearly established. The present study suggests that adaptation to situational factors may be relatively rapid, taking less than three months. These effects may also be quite general. The two groups involved in the present study report very different patterns of hassles (Chamberlain and Zika, 1990) but show similar results with respect to the influence of current and past hassles on their well-being.

Costa, McRae, and Zonderman (1987) proposed that any influence of situational effects would be limited in duration, magnitude, and scope. Our results support the first two of these limitations. Current stressors were the important situational influences on well-being levels, and the size of their influence was generally small. However, our results do not support the limitation in scope. Measures of well-being used here were chosen to be diverse and general, and current hassles were significant predictors of all well-being measures. Situational influences appear to impact on all aspects of well-being, and not just on specific or limited components of it.

Dispositional influences on well-being change were also considered in the present study, and we included a dispositional measure with a broad scope, sense of coherence (Antonovsky, 1983; 1987), to examine this issue. We expected that a construct with such a general orientation would show pervasive effects across the range of well-being components. However, with prior well-being controlled, coherence was

found to have a relatively small influence limited to some specific measures of well-being. This suggests that individuals with a strong sense of coherence may not be so influenced by situational change, and consequently have more stable levels of well-being. Dispositional effects at this level remain to be explored in more detail in future research.

Some have argued that well-being is itself best considered as a disposition (Stones and Kozma, 1986; McNeil *et al.*, 1986a) because of its high stability and strong links with other dispositions. However, this view of well-being is not supported here. The dispositional influences reported in the present data are generally less than the situational influences, and although well-being is stable, it is influenced by current situational change. This suggests that an adaptational model of well-being may be more appropriate. In such a model, well-being is stable in the absence of situational change, sensitive to change when it occurs, and adaptive to change occurring. Headey and Wearing (1988) have proposed a similar model to explain trends in their data. Considered from this perspective, assessing average or mean levels of well-being over long periods of time is likely to demonstrate very high levels of stability and little effects of situational change. The present study makes a start in examining the effects of change within a more detailed time-frame, so that adaptational effects can be examined. Further research exploring the duration of adaptational processes in well-being needs to be undertaken.

Finally, the present results, in demonstrating well-being measures to be stable but sensitive in detecting change, also support the view that such measures are appropriate and useful as outcome measures in research.

ACKNOWLEDGEMENT

This research was supported in part by a grant from the Social Sciences Research Fund. An earlier version of this paper was presented to the XXIV International Congress of Psychology, Sydney, Australia, September, 1988.

REFERENCES

- Andrews, F. M. and Withey, S. B.: 1976, *Social Indicators of Well-being: American's Perception of Life Quality* (Plenum Press, New York).
- Antonovsky, A.: 1979, *Health, Stress and Coping* (Jossey-Bass, San Francisco).
- Antonovsky, A.: 1983 'The sense of coherence: Development of a research instrument', Newsletter and Research Reports, W. S. Schwartz Research Centre for Behavioral Medicine, Tel Aviv University, Israel.
- Antonovsky, A.: 1985, *The Sense of Coherence Scale*. Unpublished documents, Ben-Gurion University, Israel.
- Antonovsky, A.: 1987, *Unraveling the Mystery of Health* (Jossey-bass, San Francisco).
- Atkinson, T.: 1982, 'The stability and validity of quality of life measures', *Social Indicators Research* 10, 113-132.
- Baur, P. and Okun, M.: 1983, 'Stability of life satisfaction in late life', *The Gerontologist* 23, 261-265.
- Brickman, P., Coates, D., and Janoff-Bulman, R.: 1978, 'Lottery winners and accident victims: Is happiness relative?', *Journal of Personality and Social Psychology* 36, 917-927.
- Campbell, A., Converse, P., and Rodgers, W.: 1976, *The Quality of American Life* (Sage, New York).
- Chamberlain, K.: 1988, 'On the structure of subjective well-being', *Social Indicators Research* 20, 581-604.
- Chamberlain, K. and Zika, S.: 1990, 'The minor events approach to stress: Support for the use of daily hassles', *British Journal of Psychology* 81, 469-481.
- Costa, P. T. and McCrae, R. R.: 1980, 'Influence of extraversion and neuroticism on subjective well-being: Happy and unhappy people', *Journal of Personality and Social Psychology* 38, 668-678.
- Costa, P. T., McCrae, R. R., and Norris, A. H.: 1981, 'Personal adjustment to aging: Longitudinal prediction from extraversion and neuroticism', *Journal of Gerontology* 36, 78-85.
- Costa, P. T., McCrae, R. R., and Zonderman, A. B.: 1987, 'Environmental and dispositional influences on well-being: Longitudinal follow-up of an American national sample', *British Journal of Psychology* 78, 299-306.
- Costa, P. T., Zonderman, A. B., McCrae, R. R., Cornoni-Huntley, J., Locke, B. Z., and Barbano, H. E.: 1987, 'Longitudinal analyses of psychological well-being in a national sample: Stability of mean levels', *Journal of Gerontology* 42, 50-55.
- DeLongis, A., Coyne, J. C., Dakof, G., Folkman, S., and Lazarus, R. S.: 1982, 'Relationship of daily hassles, uplifts, and major life events to health status', *Health Psychology* 1, 119-136.
- Diener, E.: 1984, 'Subjective well-being', *Psychological Bulletin* 95, 542-575.
- Dohrenwend, B. S., Dohrenwend, B. P., Dodson, M. and Shrout, P. E.: 1984, 'Symptoms, hassles, social supports, and life events: Problems of confounded measures', *Journal of Abnormal Psychology* 93, 222-230.
- George, L. K. and Maddox, G. L.: 1977, 'Subjective adaptation to loss of the work role: A longitudinal study', *Journal of Gerontology* 32, 456-462.
- Headey, B. and Wearing, A.: 1988, 'A stocks and flows model of subjective well-being', Paper presented to the XXIV International Congress of Psychology, Sydney, Australia.
- Kammann, R. and Flett, R.: 1983, 'Affectometer 2: A scale to measure current level of general happiness', *Australian Journal of Psychology* 35, 257-263.
- Kanner, A. D., Coyne, J. C., Schaefer, C., and Lazarus, R. S.: 1981, 'Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events', *Journal of Behavioral Medicine* 4, 1-39.

- Kozma, A. and Stones, M. J.: 1983, 'Predictors of happiness', *Journal of Gerontology* 38, 626—628.
- McNeil, J. K., Stones, M. J., and Kozma, A.: 1986a, 'Subjective well-being in later life: Issues concerning measurement and prediction', *Social Indicators Research* 18, 35—70.
- McNeil, J. K., Stones, M. J., and Kozma, A.: 1986b, 'Longitudinal variation in domain indicators of happiness', *Social Indicators Research* 18, 119—124.
- Ormel, J.: 1983, 'Neuroticism and well-being inventories: Measuring states or traits?', *Psychological Medicine* 13, 165—176.
- Palmore, E. and Kivett V.: 1977, 'Change in life satisfaction: A longitudinal study of persons aged 46—70', *Journal of Gerontology* 32, 311—316.
- Reker, G. T. and Wong, P. T.: 1984, 'Psychological and physical well-being in the elderly: The Perceived Well-Being scale (PWB)', *Canadian Journal on Aging* 3, 23—32.
- Stones, M. J. and Kozma, A.: 1986, 'Happiness and activities as propensities', *Journal of Gerontology* 41, 85—90.
- Viet, C. T. and Ware, J. E.: 1983, 'The structure of psychological distress and well-being in general populations', *Journal of Consulting and Clinical Psychology* 51, 730—742.

*Department of Psychology,
Massey University,
Palmerston North,
New Zealand*