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# The Long-Term Consequences of Relationship Formation for Subjective Well-Being

*This study examines how relationship transitions affect subjective well-being (SWB) and how this effect changes over time. We used prospective data containing information about 18 years of young adults' lives (PSIN, N = 5,514). SWB was measured with the Satisfaction with Life Scale. Within-person multilevel regression analyses showed that dating, unmarried cohabitation, and marriage had additional well-being enhancing effects. After entry into a union, well-being slowly decreased. A large SWB decrease was found after union dissolution, but through adaptation or repartnering well-being increased again. Well-being of never-married and never-cohabiting young adults decreased slowly over time. These effects were independent of parenthood and employment. Our results confirm expectations from the resources theory but contradict some assumptions of the set-point theory.*

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The consequences of intimate relationships for well-being have kept scientists busy for centuries. For instance, the Greek author Euripides voiced strong reservations about the positive effects of relationships when he wrote ''never say that marriage has more of joy than pain'' (*Alcestis*, 438 B.C.). On the other hand, numerous empirical studies have shown that—at least in contemporary societies—marriage and other romantic relationships do contribute to well-being (Waite & Gallagher, 2000; Wilson & Oswald, 2005). Apparently the joy of a relationship usually outweighs the pain. Most existing studies, however, examined *static* differences in well-being between people in different relationships rather than *dynamic* changes in well-being resulting from transitions in the relationship domain.

In this paper we further our understanding of this latter issue by examining (a) whether the transitions of entering and ending different types of relationships differentially influences individuals' level of subjective well-being (SWB), (b) whether individuals' level of SWB changes as their relationship develops over time, and (c) whether the potential effect of relationship transitions on individuals' SWB depends on transitions in other life domains. In doing so, our focus is on subjective well-being, that is, a general notion that refers to

the affective and cognitive evaluation of life (Diener, Suh, Lucas, & Smith, 1999).

First, much previous research compared the married to the never married, divorced, and widowed. The never-married group is, however, rather heterogeneous and includes people without a partner, people who are steady dating, and unmarried cohabitants. Unmarried cohabitation has become an important prelude to marriage and, for some, an alternative to marriage (Manning, Longmore, & Giordano, 2007), but existing studies on unmarried cohabitation and SWB show inconsistent results (Brown, 2000; Horwitz & White, 1998). Because there is no consensus about this issue, this study takes cohabitation into account when determining the effect of relationships on subjective well-being in young adulthood. Steady dating, a relationship type in which the partners are romantically involved but are not living together, is examined as well. It is an important relationship type, especially for young people (Collins, 2003). People who are dating might benefit from having a partner, even though they are not residing with this partner. By studying how individuals' SWB changes in response to the transition in and out of a steady dating relationship, unmarried cohabitation, or marriage, we can shed light on the question of which relational aspects enhance well-being. In the remainder of this study, the term *cohabitation* is used to refer to unmarried cohabitation, whereas the terms *union* and *living together* are used to refer to people who share a household with a partner, irrespective of whether they are legally married or not.

Second, it is important to assess whether gains in well-being after entry into a relationship are transient or stable. Only a few studies addressed this topic (Lucas & Clark, 2006; Zimmermann & Easterlin, 2006). They showed that well-being decreases after an initial increase in the years surrounding the wedding. Whether well-being ultimately returns to its premarital level remains unclear. In addition, most studies focused on the long-term effect of marriage only and did not examine long-term effects of cohabitation. Furthermore, these studies focused on first marriages and did not pay attention to effects of union dissolution and subsequent repartnering. This is unfortunate, as these latter events occur frequently and strongly influence people's well-being. In addition, it has been shown that the SWB effects of repartnering may differ from those of entering a first relationship (Booth & Edwards, 1992).

Finally, long-term changes in well-being cannot be properly examined without taking other life course factors into account. Therefore we used a life course perspective. This perspective focuses on successive transitions in which people move from one position to another (Elder, 1987; Hagestad & Neugarten, 1985). These transitions take place in all life domains, such as work and family, and are considered in combination with other events that happen to the individual or in society. Time and age effects are thereby taken into account (Settersten & Mayer, 1997). This is different from earlier studies that compared the SWB level of married individuals with their premarital SWB level. Such a comparison seems to be based on the assumption that their SWB would have remained stable over time if they had not entered into a relationship. This is questionable, however. The passing of time and the occurrence of transitions in other parallel life domains, such as parenthood and employment, may blur the effects of union transitions and need to be taken into account as well.

To examine these issues, data from five waves of the Panel Study on Social Integration in the Netherlands were used. This study contains detailed information about well-being and relationship careers during 18 years of young adults' lives (1987–2005). Before analyzing these data, the theoretical perspectives regarding relationships and well-being are discussed in more detail.

THEORY AND HYPOTHESES

*Transitions Into and Out of a Relationship*

Numerous studies have shown that married people fare better than unmarried people on various measures of SWB (Coombs, 1991; Stutzer & Frey, 2006; Waite & Gallagher, 2000; Wilson & Oswald, 2005). It has also been shown that the transition to marriage enhances well-being (Horwitz, White, & Howell-White, 1996). Other types of relationships, such as steady dating and unmarried cohabitation, are likely to enhance SWB as well (Kamp Dush & Amato, 2005). It is unclear, however, whether these other relationship types have the same benefits for well-being as marriage. Previous research has suggested that the well-being-enhancing effect of relationships increases as

the relational commitment of partners in an emotional, practical, and legal sense increases. Thus, people who entered a steady dating relationship were less happy than those who got married (Kamp Dush & Amato). With respect to cohabitation and marriage, differences are less clear. Some studies have reported that married people are less depressed than cohabitants, because of the larger stability of marriages (Brown, 2000). Yet other studies found no differences between these two union types (Horwitz & White, 1998; Mastekaasa, 2006).

There is more consensus about the effects of ending a union. Whether this is through divorce, separation, or widowhood, union dissolution has a large, long-term negative impact on well-being (Lucas, 2007). In addition, the consequences of starting new relationships might be different for people who have experienced a union dissolution. For instance, people who are still in their first marriage are happier (Kim & MacKenry, 2002) and less lonely (Peters & Liefbroer, 1997) than those who are remarried. This could be because of the lower marital quality of remarriages (Booth & Edwards, 1992). Moreover, the well-being-enhancing effect of entering a new partner relationship might not be enough to compensate for the negative experience of losing a partner and the financial and social consequences of the latter event (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001).

A large number of explanations for differences in well-being between people in different relationship types have been suggested (Waite & Gallagher, 2000; Wilson & Oswald, 2005). Because it is not our purpose to test specific mechanisms, we focus on a general explanation that encompasses and is compatible with many of these more specific arguments: the conservation of resources theory (Hobfoll, 1989; Soons & Liefbroer, 2008). Hobfoll (2002) defined resources as ''those entities that either are centrally valued in their own right . . . or act as means to obtain centrally valued ends'' (p. 307). They can be either material (e.g., income) or nonmaterial (e.g., social support). Resources enable or disable someone to fulfill physical and psychological needs (Diener & Fujita, 1995). Therefore, the loss of resources or the threat of losing them results in distress and, accordingly, in a lower level of well-being. The other way around, the more resources people acquire, and the more

possibilities they have to capitalize on them, the higher their sense of well-being.

Access to resources is related to romantic relationships because a partner provides resources that enhance SWB. When entering a relationship, the availability of resources, such as social support and companionship, increases (Wan, Jaccard, & Sharon, 1996). If people start living together, additional resources become available. For example, people who are coresiding pool resources and enjoy economies of scale, which reduces their costs of living (Waite & Gallagher, 2000). Marriage may elicit more additional resources than unmarried cohabitation. For example, married men have higher wages (Ahituv & Lerman, 2005). Married people may also have more social resources because marriage is supported by the legal system and diverse religions and therefore may elicit more status and support from the social network than cohabitation (Liefbroer & Fokkema, 2008; Thornton & Young-DeMarco, 2001).

Also the transition out of a relationship can be explained from a resources perspective. Union dissolution leads to a loss of important resources and, as a result, a decrease in SWB. Divorcees, for instance, lose many contacts in the first years after the separation, which they cannot renew (Terhell, Broese van Groenou, & Van Tilburg, 2004).

A related mechanism, through which changes in relationship statuses can influence well-being, is reduction of uncertainty. As mentioned, the resources theory assumes that the threat of losing resources decreases well-being. Therefore, people invest in preventing this loss. One way of doing so is by reducing uncertainty about the loss of resources (Greco & Roger, 2003). Actions that make the future more predictable reduce this uncertainty (Berger & Bradac, 1982). One of these actions could be entry into a (more) committed relationship. Solomon and Knobloch (2001) showed that uncertainty about the relationship decreases if intimacy and commitment increases. Therefore, it is likely that uncertainty is further reduced for cohabitants – who agreed on living together—than for steady daters, and uncertainly will be lower for married people than for cohabitants because the married have fewer conflicts (Brown, 2000) and the emotional, normative and legal barriers to breakup are larger (Bowman, 2004).

On the basis of these considerations, we hypothesize that the transition from single to

being in a relationship enhances individuals' SWB, that entry into a coresidential union has an additional well-being-enhancing effect, and that marriage will enhance the SWB level even further. Union dissolution will decrease well-being.

### Adaptation

The next question is how the level of SWB develops over time in and outside a relationship: Is the initial increase transient or stable? From a life course approach this is an important question, but little is yet known about the long-term effects of relationships.

One important model to describe long-term effects of life events is the set-point theory. This model assumes that people have a certain baseline level of well-being, the set point, determined by genes and stable personality factors (Suh, Diener, & Fujita, 1996). Only temporary changes in well-being would be possible because people quickly adapt to changes in circumstances, after which their level of well-being returns to their set point (Headey & Wearing, 1989). This decrease in well-being is called the adaptation effect. Adaptation is thought to be complete and to take place within months.

The resources theory also offers some arguments for a potential gradual decline in SWB after entry into a union. Resources that have been acquired by entering a relationship could become less valuable over time because people get used to their availability (similar to the prospect theory of Kahneman & Tversky, 1979). It is therefore suggested that the gain and loss of resources is more important for changes in well-being than the actual level of resources (Freund & Riediger, 2001). This implies that people compare their current level of resources to their past level, which acts as a kind of reference level. If the current level is higher than the reference level, SWB increases; if the current level is lower than the reference level, SWB decreases (Frederick & Loewenstein, 1999). After people have gained resources as a result of entering a (more committed) relationship, this also leads to an increase in their reference level, and, accordingly, the comparative value of the attained resources decreases. A decline in well-being after the relationship transition could be the result of this process.

At the same time, the resources theory offers several reasons why well-being will not completely return to a set point. First, partner-related resources can be expressed in manifold ways, which reduces the likelihood of habituation to a specific resource (Hobfoll, 2002). For instance, a partner can provide the resource social support by listening or having shared pastimes. Second, new situations may arise in which resources are needed and thus valued. Young adults with a partner keep the advantage in these situations of having an important resource provider and are thus benefited over single people. Third, according to the downward comparison theory of Wills (1981), people with a partner may make downward comparisons when meeting single people, which makes them more satisfied with their own situation. Finally, a partner is a unique resource provider, who cannot be replaced easily by other people.

The empirical evidence on the occurrence of adaptation after entering a union is inconsistent. Lucas, Clark, Georgellis, and Diener (2003) examined adaptation after marriage, using 15 waves of the German Socio-Economic Panel Study. Lucas and Clark (2006) replicated this study using 21 waves. Both studies found that the level of global happiness increased in the years surrounding the wedding but returned completely to the premarital baseline level afterward. They considered this to be a confirmation of the set-point theory. By contrast, Zimmermann and Easterlin (2006), who used the same sample, found that SWB decreased after people got married, but that it remained *higher* than in the phase before marriage (although their effect sizes did not differ much from those reported by Lucas et al.). They concluded that marriage can have permanent well-being-enhancing effects, despite the adaptation process. Zimmermann and Easterlin ascribed the difference between their results and those of Lucas et al. to the inclusion of control variables such as age, employment, education, and religiosity. A drawback of these studies is that they used the same data set. Other longitudinal data are therefore needed to shed new light on these contradictory conclusions.

Adaptation will probably occur not only after entrance into a union but also after union dissolution. People might adapt to the loss of resources by lowering their reference level and by comparing themselves with people who are in

even worse circumstances (Wills, 1981). They can try to attach less value to the resources received from their ex-partner and more value to other resources (Heckhausen & Schulz, 1995). Nevertheless, this implies a long and tedious process instead of the quick adaptation that the set-point theory proposes.

Most longitudinal studies on the consequences of union formation, marriage in particular, compare levels of SWB after marriage to levels of SWB in the premarital phase (Lucas et al., 2003; Zimmermann & Easterlin, 2006). This comparison seems to be based on the assumption that the passing of time would not have changed the SWB level of these people had they stayed unmarried. Nevertheless, there are several reasons why the level of SWB of people who are not in a union may decrease as their period of living alone extends.

First, almost all people wish to be in a committed relationship (Lelkes, 2008). Failing to reach this desirable goal could affect their self-esteem negatively (Brase & Guy, 2004), which in turn may decrease SWB (Wrosch & Heckhausen, 1999). Second, as young adults grow older, most of their age mates will be in a union and spend much time with their partner and less time with other friends (Kalmijn, 2003). Especially, interaction between the married and people who are not in a union becomes less frequent (Kalmijn & Vermunt, 2007). As a result, those remaining outside a union are likely to feel lonelier.

To conclude, we expect an adaptation effect after relationship formation and dissolution; as a result the initial increase or decrease in well-being will be partly annulled. It is expected that there is no full return to a set point after entrance to a union, but that cohabitation and marriage both have a long-term effect on subjective well-being. Finally, we expect a negative effect on well-being of the duration of the period outside a union.

### Concurrent Transitions

In analyzing the long-term link between relationship transitions and SWB, it is also important to pay attention to transitions in parallel life domains. Two transitions in particular are important to consider: parenthood and employment. First, parenthood should be taken into account because most children are born to married or cohabiting couples (Bumpass & Lu, 2000). The

effect of becoming a parent on well-being is not completely clear, but there are indications that the transition to parenthood has well-being benefits for the married, but not for unmarried people (Nomaguchi & Milkie, 2003; Woo & Raley, 2005).

The second transition is employment. One of the benefits of entering a union is the increase in financial resources. This increase might be more important for unemployed people, who have only limited financial resources. As a result, among the unemployed union formation could lead to a larger enhancement in SWB than among the employed. To take concurrent life course transitions into account, parenthood and employment are included in the analytic model as control variables, and interactions with union formation variables are explored.

### Gender

We expect that our hypotheses apply to both men and women. In the literature, however, there is an ongoing debate about gender differences in the effects of marriage on well-being. Gove (1972) assumed that unmarried women would be happier than unmarried men because they receive more social support from friends and family (Carbery & Buhrmester, 1998), whereas men tend to rely more on their partner for this. Moreover, women would benefit less from marriage because they have to manage the role of housewife and employee at the same time (Hochschild & Machung, 1998), whereas men still are mainly breadwinners. On the other hand, for the same reason, that men's income is higher, women might gain more from material resources that their partner provides (Oppenheimer, 2000).

Results from studies on gender differences show an inconsistent picture. Some studies report small gender differences: Unmarried women were better off than unmarried men, but married men were better off than married women, with respect to psychological well-being (Marks, 1996), life satisfaction (Chipperfield & Havens, 2001), and alcohol abuse (Marcussen, 2005). In other recent studies, however, no gender differences were found (Kamp Dush & Amato, 2005; Lucas & Clark, 2006; Simon, 2002; Strohschein, McDonough, Monette, & Shao, 2005; Waite & Gallagher, 2000). Given this inconsistency in the literature, we paid explicit attention to gender differences in our empirical analyses.

## METHOD

### Panel Study on Social Integration in the Netherlands

The data used in this study come from the Panel Study on Social Integration in the Netherlands (PSIN; Liefbroer & Kalmijn, 1997). In six waves (1987, 1989, 1991, 1995, 1999, and 2005) of information were gathered through face-to-face interviews, telephone interviews, and mail questionnaires about respondents' experiences with and attitudes toward education, employment, relationships, and parenthood. The second wave contains no information about well-being and was therefore not used in this study. The respondents were born in 1961, 1965, or 1969, and they were 18 – 26 years old at the start of the study. In the first wave 63% ($N = 1,775$) of the approached young adults participated. They were representative of the Dutch population of young adults in 1987, except that married young adults born in 1969 and 1965, young adults living in cities, and young adults with a non-Dutch origin were slightly underrepresented in the original sample (Liefbroer & Kalmijn). In Wave 3, 1,257 respondents participated (70.9% of the original sample), in Wave 4, 54.2% of the original sample participated. In Wave 5, the participation rate was 47.1%, and in Wave 6, 43.4% of the original sample continued with the study. The most important cause of attrition was change of address. Many young adults were students in the first years of the panel study and moved several times without leaving new addresses. This explains why there is less attrition in the later waves. For more information about the data, see Dijkstra (1993) and Liefbroer and Kalmijn.

To assess the potential selectivity bias that could result from this attrition, we conducted a series of analyses of variance (ANOVAs) that compared respondents who dropped out to respondents who did not drop out. To control for composition differences that affect well-being, we controlled for current relationship status, past union dissolution, employment, and parenthood. The tests showed that attrition caused no selection on well-being in all waves but one: Young adults dropping out in Wave 4 were slightly unhappier than those who did not.

Each person participated in at least one and at most five waves; thus there were one to five observations per person. About two thirds of the respondents participated at least three times. Those who had a missing score on life satisfaction or on relationship status were excluded (98 observations) This resulted in a final sample of 5,526 observations: 1,749 observations in the first wave, 1,252 in the third wave, 936 in Wave 4, 830 in Wave 5, and 759 in the sixth wave.

### Measurement

*Well-being.* Subjective well-being was measured with a widely used scale with good psychometric properties: The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). The four items used were (a) ''In most ways my life is close to my ideal,'' (b) ''The conditions of my life are excellent,'' (c) ''I am satisfied with my life,'' and (d) ''So far I have gotten the important things I want in life.'' Respondents could indicate their agreement on a scale running from 1 (*strongly disagree*) to 7 (*strongly agree*). It is a highly reliable scale; Cronbach's $\alpha$ was .83 in the first wave (1987) and in the following waves .85 (1991), .89 (1995), .86 (1999), and .91 (2005). See Table 1 for the descriptives of this variable.

*Relationship status.* Relationship status was determined with several questions about the start, finish, and type of relationships respondents had been involved in. Using these questions, we constructed three dummy variables that measured, separately for each panel wave, the current relationship status and one that measured past relationship status. All variables were coded $0 = no$ and $1 = yes$. Scores were thus time varying: For example, if the respondent experienced a union dissolution between Waves 3 and 4, this respondent was assigned a score of 0 in Wave 3 and 1 in Wave 4.

For the current relationship status we used a cumulative coding scheme rather than the conventional dummy coding scheme because it allowed us to assess the change in well-being by a change in relationship status. The interpretation of this scheme is explained in more detail in the section on analytical strategy. The first variable, *having a partner*, indicated whether the respondent currently had a partner. The second variable, *being in union*, referred to whether the respondent was in a union: unmarried cohabitation or marriage. The variable *married* indicated whether the respondent was legally married at the time of measurement. Fourth,

Table 1. *Descriptives of Dependent and Independent Variables by Relationship Status*

| Variables | | Single | Dating | Cohabiting | Married | Total |
|---|---|---|---|---|---|---|
| *n* | | 1,250 | 867 | 961 | 2,436 | 5,514 |
| Duration in union | *M* | n.a. | n.a. | 3.77 | 9.65 | 7.98 |
| (in years) | (*SD*) | | | (4.11) | (5.87) | (6.04) |
| Duration outside union | *M* | 5.26 | 4.64 | n.a | n.a. | 5.01 |
| (in years) | (*SD*) | (5.32) | (3.89) | | | (4.80) |
| Past union dissolution | % yes | 14.2 | 11.2 | 21.0 | 6.8 | 11.6 |
| Parenthood | % parent | 5.0 | 3.7 | 18.0 | 72.0 | 36.7 |
| Employed | % yes | 51.6 | 55.7 | 83.7 | 74.8 | 68.1 |
| Gender | % men | 58.6 | 51.8 | 48.4 | 40.5 | 47.7 |
| Age (in years) | *M* | 24.8 | 23.8 | 29.2 | 33.0 | 29.0 |
| | (*SD*) | (6.4) | (5.2) | (5.9) | (5.9) | (7.1) |

*Note:* n.a. = not applicable.

the variable *past union dissolution* measured whether the respondent had experienced a union dissolution in the past; this could be the dissolution of either an unmarried cohabitation or a marriage.

*Duration variables.* To measure duration effects, two variables were constructed. First, to measure the adaptation effect, we constructed the variable *duration in a union* by subtracting the month in which the respondent entered a union from the month of interview. Respondents who were not in a union were recoded to 0. A similar variable was constructed for the duration of marriage, but because of the high correlation ($r = .91$) between these two duration variables, only the variable *duration in a union* was included in the statistical models. The data did not allow the calculation of the duration of dating relationships because not all starting and ending dates of dating relationships were available.

Second, to examine change in well-being among respondents who were not in a union, the variable *duration outside a union* was constructed. If the respondent did not live together with a partner and had experienced a union dissolution, this variable measured the number of months since the end of the last union. If the respondent was not in a union and had not been in one before, the month in which the respondent turned 18 years was taken as starting point. Respondents who were in a union were coded 0.

*Life course variables.* The life course transition variables *parenthood* and *employment* were modeled as time-varying dummies, similar to the relationship status variables. For parenthood, 1 indicated that the respondent had at least one biological child; 0 indicated that the respondent did not have any biological children yet. The score of the variable employment indicated whether the respondent had a paid job (1) or not (0). To exclude side jobs, the score 0 was also given to all respondents who were in full-time education.

In Table 1 mean scores and the distribution of the dependent and independent variables are displayed per relationship status and for the total sample.

## Analytical Strategy

We used multilevel regression analysis, also known as hierarchical linear modeling, to test our hypotheses. This method takes the nested structure of the data, multiple measurements within persons, into account (Hox, 2002). In this situation, using standard ordinary least squares regression would give biased results because the observations are not independent: The measurements of the respondents are correlated. Advantages of the multilevel design are (a) that the multiple-wave structure of the data is fully utilized, despite the fact that not everyone participated in every wave, and (b) that it implicitly controls for unmeasured heterogeneity in the data.

To test our hypotheses, we estimated several multilevel regression models. An important characteristic of our study is that we only examine within-person change in SWB, whereby respondents are compared to their own average satisfaction. This type of model is called a

fixed-effects model and has the advantage that selection effects resulting from stable individual characteristics are excluded. We measure the effect on well-being of making the transition from one relationship status to another status. The formula shows that the fixed-effects model is the total multilevel model minus the between-person effects model. In this formula $Y_{ij}$ is the SWB score for person $j$ in Wave $i$. $\overline{Y}_{.j}$ is the average SWB score for person $j$.

$$Y_{ij} - \overline{Y}_{.j} = b_{partner} \left( x_{partner\,ij} - \overline{x}_{partner.j} \right)$$
$$+ b_{union} \left( x_{union\,ij} - \overline{x}_{union.j} \right)$$
$$+ b_{married} \left( x_{married\,ij} - \overline{x}_{married.j} \right)$$
$$+ b_{duration\text{-}in\text{-}union} \left( x_{duration\text{-}in\text{-}union\,ij} - \overline{x}_{duration\text{-}in\text{-}union.j} \right)$$
$$+ b_{duration\text{-}out\text{-}union} \left( x_{duration\text{-}out\text{-}union\,ij} - \overline{x}_{duration\text{-}out\text{-}union.j} \right)$$
$$+ \left( \sum b_{lifecoursevar} \left( x_{lifecoursevar} - \overline{x}_{lifecoursevar.j} \right) \right)$$
$$+ \varepsilon_{ij} + \overline{\varepsilon}_{.j}.$$

(adapted from Rabe-Hesketh & Skrondal, 2008).

We used a nested modeling approach. In Model 1 the effect of marriage is considered. Past union dissolution is controlled for. This first model resembles the models in previous research, where married and unmarried people are compared. In Model 2, we added the relationship status being in union. Because of the cumulative coding scheme, the relationship status coefficients should be summed to determine the effect of a specific relationship status on life satisfaction. This implies that, for instance, the total effect of marriage is calculated by adding the effects for the variables being in union and being married. Likewise, if $b_{married}$ is .5, this implies that the move from cohabitation to marriage results in a .5-point increase in life satisfaction. The intercept in this model indicates the average level of satisfaction for a young adult who is living without a partner. In Model 3, the relationship status having a partner is added. Again, the cumulative coding system is used. To estimate the difference in well-being between young adults without a partner and married young adults, the effects of having a partner, being in union, and marriage should be added up. The effect of cohabitation is found by adding the coefficients of having a partner and being in union. In Model 4, the duration variables are added:

duration outside a union and duration in a union. We added the life course variables parenthood and employment in Model 5 to see whether the occurrence of transitions in other life domains affects the relationship effects on well-being. In the final model, Model 6, significant interactions between the duration and life course variables and the relationship transitions are added.

To examine the assumptions of the set-point theory about a full return to the level of well-being people had before starting living together, $F$ tests were performed, using the coefficients of Model 5. To test whether there is a full return in $t$ years, an $F$ test was performed on the equation $b_{union} - (t \times b_{duration\text{-}in\text{-}union}) = 0$.

With this equation the difference between the initial effect of being in a union ($b_{union}$) and the adaptation effect ($b_{duration\text{-}in\text{-}union}$) in a certain period is calculated. If the outcome of this equation is significantly below 0, the positive effect of being in a union is smaller than the negative adaptation effect after $t$ years, which implies that well-being has returned to the preunion level after $t$ years or less. If the outcome is greater than 0 at time $t$, the benefits of being in a union are larger at time $t$ than the adaptation effect at that point of time. We calculated this test for several values of $t$, ranging from 1 to 20. To test the long-term effects of marriage the same tests are conducted, but with the effect of being married added to the effect of being in a union: $(b_{union} + b_{marriage}) - (t \times b_{duration\text{-}in\text{-}union}) = 0$.

Finally, we performed three additional analyses. First, as was mentioned in the Method section, age and duration effects are difficult to distinguish. Because of the high correlation between them ($r = .74$), we decided not to include age in the multilevel models. To examine whether adding age changed the results, we reran the final model with age added to the model. Second, to ascertain whether the effect of marriage on SWB differed for respondents who married directly and respondents who married after having cohabited beforehand, a model was conducted with a dummy variable cohabiting before marriage ($1 = yes$) included. In addition, the mean SWB levels of these groups were compared with a $t$ test. Third, to check for gender differences, we reran all models with all interactions of the predictor variables and gender.

RESULTS

*Descriptive Results*

In Table 1 descriptives are presented of the different current relationship statuses. The average time since entry into a union was 8.0 years: 3.8 years for cohabiting people and 9.6 years for married people. What is worth noticing is that the percentage of respondents who experienced a union dissolution was much higher among the cohabitants (21%) than among the married (6.8%). Furthermore, the percentage of parents was much higher among the married (71.9%) than among the other groups, although also one in five cohabitants was a parent. Respondents who were dating or single were quite similar with respect to the descriptive variables.

Our first hypothesis was concerned with differences in the level of well-being of people who were single, dating, cohabiting, and married. To get a first impression of these differences, we present the SWB means by relationship status and wave in Table 2. In this table, we also present the proportion of respondents in each relationship status by wave. As becomes clear from this table, respondents with a partner had a higher level of well-being than respondents without a partner. Respondents who were dating steadily had an average score of 5.28 on a 1−7-point range. This was 0.29 points higher than the average level of singles (4.99). Cohabiting (5.55) and married (5.70) respondents had

a higher level of well-being than single and dating respondents. When contrasting the married and the singles, there was a difference of 0.71 points, which amounts to about two thirds of one standard deviation in well-being (1.11)—a substantial difference. This pattern of increasing well-being with increasing commitment in the relationship could be seen in all waves. The only exceptions were dating respondents in Wave 6; they had a lower level of well-being than the singles, but in this wave both groups had become rather small (35 and 79 respondents).

*Results From Multilevel Regression Models*

The results of the multilevel within-person regression analyses are shown in Table 3. Model 1 confirms previous research by showing that married people had a higher SWB level ($b = .35$) than unmarried people, controlling for past union dissolution. This was an effect size of .32 ($b/SD(Y)$): A small to moderate effect (Rosenthal, Rosnow, & Rubin, 2000). Past union dissolution had a negative effect on well-being ($-.26$).

In Model 2 the relationship status being in a union was added. As a result, the reference category changed from unmarried respondents to respondents who did not live with a partner. Respondents who started cohabiting had a large increase in well-being ($b = .42$). The coefficient of marriage decreased to .09, which implied that being in a union—irrespective of whether this

Table 2. *Mean Well-Being Scores (1 – 7) by Wave and Relationship Status (N = 5,514)*

| | Relationship Status | | | | | | | | | |
| | Single | | Dating | | Cohabiting | | Married | | Total | |
| | M | % | M | % | M | % | M | % | M | % |
| | (SD) | | (SD) | | (SD) | | (SD) | | (SD) | |
| 1 | 5.07 | 37.9 | 5.38 | 27.6 | 5.51 | 13.6 | 5.70 | 21.0 | 5.35 | 100 |
| | (1.15) | | (1.10) | | (1.11) | | (1.11) | | (1.15) | |
| 3 | 4.98 | 22.0 | 5.29 | 19.1 | 5.65 | 19.5 | 5.75 | 39.5 | 5.48 | 100 |
| | (1.17) | | (.99) | | (1.02) | | (.94) | | (1.07) | |
| 4 | 4.85 | 15.8 | 5.16 | 9.4 | 5.51 | 19.9 | 5.73 | 54.8 | 5.49 | 100 |
| | (1.27) | | (.97) | | (.93) | | (1.05) | | (1.11) | |
| 5 | 5.07 | 10.3 | 5.07 | 2.9 | 5.56 | 19.8 | 5.76 | 67.0 | 5.63 | 100 |
| | (1.15) | | (1.14) | | (1.05) | | (.96) | | (1.03) | |
| 6 | 4.55 | 10.5 | 4.33 | 4.6 | 5.45 | 17.5 | 5.55 | 67.5 | 5.37 | 100 |
| | (1.28) | | (1.05) | | (1.05) | | (1.02) | | (1.12) | |
| Total | 4.99 | 22.7 | 5.28 | 15.7 | 5.55 | 17.4 | 5.70 | 44.2 | 5.45 | 100 |
| | (1.18) | | (1.08) | | (1.03) | | (1.01) | | (1.11) | |

Table 3. *Estimated Unstandardized Multilevel Regression Models Measuring Within-Person Effects on Well-Being (1 – 7) (N = 5,514)*

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *b* | *SE* | *b* | *SE* | *b* | *SE* | *b* | *SE* | *b* | *SE* | *b* | *SE* |
| Relationship status | | | | | | | | | | | | |
| Partner | | | | | .24*** | (.05) | .23*** | (.05) | .23*** | (.05) | .21*** | (.05) |
| Union | | | .42*** | (.04) | .30*** | (.05) | .35*** | (.06) | .31*** | (.06) | .17** | (.06) |
| Married | .35*** | (.04) | .09† | (.05) | .10* | (.05) | .23*** | (.05) | .20*** | (.05) | .18*** | (.05) |
| Past union dissolution | −.26*** | (.06) | −.28*** | (.06) | −.25*** | (.06) | −.25*** | (.06) | −.31*** | (.06) | −.61*** | (.11) |
| Time variables (in years) | | | | | | | | | | | | |
| Duration in union | | | | | | | −.02*** | (.00) | −.03*** | (.00) | −.03*** | (.00) |
| Duration outside union | | | | | | | .00 | (.01) | −.00 | (.01) | −.01* | (.01) |
| Life course variables | | | | | | | | | | | | |
| Parenthood | | | | | | | | | .13** | (.05) | −.52*** | (.14) |
| Employment | | | | | | | | | .09* | (.04) | .12*** | (.04) |
| Interaction variables | | | | | | | | | | | | |
| Union × Union Dissolution | | | | | | | | | | | .50*** | (.12) |
| Union × Parenthood | | | | | | | | | | | .71*** | (.15) |
| Duration Outside Union × Union Dissolution | | | | | | | | | | | .09*** | (.02) |
| Constant | 5.32*** | (.02) | 5.18*** | (.03) | 5.07*** | (.04) | 5.08*** | (.04) | 5.05*** | (.04) | 5.15*** | (.05) |
| $R^2$ within | .027 | | .050 | | .055 | | .067 | | .070 | | .085 | |
| P | .53 | | .53 | | .53 | | .54 | | .54 | | .54 | |

† $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

was married or unmarried—is more important for one's well-being than the (f)act of marriage itself.

In Model 3, the relationship type steady dating was also distinguished. Respondents who entered a dating relationship had on average a predicted well-being level that was 0.24 higher on the $1-7$ scale than when they were single. Entry into cohabitation led to an additional 0.30 increase in well-being. Young adults who entered marriage were on average $0.64(0.24 + 0.30 + 0.10)$ happier than singles. It can be concluded that every step in the relational career significantly enhanced well-being, which confirms our expectations. Entering a union was the transition with the largest contribution to well-being.

In Model 4 (Table 3) the time variables duration in a union and duration outside a union were added. According to this model, during the period that someone was not in a union, well-being did not change. Duration in a union had a significant negative effect ($-0.02$ per year), which suggested that there was an adaptation effect. When these duration variables were added to the model, the coefficient of marriage increased from .10 to .23. This suggests that the adaptation effect partly suppressed the well-being enhancing effect of marriage.

In Model 5, we included the life course variables parenthood and employment. As the model shows, parenthood and employment transitions were both associated with an increasing average SWB level of, respectively, 0.13 and 0.09, small effects compared to the overall effect of the relationship transitions. The effects of the other variables did not change.

In additional $F$ tests, using the coefficients of Model 5, it was estimated after how many years the level of well-being would have returned to the level the young adult had before entering the union, other things remaining equal. This was another test of the set-point theory. We compared whether the predicted decrease in well-being as a result of the adaptation effect after a certain number of years was significantly different from the increase in well-being that resulted from the transition into cohabitation or marriage, assuming that this linear model was correct. Our calculations showed that after approximately 8 years of cohabitation, SWB had once again reached the level of well-being people had when they were dating. For married respondents, it turned out that it took about 14 years before the SWB level returned to this preunion level. These

figures suggest that adaptation took place but at a much slower pace than assumed in the set-point theory.

Finally, for Model 6 (Table 3) we tested all interactions between the variables included in Model 5. The significant interactions between being in a union and parenthood, being in a union and past union dissolution, and duration outside a union and past union dissolution were added to the model. After people had experienced a union dissolution, they scored on average 0.61 lower on the well-being measure than before they had this experience. Nevertheless, young adults slowly adapted to this new situation, as the increase in SWB with 0.09 per year attests. If they reentered a union, the negative effect of union dissolution largely disappeared. This confirmed our expectations. In this model, the negative effect of duration out of a union became statistically significant as well, implying that the SWB level of young adults who had never been in a union decreased over time compared to separated and divorced young adults. This might suggest that living without a partner is related to decreasing well-being for those who do not make the normative transition into cohabitation or marriage. This is in contrast with the set-point theory.

The significant interaction effect of parenthood and being in a union showed that becoming a parent made people less happy ($b = -.52$) if they were not living together with a partner. By contrast, for those who were in a union, parenthood was a pleasant event: SWB scores increased 0.19 on average.

The relationship effects are illustrated in Figure 1. In this figure, the relationship careers of three fictitious young adults are drawn. Their level of well-being in certain phases of their relationship career is estimated with a model that includes all relationship variables and the interactions Past Union Dissolution × Duration Outside a Union and Past Union Dissolution × Being in a Union. In this model other life course variables are not included. The thick black line shows a young adult who is single at age 18 and starts dating steadily at age 20. Two years later this person starts cohabiting. At age 25 the person gets married with the same partner, and this situation lasts at least until the age of 44. It can be seen that well-being increases when the person starts dating, cohabiting, and gets married. After entry into cohabitation and marriage well-being slowly decreases; this results in a lower level of

FIGURE 1. PREDICTED LIFE SATISFACTION OF YOUNG ADULTS WITH THREE FICTITIOUS RELATIONSHIP CAREERS.
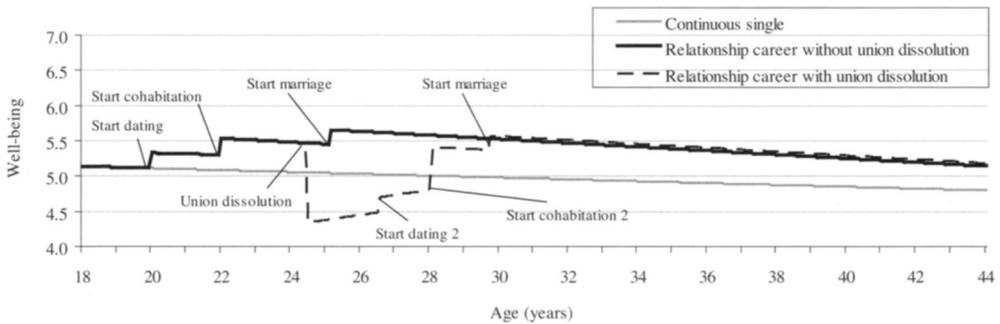


well-being in the long term as a result of adaptation.

The dotted line is the well-being curve of someone who is single at age 18, starts dating, and then enters a union. This union is dissolved after some years, resulting in a sharp drop in well-being. Afterward, well-being slowly rises, but only after the person starts a new relationship does well-being increase substantially.

The gray line shows a young adult who remains single for the entire period. The well-being of this person decreases slowly and remains below that of the thick black line, suggesting that—even though there is a decline in well-being among the married—the level of well-being of someone who experiences marriage remains higher than would have been the case if this person had not entered into a union.

### Additional Analyses

Given the high correlation between age and duration in a union, it is hard to disentangle both effects. In most previous studies, age was included, but no duration variables. In our models, the opposite choice was made because of our interest in long-term effects on well-being. To check whether our duration effects remained important even if age is included as well, we reran Model 6 with the variable age added. The results (available from the authors on request) show that the adaptation effect remained the same. Age had no significant effect. The main effect of duration out of a union became statistically insignificant, but the interaction with past union dissolution did not change.

Because we suspected that some other predictors could be highly correlated as well,

we checked for multicollinearity by calculating the variance inflation factors. It turned out that the variable parenthood and its interaction with being in a union were highly correlated with each other. To examine whether this influenced our results, we conducted separate analyses for people who were and were not in a union, but our conclusions did not change.

Another issue is whether the marriage bonus in well-being differs between those who marry after prior cohabitation and those who marry straightaway. An additional model with a dummy variable that indicated whether people cohabited before their marriage and a $t$ test (results also available on request) showed that respondents who married directly and respondents who married after cohabitation had similar levels of well-being.

A final issue we paid attention to is whether there were gender differences. We reran all models with the interactions of the predictors and gender added one by one (results available on request from the authors). Our findings did not vary by gender, with one exception: There was a small positive interaction effect ($b = .08$, $p = .028$) of Duration Outside a Union × Male × Union Dissolution. This interaction shows that after experiencing a union dissolution, the well-being level of men who were living without a partner increased at a more rapid pace than that of women who were in the same situation.

### DISCUSSION

This paper examined the long-term consequences of romantic relationships for the subjective well-being of young adults from a life course perspective. We focused on three aspects: the consequences for well-being of making the

transition into and out of steady dating, unmarried cohabitation, and marriage; the long-term effects of the time spent in or out of a union; and the role of transitions in parallel life domains.

First, on the basis of the conservation of resources theory and the mechanism of uncertainty reduction, we assumed that every transition toward a more committed relationship status would additionally increase the availability of resources and reduce uncertainty, which results in an increase in SWB. The other way around, union dissolution was expected to elicit a decrease in SWB because of the loss of resources. The results of the within-person multilevel regression models confirm that steady dating, cohabitation, and marriage indeed have separate effects on well-being. Young adults who enter a relationship become happier, even if they do not live with this partner. This relationship type, steady dating, is often neglected in research among adults, but this study shows the importance for well-being of young adults, which confirms earlier research (Collins, 2003). SWB further increases if young adults enter a union with a partner and again if they marry. These effects cannot be explained by selection on individual time-invariant characteristics or on well-being because we modeled temporal changes within individuals.

Our findings are in line with previous studies about marriage effects. Nevertheless, the additional effects of dating, cohabiting, and marriage show that the often used distinction between married and unmarried people does not do justice to the heterogeneity among the unmarried. The cumulative effects show that cohabitants' well-being level is in between that of married young adults and those who are not in a union, but they resemble the married more.

Compared to some earlier studies, the effect sizes that we observe are relatively large (Haring-Hidore, Stock, Okun, & Witter, 1985; Lucas & Dyrenforth, 2005). Several explanations can be put forward for this difference in effect sizes. First, in our study married people are compared to singles without a partner, whereas in other studies SWB of married young adults is compared to that of the unmarried group that consists also of people who are dating or cohabiting and who are happier than single people on average. Second, we focus on changes within persons rather than on differences between persons, which has not often been done before. Earlier findings of Lucas

et al. (2003) show that within-person changes tend to be larger than between-person changes. Third, we used a four-item measurement of life satisfaction to measure subjective well-being. There are some indications that people respond more firmly on questions about positive moods, such as life satisfaction, than on questions about negative moods, such as depression (Marcussen, 2005). In addition, using a four-item scale results in a smaller amount of random error, which make the score more reliable than when only one item is used. Finally, because we measured the time spent in a union, the coefficient of marriage indicates the well-being enhancing effect at the start of the marriage. In other studies the level of well-being of married people often indicates the average of recently married people and those who are married for many years. Because of adaptation, this average well-being level is lower than the level at the start.

A second topic we addressed was the long-term consequence of unions for well-being. An adaptation hypothesis was formulated combining the set-point theory and the resources theory. We expected a long-term decline in well-being for people who are cohabiting or married, but without a complete return to a baseline level of well-being. We found that adaptation does take place but that it takes about a decade before SWB has returned to the level of before entry into a union. This is a long period; therefore we regard this as negative evidence for the set-point theory because this theory assumes a quick return to a fixed set point. In addition, we found that young adults who have never been in a union become slightly unhappier over time. As a result, even though married young adults might become somewhat less happy during their marriage, they still remain happier than they would have been had they remained outside a union. This is an additional reason to question the set-point theory. After all, the underlying assumption of this theory is the stable set point: The SWB level should not change if no transition takes place. When time is included in the analyses, however, it appears that there is no stable set point. Assuming a stable baseline, as Lucas and Clark (2006) and Zimmermann and Easterlin (2006) have done, might therefore not be sufficient to assess the long-term impact of relationships. Furthermore, well-being is, apparently, not solely determined by personality and genes, as the original set-point

theory assumes. Life events in the relationship domain have a large effect too.

Our results also shed light on the debate about the development of marital satisfaction. Some researchers state that marital satisfaction shows a U-curve that decreases in the first years of marriage but increases in later years. Other researchers conclude that it declines linearly but might stabilize in the end (Vaillant & Vaillant, 1993; VanLaningham, Johnson, & Amato, 2001). Regardless of the shape of the curve, this research suggests that a decline of relationship satisfaction in the first years of marriage and cohabitation is likely. This declining relationship satisfaction may be an important explanation for the adaptation effect, for it is closely related to overall well-being (Easterlin, 2006). Unfortunately, it was not possible to include relationship quality in this study because it was not measured with the same questions in each wave.

Our third aim was to consider relationships from a life course perspective. The transition to parenthood did not change the effects of relationship status or union duration. Becoming a parent, however, increases well-being only for people who are in a union. This is in line with research that shows that lone parents have a lower SWB level than cohabiting and married parents (Woo & Raley, 2005). Employed people have a higher SWB level than the unemployed. Nevertheless, our expectation that living together would be more beneficial for unemployed young adults than for employed young adults was not confirmed. Perhaps it is necessary to measure more specific financial resources to reveal an effect, if that does exist.

We also paid attention to gender differences. Hardly any differences in the effect of union formation variables on well-being were observed between men and women, with one exception: The adaptation process after union dissolution took longer for women than for men. This contrasts Gove's (1972) idea that being unmarried would be worse for men. Nevertheless, this general lack of gender differences is in line with other studies measuring global SWB among young adults (Kamp Dush & Amato, 2005; Simon, 2002; Strohschein et al., 2005).

One of the advantages of the panel study used is that it covers up to 18 years of young adults' lives, including detailed information about their relationship careers. Nevertheless, a few limitations should be noted. First, we assumed

that relationship types differ in the availability of resources. Unfortunately, specific resources could not be measured adequately in each wave of the study. Interesting questions thus remain for future research, for example, whether the increase in well-being when people who were dating start cohabiting can be explained with the same resources as the increase when cohabitants get married.

The cross-cultural generalizability of our findings is another issue. We did find some difference in the well-being levels of cohabitants and the married, but there was no difference between these union types with respect to the pace of the adaptation process. These differences should be more profoundly examined in future research, but the difference in SWB between cohabitation and marriage is likely to be smaller in these Dutch data than in other nations because the legal differences between cohabitation and marriage in the Netherlands are smaller than in other countries (Waaldijk, 2005). Unmarried cohabitation is also more accepted in the Netherlands, both as a prelude to or an alternative for marriage (Liefbroer & Fokkema, 2008). Our tests of the differences between these relationship types were thus rather conservative, and the differences might even be larger elsewhere. This is yet to be explored.

To conclude, we return to the words of Euripides quoted at the beginning of this paper. His statement is in contrast with our findings: Marriage and other relationships can be more joyful than painful and thus enhance well-being. Moreover, with increasing commitment, this enhancement is larger. This joy of being in a union is also likely to last for many years because on average on average people who are living with a partner remain happier than those living without. To do justice to Euripides, we should mention that he seemed to have understood the value of committed relationships, at least partially, after all, because he quoted in *Antigone* that "man's best possession is a sympathetic wife."

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