Intermarriage on Subjective Social Status and Spousal Dissimilarity in Life Satisfaction of Co-resident Heterosexual South African Couples

Frederik Booysen1 · Ferdi Botha2 · Sevias Guvuriro3

Accepted: 24 February 2022 / Published online: 22 March 2022 © The Author(s) 2022

Abstract
The aim of this study is to determine how intermarriage on subjective social status is associated with spousal dissimilarity in life satisfaction in co-resident heterosexual couples in South Africa. We apply fixed effect ordered logit regression models to a sample of 8652 married and cohabiting dyads constructed from the longitudinal and nationally representative South African National Income Dynamics Study. We find no spousal dissimilarity in overall life satisfaction under pure homogamy. In wife advantaged and currently hypogamic relationships females are more satisfied with life than their male partners, whereas the opposite is observed in husband advantaged and currently hypergamic relationships as well as in wife exchanges. Intermarriage on subjective social status may put marriages and relationships at risk of dissolution due to its association with spousal dissimilarity in overall life satisfaction. Further research is required to present a more complete and integrated account of how spousal dissimilarity in subjective well-being may mediate the impact of intermarriage on the dissolution of unions and relationships.

Keywords Subjective social status · Intermarriage · Life satisfaction · South Africa
1 Introduction

Interracial marriage, defined as marriage between people from different social groups, races or religions, is an important aspect of social stratification systems (Schwartz et al., 2016; Van Leeuwen & Maas, 2010). The body of research on intermarriage conducted in developing country contexts is still small but growing. So far, such research generally focuses on the assimilation of immigrants in developed countries (Dribe & Lundh, 2008; Meng & Meurs, 2009), on ethnic intermarriage (Utomo, 2020) or on intertemporal patterns in educational homogamy (Borkotoky & Gupta, 2016). In Sub-Saharan Africa, the few intermarriage studies include Crespin-Boucaud (2020), Bandyopadhyay and Green (2021), and Pesando (2021a, b). Of these studies, all except Pesando (2021b), are focused at a regional level and document patterns of inter-ethnic and inter-faith marriages, examine the causes of inter-ethnic marriages, and explore educational assortative mating and its impact on inequality. Pesando (2021b), however, compares the impact of parental education similarity on children’s health between Ethiopia (a sub-Saharan African country) and three countries from other geographical regions (India, Peru, and Vietnam). Within-country African intermarriage studies focus on single field sites and are mostly qualitative in nature (Smith, 2005). Bratton and Kimenyi (2008) and Jacobson et al. (2004) are the only individual country-level intermarriage studies in Africa that are of quantitative nature, but focus on ethnic intermarriage. The literature, therefore, primarily focuses on ethnic, racial and religious intermarriage. There is ample scope therefore to advance research on intermarriage and in particular of a quantitative nature, insofar as the developing world is concerned, but also to advance work on intermarriage based on class or social status rather than ethnicity, race or religion.

Early studies of intermarriage have generally focused on three sets of research questions, namely the investigation of the determinants of intermarriage, of geographical and intertemporal patterns in intermarriage, and of the consequences of intermarriage (Barron, 1951). The main focus has been on religious and ethnic intermarriage and its consequences. Examples of the diverse avenues of research include questions on how such intermarriage has impacted decisions regarding childbearing (Bean & Aiken, 1976), marital satisfaction and stability (Dominguez et al., 2019; Heaton & Pratt, 1990), inequality in household wealth (Pesando, 2021a), children’s health (Pesando, 2021b) and what the implications have been for women’s standing (Chen & Takeuchi, 2011). Another avenue of research studies the implications of ethnic intermarriage for children’s school achievement, social contacts and cultural values, and social integration (Kalmijn, 2010, 2015). Important in our context, where we explore life satisfaction dissimilarities in couples, is that intermarriage and the resultant social heterogamy has been found to increase the risk of marital dissolution (Clarkwest, 2007; Kalmijn et al., 2005; Mäenpää & Jalovaara, 2014; Tzeng, 1992) which often holds detrimental consequences for both partners, but especially for women and children (Amato, 2000; Braver & Lamb, 2013).

Our primary research objectives are three-fold. First, we quantify the extent of spousal dissimilarity in overall life satisfaction among co-resident heterosexual South African couples. Second, we quantify the patterns of intermarriage observed in these couples based on subjective social status. Next, we examine how these patterns of intermarriage may impact levels of spousal life satisfaction and, specifically, spousal dissimilarity in life satisfaction. As part of our secondary research objectives, we investigate the degree to which spousal dissimilarity in overall life satisfaction is associated with gender roles, relationship characteristics and various forms of socio-demographic and psycho-social heterogamy. In doing
so, we focus on South African couples. A developing country such as South Africa is of particular interest, given that the great degree of social inequality that exists here (Francis & Webster, 2019) provides greater opportunities for intermarriage on social class than in most developed countries.

The main contribution of this work lies in the adoption of Schwartz et al.’s (2016) typology of intermarriage to elucidate the link between intermarriage and subjective well-being. Specifically, Schwartz et al.’s (2016) typology allows the incorporation of status exchange marriages, which is a specific pattern of intermarriage invoking two or more hierarchical traits, where one partner has a relative advantage in one trait, but a relative disadvantage in the other trait (Davis, 1941; Merton, 1941). In addition, these authors’ classification of intermarriages identifies relationships where wives and husbands respectively have had a social advantage over their spouses both currently and historically (Schwartz et al., 2016). Our classification also draws a distinction between hypergamy and hypogamy in spouse’s social origin and in their present social status. Our contention, therefore, is that it is not only spouses’ current (relative) economic resources or social position that signals their bargaining power in intra-household decision-making, but also their (relative) social and economic family background. We therefore go beyond an analysis of mere endogamy and exogamy (Barfield, 1997; Van Leeuwen & Maas, 2005) and present a more nuanced view on intermarriage than previous studies in this field. We appraise patterns of intermarriage based on subjective social status rather than occupation or education, using it as our measure of ascribed social origin and achieved social status.

2 Background

A central issue in studies of the economics of the household is that of within-household welfare comparisons or intra-family inequality (Kalugina et al., 2009a, b). Only very recently has the attention of researchers shifted to the consequences of intermarriage for subjective well-being among spouses (Chen, 2018; Potarca & Bernardi, 2020; Qian & Qian, 2015). The interdependency of spousal well-being has been documented in various studies for countries such as India (Shakya, 2015), Britain (Powdthavee, 2009), the United States (Bookwala & Schultz, 1996), Norway (Gustavson et al., 2016), South Africa (Posel & Casale, 2015) and a study of nineteen European countries (Bourassa et al., 2015). In Germany, this similarity in life satisfaction has been found to on average decline over time and dissimilarity in life satisfaction to result in lower satisfaction with family life (Schade et al., 2016). A longitudinal study from Seattle however found spousal similarity in happiness to be relatively stable (Hoppmann et al., 2011). These similarities and differences in subjective well-being matter not only because it affects choices on childbearing (Aassve et al., 2016), but because such dissimilarity has also been shown to predict divorce and the termination of partnerships (Guven et al., 2012; Powdthavee, 2009).

The latter empirical evidence provide support for the so-called homogamy hypothesis, which argues that marriages or relationships in which partners share similar characteristics are more likely to not dissolve compared to marriages or relationships with dissimilar partners. Where partners share similar values and expectations the potential for conflict is less, which reduces the chance of dissolution (Kippen et al., 2013). In fact, one could argue that spousal dissimilarity in life satisfaction may be the mechanism or conduit through which intermarriage has a greater likelihood of translating into dissolution. To make such argument, one would need to establish whether there is an association between intermarriage
and relative spousal dissimilarity in subjective well-being, or what has also been described as the distribution of utility within marriage (Bethman & Rudolf, 2018). Rarely has this been attempted in the literature, although a handful of studies have explored how intermarriage may impact individual spouse’s levels of subjective well-being (Chen, 2018; Keizer & Komter, 2015; Ma & Piao, 2019; Piao et al., 2021; Potarca & Bernardi, 2020; Qian & Qian, 2015). The single exception is Kalugina et al. (2009a, b), who, similar to our study, focus on intermarriage on subjective social status (or what the authors describe as “self-reported income”) and its relationship with levels of and relative differentials in life satisfaction among Russian husbands and wives. Kollamparambil (2021), in a related study, investigate how educational homogamy between spouses assist in explaining absolute differences in spousal life satisfaction in South African couples.

Stratification sociologists generally use occupation as the common coin of comparison in studies of intermarriage (Van Leeuwen & Maas, 2010). Yet, the theories of relative deprivation (Crosby, 1976; Davis, 1959; Merton & Rossi, 1968; Runciman, 1966; Stouffer et al., 1949) and social comparison (Bernstein & Crosby, 1980; Corcoran et al., 2011; Festinger, 1954) posit that one’s ranking in the social hierarchy is related to one’s life satisfaction, which is confirmed in the literature, with higher life satisfaction being associated with higher subjective social status (Haught et al., 2015; Huang et al., 2017; Tan et al., 2020; Zhang et al., 2011), as has also been shown with South African data (Posel & Casale, 2011). As such, it may be more appropriate to measure intermarriage against subjective social status rather than occupation. In developing countries, moreover, standard occupational classifications offer a less clear picture of social class given that large parts of the population are poorly educated and do not work, hence the adoption of subjective social status.

3 Theoretical Perspectives

Ma and Piao (2019) and Piao et al. (2021) provide a very useful exposition of the various theoretical perspectives on the broader question of how and why intermarriage on subjective social status should matter to spouses’ well-being. We adopt their theoretical lens but interpret the hypothetical implications of each of the five theoretical perspectives in the context of our focus on intermarriage on childhood and current social status and relative spousal differentials in life satisfaction.

The first perspective, based on the relative income hypothesis put forward by economists (Duesenberry, 1949; Leibenstein, 1950), emphasizes that the relative distance to the reference group may affect subjective well-being. We therefore expect that the chances of being relatively dissatisfied with life is greater for those whose social status is below that of the reference group, where the reference group represents the husband and wife, respectively, each comparing themselves with their partner. The second perspective reasons that, in terms of collective models of intra-household decision-making, the differences in subjective social status between spouses, which represent their relative bargaining power, may see the partner with higher status experiencing higher levels of well-being compared to their partner. Thirdly, in family economics, household production theory (Becker, 1965; Gronau, 1977) postulates that women usually do more housework, that more men are employed, and that men’s economic status hence exceeds that of women. Where such status is reversed, this may cause the husband’s well-being to fall relative to that of the wife. Fourth, from a mental health perspective, the evidence suggests that social status is
positively associated with mental health outcomes (Euteneuer, 2014; Zell et al., 2018), that poorer mental health is associated with lower life satisfaction (Clark et al., 2019), and that a partner’s mental health can affect the other partner’s life satisfaction (McNamee et al., 2021). Partners with relatively lower social status therefore may have relatively poorer mental health, which translates into relative differences in subjective well-being that favours the partner with a higher social status. Finally, there are gender role norms. Stronger patriarchal consciousness, defined as the mode of thinking that conditions people to perceive differences between people in simplistic terms that are in hierarchical opposition to each other (Lorde, 1984; Satina et al., 1998), in this case as the juxtaposition of men over women, are enforced by these norms. Under such patriarchal consciousness, gender differences are viewed in dualistic terms of dominant or subordinate, and superior or inferior, dictated by the mythical norm that gauge people’s position in society (Lorde, 1984; Satina et al., 1998). Where wives hold greater social status than their husbands, wives may assume gender roles that are different from those ascribed to them, which can create a dissonance between their gender roles and patriarchal consciousness. Such dissonance, in turn, may cause wives to be less satisfied with life than their partners.

Although we do not aim to formally test each of these theories empirically, these theoretical insights do provide a justification for our expectation that spouses who are relatively better positioned on the social status ladder compared to their partners, will experience relatively higher levels of life satisfaction.

4 Method

4.1 Data

We used data from all five rounds of South Africa’s National Income Dynamics Study (NIDS) conducted in 2008, 2010, 2012, 2014 and 2017, respectively (http://www.nids.uct.ac.za). NIDS is a longitudinal panel survey of a nationally representative sample of South African households. NIDS is based on a stratified two-stage cluster sample design that randomly selected 400 of Statistics South Africa’s 3000 primary sampling units (PSUs) for inclusion, drawing two clusters of 12 dwelling units from each PSU.

We constructed a dataset on co-resident couples based on information on marital status contained in the household roster. The first residency requirement, for household membership, was that household members had lived under the particular roof or in the same homestead for at least 15 days during the past year, or, if having arrived in the household in the past 15 days, that this is considered their usual residence. For each household member currently in a relationship, the partner’s personal identifier on the household roster was recorded for each corresponding spouse, allowing us to match individuals in marital or other relationships. NIDS then proceeded to conduct personal interviews with all those household members 15 years and older who had resided in the household for at least four nights in the past week. In our case, both partners in the relationship had to meet this second residency requirement insofar as the information on life satisfaction and subjective social status was collected as part of these interviews, hence the focus on co-resident couples. We excluded a small number of same-sex couples (n = 32) and polygamous relationships (n = 56), but included both married couples and couples who are not married but living together, i.e. cohabitating. Also note that in only 147 instances, did households include multiple matched couples.
The inclusion of cohabitation is important as a focus on formal marriages only may skew the results, particularly insofar as the incidence of exogamy is often higher in informal relationships (Benson, 1981). In addition, cohabitation rates have been rising in South Africa, while marriage rates have declined (Budlender et al., 2004; Moore & Govender, 2013; Posel & Rudwick, 2013; Posel et al., 2011), especially among Africans (Hosegood et al., 2009; Mhongo & Budlender, 2013). In terms of terminology, therefore, our sample includes formally married couples as well as couples in de facto relationships. When referring to ‘intermarriage’ or ‘marriage’, this includes all couples, regardless of whether they are married or in a de facto relationship.

We had a total of 11,398 observations that represented 5408 unique couples. Of these couples, only a relatively small proportion (8.2% or 443 couples), were observed in all five survey rounds. A substantial proportion (47.6% or 2576 couples) were observed only over this period of approximately 10 years. This is a function of a combination of factors that, amongst others, include the design of the panel survey, the fluid nature of South African households, migratory patterns, and relatively high rates of separation and divorce. Attrition or loss-to-follow-up therefore was relatively high at 58%. Due to list-wise deletion of missing values on the full set of variables included in the analysis, our analytical sample consisted of 8652 dyads with a female and male partner.

4.2 Measures

In this section, we discuss each of the variables employed in our statistical analyses.

4.2.1 Life Satisfaction

Global life satisfaction, which is extensively used in studies of subjective well-being and which represents an overall cognitive evaluation of life (Luhmann et al., 2012), was measured on a 10-point scale that asks respondents: “Using a scale of 1 to 10 where 1 means ‘Very dissatisfied’ and 10 means ‘Very satisfied’, how do you feel about your life as a whole right now?”.

4.2.2 Subjective Social Status

We employed a MacArthur- or Cantril-type self-anchoring scale of subjective social status that represents a first-person view of the social world and the respondent’s position within that world (Kilpatrick & Cantril, 1960). More specifically, the NIDS asked respondents: “Please imagine a six-step ladder where the poorest people in South Africa stand on the bottom (the first step) and the richest people in South Africa stand on the highest step (the sixth step).” Respondents were then asked, “On which step was your household when you were 15?” and “On which step are you today?” We used the respective responses to measure subjective social status at origin (when the respondent was 15) and at present (where the respondent is today). In order to distinguish movements around the centre of the distribution of social status and to minimise potential issues regarding measurement error in social status, we truncated the six-point ladder into three categories: ‘bottom’ (1, 2), ‘middle’ (3, 4) and ‘top’ (5, 6).

The decision to adopt subjective rather than objective social status is based on its importance as a psychological mechanism (Schneider, 2019) and it being considered a summary measure of one’s life-course socioeconomic position (Ferreira et al., 2018). The use
of subjective social status at childhood is motivated by evidence that childhood adversity influences subjective well-being in later life (Lam, 2020; Nikolova & Nikolaev, 2018; Sutin et al., 2018). Furthermore, the literature suggests that assessments of social status using global rather than local referents (i.e. South Africans in general rather than members of your local community) are better predictors of life satisfaction (Haught et al., 2015).

4.2.3 Intermarriage

We adopted the typology of marriage put forward by Schwartz et al. (2016), but based our classification on subjective social status rather than on parental and own education. The nine groups into which we classified marriages and cohabiting relationships, which is informed entirely by the former theoretical framework, are presented in Table 1. For example, a relationship is classified as ‘pure homogamy’ if the husband’s and wife’s subjective social status at childhood and at present was the same.

In addition to our dependent variable (life satisfaction) and our measure of intermarriage, which is our independent variable of primary interest, we included four sets of independent variables in the analysis; one set for living circumstances, one set with proxies for gender roles, one set with characteristics of relationships, and one set with a range of measures of socio-demographic and psycho-social heterogamy between partners. Below, we provide a brief description of each of these sets of independent variables.

4.2.4 Living Circumstances

The measures of living circumstances included per capita household income as well as place of residence, which was measured as ‘formal urban’ (= 1), ‘informal urban’ (squatter camps) (= 2), ‘tribal authorities or former homelands’ (= 3) or ‘formal rural’ (commercial farms) (= 4), based on 2001 Census demarcations.

4.2.5 Gender Roles

We included the total number of children and elderly in the household that are younger than 15 years or older than 65 years as proxy of caregiving burden. Insofar as the burden of childcare is likely to vary by children’s age, we drew a further distinction between three age groups: 0–3 years, 4–9 years, and 10–14 years. Access to piped water in the dwelling was used as a proxy for domestic duties, in this case the duty of fetching water. NIDS also collected information on household decision-making roles. Respondents were asked to identify the members of the household responsible for decisions in each of four domains, namely decisions regarding day-to-day household expenditures, large unusual purchases, and who is allowed to live in the household and where the household lives. Decision-makers were designated as joint or main decision-makers or as not having any decision-making power. We constructed an additive index of decision-making power, based on this information, assigning a score of ‘0’ to no decision-making role, a score of ‘1’ to joint decision-making roles, and a score of ‘2’ to main decision-making roles, resulting in a potential score between zero and eight. In addition, we distinguished between couples in which the female partner is the household head (= 1) or not (= 0), under the assumption that headship generally resides with males where traditional gender roles prevail.
## Table 1  A typology of intermarriage

| Spouse’s current relative subjective social status | HSO < WSO (hypogamy) | HSO = WSO (homogamy) | HSO > WSO (hypergamy) |
|--------------------------------------------------|-----------------------|----------------------|-----------------------|
| Spouse’s relative subjective social status at childhood (15 years) |
| HSC < WSC (hypogamy) | ‘Wife-advantaged’ | Current hypogamy (with homogamy at origin) | ‘Husband exchange’ |
| HSC = WSC (homogamy) | Hypogamy at origin (with current homogamy) | ‘Pure homogamy’ | Hypergamy at origin (with current homogamy) |
| HSC > WSC (hypergamy) | ‘Wife exchange’ | Current hypergamy (with homogamy at origin) | ‘Husband-advantaged’ |

HSC: husband’s current subjective social status; WSC: wife’s current subjective social status; HSO: husband’s subjective social status at 15-years old; WSO: wife’s subjective social status at 15-years old. Adapted from Schwartz et al., (2016: Table 1).
4.2.6 Relationship Characteristics

We distinguished three characteristics of relationships, namely marital status (i.e. married ‘formally’ and/or ‘traditionally’ (= 1) or ‘living together’ (= 0)), the reported relationship duration, in years, and the number of days in the past month that the couple spent together under the same roof (‘residency’).

4.2.7 Socio-demographic and Psycho-social Heterogamy

Our analysis included a total of eight measures of heterogamy, quantifying heterogamy on race (ethnicity), age, education, income, religiosity, self-reported health status, mental health, and decision-making power. Partners’ age and highest level of education was measured in years and income as total personal monthly income in South African Rand (ZAR). Respondents were also asked, “How important are religious activities in your life?” The four responses included ‘not important at all’ (= 1), ‘unimportant’ (= 2), ‘important’ (= 3) and ‘very important’ (= 4). In terms of self-reported health status, respondents were asked, “How would you describe your health at present? Would you say it is excellent (= 5), very good (= 4), good (= 3), fair (= 2) or poor (= 1)?” Mental health is measured by the number of self-reported depressive symptoms using the Center for Epidemiologic Studies Depression Scale (CESD-10) (Andresen et al., 1994). All measures of heterogamy represented the relative difference in partners’ scores, with male partners’ scores subtracted from female partners’ scores. The only exception is mixed marriages (partners from different racial groups), which was represented by a dummy variable taking on the value of ‘0’ (no) or ‘1’ (yes).

4.3 Hypotheses

In Fig. 1 we present a schema that outlines the central hypothesis of our study. The horizontal axis arranges the intermarriage types in Table 1 sequentially in terms of the nature of the (net) social advantage of partners. In the centre is homogamy, where wives and husbands are relatively equal in terms of subjective social status. As one moves to the left,
the relative social position of the wife improves and as one moves to the right the relative social position of the husband improves. ‘Wife advantaged’ and ‘husband advantaged’ relationships therefore are located at opposite ends of the spectrum. On the vertical axis, a score of zero represents perfect parity between spouses on overall life satisfaction. Positive scores, on the top end of the axis, represent instances where wives are increasingly more satisfied with life than their husbands, while negative scores, at the bottom end of the axis, represent instances where husbands are increasingly more satisfied with life than their wives.

The hypotheses are represented by the dotted line. Our general hypothesis is that wives and husbands will be relatively more satisfied with life if their social position is relatively greater than their spouse’s. The analysis aimed at testing this set of hypotheses are outlined in the next section.

### 4.4 Analysis

We adopted the variable-centred approach that measures dissimilarity in life satisfaction, our main independent variable, as the relative difference in partners’ respective scores on a specific individual trait or characteristic (Luo, 2017). Analytically, we first provide a descriptive account of our sample, following which we conduct a bivariate comparison of overall life satisfaction across the various types of intermarriage.

Two regression models were estimated for the levels of life satisfaction for males and females, respectively. We also estimated a third regression model to explain how intermarriage is associated with spousal dissimilarity in life satisfaction. Given the ordinal nature of the dependent variables, all regressions were estimated as fixed effect ordered logit models with the blow-up and cluster (BUC) estimator (Baetschmann et al., 2015). This is done using Baetschmann et al.’s (2020) feologit Stata routine.

The latent variable $y_{it}^*$ relates to the observed dependent variable $y_{it}$ and thresholds $\tau_{ik}$ such that $y_{it} = k$ if:

$$\tau_{ik} < y_{it}^* \leq \tau_{ik+1}, k = 1, \ldots, K$$

For partner $i$ ($i = w, h$) at time $t$, the individual-level life satisfaction equations were specified as:

$$y_{it} = \delta M_{it} + \beta X_{it} + \eta_{i} + \nu_{it},$$

where $y_{it}$ is reported life satisfaction, $M_{it}$ denotes the intermarriage variable, $X_{it}$ is a vector of control variables, $\eta_{i}$ is an unobserved time-invariant individual element, and $\nu_{it}$ is the error term. For couple $c$, the model for couple differences in life satisfaction is specified as:

$$\gamma_{ct} = \delta M_{ct} + \beta X_{ct} + \eta_{c} + \nu_{ct},$$

where $\gamma_{ct}$ denotes the difference in partners’ life satisfaction (i.e. wife’s score minus the husband’s score), $M_{ct}$ is the intermarriage variable, $X_{ct}$ is a vector of control variables at the couple level, $\eta_{c}$ is an unobserved time-invariant element of the couple, and $\nu_{ct}$ is the error term. Given the relatively high rates of attrition reported in Sect. 4.1, we also tested for any differences in life satisfaction between individuals in couples who remained in the sample and those who were lost to follow-up. The results (available upon request) showed that women and men in couples that left the sample had lower life satisfaction than women and men in couples not lost to follow-up. However, couple differences in life satisfaction did
not differ significantly between couples that left the sample and couples not lost to follow-up. We subsequently estimated (results also available upon request) and used inverse probability weights (IPW) to adjust our regression analysis for potential attrition bias.

5 Results

As outlined in Table 2 and summarised in the top part of Table 4, pure homogamy was the most common marriage type, with almost 60% of relationships classified as identical regarding the subjective social standing of partners at childhood and at present. Next most prevalent were current hypogamy and current hypergamy, at approximately 8%, followed by hypogamy at origin and hypergamy at origin, at approximately 7%. In around 3% of cases each, marriages can be described as either wife or husband advantaged. Exchange marriages favouring husbands or wives were relatively rare and occurred in only 1% of cases, respectively.

According to the evidence presented in Table 3, there was no significant life satisfaction gap between female and male partners. As shown in Fig. 2, life satisfaction scores were only identical in 35.01% of cases, whereas wives were less satisfied with life than their husbands in 33.37% of cases, compared to 31.62% of cases where wives were more satisfied with life than their male partners. Life satisfaction scores in female and male partners however were statistically significantly and positively correlated ($r = 0.67$, $p < 0.001$).

The descriptive statistics in Table 3 also show that wives on average were around four years younger than their male partners and were slightly more educated. Wives were also significantly less likely to be employed and were more likely to be unemployed or not economically active, hence the significantly lower monthly income in female compared to male partners and the males earning a larger share of total monthly income. Almost eighty percent of partners in the sample reported being married. As expected, male partners generally were identified as household heads rather than female partners. Self-reported health did not differ significantly between partners, but mental health did, with wives reporting more depressive symptoms than their husbands. There were also differences with respect to religiosity and decision-making power, with male partners having significantly greater decision-making power, whereas female partners attached significantly greater importance to religion compared to their male partners.

Mixed marriages based on race was a rare occurrence in this dataset (Table 4). In 22% of relationships, one or both partners reported that they were living together in a de facto relationship. The majority of couples included the head of the household. Relationships on average were nineteen years in duration and partners spent few days a month living apart. Three quarters of couples had access to piped water in their dwelling or yard.

$N = 8652$. Estimates are for the pooled sample.

For each intermarriage category, Table 5 reports average life satisfaction by gender as well as the mean spousal dissimilarity in life satisfaction. Wives were significantly more satisfied than husbands in marriages characterised by wife advantage, current hypogamy, and hypogamy at origin. In contrast, among current hypergamy, wife exchange, and husband advantaged relationships, husbands were significantly more satisfied with life than wives. Life satisfaction was not statistically significantly different among spouses in the remaining three intermarriage types, namely husband exchange, homogamy, and hypergamy at origin.
Table 2  Spouse’s current and childhood relative subjective social status

| Spouse’s current relative subjective social status | Spouse’s relative subjective social status at childhood (15 years) |
|--------------------------------------------------|---------------------------------------------------------------|
|                                                  | HSO < WSO (hypogamy)                  | HSO = WSO (homogamy)      | HSO > WSO (hypergamy)     |
| Spouse’s current relative subjective social status | Total                                               | Total                                               | Total                                               |
| HSC < WSC (hypogamy)                              | 3.40% [n = 294]                              | 8.41% [n = 728]                              | 1.19% [n = 103]                              | 13.00% [n = 1125]                      |
| HSC = WSC (homogamy)                              | 7.92% [n = 685]                              | 59.47% [n = 5145]                              | 7.05% [n = 610]                              | 74.43% [n = 6440]                      |
| HSC > WSC (hypergamy)                             | 1.25% [n = 108]                              | 8.31% [n = 719]                              | 3.01% [n = 260]                              | 12.55% [n = 1087]                      |
| Total                                             | 12.56% [n = 1087]                             | 76.19% [n = 6592]                             | 11.25% [n = 973]                             | 100.00% [n = 8652]                     |

Estimates are for the pooled sample.
Table 3 Partner characteristics, by gender

| Variable                          | Female M or % | SE | Male M or % | SE | Difference M | SE |
|-----------------------------------|---------------|----|-------------|----|--------------|----|
| **Age (years)**                   | 44.98         | 0.15 | 49.20       | 0.15 | − 4.22***    | 0.07 |
| **Race (%)**                      |               |     |             |     |              |    |
| African                           | 67.80         |      | 68.56       |     |              |    |
| Coloured                          | 21.45         |      | 20.46       |     |              |    |
| Asian/Indian                      | 2.46          |      | 2.52        |     |              |    |
| White                             | 8.29          |      | 8.46        |     |              |    |
| **Education (years)**             | 8.33          | 0.05 | 8.19        | 0.05 | 0.13**       | 0.04 |
| **Employment status (%)**         |               |     |             |     |              |    |
| Not economically active           | 45.77         |      | 39.90       |     |              |    |
| Unemployed                        | 13.01         |      | 7.09        |     |              |    |
| Employed                          | 41.22         |      | 63.01       |     |              |    |
| Married (yes/no)                  | 78.71         |      | 78.81       |     |              |    |
| Headship (yes/no)                 | 23.29         |      | 70.10       |     |              |    |
| **Monthly income (‘000 ZAR)**    | 3.24          | 0.32 | 5.93        | 0.25 | − 2.69***    | 0.40 |
| Income share (%)                  | 40.34         | 0.35 | 59.66       | 0.35 | − 19.31***   | 0.70 |
| Life satisfaction                 | 5.65          | 0.03 | 5.63        | 0.03 | 0.02         | 0.02 |
| Good self-reported health (yes/no)| 0.83          | 0.00 | 0.84        | 0.00 | − 0.00       | 0.00 |
| Mental health                     | 6.77          | 0.05 | 6.32        | 0.05 | 0.45***      | 0.04 |
| Religiosity                       | 3.51          | 0.01 | 3.34        | 0.01 | 0.16***      | 0.01 |
| Decision-making power             | 5.67          | 0.02 | 6.60        | 0.02 | − 0.93***    | 0.03 |

Difference calculated by subtracting male partner’s value from female partner’s value. Estimates are for the pooled sample. N=8652. Significance of difference between female and male partner is: **p<0.01; ***p<0.001

Fig. 2 Spousal dissimilarity in overall life satisfaction. Difference calculated by subtracting male partner’s value from female partner’s value. N=8652
Table 4  Couple and household characteristics

| Variable                        | M or % | SE |
|---------------------------------|--------|----|
| **Couple**                      |        |    |
| Intermarriage (%)               |        |    |
| Wife advantaged                 | 3.40   |    |
| Husband exchange                | 1.19   |    |
| Current hypogamy                | 8.41   |    |
| Hypogamy at origin              | 7.92   |    |
| Homogamy                        | 59.47  |    |
| Hypogamy at origin              | 7.05   |    |
| Current hypergamy               | 8.31   |    |
| Wife exchange                   | 1.25   |    |
| Husband advantaged              | 3.01   |    |
| Mixed marriage (yes/no)         | 0.02   | 0.00|
| Married (yes/no)                | 0.78   | 0.00|
| Headship (yes/no)               | 0.93   | 0.00|
| Relationship duration (years)   | 18.67  | 0.15|
| Residency (days/past month)     | 29.89  | 0.03|
| **Household**                   |        |    |
| Number of very young children (0–3 years) | 0.46  | 0.01|
| Number of young children (4–9 years) | 0.71  | 0.01|
| Number of older children (10–14 years) | 0.54  | 0.01|
| Number of elderly (65 + years)  | 0.30   | 0.01|
| Per capita household income (‘000 ZAR) | 3.05 | 1.19|
| Piped water (yes/no)            | 0.75   | 0.00|
| Residence (%)                   |        |    |
| Urban formal                    | 49.95  |    |
| Urban informal                  | 5.78   |    |
| Tribal/homeland                 | 29.66  |    |
| Rural formal                    | 14.61  |    |

Table 5  Overall life satisfaction and spousal dissimilarity in life satisfaction, by intermarriage

| Variable                        | Female M | Female SE | Male M | Male SE | Difference M | Difference SE |
|---------------------------------|----------|-----------|--------|---------|--------------|---------------|
| Wife advantaged                 | 6.02     | 0.15      | 5.20   | 0.15    | 0.82***      | 0.14          |
| Husband exchange                | 6.24     | 0.25      | 5.81   | 0.24    | 0.44         | 0.25          |
| Current hypogamy                | 5.92     | 0.09      | 5.48   | 0.09    | 0.44***      | 0.08          |
| Hypogamy at origin              | 6.30     | 0.09      | 6.07   | 0.09    | 0.23**       | 0.08          |
| Homogamy                        | 5.48     | 0.03      | 5.50   | 0.03    | –0.02        | 0.02          |
| Hypergamy at origin             | 5.86     | 0.09      | 5.93   | 0.09    | –0.07        | 0.09          |
| Current hypergamy               | 5.60     | 0.09      | 5.94   | 0.09    | –0.34***     | 0.07          |
| Wife exchange                   | 5.59     | 0.27      | 6.34   | 0.23    | –0.75**      | 0.24          |
| Husband advantaged              | 5.47     | 0.16      | 6.01   | 0.17    | –0.55***     | 0.14          |

Difference calculated by subtracting male partner’s score from female partner’s score. Estimates are for the pooled sample. N=8652. Significance of difference between female and male partner is: *p<0.05, **p<0.01, ***p<0.001
In Table 6, we report the fixed effect ordered logit estimates for partners’ level of life satisfaction as a function of intermarriage and a set of additional explanatory variables. Predictive margin contrasts (relative to homogamy) of intermarriage for wives and husbands are shown in Figs. 3 and 4, respectively. The findings revealed interesting patterns with respect to intermarriage and individual life satisfaction. Wives in wife advantaged relationships were more satisfied with life compared to wives in homogamous relationships, whereas among husbands, those in wife advantaged marriages reported lower life satisfaction than those in homogamy. We also found a similar result for current hypogamy: compared to homogamy, wives in current hypogamy were significantly more satisfied with life, whereas husbands in current hypogamy were significantly less satisfied with life. Wives in hypergamy at origin were more satisfied with life than wives in homogamy. Husbands in current hypergamy or wife exchange relationships were significantly more satisfied relative to husbands in homogamous relationships, whereas there were no such associations for wives. Wives in husband advantaged marriages, on the other hand, were significantly less satisfied with their lives as compared to wives in homogamy, whereas husbands in husband advantaged relationships were more satisfied than those in homogamy.

In terms of the additional explanatory variables, among the more interesting findings were that married women were more satisfied than women in de facto relationships, whereas for men there was no such difference. Consistent with Posel and Casale (2015), wives with more children between 4 and 9 years were less satisfied with life relative to wives with fewer such children, but there was no association between the numbers of children and life satisfaction for husbands. Having access to piped water in the household was strongly related to lower life satisfaction among men, but there was no association with women’s life satisfaction. Although it is not clear what might explain the negative effect of piped water access for husbands, it is worth noting that our results are mainly consistent with Posel and Casale’s (2015) results, who for women found a positive and significant association of piped water access with life satisfaction, whereas for men this association was negative and insignificant. Being employed was positively associated with life satisfaction, but only for women, while good self-reported health was only positively associated with life satisfaction for men.

There were only four factors that matter for the life satisfaction of both female and male partners. Attaching greater importance to religion enhanced the life satisfaction of both partners, although significantly more so for women than men. Poorer mental health was related to lower life satisfaction for both women and men. Partner’s life satisfaction mattered for own life satisfaction, as a one-point increase in the partner’s life satisfaction was associated with about 0.61 points higher life satisfaction for the spouse. This is quite a bit higher than the association reported by Posel and Casale (2015) who, using data from the first NIDS wave in 2008, reported a life satisfaction increase for the spouse of about 0.47 points given a one-point life satisfaction increase for the partner. Finally, being the household head was negatively and significantly related to life satisfaction for wives, though positively and not significantly related to life satisfaction for husbands.
| Variable | Female | Male |
|----------|--------|------|
| **Intermarriage (comparison = homogamy)** | | |
| Wife advantaged | 0.539** (0.187) | 0.518** (0.183) | −0.685*** (0.189) | −0.667*** (0.191) |
| Husband exchange | 0.409 (0.364) | 0.433 (0.359) | 0.177 (0.286) | 0.177 (0.295) |
| Current hypogamy | 0.401** (0.117) | 0.390** (0.118) | −0.318** (0.123) | −0.322** (0.123) |
| Hypogamy at origin | 0.273* (0.133) | 0.269* (0.135) | −0.079 (0.119) | −0.071 (0.119) |
| Hypergamy at origin | 0.240 (0.131) | 0.250 (0.130) | 0.064 (0.137) | 0.053 (0.138) |
| Current hypergamy | −0.078 (0.112) | −0.076 (0.113) | 0.299** (0.116) | 0.292* (0.116) |
| Wife exchange | −0.571 (0.318) | −0.578 (0.316) | 0.946** (0.318) | 0.899** (0.308) |
| Husband advantaged | −0.551* (0.222) | −0.564* (0.219) | 0.491* (0.203) | 0.489* (0.201) |
| Age (years) | 0.133 (0.076) | 0.014 (0.077) | −0.092 (0.062) | −0.101 (0.063) |
| Age square (years) | 0.002* (0.001) | 0.002* (0.001) | 0.001 (0.001) | 0.001 (0.001) |
| Education (years) | 0.032 (0.046) | 0.024 (0.046) | −0.001 (0.032) | −0.001 (0.031) |
| **Employment status (comparison = not econ. active)** | | |
| Unemployed | −0.021 (0.122) | −0.024 (0.122) | −0.124 (0.151) | −0.112 (0.152) |
| Employed | 0.209* (0.103) | 0.183 (0.104) | 0.105 (0.111) | 0.098 (0.112) |
| Married (yes/no) | 0.474** (0.168) | 0.491** (0.166) | −0.084 (0.171) | −0.096 (0.172) |
| Good self-reported health (yes/no) | 0.154 (0.102) | 0.165 (0.103) | 0.260** (0.092) | 0.266** (0.092) |
| Mental health (number of symptoms) | −0.071*** (0.009) | −0.072*** (0.009) | −0.048*** (0.008) | −0.048*** (0.008) |
| Religiosity | 0.343*** (0.059) | 0.345*** (0.059) | 0.143** (0.046) | 0.142** (0.046) |
| Relationship duration (years) | −0.021 (0.039) | −0.025 (0.038) | 0.030 (0.029) | 0.030 (0.028) |
| Relationship duration square (years) | 0.001 (0.001) | 0.001 (0.001) | −0.000 (0.001) | −0.000 (0.001) |
| Per capita household income (ln)(ZAR) | −0.038 (0.060) | −0.070 (0.061) | 0.105 (0.059) | 0.121* (0.060) |
| **Residence (comparison = urban formal)** | | |
| Urban informal | −0.498 (0.624) | −0.403 (0.573) | 0.431 (0.450) | 0.253 (0.448) |
| Tribal/homeland | −0.191 (0.614) | −0.029 (0.621) | −0.191 (0.398) | −0.371 (0.418) |
### Table 6 (continued)

| Variable                        | Female                      | Male                      |
|---------------------------------|-----------------------------|---------------------------|
|                                 | (1)                         | (2)                       | (3)                         | (4)                         |
| Rural formal                    | −0.236 (0.548)              | −0.243 (0.553)            | 0.180 (0.392)               | 0.115 (0.387)               |
| Partner’s life satisfaction     | 0.603*** (0.023)            | 0.606*** (0.023)          | 0.608*** (0.022)            | 0.609*** (0.022)            |
| Household head (yes/no)         | −0.183* (0.073)             | 0.115 (0.070)             |                            |                             |
| Decision-making power           | 0.024 (0.018)               | −0.002 (0.020)            |                            |                             |
| Very young children (0–3 years) | −0.120 (0.065)              |                            | 0.016 (0.056)              |                             |
| Young children (4–9 years)      | −0.223*** (0.053)           | 0.082 (0.050)             |                            |                             |
| Older children (10–14 years)    | −0.016 (0.057)              | 0.056 (0.051)             |                            |                             |
| Elderly (65+)                   | −0.045 (0.117)              | −0.061 (0.122)            |                            |                             |
| Piped water (yes/no)            | 0.152 (0.159)               |                            | −0.416** (0.132)           |                             |
| Panel units                     | 2048                        | 2048                      | 2083                       | 2083                       |
| Wald χ²                         | 884.3***                    | 903.2***                  | 975.4***                   | 984.7***                   |
| Log-Likelihood                  | −14,363.2                   | −14,250.8                 | −14,890.6                  | −14,820.9                  |
| Pseudo R²                       | 0.391                       | 0.396                     | 0.376                      | 0.379                      |

N = 8652. Standard errors, clustered at the individual level, are shown in round brackets. *p < 0.05. **p < 0.01. ***p < 0.001
**Fig. 3** Wives’ life satisfaction, predicted margin contrasts by intermarriage

**Fig. 4** Husbands’ life satisfaction, predicted margin contrasts by intermarriage
Table 7  Fixed effect ordered logit regression of spousal dissimilarity in couple’s overall life satisfaction

| Variable (comparison = homogamy)                              | (1)                      | (2)                      |
|-----------------------------------|--------------------------|--------------------------|
| **Intermarriage (comparison = homogamy)**                      |                          |                          |
| Wife advantaged                   | 0.661*** (0.188)         | 0.650** (0.188)          |
| Husband exchange                  | 0.167 (0.283)            | 0.162 (0.286)            |
| Current hypogamy                  | 0.427*** (0.118)         | 0.425*** (0.119)         |
| Hypogamy at origin                | 0.190 (0.115)            | 0.186 (0.116)            |
| Hypergamy at origin               | 0.068 (0.123)            | 0.072 (0.124)            |
| Current hypergamy                 | −0.166 (0.107)           | −0.169 (0.107)           |
| Wife exchange                     | −0.564* (0.281)          | −0.566* (0.276)          |
| Husband advantage                 | −0.442* (0.189)          | −0.432* (0.189)          |
| Difference in age (years)         | 0.005 (0.045)            | 0.008 (0.044)            |
| Difference in education (years)   | 0.030 (0.028)            | 0.028 (0.028)            |
| Difference in monthly income (’000 ZAR) | −0.000 (0.001)                   | −0.000 (0.001)                   |
| Wife’s income share (%)           | 0.002 (0.001)            | 0.002 (0.001)            |
| Difference in self-reported health| 0.062* (0.029)           | 0.062* (0.029)           |
| Difference in mental health       | −0.048*** (0.008)        | −0.048*** (0.008)        |
| Difference in religiosity         | 0.136** (0.043)          | 0.135** (0.043)          |
| Relationship duration (years)     | 0.024 (0.020)            | 0.024 (0.020)            |
| Relationship duration square (years) | −0.000 (0.000)                  | −0.000 (0.000)                  |
| Residency (days/month)            | 0.004 (0.042)            | 0.003 (0.042)            |
| Residency square (days/month)     | 0.000 (0.001)            | 0.000 (0.001)            |
| Married (yes/no)                  | 0.288 (0.151)            | 0.297 (0.151)            |
| Per capita household income (ln)(ZAR) | −0.072 (0.058)                  | −0.092 (0.059)                  |
| **Residence (comparison = urban formal)**                      |                          |                          |
| Urban informal                    | −0.329 (0.566)           | −0.209 (0.553)           |
| Tribal/homeland                   | 0.338 (0.395)            | 0.474 (0.417)            |
| Rural formal                      | −0.114 (0.322)           | −0.050 (0.322)           |
| Headship (yes/no)                 | −0.086 (0.177)           |                           |
| Difference in decision – making power | 0.007 (0.010)                  |                           |
| Very young children (0–3 years)   | 0.029 (0.058)            |                           |
| Young children (4–9 years)        | −0.160** (0.051)         |                           |
| Older children (10–14 years)      | −0.070 (0.052)           |                           |
| Elderly (65+ years)               | −0.000 (0.115)           |                           |
| Piped water (yes/no)              | 0.301* (0.141)           |                           |
| Panel units                       | 1.958                    | 1.958                    |
| Wald χ²                           | 111.0***                 | 127.8***                 |
| Log-Likelihood                    | −14,328.8                | −14,265.5                |
| Pseudo R²                         | 0.034                    | 0.038                    |

N=8652. Standard errors, clustered at the couple level, are shown in round brackets. *p < 0.05; **p < 0.01; ***p < 0.001
The fixed effect ordered logit results for spousal dissimilarity in life satisfaction are presented in Table 7, with predictive margin contrasts (relative to homogamy) for intermarriage depicted in Fig. 5. Here a positive (negative) coefficient implies that female partners were more (less) satisfied with life relative to their male partners. In terms of intermarriage, compared to those in homogamy, wives were significantly more satisfied with life than their husbands if they were in wife advantaged and current hypogamy relationships. When compared to those in homogamy, for current hypergamy, wife exchange, and husband advantaged relationships, husbands were more satisfied with life relative to wives. These results were consistent with the individual well-being models reported in Table 6. Wife advantage and current hypogamy were associated with higher life satisfaction among women and lower life satisfaction among men (Table 6), thus explaining why women in these intermarriage types were more satisfied with life relative to men (Table 7). Current hypergamy and wife exchange were associated with higher life satisfaction among men (Table 6), which is why women in these intermarriage types were less satisfied with life relative to their male partners (Table 7). Finally, compared to wives in homogamy, wives in husband advantaged relationships were significantly less satisfied with life (Table 6), which

---

1 The model in Table 7 was estimated for married and cohabiting couples combined. We also estimated two additional models, one for formally married couples and one for cohabiting couples. In relation to the effect of intermarriage on couple dissimilarity in life satisfaction, the findings for married couples are very similar to that reported in Table 7. For cohabiting couples, though, female partners in wife advantaged relationships are more satisfied than male partners, as compared to homogamy, with no other significant intermarriage coefficients (results available upon request). Because the sample size of cohabiting couples is much smaller than that of married couples, these results could in part be driven by small sample sizes in some intermarriage categories among couples in cohabitation.
is consistent with Table 7’s observation that wives in husband advantaged marriages were less satisfied with life compared to their husbands.

A higher income share for wives translated into being slightly more satisfied with life than their husbands, and wives were more satisfied with life than husbands if they were in better self-reported health than their husbands. Wives were less satisfied with life than their husbands if wives reported poorer mental health than their husbands. Where wives were more religious than their husbands, wives were also more satisfied with life compared to their husbands. Women were more satisfied with life than their male partners if they were formally married as compared to in a de facto relationship, and women were also more satisfied with life than their male partners if there was piped water on site. Also, having more young children aged 4–9 years implied that women were less satisfied with life than were their male partners (also see Posel & Casale, 2015).

6 Discussion

Our first finding of importance is that similarity in life satisfaction in marriages and cohabiting relationships, in statistical terms, can be described as moderate rather than strong, i.e. \( r < 0.7 \). A recent review by Luo (2017) also reports the correlations between partners’ subjective well-being to be moderate rather than strong. Although we find that partners’ life satisfaction are interdependent, as reported in the literature (Bourassa et al., 2015; Shakya, 2015; Wünsche et al., 2020), there is a relatively high degree of spousal dissimilarity, as was reported by Schade et al. (2016) in their research on romantic relationships in Germany. This implies that it is necessary to investigate the factors associated with such dissimilarity, which is what our research set out to do, unlike much of the research in this field that focuses primarily on levels of and similarity in rather than dissimilarity in life satisfaction; the only exception being Posel and Casale (2015), whose work on South Africa we partly replicate and extend.

Other recently published studies have documented evidence that intermarriage of various kinds is associated with differences in levels of subjective well-being, be it happiness or life satisfaction. Qian and Qian (2015) find that the happiness of married people in urban China is higher under educational hypergamy than homogamy. Chen (2018), however, shows that Chinese women are less happy under hypergamy but more so under hypogamy in terms of intermarriage on occupational class. Yet, both these studies do not proceed to also explore spousal dissimilarity in subjective well-being as part of the analyses. More recently, Potarca and Bernardi (2020) have shown that intermarriages between immigrants and German natives need not face a life satisfaction penalty and that in fact, at least initially, there is a life satisfaction premium on intermarriage for men, during the cohabitation stage, and for women, during the transition from cohabitation to marriage.

A second finding is that although homogamous relationships are the norm, a fair share of the sample reported a diversity of marital arrangements. This reality, namely that partners report different ‘budget shares’ of subjective social status is predicted by collective and bargaining models of intra-household decision-making (Kalugina et al., 2009a, b). What this implies, importantly, is that further research is required to uncover the antecedents and consequences of intermarriage on childhood and current social status.

Our study, insofar as we could ascertain, is the first to show, in regards to the consequences of such patterns of intermarriage, that intermarriage on childhood and current subjective social status, considered by some as sharing rules determining intra-household
decision-making (Kalugina et al., 2009a, b) or as proxies of power dynamics within relationships (Kollamparambil, 2021), is associated with spousal dissimilarity in life satisfaction. The associations are what one would expect. In line with the theories of relative deprivation and social comparison, those spouses who are at a relative advantage (disadvantage) are more (less) satisfied with life compared to their partner. In fact, we even find that exchange marriages matter for life satisfaction: female partners who have given up their initial advantage for their partner’s privilege are less satisfied with life than their partners. Insofar as spousal dissimilarity in subjective well-being has been shown to predict the dissolution of marriages and relationships (Guven et al., 2012; Powdthavee, 2009), intermarriages of various types are therefore potentially at risk of dissolution.

Our findings furthermore highlight the role of empowerment in enhancing life satisfaction (Hossain et al., 2019). Contrary to the extant literature, which reports that women’s economic empowerment is negatively associated with life satisfaction (Hajdu & Hajdu, 2018; Wu, 2020) or that the partner pay gap matters only for men and not for women (Gash & Plagnol, 2020), we find that women’s relative income, represented by their proportional earnings relative to that of their spouse, is positively associated with spousal dissimilarity in life satisfaction. In other words, women are more likely to be more satisfied with life overall than their male partners as their contribution to the couple’s economic resources increase. A similar finding is reported by Bethman and Rudolf (2018) in their study of Korean marriages. Related to this is our result that gender roles, specifically gendered divisions of labour, may put wives at a relative disadvantage compared to their partners when it comes to subjective well-being. Where caregiving burdens are greater women are less satisfied with life than their partners and where it may not be necessary to collect water, wives are more satisfied than their partners.

The evidence from our research also suggests a cohabitation gap (i.e. married persons reported higher well-being than those in cohabitation), complementing the relatively small literature on this phenomenon (Blekesaune, 2018; Botha & Booyse, 2013; Dilmaghani, 2019; Nock, 1995; Soons & Kalmijn, 2009). Finally, we can add that our research lends further support to the body of evidence that religiosity (Kim-Prieto & Miller, 2018) and self-reported health (Ngamaba et al., 2017) are associated with life satisfaction, but provides evidence that heterogamy in these correlates are in fact also associated with spousal dissimilarity in life satisfaction.

6.1 Limitations

By design, the NIDS survey only allows for an analysis of co-resident couples, which means that the findings may not be entirely representative of all relationship types or forms found in developing country contexts. Further tailor-made studies are needed to shed light on life satisfaction in such couples, particularly insofar as spousal dissimilarity may be hypothesised to be relatively more pronounced in these types of relationships. Given that almost half of couples were observed only once and given the relatively short duration of the panel, it was not feasible nor strictly within this study’s scope to, with the data at hand, investigate trajectories of spousal dissimilarity within the same couples, as did Potarca and Bernardi (2020), nor to reliably identify cases of relationship dissolution. As such, we can claim only that intermarriage matters for spousal dissimilarity in life satisfaction on the aggregate and need to emphasise that further research is required to explore how these disparities in intermarriages manifest over time and how spousal dissimilarity in life satisfaction may impact on the dissolution of intermarriages.
The explanatory power of our model for spousal dissimilarity in life satisfaction is relatively low, which suggests the presence of omitted variables bias. Most notable among potentially omitted variables are relationship quality (Chi et al., 2020; Gustavson et al., 2016) and marital satisfaction (Chi et al., 2020; Gaunt, 2006; Hawkins & Booth, 2005). There is a need therefore to collect data on these mediating variables in conducting nationally representative studies on couples’ subjective well-being, both in developed and in developing countries. At a methodological level, moreover, studies of this nature can investigate using response surface methods employed in the natural sciences to investigate dynamics in intermarriage and spousal dissimilarity in subjective well-being, particularly so where the difference in subjective social status within couples are treated as a continuous rather than a categorical variable. In addition, polynomial regression models can be used to circumvent some of the methodological shortcomings of difference scores (Edwards, 2001), particularly where difference scores are more dispersed than is the case in this study.

The classification used in adopting Schwartz et al.’s (2016) typology of marriage compares the subjective social status at childhood with subjective social status at present. However, von Fintel and Posel (2016) found subjective social status at childhood to be highly correlated with reports on current subjective social status in NIDS, which may cause potential bias. However, insofar as our research explicitly focuses on the study of differences in subjective social status, such bias would mean that the extent of intermarriage would be under- rather than overstated.

7 Conclusion

Divorce and separation may be detrimental to partners, their children and families, and society at large. Studies have shown that intermarriage increases the chances that unions may dissolve and so too spousal dissimilarity in subjective well-being. There is a dearth of knowledge however on how intermarriage on social class may be associated with such dissimilarity in subjective well-being. We present evidence that spousal dissimilarity in life satisfaction, which is relatively common in this developing country context, is associated with various forms of intermarriage. Further research is required however to investigate how spousal dissimilarity in subjective well-being may mediate the impact of intermarriage on the dissolution of unions and relationships.

Funding Open Access funding enabled and organized by CAUL and its Member Institutions.

Declarations

Conflict of interest The authors declare that they have no conflicts of interest.

Ethical approval The research complies with the required ethical standards.

Informed consent All authors provided consent for publication.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line to the
material. If material is not included in the article’s Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

References

Aassve, A., Arpino, B., & Balbo, N. (2016). It takes two to tango: Couples’ happiness and childbearing. European Journal of Population, 32, 339–354.

Amato, P. R. (2000). The consequences of divorce for adults and children. Journal of Marriage and Family, 62, 1269–1287.

Andresen, E. M., Malmgren, J. A., Carter, W. B., & Patrick, D. L. (1994). Screening for depression in well older adults: Evaluation of a short form of the CES-D. American Journal of Preventive Medicine, 10(2), 77–84.

Audre, L. (1984). Age, race, class, and sex: Women redefining difference. In L. Audre (Ed.), Sister outsider (pp. 114–123). Academic Press.

Baetschmann, G., Ballantyne, A., Staub, K. E., & Winkelmann, R. (2020). feologit: A new command for fitting fixed-effects ordered logit models. The Stata Journal, 20(2), 253–275.

Baetschmann, G., Staub, K. E., & Winkelmann, R. (2015). Consistent estimation of the fixed effects ordered Logit model. Journal of the Royal Statistical Society, Series A, 178, 685–703.

Bandyopadhyay, S., & Green, E. (2021). Explaining inter-ethnic marriage in Sub-Saharan Africa. Journal of International Development, 33(4), 627–643.

Barfield, T. (Ed.). (1997). Dictionary of anthropology. Blackwell.

Barron, M. L. (1951). Research on intermarriage: A survey of accomplishments and prospects. American Journal of Sociology, 57(3), 249–255.

Bean, F. D., & Aiken, L. H. (1976). Intermarriage and unwanted fertility in the United States. Journal of Marriage and Family, 38(1), 61–72.

Becker, G. S. (1965). A theory of the allocation of time, The Economic Journal, 75(299), 493–517.

Benson, S. (1994). Consistent estimation of the fixed effects ordered Logit model. Journal of the Royal Statistical Society, Series A, 178, 685–703.

Bethman, D., & Rudolf, R. (2018). Happily ever after? Intrahousehold bargaining and the distribution of utility within marriage. Review of Economics of the Household, 16, 347–376.

Blekesaune, M. (2018). Is cohabitation as good as marriage for people’s subjective well-being? Longitudinal evidence on happiness and life satisfaction in the British Household Panel Survey. Journal of Happiness Studies, 19, 505–520.

Bookwala, J., & Schulz, R. (1996). Spousal similarity in subjective well-being: The cardiovascular health study. Psychology and Aging, 11(4), 582–590.

Borkotoky, K., & Gupta, A. K. (2016). Trends and patterns of educational homogamy in India: A marriage cohort analysis. International Journal of Population Research, 2016, 8569249.

Botha, F., & Booysen, F. (2013). The gold of one’s ring is not far more precious than the gold of one’s heart: Reported life satisfaction among married and cohabitating South African adults. Journal of Happiness Studies, 14, 433–456.

Bourassa, K. J., Memel, M., Woolverton, C., & Sbarra, D. A. (2015). A dyadic approach to health, cognition, and quality of life in aging adults. Psychology and Aging, 30(2), 449–461.

Bratton, M., & Kimenyi, M. S. (2008). Voting in Kenya: Putting ethnicity in perspective. Journal of Eastern African Studies, 2(2), 272–289.

Braver Sanford L, and Micheal E. Lamb. 2013. Marital dissolution. In: Peterson, Gary W., and Kevin R. Bush (eds). Handbook of Marriage and the Family. Springer, Boston, MA.

Budlender, D., Chobokoane, N., & Simelane, S. (2004). Marriage patterns in South Africa: Methodological and substantive issues. Southern African Journal of Demography, 9(1), 1–25.

Chen, J., & Takeuchi, D. T. (2011). Intermarriage, ethnic identity, and perceived social standing among Asian women in the United States. Journal of Marriage and Family, 73(4), 876–888.

Chen, M. (2018). Does marrying well count more than career? Personal achievement, marriage, and happiness of married women in urban China. Chinese Sociological Review, 50(3), 240–274.

Chi, P., Qinglu, Wu., Cao, H., Zhou, N., & Lin, X. (2020). Relationship-oriented values and marital and life satisfaction among Chinese couples. Journal of Social and Personal Relationships, 37(8–9), 2578–2596.
Clark, A. E., Flèche, S., Layard, R., Powdthavee, N., & Ward, G. (2019). *The origins of happiness: The science of well-being over the life course*. Princeton University Press.

Clarkwest, A. (2007). Spousal dissimilarity, race, and marital dissolution. *Journal of Marriage and Family*, 69(3), 639–653.

Corcoran, K., Crusiús, J., & Mussweiler, T. (2011). Social comparison: Motives, standards, and mechanisms. In D. Chadee (Ed.), *Theories in Social Psychology* (pp. 119–139). Wiley-Blackwell.

Crespin-Boucaud, J. (2020). Interethnic and interfaith marriages in sub-Saharan Africa. *World Development*, 125, 104668.

Crosby, F. (1976). A model of egoistical relative deprivation. *Psychological Review*, 83, 85–113.

Davis, J. A. (1959). A formal interpretation of the theory of relative deprivation. *Sociometry*, 22, 280–296.

Davis, K. (1941). Intermarriage in caste societies. *American Anthropologist*, 43(3), 376–395.

Dilmaghani, M. (2019). Sexual orientation and the ‘cohabitation gap’ in life satisfaction in Canada. *Review of Economics of the Household*, 17, 1163–1189.

Domínguez, E., de Santiago, F. J., García-Mateos, M. M., & Jenaro, C. (2019). Marital satisfaction in Spanish and Dominican couples. *Acta De Investigación Psicológica*, 9(1), 48–58.

Dribe, M., & Lundh, C. (2008). Intermarriage and immigrant integration in Sweden: An exploratory analysis. *Acta Sociologica*, 51(4), 329–354.

Duesenberry, J. S. (1949). *Income, savings, and the theory of consumer behaviour*. Harvard UP.

Edwards, J. R. (2001). Ten difference score myths. *Organizational Research Methods*, 4(3), 265–287.

Euteneuer, F. (2014). Subjective social status and health. *Current Opinion in Psychiatry*, 27, 337–343.

Ferreira, W. D. A., Camelo, L., Viana, M. C., Giatti, L., & Barreto, S. M. (2018). Is subjective social status a summary of life-course socioeconomic position? *Cadernos de Saúde Pública*, 34(5), e00024317.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117–140.

Francis, D., & Webster, E. (2019). Poverty and inequality in South Africa: Critical reflections. *Development Southern Africa*, 36(6), 788–802.

Gash, V., & Plagnol, A. C. (2020). The partner pay gap: Associations between spouses’ relative earnings and life satisfaction among couples in the UK. *Work, Employment and Society*. https://doi.org/10.1177/0950017020946657

Gaunt, R. (2006). Couple similarity and marital satisfaction: Are similar spouses happier? *Journal of Personality*, 74(5), 1401–1420.

Gronau, R. (1977). Leisure, home production, and work-theory of the allocation of time revisited. *Journal of Political Economy*, 85(6), 1099–1123.

Gustavson, K., Røysamb, E., Borren, I., Torvik, F. A., & Karevold, E. (2016). Life satisfaction in close relationships: Findings from a longitudinal study. *Journal of Happiness Studies*, 17, 1293–1311.

Guven, C., Senik, C., & Stichnoth, H. (2012). You can’t be happier than your wife. Happiness gaps and divorce. *Journal of Economic Behavior and Organization*, 82(1), 110–130.

Hajdu, G., & Hajdu, T. (2018). Intra-couple income distribution and subjective well-being: The moderating effect of gender norms. *European Sociological Review*, 34(2), 138–156.

Haught, H. M., Rose, J., Geers, A., & Brown, J. A. (2015). Subjective social status and well-being: The role of referent abstraction. *Journal of Social Psychology*, 155, 356–369.

Hawkins, D. N., & Booth, A. (2005). Unhappily ever after: Effects of long-term, low-quality marriages on well-being. *Social Forces*, 84(1), 451–471.

Heaton, T. B., & Pratt, E. T. (1990). The effects of religious homogamy on marital satisfaction and stability. *Journal of Family Issues*, 11(2), 191–207.

Hoppmann, C. A., Gerstorf, D., Willis, S. L., & Warner Schaie, K. (2011). Spousal interrelations in happiness in the Seattle Longitudinal Study: Considerable similarities in levels and change over time. *Developmental Psychology*, 47(1), 1–8.

Hosegood, V., McGrath, N., & Moutrie, T. (2009). Dispensing with marriage: Marital and partnership trends in rural KwaZulu-Natal, South Africa 2000–2006. *Demographic Research*, 20, 279–312.

Hossain, M., Niaz Asadullah, M., & Kambhampati, U. (2019). Empowerment and life satisfaction: Evidence from Bangladesh. *World Development*, 122, 170–183.

Huang, S., Hou, J., Sun, L., Dou, D., Liu, X., & Zhang, H. (2017). The effects of objective and subjective socioeconomic status on subjective well-being among rural-to-urban migrants in China: The moderating role of subjective social mobility. *Frontiers in Psychology*, 8, 819.

Jacobson, C. K., Amoateng, A. Y., & Heaton, T. B. (2004). Inter-racial marriages in South Africa. *Journal of Comparative Family Studies*, 35(3), 443–458.

Kalmijn, M. (2010). Consequences of racial intermarriage for children’s social integration. *Sociological Perspectives*, 53(2), 271–286.
Kalmijn, M. (2015). The children of intermarriage in four European countries: Implications for school achievement, social contacts, and cultural values. *Annals of the American Academy of Political and Social Science, 662*(1), 246–265.

Kalmijn, M., de Graaf, P. M., & Janssen, J. P. G. (2005). Intermarriage and the risk of divorce in the Netherlands: The effects of differences in religion and in nationality, 1974–94. *Population Studies, 59*(1), 71–85.

Kalugina, E., Radtchenko, N., & Sofer, C. (2009a). How do spouses share their full income? Identification of the sharing rule using self-reported income. *Review of Income and Wealth, 55*(2), 360–391.

Kalugina, E., Sofer, C., & Radtchenko, N. (2009b). Intra-household inequality in transitional Russia. *Review of Economics of the Household, 7*, 447–471.

Keizer, R., & Komter, A. (2015). Are “equals” happier than “less equals”? A couple analysis of similarity and well-being. *Journal of Marriage and Family, 77*(4), 954–967.

Kilpatrick, F. P., & Cantril, H. (1960). Self-anchoring scaling: A measure of individuals’ unique reality worlds. *Journal of Individual Personality, 16*, 158–173.

Kim-Prieto, C., & Miller, L. (2018). Intersection of religion and subjective well-being. In Diener, Ed, Shane, Oishi, and Louis Tay (eds.). *Handbook of well-being*. Salt Lake City, UT: DEF Publishers.

Kippen, R., Chapman, B., Peng, Yu., & Lounkaew, K. (2013). What’s love got to do with it? Homogamy and dyadic approaches to understanding marital instability. *Journal of Population Research, 30*, 213–247.

Kollamparambil, U. (2021). Subjective wellbeing inequality between cohabiting partners: Does a household Kuznets curve exist?. *Journal of Happiness Studies* (in press).

Lam, J. (2020). Actor–partner effects of childhood disadvantage on later life subjective well-being among individuals in co-residential unions. *The Journals of Gerontology: Series B, 75*(6), 1275–1285.

Leeuwen, V., Marco, H. D., & Maas, I. (2005). Endogamy and social class in history: An overview. *International Review of Social History, 50*(S13), 1–23.

Leeuwen, V., Marco, H. D., & Maas, I. (2010). Historical studies of social mobility and stratification. *Annual Review of Sociology, 36*, 429–451.

Leibenstein, H. (1950). Bandwagon, snob, and Veblen effects in the theory of consumer’s demand. *Quarterly Journal of Economics, 64*(2), 183–207.

Luhmann, M., Hofmann, W., Eid, M., & Lucas, R. E. (2012). Subjective well-being and adaptation to life events: A meta-analysis. *Journal of Personality and Social Psychology, 102*(3), 592–615.

Luo, S. (2017). Assortative mating and couple similarity: Patterns, mechanisms, and consequences. *Social and Personal Psychology Compass, 11*, e12337.

Ma, X., & Piao, X. (2019). The impact of Intra-household Bargaining power on happiness of married women: Evidence from Japan. *Journal of Happiness Studies, 20*, 1775–1806.

Mäenpää, E., & Jalovaara, M. (2014). Homogamy in socio-economic background and education, and the dissolution of cohabiting unions. *Demographic Research, 30*, 1769–1792.

McNamee, P., Mendolia, S., & Yerokhin, O. (2021). The transmission of partner mental health to individual life satisfaction: Estimates from a longitudinal household survey. *Scottish Journal of Political Economy, 68*, 494–516.

Meng, X., & Meurs, D. (2009). Intermarriage, language, and economic assimilation process: A case study of France. *International Journal of Manpower, 30*(1–2), 127–144.

Merton, R. K. (1941). Intermarriage and the social structure: Fact and theory. *Psychiatry, 4*, 361–374.

Merton, R. K., & Rossi, A. S. (1968). Contributions to the theory of reference group behavior. In R. K. Merton (Ed.), *Social theory and social structure* (pp. 279–334). The Free Press.

Mhongo, K. H., Panagioti, M., & Armitage, C. J. (2017). How strongly related are health status and subjective well-being? Systematic review and meta-analysis. *European Journal of Public Health, 27*(5), 879–885.

Nikolova, M., & Nikolaev, B. N. (2018). Family matters: The effects of parental unemployment in early childhood and adolescence on subjective well-being later in life. *Journal of Economic Behavior and Organization. https://doi.org/10.1016/j.jebo.2018.05.005*

Nock, S. L. (1995). A comparison of marriages and cohabiting relationships. *Journal of Family Issues, 16*(1), 53–76.

Pesando, L. M. (2021a). Educational assortative mating in sub-Saharan Africa: Compositional changes and implications for household wealth inequality. *Demography, 58*(2), 571–602.
Pesando, L. M. (2021b). A four-country study on the relationship between parental educational homogamy and children’s health from infancy to adolescence. *Population Research and Policy Review*. https://doi.org/10.1007/s11113-020-09627-2

Piao, X., Ma, X., & Managi, S. (2021). Impact of the intra-household education gap on wives’ and husbands’ well-being: Evidence from cross-country microdata. *Social Indicators Research*, 156, 111–136.

Posel, D., & Casale, D. (2011). Relative standing and subjective well-being in South Africa: The role of perceptions, expectations and income mobility. *Social Indicators Research*, 104(2), 195–223.

Posel, D., & Casale, D. (2015). Differences in subjective well-being within households: An analysis of married and cohabiting couples in South Africa. *African Review of Economics and Finance*, 7(1), 32–52.

Posel, D., & Rudwick, S. (2013). Changing patterns of marriage and cohabitation in South Africa. *Acta Juridica*, 1, 169–180.

Posel, D., Rudwick, S., & Casale, D. (2011). Is marriage a dying institution in South Africa? Exploring changes in marriage in the context of ilobolo payments. *Agenda*, 25(1), 102–111.

Potarca, G., & Bernardi, L. (2020). The intermarriage life satisfaction premium. *Journal of Happiness Studies*. https://doi.org/10.1007/s10902-020-00278-w

Powdthavee, N. (2009). I can’t smile without you: Spousal correlation in life satisfaction. *Journal of Economic Psychology*, 30(4), 675–689.

Qian, Y., & Qian, Z. (2015). Work, family, and gendered happiness among married people in urban China. *Social Indicators Research*, 121, 61–74.

Runciman, W. G. (1966). *Relative deprivation and social justice. A study of attitudes and social inequality in the twentieth century Britain*. Adershot: Gregg Revivals

Satina, B., Solmon, M. A., Cothran, D. J., Lofthus, S. J., & Stockin-Davidson, K. (1998). Patriarchal consciousness: Middle school students’ and teachers’ perspectives of motivational practices. *Sport, Education and Society*, 3(2), 181–200.

Schade, H. M., Hülür, G., Infurna, F. J., Hoppmann, C. A., & Gerstorf, D. (2016). Partner dissimilarity in life satisfaction: Stability and change, correlates, and outcomes. *Psychology and Aging*, 31(4), 327–339.

Schneider, S. M. (2019). Why income inequality is dissatisfying—Perceptions of social status and the inequality-satisfaction link in Europe. *European Sociological Review*, 35(3), 409–430.

Schwartz, C. R., Zeng, Z., & Xie, Yu. (2016). Marrying up by marrying down: Status exchange between social origin and education in the United States. *Sociological Science*, 3, 1003–1027.

Shakya, H. B. (2015). Affect and well-being similarity among older Indian spouses. *Aging and Mental Health*, 19(4), 325–334.

Soons, J. P. M., & Kalmijn, M. (2009). Is marriage more than cohabitation? Well-being differences in 30 European countries. *Journal of Marriage and Family*, 71(5), 1141–1157.

Stouffer, S. A., Suchman, E. A., Devinney, L. C., Star S. A., & Williams, R. M. Jr. (1949). *The American soldier: Adjustment during army life*. (Studies in social psychology in World War II). Princeton: Princeton University Press.

Sutin, A. R., Stephan, Y., & Terracciano, A. (2018). Parental educational attainment and offspring subjective well-being and self-beliefs in older adulthood. *Personality and Individual Differences*, 128, 139–145.

Tan, J. J. X., Kraus, M. W., Carpenter, N. C., & Adler, N. E. (2020). The association between objective and subjective socioeconomic status and subjective well-being: A meta-analytic review. *Psychological Bulletin*, 146(11), 970–1020.

Tzeng, M.-S. (1992). The effects of socioeconomic heterogamy and changes on marital dissolution for first marriages. *Journal of Marriage and Family*, 54(3), 609–619.

Utomo, A. J. (2020). Love in the melting pot: Ethnic intermarriage in Jakarta. *Journal of Ethnic and Migration Studies*, 46(14), 2896–2913.

von Fintel, D., & Posel, D. (2016). Errors in recalling childhood socio-economic status: The role of anchoring and household formation in South Africa. *Social Indicators Research*, 126(1), 119–140.

Wu, H. F. (2020). Relative income status within marriage and subjective well-being in China: Evidence from observational and quasi-experimental data. *Journal of Happiness Studies*. https://doi.org/10.1007/s10902-020-00237-5

Wünsche, J., Weidmann, R., & Grob, A. (2020). Until death do us part: The codevelopment of life satisfaction in couples preceding the death of one partner. *Journal of Personality and Social Psychology*, 119(4), 881–900.

Zhang, S., Wang, E., & Chen, Y. (2011). Relative deprivation based on occupation: An effective predictor of Chinese life satisfaction. *Asian Journal of Social Psychology*, 14, 148–158.
Publisher's Note  Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.