Extended Abstract

Lonely Apart or Lonely Together? Loneliness, partnership status, and the links between material wellbeing and vulnerability across partnership types in four European countries

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Introduction

Having a partner is often portrayed as protective for numerous adverse aspects of subjective well-being, including feelings of loneliness (Hawkley & Cacioppo, 2010; Barjaková, et al., 2023). Loneliness is defined as the painful feeling that arises when actual social contact falls short of what is desired and is often considered involuntary and undesired (Beutel et al., 2017). Yet the benefit of partnership vis-á-vis perceived loneliness usually depends on the context. A likely, but unexplored, moderator between partnership status and perceived loneliness is material wellbeing. Material wellbeing can be owning one's home or having an income sufficient to sustain a decent living standard (Voukelatou et al., 2020). In other words, whether partnership "protects" may hinge on the resources individuals bring to, and can mobilize within, their everyday lives. While material wellbeing captures an individual's objective resources, day-to-day challenges related to it also matter. Individuals may experience subjective strain through how they perceive their situation, for example, whether they have difficulties making ends meet or are dissatisfied with their housing. Such vulnerability can shape outcomes independently of, or in interaction with income or assets.

These considerations have become increasingly important for individual life course as shifting gender norms and emancipation movements have reshaped intimate life over the past half-century. Divorce has become more common and socially accepted, and relationship forms have diversified beyond marriage, such as cohabitation and living-apart-together LAT (Hofäcker & Chaloupková, 2014; Perelli-Harris & Lyons-Amos, 2015; Olah et al., 2023). Partnership norms and expectations have also shifted. For example, unions traditionally were aimed at mutual support, stability and childrearing. Contemporary partnerships are expected to remain reliable and supportive while also enabling equality and self-fulfillment for both partners and delivering emotional rewards such as happiness, passion, and love (ibid). At the same time, the social meaning of singlehood has changed, shifting from a stigmatized and less valued status to a more legitimate, and often intentional, way of living. Against this backdrop, it is valuable to examine the nexus between loneliness, material wellbeing, and vulnerability across different time periods within the same context.

Informed by a vulnerability theoretical framework, this study asks whether wealthier individuals are less lonely in four Eastern and Northern European countries; Czechia, Estonia, Norway, and Sweden. The core focus is how the association between material wellbeing and loneliness as subjective wellbeing measure varies across partnership statuses (married, cohabiting, LAT, single) among those aged 25-55 in two specific time periods, early 2000s and 2020s. Over the two decades, these countries have undergone major demographic and societal changes, though not at the same pace or intensity (Pascall, & Kwak, 2009; Perelli-Harris & Lyons-Amos, 2015; Puur, et al. 2012). Material wellbeing is captured by living standard and homeownership. Subjective strain is integrating to these associations through two vulnerability indicators: perceived financial strain ("making ends meet") and housing satisfaction. We focus on ages 25–55 being post-education but before retirement because material conditions and partnership configurations are most fluid during prime working ages. These age groups have also different loneliness prevalence than other age groups. For example, recent European estimates indicate that 10% of adults and 20% of adolescents report frequent loneliness whereas adolescent have; despite the lower adult rate, the burden remains significant (OECD, 2025). Because women often report higher loneliness than men, we analyze women and men separately to identify gendered patterns (e.g., Barjaková, et al. 2023).

Our main contribution to the loneliness literature is the joint focus on material wellbeing and perceived (subjective) vulnerability along these dimensions. A large literature shows that such perceived strains predict well-being net of objective resources, consistent with the stress-process framework in which appraisal and chronic strain are proximal drivers of outcomes (Ross, 2027). Measures of financial strain and material deprivation add explanatory power beyond income for life satisfaction and disadvantage in European data (Whelan & Maître, 2013). Housing evaluations matter, too: poorer housing satisfaction is linked to worse psychological and social outcomes over and above socioeconomic status, indicating that

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subjective and material conditions often interact to shape wellbeing (Knoechelman et al., 2020). Additionally, we provide the first cross-national, two-period comparison of how partnership status moderates the material wellbeing-loneliness nexus, and whether subjective strain attenuates these gradients.

Data and methods

This study is based on 8 rounds of the Generation and Gender survey from four countries where there were two rounds of data collections; Czechia, Estonia, Norway, and Sweden. The GGS is a long-running survey predominantly collected in European countries since the early 2000s. As the study focuses on ages 25 to 55, we restrict the analytical sample to only include this age-range.

Outcome variable – loneliness scale

The outcome variable is a loneliness scale. Based on the widely applied De Jong Gierveld short scale for emotional and social loneliness (De Jong Gierveld & Tilburg, 2006), we constructed an index using six items capturing current experience of loneliness in the GGS surveys (also used in other cross-European studies based on GGS, e.g., De Jong Gierveld & Van Tilburg, 2010). The items are: (1) I experience a general sense of emptiness, (2) I miss having people around, (3) Often, I feel rejected, (4) There are plenty of people I can lean on, (5) There are many people I can trust, and (6) There are enough people that I feel close to. The respondents were asked to indicate their agreement with each statement using the following response options: yes (coded as 1), more or less (coded as 2), no (coded as 3). The scale is generally divided to assess two dimensions of loneliness that does not directly refer to loneliness. Three items measure emotional loneliness (negative formulated items), which reflects the absence of a close, intimate relationship. The other three items measure social loneliness (positively formulated items), capturing the perceived lack of a broader social network. Moreover, the loneliness scale is calculated as the sum of the six items, so, for example, a total score of 9 indicates that the combined values of the six items equal 9. Lower index values indicate lower levels of loneliness and the opposite, high values indicate high levels of loneliness. Three items were reverse-coded prior to summation to ensure that lower values consistently reflect lower loneliness (item 1, 2 and 3). Respondent who did not respond to any of the six items were excluded.

Key independent variables and adjusting variables

The key explanatory variable is *Current partnership status*, which distinguishes between (1) married, (2) cohabiting, (3) living apart together (LAT), and (4) single. *Material wellbeing* is measured with two indicators*, home ownership and living standard. Housing ownership* captures whether respondents own their dwelling or not. For Sweden, the variable is "value of the property" (as a proxy for material wellbeing) as there are no question about home ownership. *Living standard* is based on household income adjusted to household size.

One of the *vulnerability indicators* is whether the household is able to *make ends meet*, which distinguishes between respondents reporting (1) (great) difficulty, (2) some difficulty, (3) fairly easily, or (4) easily/very easily. Because the extreme response categories contained relatively few observations, they were collapsed for analytic clarity: respondents reporting 'great difficulty' were grouped with those reporting 'difficulty,' while those reporting 'very easily' were grouped with those reporting 'easily.' In the Estonian 2005 survey, an additional indicator was included to assess whether respondents had money left for savings, based on the question: 'Considering your household's income as well as expenses, is there normally some money left that you could save?' with response options 'yes' and 'no'. The second indicator is *Satisfaction with the housing situation* measured on an 11-point scale, ranging from 0 (completely satisfied) to 10 (not at all satisfied), with 5 representing the midpoint ('average').

Among the adjusting variables, *Gender* is coded as female or male. *Age at interview* is categorized into five-year groups. *Educational attainment* is classified as primary, secondary, or tertiary using the International Standard Classification of Education. The variable *Born in the country* indicates whether the respondent was born in the country of interview (yes/no).

Analytical strategy

We employ gender-stratified stepwise regression analyses for each country and survey round. This approach allows us to account for heterogeneity across countries and temporal differences between survey rounds, which might hide meaningful differences if analyzed in a single model (not least as the distribution of loneliness vary much cross the countries, but less over time). We can capture context-specific associations and better assess how the key relationships vary across settings and over time. Our first country-specific models estimate bivariate associations between partnership status and loneliness (M1). Second, we include

home ownership and income (M2), which is followed by models including the adjusting variables (M3). Lastly, we include the vulnerability indicators *Housing satisfaction* and *Making ends meet* (M4) To further test within-group differences, we perform interactions between *Current partnership status* and (1) material well-being (*Home ownership* and *Living standard*), and (2) vulnerability indicators (*Housing satisfaction* and *Making ends meet*) in fully adjusted models (not reported here).

Preliminary results

The analyses are ongoing and will be completed in time for the European Population Conference in June 2026. Figure 1 presents the results for Sweden, and parallel models have been estimated for the other countries. Because models are run separately by country, survey round, and gender, we report patterns within these dimensions rather than making direct comparisons across models.

We first report results for current partnership status where the reference group are "married" (M1-M4). Across periods and countries, single men consistently show the highest likelihood of experiencing loneliness than married men, while LAT men have higher likelihood than married men in Norway (2008, 2021), Czechia (2005), and Estonia (2021). In Sweden and Estonia, LAT-men have a higher likelihood of experiencing loneliness only once vulnerability indicators are included (M4). Compared to married men, cohabiting men show higher loneliness only in Czechia 2005.

Among women, single women consistently show the highest likelihood of experiencing loneliness across countries and periods than married women. Cohabiting women have higher likelihood of experiencing loneliness than married women in Czechia (2005), Estonia (M4), Sweden (2012), and Norway (2021—but the effect disappears after adding vulnerability indicators). Regarding LAT women, they have a higher likelihood of experiencing loneliness compared with married women in Estonia (2021) and in Sweden and Norway (both rounds), although these LAT effects disappear once vulnerability indicators are included.

The two material wellbeing indicators (M2), living standard and home ownership vary in importance across countries and rounds but show a similar overall pattern by gender. In Estonia, Sweden and Norway, living standard show a negative gradient, that is, the higher living standard the lower likelihood of experiencing in the earlier period; whereas in the latter period, only the highest living standard shows a lower likelihood of experiencing loneliness. In Czechia material wellbeing is more important in the earlier period of 2000s but not in early 2020s. Home ownership indicates that not owning the home increase the likelihood of experiencing loneliness. For both material wellbeing indicators, and in most countries, this association disappear once the vulnerability indicators making ends meet and housing satisfaction are included in the model, which shows that how individuals perceive their situation is more important than their living standard and home ownership.

In the final model (M4), which adds the vulnerability indicators making ends meet and housing satisfaction, results consistently across countries, rounds and genders show that lower housing satisfaction increases the likelihood of experiencing loneliness. Regarding making ends meet, we find consistently across countries, rounds and genders that individuals with some or great difficulty are much more likely to experience loneliness compared with those reporting no difficulty making ends meet.

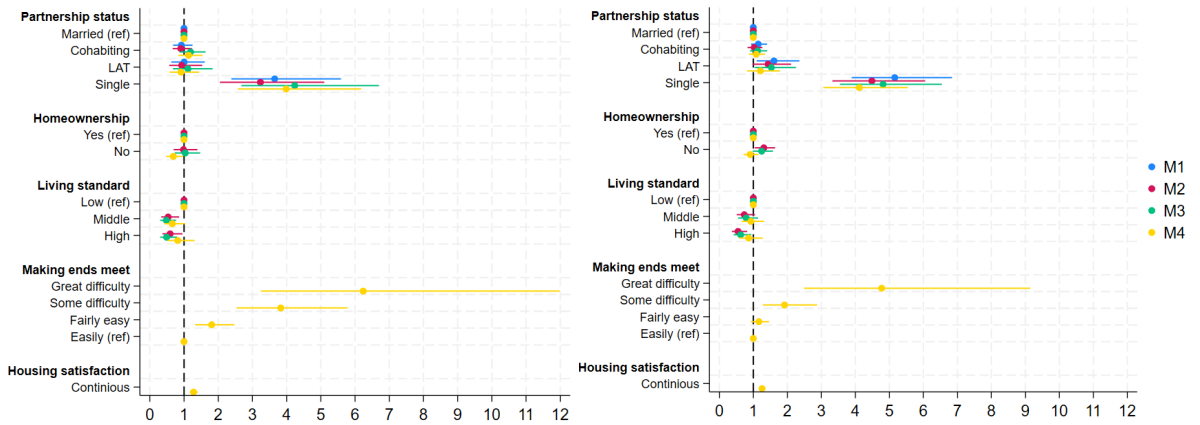
Discussion and conclusions

This is the first study that investigates the material wellbeing-loneliness nexus, and how subjective strain attenuates these gradients using cross-country data. Our findings support the common view that partnership protects against loneliness. Single individuals have the highest likelihood of loneliness in both genders across all contexts, which aligns with prior work on the social benefits of partnering. Yet the protection is conditional. LAT is sometimes associated with higher loneliness, and these differences often weaken once perceived vulnerabilities are included. Cohabitation shows mixed patterns, with excess loneliness in a few country–period cells that frequently attenuate after accounting for vulnerability. These results imply that partnership form is not a simple proxy for social support. Instead, the day-to-day capacity to cope with material demands appears central.

Material wellbeing shows uneven effects across countries and time. In Estonia, Sweden, and Norway, higher living standard is linked to lower loneliness in the earlier period, while in the later period only the highest category remains protective. In Czechia, material wellbeing is more salient in the 2000s than the early 2020s. Not owning one's home is generally linked to higher loneliness. Crucially, most associations for living standard and homeownership weakens when we add perceived ability making ends meet and housing satisfaction. In the final model, lower housing satisfaction and difficulty making ends meet are robustly associated with higher loneliness across countries, rounds, and genders. Concluding, vulnerability

consistently predicts loneliness across countries, rounds, and genders, often outweighing objective assets. Still, partnership status continues to play an important role even after adding vulnerability, especially for those who are single and LAT. The final discussion will outline policy implications and theoretical contributions, acknowledge analytical limitations, and identify directions for future research.

Figure 1. Odds ratios of experiencing loneliness among men in Sweden, stepwise models[1)]



[1)] Note. Models are estimated separately by country, survey round and gender. Stepwise specification: M1 bivariate association between partnership status and loneliness; M2 adds material resources (homeownership, living standard); M3 adds controls for age at interview, nativity, and education; M4 adds vulnerability indicators (housing satisfaction, making ends meet).

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