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The associations between life events and person-centered personality consistency

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Abstract

Objective: Few environments reliably influence mean-level and rank-order changes in personality—perhaps because personality development needs to be examined through an individualized, person-centered lens.

Methods: The current study used Bayesian multilevel linear models to examine the association between 16 life events and changes in person-centered, Big Five personality consistency across 4 to 10 waves of data using four datasets ($N = 24{,}491$).

Results: Selection effects were found for events such as marriage, (un)employment, retirement, and volunteering, whereas between-person effects for slopes were found for events such as beginning formal education, employment, and retirement. Within-person changes were often small and emerged inconsistently across datasets but, when present, were brief and negative in direction, suggesting life events can serve as a short-term disruption to the personality system. However, there were many individual differences around event-related trajectories.

Conclusion: Our results highlight that the effects of life events depend on how personality and its changes are quantified—with these findings underscoring the utility of a person-centered approach as it can capture the full range of these idiosyncrasies. Overall, these findings suggest that life events are associated with a range of idiosyncratic effects and can serve as a short-term, destabilizing shock to one's personality system.

KEYWORDS

environmental factors, ipsative consistency, life events, personality development, person-centered, profile correlations

1 | INTRODUCTION

Life events are thought to influence personality development (Roberts & Jackson, 2008; Specht et al., 2014). While the influence of life events has been thoroughly examined with respect to variable-centered approaches, such as mean-level change (e.g., Denissen et al., 2019) and rank-order stability of single traits (e.g., Specht et al., 2011), fewer studies have investigated how these environmental factors are related to person-centered personality change (c.f. Jackson & Beck, 2021). The commonly used variable-centered approach has limitations, as it typically does not permit a holistic view of event-associated changes, and often assumes that people change similarly

This study's design and its analyses were not pre-registered.

in the response to a life event, thus masking any unique responses to life events.

Person-centered approaches, in contrast, do not require comparison to other people as variable-centered approaches often do. Person-centered approaches to personality development, such as through the use of individual profile (ipsative) correlations, compare the relative rankings of attributes within an individual over time, so change is defined only with respect to their previous scores. Despite the benefits offered by this approach, few studies have looked at environmental influences on profile consistency. Recently, Wright and Jackson (2022a) examined repeated measures of profile correlations to investigate trajectories of person-centered, Big Five personality consistency. They identified considerable individual differences in person-centered trajectories. Likely sources driving these idiosyncratic patterns of ipsative consistency are environmental factors, both broad (e.g., culture, geographical location) and narrow (e.g., individually experienced life events) in variety.

The current study examines the association of environmental factors and person-centered trajectories of Big Five profile change. In doing so, we use item-level profile correlations across 4 to 10 waves of Big Five personality data with four datasets (N = 24,491). Changes in consistency will be examined as a function of life events (e.g., getting married, getting divorced, having a child) and broad country-level effects. We will examine both within-person (i.e., comparing a person's own trajectory prior to and after their reported life event) as well as between-person effects (i.e., selection effects and comparing consistency for those who experience an event versus those who do not).

1.1 | Environmental impacts on personality development

Theoretical perspectives on personality development typically propose that biological factors, environmental factors, or a combination of both are the proponents for driving personality change (Specht et al., 2014). Theories vary with regard to the amount of indirect versus direct influence environments have, but all acknowledge the role that an individual's environment has on shaping personality. Among possible factors, life events are a common candidate for examining environmental impacts on personality development. Life events can be defined as "time-discrete transitions that mark the beginning or the end of a specific status" (Luhmann et al., 2012). Life events are valuable environmental factors to study as they can occur both through selection on behalf of the individual (e.g., applying and getting a new job) or unexpectedly (e.g., suddenly experiencing widowhood) and can serve as a stabilizing force (such as through a decades-long marriage) or a destabilizing force (such as job loss).

Past work has examined the impact of life events on some aspects of personality development (Bleidorn et al., 2018), primarily using variable centered approaches with the Big Five traits. For example, Specht et al. (2011) examined the effects of a variety of life events on personality mean levels and rank-order stability. Life events were associated with decreased rank-order stability (Specht et al., 2011), suggesting that their experience may be driving individual differences. In addition, Denissen et al. (2019) examined the effect of different life events on personality trait change across multiple waves. This study did find some average effects of life events impacting Big Five personality trait development, as well as individual differences around event-related trajectories.

In addition to identifying trait-level effects, key components of the effects of life events are their timing and duration. In line with work in the well-being literature, it is possible that following an event, any changes an individual experienced would "bounce back" and their levels would return to their set-point after enough time passes (Lykken & Tellegen, 1996). Some life event research has indeed found that, depending on the event, some bouncing back does appear to occur (Denissen et al., 2019; Schwaba & Bleidorn, 2019). This possibility highlights that it is necessary to evaluate if any observed changes endure over longer periods of time. Furthermore, separating anticipatory changes from changes following the onset of an event is needed (van Scheppingen et al., 2016). For example, when examining between-group differences in personality for individuals who began using substances, the most pronounced group differences for users versus non-users appeared to be attributable to anticipatory changes at the within-person level, suggesting it is not always the event itself (i.e., initiating substance use) directly leading to these changes (Wright & Jackson, 2022b).

While the effects of life events on personality development have been frequently examined, few replicable associations are found. Associations between personality traits and life events vary in detection, magnitude, and duration depending on the timeframes they are examined within (Denissen et al., 2019; van Scheppingen et al., 2016) and the direction of changes can contradict prominent predictions based on theories of personality development (i.e., Social Investment Theory; van Scheppingen et al., 2016). It could be that life events are complicated to study and have many nuanced effects; alternatively, it could also be the case that this variable-centered approach has its limitations. That is, the focus on a single trait at a time may not permit one to obtain a holistic view of personality development at the individual level.

1.2 | Person-centered personality consistency

Although general trends of stability in personality emerge between- and within-people, personality traits are also malleable qualities that can vary over time (Bleidorn et al., 2013; Roberts & Mroczek, 2008). Of the multiple ways to conceptualize personality change (e.g., mean-level change, rank-order stability; Roberts et al., 2008), ipsative or profile consistency is among the least examined. This type of change occurs at the individual level and represents the relative consistency of the configuration of traits within a single person across time (Asendorpf, 1992; De Fruyt et al., 2006; Donnellan et al., 2007; Klimstra et al., 2009; Ozer & Gjerde, 1989). Ipsative consistency takes into account multiple aspects of someone's personality—as opposed to examining a single trait at a time—and thus is referred to as a person-centered approach as opposed to variable-centered.

Wright and Jackson (2022a) find that people tend to maintain their person-typical levels of person-centered consistency across multiple assessments across multiple years, such that regardless of if someone has a profile correlation value of 0.30 or 0.80, they are stable in this level of consistency across time. Despite these mostly stable levels of consistency, though, some people changed in their consistency—similar to individual differences in mean-level personality change. That is, while profile consistency is mostly stable, some people increase while others decrease in their consistency. These individual differences could occur because of dispositional qualities whereby some people are more or less mutable, in general. Alternatively, it could be outside forces that result in changes to one's environment that are associated with changes in ipsative consistency. The finding of individual differences in changes in profile consistency opens up the possibility that outside forces shape one's personality consistency.

1.3 | Effects of life events on person-centered personality development

If the lack of replicable mean-level changes associated with life events is due to life events having unique effects for each person, such that life events are impactful, but impactful in different ways, then life events will not be associated with mean-level changes. Moreover, environmental factors such as life events are often found to have widespread effects in more than one domain of life, requiring an individual to adapt to (possibly multiple) new behaviors, routines, or self-perceptions (i.e., through new social roles/titles). Due to these concerns, person-centered approaches allow a potentially better lens by which one can examine the effects of life events on personality development, as it tests whether someone's entire personality system is affected, highlighting people rather than specific variables.

Compared to the preponderance of research on variable-centered approaches to examining the effects of life events, relatively little has been done from the perspective of person-centered approaches. When examining the influence of life events on ipsative change, Jackson and Beck (2021) found primarily null or small effects for all life events except for mental health events using two waves of data and comparing groups that did and did not experience a life event. Additionally, a study examining idiographic structural change found that although some people showed multivariate change, these individualized points of change had little concordance with their reported life events (Beck & Jackson, 2022a).

However, it is worth noting that the past work on ipsative change was limited to two waves. This makes it difficult to ascertain whether life events were associated with changes in one's profile consistency to the point if it was or was not distinguishable from their typical patterns of change across time. Additionally, the past person-centered work was all conducted exclusively with one sample per study, rendering the generalizability of its findings to different contexts, groups of people, or even countries difficult.

1.4 | Current study

In contrast to standard mean-level and rank-order perspectives of personality change and development, ipsative consistency allows for a holistic examination of each individual's personality configuration across time. As such, it may offer new insights into how (de)stabilizing the experience of life events may be in the scope of one's Big Five personality system.

We investigate the within- and between-person effects of 16 life events on personality development through the lens of individual test–retest, item-level profile correlations for the Big Five traits. We do this across 4 to 10 waves of personality data in four longitudinal panel studies, each of which are from a different region of the world. This not only gives some insight into the replicability of these trends, but also an indication of possible broader environmental or cultural influences that might account for between-study discrepancies.

We aim to answer three primary questions. First, are life events associated with between-person differences in person-centered, Big Five consistency? Second, are life events associated with changes to within-person consistency trajectories? Third, are results consistent across datasets, suggesting the associations of life events and personality consistency are generalizable?

2 | METHODS

2.1 | Participants

In this paper, we use data from $N = 24{,}491$ total participants from four longitudinal panel datasets (see Table 1). Participants were included in the present study if they had at least four waves of data for the Big Five trait items. The number of participants with four waves was 14,233; five waves was 6600; six waves was 598; seven waves was 646; eight waves was 785; nine waves was 1617; and 10 waves was 12. Results from attrition analyses are in File S1.

2.1.1 | German Socio-economic Panel (GSOEP) study

The GSOEP study (Socio-Economic Panel, 2019) is an ongoing longitudinal study conducted by the German Institute of Economic Research (DIW Berlin) collecting data on individuals in more than 11,000 German households. Data are freely available by application at https://www.diw.de/soep. Data collection began in 1984 and continues annually, with the latest release in 2021. Data from the years 2005–2019 were used in the current study. Through years 2005–2017, the Big Five were assessed every 4 years, with the latest assessment occurring in 2019. Questions regarding life events were administered annually.

2.1.2 | Household Income and Labour Dynamics in Australia (HILDA) study

The HILDA study (Watson & Wooden, 2012) is an ongoing longitudinal study collecting data on more than 17,000 individuals in Australian households. Data are freely available by application at https://melbourneinstitute.unimelb.edu.au/hilda/for-data-users. Data collection began in 2001 and has continued annually, with the latest release in 2020. Data from the years 2005–2017 were used in the current study, as that is when the Big Five were first and last assessed, respectively. The Big Five are assessed every 4 years, whereas questions regarding life events are typically assessed annually.

2.1.3 | Health and Retirement Study (HRS; United States of America)

HRS (Juster & Suzman, 1995) is an ongoing longitudinal study of more than 35,000 individuals from in households in the United States. Data are freely available at https://hrs.isr.umich.edu. Data collection began in 1992 and continues biennially, with the latest release in 2020. Data from the years 2006–2020 were used in the current study, as that is when the Big Five were first and last assessed, respectively. Generally, the Big Five are assessed every 4 years for an individual, although a small number (14 people) had an assessment gap of only 2 years for one wave. Questions regarding life events are assessed every 2 years.

2.1.4 | Longitudinal studies for the social sciences (LISS; Netherlands)

LISS (Scherpenzeel & Das, 2010) is an ongoing longitudinal study of approximately 8000 Dutch-speaking individuals from 5000 households in the Netherlands. Data are freely available through application at https://statements.centerdata.nl/liss-panel-data-statement. Data collection began in 2007 and has continued annually, with the latest release in 2021. Data from the years 2008–2021 were used in the current study, as those are the years when the Big Five were first and last assessed, respectively. The LISS survey included questions for Big Five traits and life events annually.

TABLE 1 Descriptive information by study.

	GSOEP	HILDA	HRS	LISS	Total
Sample size (*N*)	8023	6518	3591	6359	24,491
Age (*M*)	53.93	50.50	69.89	52.15	53.92
Age (*SD*)	15.50	16.01	9.18	17.06	16.41
% Female	53	55	61	54	55
# of personality waves (*M*)	4.67	4.00	4.00	6.46	4.87
# of personality waves (*SD*)	0.47	0.00	0.05	1.95	1.44
Years between personality waves (*M*)	3.58	4.00	3.99	1.68	3.01
Years between personality waves (*SD*)	0.89	0.00	0.12	0.81	1.25
Country/region	Germany	Australia	USA	Netherlands	–

Abbreviations: Age, age across all available waves; *M*, mean; *SD*, standard deviation.

2.2 | Measures

2.2.1 | Big Five

All items were scored such that higher scores indicated greater levels of the trait and lower scores indicated lower levels. Neuroticism was coded as emotional *in*stability. The number of items and specific content of items varied across studies (see Table S1 for items and internal consistency estimates per study), but full content for all items per study can be found in File S2. For GSOEP, all items were scored on a 1 to 7 Likert scale (1 = "does not apply" to 7 = "applies fully"). For HILDA, all items were scored on a 1 to 7 Likert scale (1 = "does not describe me at all" to 7 = "describes me very well"). For HRS, all items asked how well an adjective applied to the participants and were scored on a 1 to 4 Likert scale (1 = "a lot" to 4 = "not at all"). For LISS, all items asked participants to rate how well the description applied to themselves and were scored on a 1 to 5 Likert scale (1 = "very inaccurate" to 5 = "very accurate").

2.2.2 | Life events

We examined the effect of 16 life events.[1] Not all specific life events were available in each dataset, but there was generally a high level of agreement of events across datasets (see Table 2 for concordance across datasets). For the between-person, life event variable, if a person reported experiencing the life event at any point during their available waves of data for this study, then they were coded 1 for this variable and 0 if not. Additionally, the timing of a life event was split into three regions: pre-event, onset of event, and post-event. If a person was someone who reported having the life event but had not yet experienced it, they would be in the "pre-event" stage. To be in the "onset of event" stage, the event must have occurred between the two waves used to calculate a profile correlation. Typically, there were more waves of life event data than there were waves of personality data. For example, personality traits could be assessed every 4 years in a dataset whereas life events are assessed annually. Thus, for someone to be coded as experiencing a life event for a particular wave of a profile correlation (i.e., the onset of the event), the experience of the life event must have occurred between the two waves used to calculate the profile correlation. Lastly, all waves of profile correlations following the onset of the life event were categorized as being "post-event."

2.2.3 | Covariates

We examined the effect of two covariates: gender and age. For all datasets, gender was a dummy variable coded such that 0 = male and 1 = female. For each dataset, the average of a participant's ages across their waves of data was centered around the average age within each dataset.

TABLE 2 Collection of life events across datasets.

		Dataset			
Domain	**Event**	**GSOEP**	**HILDA**	**HRS**	**LISS**
Health	Health event			X	X
	Psych(ologist/iatrist) visit		X		X
	Cigarette	X		X	X
Relationships	Partner	X	X	X	X
	Married	X	X	X	X
	Separated	X	X	X	X
	Divorced	X	X	X	X
Family	Child	X	X		X
	Close other died	X	X	X	X
Education	Finished education	X	X		
	Began school		X		X
Career	Employed	X	X	X	X
	Unemployed	X	X	X	X
	Retired	X	X	X	X
Financial	Welfare		X	X	X
Social	Volunteer	X	X	X	X

Note: Boxes marked with an "X" indicate the dataset contained this life event. Boxes that are shaded indicate the dataset did not contain this life event.

Thus, the age variable represented how far a participant's average age deviated from their own sample's average age.

2.3 | Analytic plan

The analytic plan consisted of first calculating intraindividual profile correlations and then conducting Bayesian multilevel analyses to examine between- and within-person trends in these values as a function of the experience of the life events. Using a Bayesian approach allowed for optimal flexibility, particularly allowing for the estimation of random effects around each of the slopes surrounding the occurrence of life events. Bayesian multilevel models (MLMs) can be interpreted similarly to standard MLMs using maximum likelihood estimation, with the primary difference being Bayesian models use a Markov chain Monte Carlo (MCMC) based estimator. All analyses were conducted with R statistical software (R Core Team, 2021).

2.3.1 | Intraindividual profile correlations

First, individual test–retest profile correlations for all Big Five trait items were calculated within each study. The multicon package (Sherman & Serfass, 2015) in R statistical software was used for calculating profile correlations. Overall profile correlations were computed; these are "overall" in the sense that the grand-mean for each item is not subtracted out from each person's scores prior to calculating the profile correlations. The formula for calculating this profile correlation (Q_i) is,

$$Q_{ij} = \frac{\sum \left(x_{ij1} - \overline{x_{j1}}\right)\left(x_{ij2} - \overline{x_{j2}}\right)}{\sqrt{\sum \left(x_{ij1} - \overline{x_{j1}}\right)^2 \sum \left(x_{ij2} - \overline{x_{j2}}\right)^2}}$$

where x_{ij1} represents an individual's score for a personality item at one wave; $\overline{x_{j1}}$ represents the average of their scores at that wave; x_{ij2} represents an individual's score for a personality item at a second measurement wave; and $\overline{x_{j2}}$ represents the average of their scores at that second measurement wave.

2.3.2 | Interindividual differences in profile correlations

Next, we used a Bayesian multilevel modeling framework to examine the interindividual trends in profile correlations within each dataset. All analyses were conducted using the brms package (Bürkner, 2017) in R. All models were fit as linear multilevel models with measurements nested within individuals. Age and gender were included as Level 2 variables. The generic form of our model specification can be seen with the following:

Level 1:

$$Q_{ij} = b_0 + b_1 time\_c_{ij} + b_2 pre_{ij} \times time\_c_{ij} + b_3 onset_{ij} \times time\_c_{ij} + b_4 post_{ij} \times time\_c_{ij} + e_{ij}$$

Level 2:

$$b_0 = \gamma_{00} + \gamma_{01} LE_j + \gamma_{02} age\_c_j + \gamma_{01} gender_j + U_{0j}$$

$$b_{1-4} = \gamma_{10-40} + U_{1-4j}$$

The outcome variable Q_{ij} was the test–retest profile correlation for each individual across waves. The LE_j variable represented the between-group difference in consistency for individuals who experienced an event versus those who did not. People who experienced an event were coded as 1 for this variable and 0 if they did not report having the life event. The scaling of the $time\_c_{ij}$ variable depended on if an individual experienced the life event in the model. For those individuals that did experience the event, it was coded such that $time\_c_{ij} = 0$ at the wave of profile correlation immediately prior to the wave containing the onset of the event (see Figure 1). For those individuals that did not experience the event, $time\_c_{ij}$ was centered around the average wave that was immediately prior to the onset of event for individuals that did experience the event. For example, if the average wave of profile correlation that individuals experienced an event in a dataset was $time = 2$, then time would be centered around $time = 1$ for individuals who did not experience the event in that dataset. Thus, the intercept represented the average profile correlation for individuals who did not experience the event, at the time that was the average wave immediately prior to the onset of the event for people who did experience it. This meant that this exact time changed per life event per dataset. The $time\_c_{ij}$ variable itself represented the slope for individuals who did not experience the life event.

Next, there were three dummy-coded variables (pre_{ij}, $onset_{ij}$, $post_{ij}$) that captured the effect of experiencing the life event on the slope (i.e., $time\_c_{ij}$). These variables were always coded 0 for individuals who did not experience a life event. The pre_{ij} variable indicated if it was pre-event for an individual (coded 0 = onset of event or after, 1 = pre-event). The $onset_{ij}$ variable indicated if an event had its onset between the two waves used to calculate an individual's profile correlation (coded 0 = pre- or post-event, 1 = event had its onset between the waves). Lastly, the $post_{ij}$ variable indicated if an event had already

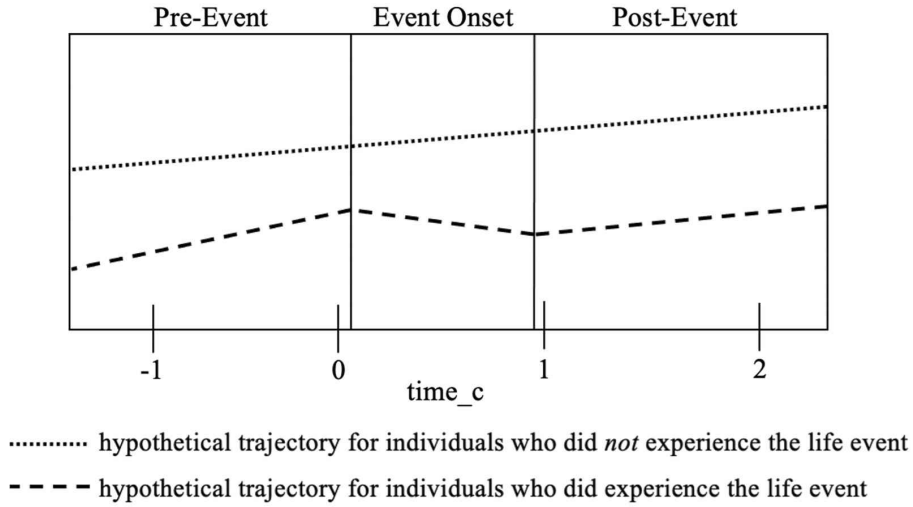

FIGURE 1 Example trajectories across the three event-related regions.

TABLE 3 Average trends for individual differences in personality consistency.

	GSOEP		HILDA		HRS		LISS	
	Est	**CI**	**Est**	**CI**	**Est**	**CI**	**Est**	**CI**
Person-level								
Intercept SD	**0.18**	**[0.18, 0.19]**	**0.18**	**[0.18, 0.19]**	**0.16**	**[0.15, 0.16]**	**0.16**	**[0.15, 0.16]**
Slope SD	**0.06**	**[0.06, 0.07]**	**0.06**	**[0.06, 0.07]**	**0.06**	**[0.06, 0.07]**	**0.02**	**[0.02, 0.02]**
Correlation	**−0.53**	**[−0.56, −0.49]**	**−0.39**	**[−0.42, −0.35]**	**−0.30**	**[−0.36, −0.24]**	**−0.34**	**[−0.38, −0.30]**
Sample-level								
Intercept	**0.59**	**[0.58, 0.59]**	**0.67**	**[0.66, 0.67]**	**0.70**	**[0.69, 0.71]**	**0.64**	**[0.64, 0.65]**
Slope	**0.02**	**[0.02, 0.02]**	**0.01**	**[0.01, 0.02]**	−0.00	[−0.01, 0.00]	**0.01**	**[0.01, 0.01]**

Note: Bolded values indicate parameter estimates that do not include 0 in the credible intervals.

Abbreviations: CI, 95% credible intervals; Est, the maximum a posteriori (MAP) estimate.

passed its onset (coded 0 = pre-event or onset of event, 1 = beyond the onset of event). Since each of these parameters were included as an interaction of the $time_{cij}$ variable, they represented the change in slope in each region, relative to the slope of individuals who did not experience the event. That is, the interaction terms indicated if there were between-person differences in each of the three region's slopes, comparing those who experienced an event and those who did not. However, we were primarily interested in the difference in slopes for those who *did* experience the event; thus, three linear contrasts per model were conducted to compare the slopes in these three regions to determine if they meaningfully differed among individuals who did experience the event.

The prior for the intercept was a normal distribution centered around 0.60 with a standard deviation of 0.10, as 0.60 is an approximate value of the initial ipsative test–retest correlations for these datasets (Wright & Jackson, 2022a); the prior for the standard deviation parameters was a Cauchy distribution centered around 0 with a spread of 0.10; the prior for the regression coefficients was a normal distribution centered around 0 with a standard deviation of 0.10; the prior for the Level 1 residual was an exponential distribution with a parameter value of 1; and the prior for the correlation among the random effects was an LKJ distribution with a value of 1.

3 | RESULTS

3.1 | Average trends of Big Five personality consistency

First, we examined average linear trends of person-centered personality consistency (Table 3). Descriptive information for the within-person profile correlations across all waves for each dataset are available in Table S2. The intercept values, which reflect the average initial profile

correlations in each dataset, ranged from 0.59 (GSOEP) to 0.70 (HRS). These values indicate that, although there was a general finding of moderate to large consistency in personality profiles, people, on average, did change in their personality between the first two waves. The random effects for the intercepts ranged from 0.16 (HRS/LISS) to 0.18 (GSOEP/HILDA), suggesting there was great variability in the degree to which people are consistent, even across two waves. Next, the slopes ranged from −0.00 (HRS) to 0.02 (GSOEP). Although these values are small, the random effects around the slope values ranged from 0.02 (LISS) to 0.06 (GSOEP/HILDA/HRS)—which are double to more than six times the magnitude of the fixed effect values. Overall, the average lack of a perfectly consistent personality profile combined with the variability captured by the random effects suggests there are factors that can explain the personality change occurring and the variability around this change (see Wright and Jackson (2022a) for more information).

Next, we sought to examine if experiencing a life event was associated with changes in person-centered consistency and variability around these changes. To do so, we present the findings organized by the different parameters in the model. There were never effects of age on personality consistency and the effect of gender was inconsistent across datasets (see Tables S3–S9). Thus, we restrict the presentation of our findings to those involving the life events only.

3.2 | Selection effects: Experiencing an event versus not

For the between-person effects of going onto experiencing a life event versus not experiencing it (i.e., the differences in intercepts), results did not always emerge across all datasets, but when they did, they were always in the same direction (Table 4). Seeing a mental health professional (−0.04 to −0.06), unemployment (−0.03 to −0.05), and being a recipient of government financial assistance (i.e., welfare; −0.04 to −0.09) were all consistently associated with lower values of person-centered personality consistency. In comparison, marriage (0.03 to 0.06), employment (0.03 to 0.05), and volunteering (0.03 to 0.06) were always associated with larger values of personality consistency. Interestingly, when present, the effects of finishing education (0.06) were opposite of those for starting to attend some form of school (−0.09).

3.3 | Between-person effects: Slopes across pre-event, event onset, and post-event

Next, we examined if an event was associated with differences in profile consistency slopes for those who experienced an event relative to those who did not. In this section, we describe effects that emerged across at least

TABLE 4 Selection effects for life events across datasets.

		Dataset			
Domain	**Event**	**GSOEP**	**HILDA**	**HRS**	**LISS**
Health	Health event			−0.04	**−0.02**
	Psych(ologist/iatrist) visit		**−0.04**		**−0.06**
	Cigarette	**−0.04**		−0.00	−0.01
Relationships	Partner	−0.01	**0.03**	0.02	0.02
	Married	0.02	**0.06**	**0.03**	**0.03**
	Separated	0.01	−0.02	**−0.06**	−0.03
	Divorced	−0.01	0.01	0.02	−0.01
Family	Child	−0.02	0.00		**0.02**
	Close other died	0.01	0.00	−0.01	0.01
Education	Finished education	−0.01	**0.06**		
	Began school		−0.02		**−0.09**
Career	Employed	0.02	**0.05**	**0.05**	**0.03**
	Unemployed	**−0.03**	**−0.05**	**−0.05**	**−0.04**
	Retired	−0.01	−0.01	**0**.03	**−0.02**
Financial	Welfare		**−0.09**	**−0.06**	**−0.04**
Social	Volunteer	**0.03**	**0.06**	**0.07**	**0.03**

Note: Maximum a posteriori probability (MAP) estimates are presented. Bolded values indicate effects for which the 95% credible intervals did not include 0.00. Shaded boxes indicate that the life event was not tested in a dataset.

two datasets for an event (see Tables S3–S9 for full results). Those who started attending some form of schooling in HILDA (0.01) and LISS (0.02) increased in consistency compared to those who did not. For employment, those who reported this event had larger post-event slopes in GSOEP (0.01) and HILDA (0.02). Many effects emerged for retirement. First, across all datasets, those who retired declined in consistency at event onset compared to those who did not retire (ranging from −0.02 to −0.04). Second, in all datasets except GSOEP, these decreases in consistency continued such that retirees' slopes were still smaller than those who did not report retiring, even after the event occurred (ranging from −0.01 to −0.03). Lastly, for those who reported receiving some form of government financial assistance, their slopes were smaller than those who did not report this event in HILDA and HRS (both −0.03).

3.4 | Within-person effects: Pre-event versus event onset

For the within-person effects capturing the differences in slopes of individuals who experienced an event for their pre-event slope versus their slope at the onset of a life event, results were mostly consistent in that there were not many meaningful estimates (Table 5). When present, the within-person effects of the onset of a life event were *always* negative (i.e., the consistency slope at onset of event decreased relative to their pre-event consistency)—suggesting a new life event, regardless of the specific event, often serves as a disruption to the system of an individual's collection of personality traits (i.e., it decreases consistency; see Figure 2 for an example of this finding). Compared to the slope at event onset, the slopes for individuals prior to experiencing a health event (0.06), seeing a mental health professional (0.05), and retiring (0.01 to 0.05) were meaningfully larger in at least half the datasets containing the event.

3.5 | Within-person effects: Event onset versus post-event

Next, we tested the within-person effects capturing the differences in slopes of individuals who experienced an event for their slope at the onset of a life event versus their slope following the event (Table 6). When present, the within-person effects for post-event slopes were *always* positive (i.e., the slope after the event increased relative to their slope at event onset). This indicates that people appear to "bounce back" following the onset of a new life event, suggesting that life events serve as a *temporary* disruption to

TABLE 5 The within-person contrast effects for pre-event versus onset of life event slopes across datasets.

		Dataset			
Domain	**Event**	**GSOEP**	**HILDA**	**HRS**	**LISS**
Health	Health event			**−0.06**	−0.00
	Psych(ologist/iatrist) visit		**−0.05**		−0.00
	Cigarette	−0.02		−0.09	−0.02
Relationships	Partner	−0.01	**−0.05**	−0.03	−0.00
	Married	−0.03	**−0.07**	−0.04	−0.00
	Separated	−0.04	0.02	−0.00	0.01
	Divorced	−0.00	−0.01	−0.07	0.01
Family	Child	−0.01	−0.03		−0.01
	Close other died	−0.00	−0.03	−0.00	−0.00
Education	Finished education	−0.03	−0.03		
	Began School		0.03		0.02
Career	Employed	−0.02	−0.03	−0.04	−0.00
	Unemployed	0.02	−0.00	−0.04	0.01
	Retired	−0.01	−0.01	**−0.05**	**−0.01**
Financial	Welfare		0.01	−0.03	−0.00
Social	Volunteer	**−0.04**	−0.01	−0.02	−0.00

Note: Maximum a posteriori probability (MAP) estimates are presented. Contrasts were set up such that if the estimate is positive, it indicates the onset of event slope is larger in magnitude than the pre-event slope. If the estimate is negative, it indicates the onset of event slope is smaller in magnitude than the pre-event slope. Bolded values indicate effects for which the 95% credible intervals did not include 0.00. Shaded boxes indicate that the life event was not tested in a dataset.

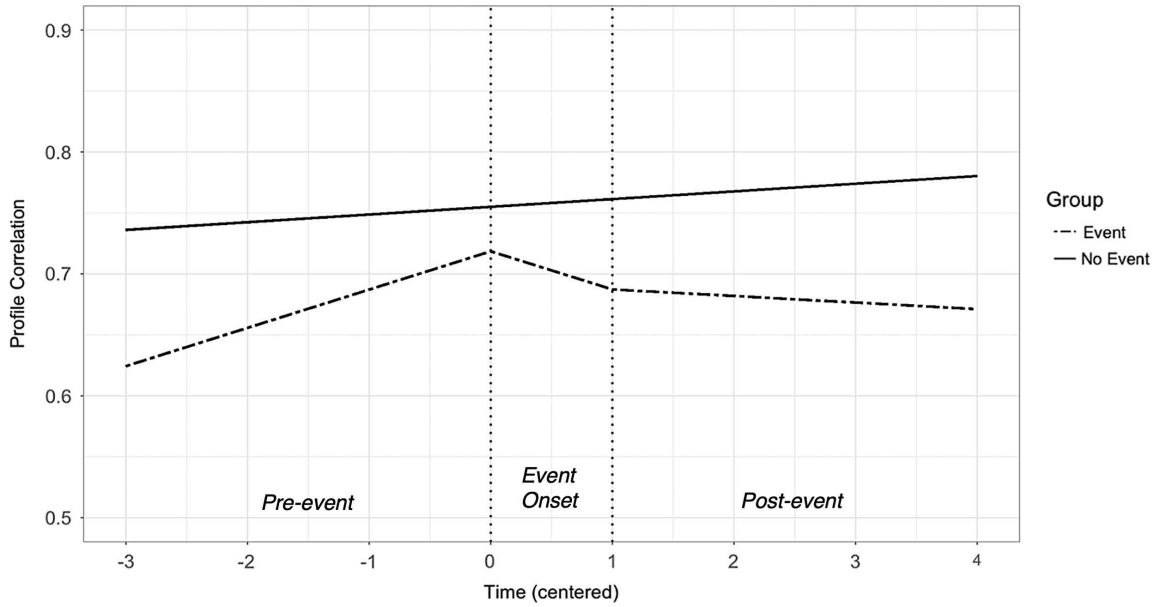

FIGURE 2 Trajectories of personality consistency for experiencing a new health event in HRS. Sample-level trajectories from HRS are plotted above for those who did not experience a new health event and those that did experience a new health event across the regions of pre-event, event onset, and post-event.

TABLE 6 The within-person contrast effects for onset of life event versus post-event slopes across datasets.

		Dataset			
Domain	**Event**	**GSOEP**	**HILDA**	**HRS**	**LISS**
Health	Health event			**0.02**	−0.00
	Psych(ologist/iatrist) visit		0.01		0.01
	Cigarette	0.01		**0.03**	0.01
Relationships	Partner	−0.00	−0.00	0.02	−0.00
	Married	−0.00	−0.00	**0.02**	−0.00
	Separated	**0.03**	0.01	0.02	0.01
	Divorced	−0.00	0.01	**0.03**	−0.00
Family	Child	0.01	−0.01		−0.00
	Close other died	0.01	0.01	0.01	0.01
Education	Finished education	0.02	−0.00		
	Began school		0.01		−0.01
Career	Employed	−0.00	0.01	**0.02**	−0.00
	Unemployed	0.01	0.01	0.01	−0.00
	Retired	**0.02**	0.01	**0.02**	0.01
Financial	Welfare		**0.02**	0.01	−0.00
Social	Volunteer	0.01	0.01	0.01	−0.00

Note: Maximum a posteriori probability (MAP) estimates are presented. Contrasts were set up such that if the estimate is positive, it indicates the post-event slope is larger in magnitude than the onset of event slope. If the estimate is negative, it indicates the post-event slope is smaller in magnitude than the onset of event slope. Bolded values indicate effects for which the 95% credible intervals did not include 0.00. Shaded boxes indicate that the life event was not tested in a dataset.

an individual's personality system. Compared to the slope following an event, the slopes for individuals at onset of experiencing a health event and retiring were meaningfully smaller (by 0.02 units) in at least half the datasets containing the event. Notable exceptions to this "bouncing back" can be seen for finding a romantic partner and getting married in the HILDA dataset. There were no average differences between the onset of event slopes

and the post-event slopes, suggesting the effect of experiencing these events is longer-lasting than other events, perhaps because of more enduring and continuous personality changes that occur as a result of maintaining these relationships.

3.6 | Within-person effects: Pre-event versus post-event

For the within-person effects capturing the change in the trajectory of an individual's personality consistency after an event compared to the trajectory prior to the event, there were also few effects (Table 7). For these comparisons, the direction of the effects was not always consistent. To the degree that these effects are present, it gives insight into if these life events are associated with long-term changes in consistency. Alternatively, it might indicate that the experience of the life event might reduce or exacerbate pre-existing selection effects.

For instance, for seeing a mental health professional in the HILDA dataset, the pre-event slope was larger in magnitude than the post-event slope (by 0.04 units). Additionally, the selection effect for being someone who experienced this event indicated that those individuals, on average, had 0.04 units lower profile consistencies than those who did not go on to experience the event. Thus, not only did individuals who reported seeing a mental health professional start with lower average consistencies, but following the event, they continued to have slopes that were smaller in magnitude than what they had pre-event. This would be an example of the event being associated with further exacerbation of pre-existing between-person differences. In comparison, starting schooling had the opposite pattern. Individuals who went on to experience this event started with an average profile consistency that was often lower than individuals not reporting this event. However, the post-event slopes increased relative to their pre-event slope.

3.7 | Individual differences in event-related trajectories

Finally, for the random effects of pre-event, onset of event, and post-event within-person effects, there were a substantial number of findings (see Tables S3–S9 for full estimates; Figure 3 for an example graph). For variability around pre-event slopes, 40/53 random effects emerged, nearly 76% of the possible effects. For variability around the onset of event slopes, 39/53 random effects emerged, or approximately 74% of the possible effects. Then, for

TABLE 7 The within-person contrast effects for pre-event versus post-event slopes across datasets.

		Dataset			
Domain	**Event**	**GSOEP**	**HILDA**	**HRS**	**LISS**
Health	Health event			−0.04	−0.00
	Psych(ologist/iatrist) visit		**−0.04**		0.01
	Cigarette	−0.02		−0.06	−0.01
Relationships	Partner	−0.01	**−0.05**	−0.01	−0.01
	Married	−0.03	**−0.06**	−0.02	−0.00
	Separated	−0.02	0.03	0.02	0.01
	Divorced	−0.00	−0.00	−0.04	0.01
Family	Child	−0.00	−0.03		−0.01
	Close other died	−0.00	−0.03	0.01	−0.00
Education	Finished education	−0.01	−0.04		
	Began School		**0.03**		0.01
Career	Employed	−0.02	−0.02	−0.02	−0.00
	Unemployed	0.03	0.01	−0.03	**0.01**
	Retired	0.01	−0.00	**−0.03**	−0.01
Financial	Welfare		0.04	−0.01	−0.00
Social	Volunteer	−0.03	−0.01	−0.01	−0.00

Note: Maximum a posteriori probability (MAP) estimates are presented. Contrasts were set up such that if the estimate is positive, it indicates the post-event slope is larger in magnitude than the pre-event slope. If the estimate is negative, it indicates the post-event slope is smaller in magnitude than the pre-event slope. Bolded values indicate effects for which the 95% credible intervals did not include 0.00. Shaded boxes indicate that the life event was not tested in a dataset.

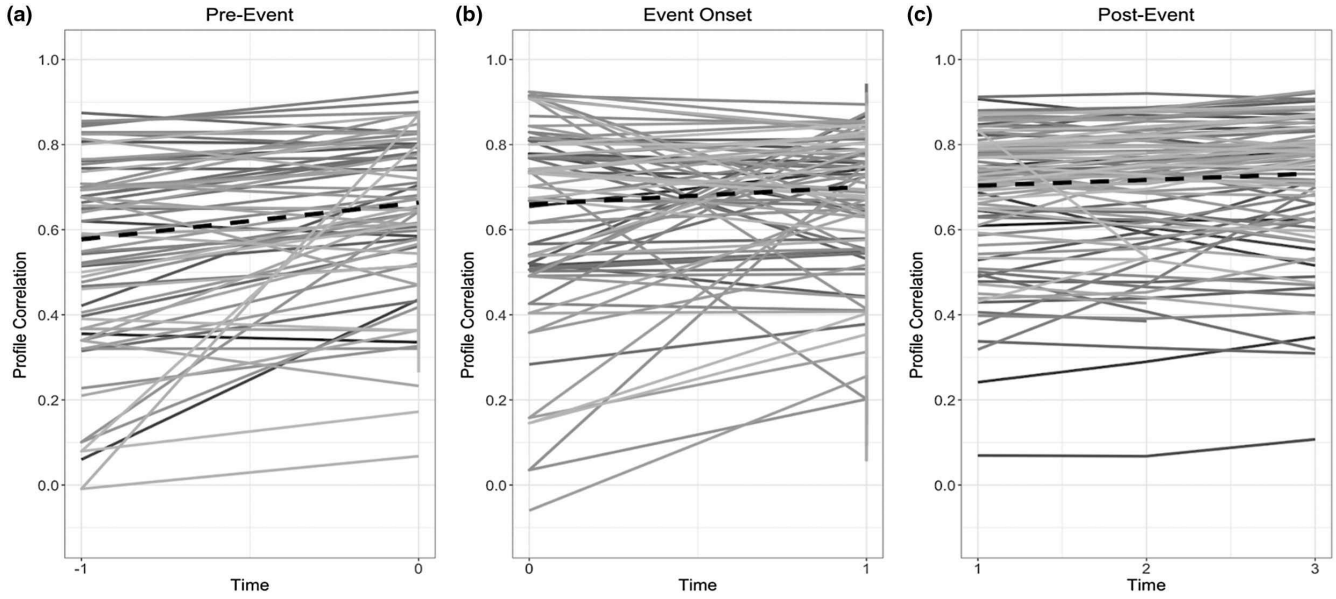

FIGURE 3 Individual trajectories of personality consistency after marriage in HILDA. Individual-level trajectories for those who reported getting married are plotted above across the regions of pre-event, event onset, and post-event. The dashed black line represents the average, sample-level effect. For the person-level trends, a random subset of 100 participants is plotted for each region.

the variability around the post-event slopes, 27/53 random effects emerged, or almost 51% of possible effects. Thus, even for those events which did not have an average within-person effect emerge, these random effects indicate the associations life events have with personality vary greatly. That is, the mostly average null findings for life events mask the variable effect life events have on people. These random effects suggest individual differences reign supreme, further emphasizing taking a person-centered approach to evaluating factors influencing personality development.

4 | DISCUSSION

We investigated between- and within-person effects of 16 life events on trajectories of test–retest profile correlations using Big Five trait items. We found that life events were associated with replicable between-person effects on personality profile consistency, with effects varying in both magnitude and direction depending on the specific event. In comparison, within-person effects, when found, tended to be specific and did not often replicate across samples. However, when they were present, a particular pattern of effects emerged. The onset of a life event was always associated with a decrease in profile consistency relative to one's prior level of personality consistency and in the waves following the life event (i.e., the post-event slope), increases in consistency were observed. This pattern of results indicates that although life events were not often associated with large nor widespread within-person effects, they can serve as a short-term disruption to the system of one's personality coherence.

4.1 | Life events have many selection effects, fewer socialization effects

In line with past work, we found many selection effects for life events (Denissen et al., 2019; Jackson et al., 2012; Lüdtke et al., 2011; Specht et al., 2011). Compared to individuals who did not go on to experience the life event, people who reported beginning a romantic partnership, getting married, having a child, finishing their education, becoming employed, and volunteering all had higher initial values of consistency. In comparison, individuals who reported a new health event/diagnosis, seeing a psychologist/psychiatrist, smoking cigarettes, separating from a significant other, beginning to attend some form of school, unemployment, retirement, and receiving government financial assistance had lower initial values of consistency compared to individuals that did not report later experiencing these events. This pattern of selection effects is consistent with previous personality development research. For instance, past work has found that individuals with higher levels of traits such as conscientiousness and agreeableness and lower levels of neuroticism are typically more likely to be employed, get married, and finish college, whereas the opposite is true of events such as divorce, unemployment, and mental health events (Beck & Jackson, 2022b; Soto, 2019; Wright & Jackson, 2022c).

Higher levels of profile consistency are associated with these "mature" personality traits (Donnellan et al., 2007; Wright & Jackson, 2022a). Thus, it appears individuals who went on to experience events associated with mature social roles likely had personality profiles matching the "mature" profile—and thus higher levels of profile consistency.

Regarding socialization effects, it is somewhat difficult to compare our findings with most of the previous work on life events and personality development because past research often focused on the impact of life events on changes in single traits and these changes were quantified via mean levels rather than levels of consistency (Bleidorn et al., 2018; Denissen et al., 2019). However, our findings suggest two main conclusions. First, life events have relatively small effects on personality development, but quantifiable effects across different types of change. For instance, among our events, retirement was associated with lower levels of between-person profile consistency at onset of and after the event, which is in line with previous research finding that the transition to retirement is associated with changes in multiple personality traits (Löckenhoff et al., 2009; Schwaba & Bleidorn, 2019; Specht et al., 2011). If retirement elicits changes in personality that differ from someone's typical pattern of personality development, then their profile consistency understandably decreases relative to individuals not experiencing this event. Furthermore, across the periods of retirement, within-person changes in consistency were sometimes found such that people decreased in consistency during its onset and then began to increase in consistency following retirement. This pattern of results is also in line with past research finding both that (a) some changes in personality traits following retirement continue to persist in years following the event, thus leading to increases in consistency as these changes are stable and (b) the traits that change after retirement are consistent with increases in levels of profile consistency (i.e., increases in agreeableness, decreases in neuroticism; Schwaba & Bleidorn, 2019). As such, these findings complement and extend previous findings, showing different types of change are influenced by the same life events.

Second, within-person effects are short-lasting and relatively small in magnitude. When effects did emerge, the onset of a life event always had average effects of *disrupting* this consistency, such that it subsequently decreased from its previous level. This suggests that, regardless of the typical personality development for a person (i.e., their own person-specific levels of and changes in these items across time), life events disrupted these characteristic developmental patterns and were associated with atypical changes to their personality—thus resulting in decreased consistency. This disruption is typically brief, such that "bouncing back" occurs whereby an individual again approaches their pre-event level of consistency rather than there being a scarring effect as the result of the life event. A similar phenomenon has been found in studies examining mean-level changes in traits (Bollich-Ziegler et al., 2021; Denissen et al., 2019; Schwaba & Bleidorn, 2019; Wright & Jackson, 2022b). This "bouncing back" could occur for a few reasons, such as people returning to their normal set-points for certain personality attributes (Diener et al., 2006; Headey & Wearing, 1989; Lucas et al., 2003), which is in line with past work examining mean-level changes elicited by life events and their often-short-lived nature. Alternatively, event-associated changes could become incorporated into one's personality structure and long-term effects are then less evident (Schwaba & Bleidorn, 2019). Note that this bouncing back does *not* necessarily mean individuals return to their previous personality profile. The slight increases in consistency that are observed post-event relative to onset of the event simply indicate that the changes in each trait indicator are more similar again. That is, there is a brief time where greater change occurs, then the change into the next period is similar to the amount of change pre-event. Furthermore, this destabilizing shock to one's personality system can have both positive and negative effects. For instance, it could be adaptive to be flexible in one's personality and adjust one's traits to better fit their current environment.

4.2 | Event- and study-specific associations

In addition to the broad pattern of many selection effects paired with few socialization effects, there were certain trends that emerged for associations in our study based on qualities of the life events and across datasets. For the between-person selection effects, in general, those that eventually experienced "negative" or loss-based events had lower levels of consistency whereas "positive" or gain-based events were associated with higher levels of consistency. It could be undesirable for an individual to always have a shifting personality, which sets them up to experience life events where some constancy in who you are is beneficial, either to others (e.g., interpersonal relationships) or yourself (e.g., periods of poor mental health). Unpredictable shifts in behavior that contradict people's expectations for how you think, feel, or behave could perhaps be unsettling or reveal tendencies that are not appealing in the long run, thus making it less likely to continue encountering positive events in the future.

Whereas thematically similar life events showed certain patterns of effects across datasets, some specific life

events also had replicable patterns within our study. Notably, these study-wide patterns mostly occurred for selection effects, which again highlights the robustness of these findings also shown in past work (Denissen et al., 2019; Jackson et al., 2012; Lüdtke et al., 2011; Specht et al., 2011). For selection effects that were positive in direction, such that individuals with higher levels of consistency were more likely to report experiencing this event, marriage (3/4 datasets), employment (3/4 datasets), and volunteering (4/4 datasets) were the life events with replicable effects. Similarly, for selection effects that were negative in direction, seeing a mental health professional (2/2 datasets), receiving government financial assistance (3/3 datasets), and unemployment (4/4 datasets) were the life events with replicable effects. The life events with positive selection effects are all associated with "mature" personality trait profiles, whereas opposite associations occur for those that had negative selection effects (Beck & Jackson, 2022b; Soto, 2019; Wright & Jackson, 2022c). Importantly, the replication across datasets suggests the attracting traits associated with these events are consistent in different environments. The maturity principle is a phenomenon that has been replicated across different cultures (Bleidorn et al., 2013). While this is an average trend, there are still individual differences (Schwaba & Bleidorn, 2018)—indicating not everyone shows this developmental pattern. If the people that do show this pattern, or have already experienced these increases in line with it, accordingly have higher levels of profile stability due to their elevated levels of these traits (Wright & Jackson, 2022a), then it appears to be a robust indicator of being more likely to go on to experience certain life events associated with these social roles. Indeed, events such as marriage and employment are among the more prototypical "mature" roles discussed in the personality development literature (Caspi et al., 2005), and the universality of these events (at least in WEIRD countries) perhaps bolstered the robust findings within our study.

Then, although within-person effects emerged for select life events in some datasets, the final noteworthy pattern is that these had poor replicability across each of the four studies. This could occur for a few reasons. First, it could be that the effects of life events are dependent upon the environment one is in, such that the typicality of the life event, the importance or emphasis placed on it, or the age at which it is normally experienced in that environment could have implications for its subsequent associations with personality development. For example, for divorce, an effect was only found in the HRS dataset. Considering HRS had by far the greatest average age in our study relative to other datasets, this suggests that experiencing divorce during a non-normative period of life is particularly impactful and thus disruptions to one's personality consistency are observed to a greater degree than if the event occurred at a more normative time.

Second, it could be a measurement artifact, such that the items used to assess personality in each study differed in their lability and/or the average level of consistency of people using one measure affects the degree to which changes in it are more likely to occur. For instance, items asking about one's engagement in a behavior associated with a trait may be differentially subject to change relative to items asking about how well an adjective associated with a trait applies to a person. To the degree that the item types have an effect on how much profile consistency changes, it could be related to *how* personality is changing in association with a life event (i.e., bottom-up or top-down). Overall, the most within-person effects were found for HILDA and HRS datasets. The items used in these datasets were adjective lists, which is in comparison with the behavior descriptions more often used in GSOEP and LISS (File S2).

Third, the lack of replicable within-person effects could be due to life events simply not having large nor widespread effects on personality development (Jackson & Beck, 2021). When examining past work examining mean-level changes, the culmination of this work suggests similar conclusions as there are few replications across studies (e.g., Bleidorn et al., 2018; Denissen et al., 2019; Specht et al., 2011; van Scheppingen et al., 2016). It is possible that all three explanations for small and inconsistent within-person effects are at play, suggesting future work should continue to incorporate methods and data that allow us to address under what conditions life events may be associated with personality development.

4.3 | Individual differences in associations

One reason for why life events may not have effects at the population level is that they are specific to individuals, with some people being more or less impacted by life events. When examining the individual differences around these average effects, it becomes clear that the associations life events had did not emerge for all individuals similarly. Individuals who went on to experience a life event differed the most in their pre-event slopes, which could speak to both varying initial levels of consistency and differences in anticipatory changes associated with the event. Anticipatory changes related to a life event have been documented in past research (Denissen et al., 2019; Wright & Jackson, 2022b). To the extent that these vary in presence and magnitude across individuals and life events, it could reflect the predictability of the life event

(e.g., sudden family death versus retirement), the extent that qualities of the individual strongly attracted them to that event (i.e., such that these attracting traits are more likely to be the ones to change in response to the event; Roberts & Wood, 2006), and the degree to which an event might require preparation or adjustments in one's daily life before its onset (e.g., a new child).

The slopes around the onset of the life events also evidenced large amounts of individual variability. Reasons for variability in the effects of event onset can be dependent upon the individual themselves, such as their expectations of the event, attitudes about the event, and pre-existing personality characteristics (Lodi-Smith & Roberts, 2007; Lüdtke et al., 2011; Rakhshani et al., 2022). Basically, an event could mean different things for different people. Importantly, if an event does not bring forth new situations or necessary adaptations to one's typical lifestyle, then subsequent alterations in state or behavioral expressions of personality seem unlikely to follow (Wrzus & Roberts, 2017). For example, starting new employment for the first time (i.e., just finished school) might affect someone differently compared to starting a new position within the company they have been with for over a decade.

Additionally, the variability around the onset of an event could be dependent upon the timing of the event in the individual's life, such that it may occur at a non-normative time, which has been suggested and found to lead to stronger effects compared to normative events (Luhmann et al., 2012; Neugarten, 1976). Or, it could be an atypical event for the environment or culture one is in, resulting in them lacking a guide for appropriate future behaviors in that situation. This could instead strengthen their pre-existing characteristics rather than lead to event-specific changes (Beck & Jackson, 2022c; Caspi & Moffitt, 1993). It may be the case that these atypical events are the ones associated with personality change, emphasizing the importance of examining the context and broader environment one is in when considering the effects of various life events.

Lastly, individual differences around the post-event slopes had the relatively fewest number of effects but still emerged for half of the possible total effects. Interestingly, the smaller number of effects around post-event slopes might reflect the counterintuitive finding that life events may make people more similar (Jackson & Beck, 2021), such that individuals show similar patterns of personality development following a life event. This could occur for a few reasons. First, life events could bring people within an optimal range for certain personality characteristics, such that, for example, moderate levels of conscientiousness may be most beneficial for some events (e.g., partnership, marriage). Being responsible and able to stick to commitments is important in a relationship but being too rigid and inflexible may be detrimental to the reality of maintaining that relationship. Thus, individuals who are low or high might be changed in the according directions to reach an optimal level of this trait—thereby reducing variability. Second, it could reflect that, on average, there are just fewer disturbances in one's personality system associated with the time following a life event. This could occur because any changes associated with the onset of the event then become typical for individuals, such that the changes were reinforced as the roles associated with the life event were maintained across time, and people integrated these changes into their own characteristic personality development. Third, the event-related changes could have dissipated in intensity across time, such that disturbances to their personality system became less pronounced and thus there are now less prominent changes occurring. In any case, it appears that, on average, the effects of life events after they occur are more similar for individuals compared to the pre-event and onset of event effects.

4.4 | Limitations & future directions

While our study had a number of advantages that made it well-suited to investigate the impact of life events on trends of person-centered personality consistency, it was not without its limitations. First, additional measures relevant to the life events such as expectations for and attitudes about the events would likely help to explain some of the individual variability we observed in within-person changes in consistency. Along similar lines, it could be helpful to track the occurrence of these life events relative to if they occur during normative periods for individuals in a certain country or if they instead occurred at non-normative times. It could be that factors such as these largely account for which individuals are more so affected by life events. Furthermore, it would be ideal to have more frequent-in-time measurements of the occurrence of life events (e.g., monthly assessments) as well as measures of the life events that overlapped to a greater degree with the personality assessments, so as to more precisely quantify changes in consistency that occur alongside life events. Future research with this type of data can then examine questions such as the degree to which these effects vary over certain time intervals or their duration. Second, each of our samples were from a country of European descent. Thus, while we can somewhat speak to the degree the results generalize across individuals from different environments, this generalization is limited to countries that share many similarities. Third, not every event was available

in each dataset. Those events not present in all datasets have less evidence for their broad impact on personality consistency and thus their results should be considered less conclusive. Lastly, we did not control for the possibility of a person reporting multiple life events, which could complicate the interpretation of any event-specific effects.

5 | CONCLUSION

In this study, we examined the association of 16 life events with trajectories of person-centered personality consistency in four large-scale datasets, each from a different region of the world. The most effects were by far found for between-person differences in which individuals go on to experience a life event, whereas within-person changes associated with life events less frequently emerged. When within-person effects did emerge, they indicated that life events always served as a disruption to an individual's personality system. Furthermore, these changes in consistency were often brief, such that people typically "bounced back" to higher levels of consistency in the waves following the event. Our results add to the body of literature suggesting that, on average, life events are not associated with numerous nor large within-person personality changes, regardless of how this within-person change is quantified. However, the many individual differences around these event-related effects suggests there are various mechanisms at play that idiosyncratically link changes in personality development to some individuals and life events, calling for further research that focuses holistically on the individual.

AUTHOR CONTRIBUTIONS

Amanda J. Wright served as a lead role for conceptualization, writing–original draft, data analysis, and creation of figures and tables, and served in an equal role for writing–review & editing. Joshua J. Jackson served as lead for supervision; served in a supporting role for writing–original draft; and served in an equal role for writing-review & editing.

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CONFLICT OF INTEREST

Neither author has any conflicting interests to report.

ETHICS STATEMENT

The APA's ethical standards for conducting research were followed throughout the duration of this study. The Institutional Review Board (IRB) at Washington University in St. Louis deemed this project exempt from IRB approval because this project involves accessing publicly available datasets and thus does not meet federal definitions under the jurisdiction of an IRB (IRB ID#: 202205175).

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ENDNOTE

[1] In a previous version of the manuscript, we examined 21 life events. We presently excluded five life events that either did not occur in at least half the datasets or were somewhat redundant with other life events in order to reduce complexity and length. Results from those additional five life events can be found on the study's OSF page.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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