The influence of major social transitions on dream content

Emily Cook

Center for Organizational Dreaming, San Francisco, USA

Summary. According to the continuity hypothesis, dream content systematically reflects waking life experiences, emotional states, and cognitive processes (Domhoff, 2017; Schredl & Hofmann, 2003). This study investigated how major social transitions, specifically romantic relationship formation and paternal bereavement, influence the frequency and characteristics of male dream characters across an 18-month longitudinal dream series. A female participant recorded 323 dreams, which were systematically coded for dream character gender, identity, closeness levels, and engagement types. Male dream character occurrences increased after relationship onset (47.90% to 65.83%) and again after the father's death (78.57%). Female character occurrences remained stable. The most substantial changes occurred in father and male romantic partner identities, with increased direct verbal and physical engagement patterns. Male dream characters demonstrated increased aggressive and authoritative engagement patterns relative to supportive interactions, despite positive waking-life relationship quality with men during the study period. The findings are consistent with the continuity hypothesis and may indicate that schemas are reflected in dream content during major social transitions.

Keywords: Dream series, continuity hypothesis, social transitions, romantic relationship, bereavement

1. Introduction

Social interactions populate dream content (Tuominen et al., 2019). Between two and four dream characters appear in each dream (Domhoff, 1996; Hall & Van De Castle, 1966; Kahn & Hobson, 2005), and in less than 5% of dreams is the dreamer alone (Domhoff, 1996). Approximately half of all dream characters are recognizable to the dreamer as people they know in waking life (Kahn et al., 2002). Core family members are found in 10-30% of all dream reports (Domhoff, 2003; Hall, 1951; Hall & Van De Castle, 1966; Lortie-Lussier et al., 2000; Vandewiele, 1981), romantic partners appear in between 20% and 25% (Schredl, 2001; Selterman et al., 2012; Selterman & Drigotas, 2009), and one's children in 17% (Schredl et al., 2021).

The continuity hypothesis states that dream content reflects waking experience (Schredl & Hofmann, 2003). Hall and Nordby (1972) first proposed that dreams are continuous with waking life, and the hypothesis has been further elaborated since (Domhoff, 2017; Schredl, 2017). The continuity hypothesis applies to various dimensions of wake, proposing that dreams reflect waking life activities (Schredl & Hofmann, 2003), as well as thoughts, preoccupations, and emotions (Domhoff, 2011). This continuity extends to dream characters; daily interactions with partners increase the likelihood they will appear in one's dreams (Balch et al., 2025), and greater time spent together awake is linked to increased dream appearances (Schredl & Hofmann, 2003).

Dream characters follow a power distribution; a subset of people who are central to one's waking life appear very frequently (Schweickert et al., 2020). Beyond waking interaction frequency, incorporation into dreams is further influenced by the emotional closeness the dreamer feels towards the individual (Schredl, 2024). Individuals in romantic relationships characterized by trust and support were more likely to have positive dreams about their current partner (Selterman et al., 2012). Individuals who rate their romantic relationship as high quality are more likely to dream about their partner, and those dreams are more likely to have a positive emotional tone (Schredl et al., 2020).

The high prevalence of social interactions in dreams (Domhoff, 1996) has led some to propose that this dream content may serve an adaptive purpose (Revonsuo et al., 2016). The Social Simulation Theory (SST) offers an evolutionary perspective on dream function, suggesting that dreams serve as a mechanism for practicing and rehearsing social interactions (Revonsuo et al., 2016). The theory states that social interactions should be overrepresented in dreams, relative to their occurrence in waking life, due to their importance to an individual's survival (Revonsuo et al., 2016). Indeed, in comparing wake to dream reports, McNamara et al. (2005) found that social interactions are more common in dreams. REM dreams were particularly social, with interactions twice as frequent as in waking. This is consistent with the earlier findings of Schredl and Hofmann (2003) that talking with friends is twice as common in dreams as in waking. Conversely, non-social activities such as computer use and reading occurred less frequently in dreams than would be predicted based on their prevalence during waking hours (Schredl & Hofmann, 2003).

Emerging evidence suggests that wake-dream continuity extends beyond manifest content to include underlying cognitive schemas and attachment patterns (McNamara et al., 2014; Simard et al., 2021). Early maladaptive schemas (EMS) are embedded patterns one holds about oneself and their connection to others, formed in childhood and de-

veloped through adulthood (Young et al., 2003). They are made up of memories, emotions, and cognitions (Young et al., 2003). Previous work has demonstrated that when adults with anxious or avoidant attachment types dream about their romantic partners, those dreams are more likely to include anxiety or jealousy, relative to securely attached adults (Selterman & Drigotas, 2009). Similarly, women with higher levels of abandonment and instability in their dreams score higher on waking measures of rejection-like EMSs (Simard et al., 2021). Prior research has demonstrated that adult dream content, including recurring themes and dream characters, tends to remain remarkably consistent across years or even decades (Domhoff, 2011; Domhoff & Schneider, 2020), as would be expected if they were reflective of pervasive belief systems as well as waking experiences.

The role of metaphorical representation in dream content continues to be investigated, with ongoing debate regarding the representative vs thematic continuity of dreams (Malinowski & Horton, 2015). Public nudity dreams may reflect waking emotions of exposure and shame rather than literal experiences of being unclothed (Schredl, 2021). Elevator imagery in dreams frequently correlates with anxiety and may represent metaphorical continuity with emotional fluctuations rather than reflecting actual elevator usage, particularly given the typically distorted functioning of elevators within dream narratives (Schredl, 2020b). Similarly, rain imagery in dreams demonstrates a predominant association with negative rather than positive emotional content, potentially reflecting metaphorical continuity with adverse waking experiences (Schredl, 2020a). This representative continuity (Malinowski & Horton, 2015) may extend to dream characters. For example, following a first date, single individuals report an increase in romantic partner-like characters. These dream characters were not constrained to a representation of the person they had dated the previous day. Instead, it included current partners, ex-partners, coworkers, friends, family members, or strangers (Coutts, 2015).

Character metamorphosis represents a related phenomenon, occurring in approximately 1.2% of dreams, whereby multiple dream characters merge into composite characters (Domhoff, 2003). In the dream series of Barb Sanders, a male romantic partner was merged with a male celebrity, an ex-partner, a friend, and a stranger (Domhoff, 2003). A later dream series reported composite dream characters of the present romantic partner and ex-partner, mother, and female stranger (Schredl, 2011). Following bereavement, a widower dreamed of his deceased first wife merging with his second (Domhoff, 2003). Character metamorphosis dreams may be particularly significant during times of relationship transition as they potentially serve to integrate new information into existing schemas (Cartwright, 2010). Social relationship patterns demonstrate systematic variation across developmental periods and life circumstances (Wrzus et al., 2013). The frequency with which we interact with other individuals often alters over time (McCulloh & Carley, 2011). Changes in social relationship patterns may occur gradually over extended periods (Huston et al., 2001) or constitute discrete life events, such as romantic relationship formation or bereavement. Major social transitions offer naturalistic opportunities to examine wake-dream continuity by comparing dream content before and after documented changes in social interaction patterns.

Consistent with the continuity hypothesis, individuals in heterosexual relationships dream more often of the oppo-

site gender (Paul & Schredl, 2012). This pattern is partly explained by increased waking contact with the opposite gender (Paul & Schredl, 2012; Schredl et al., 1998). The gender ratio of dream characters differs between partnered women and single women, with those in heterosexual relationships reporting a higher percentage of male dream characters (Paul & Schredl, 2012). On average, partnered women dream equally of both genders, while single women report about 36% of their dream characters as male (Paul & Schredl, 2012). In addition to general increases in opposite-gender dream characters, romantic relationship onset is associated with increased frequency of dreams featuring the specific romantic partner (Schredl, 2018). Partners appear in about 24% of dreams of individuals in relationships, and 16% of dreams of singles (Schredl et al., 2020). Longer dream series estimate the romantic partner is present in approximately 20% of dreams (Schredl & Reinhard, 2012).

The termination of relationships offers a second opportunity to investigate the impact of changes to social connections on dream content. Relationship endings in waking life are accompanied by decreases in corresponding dream character frequency (Schredl, 2011; Schredl & Reinhard, 2012). For example, in a longitudinal study of a single dreamer, dreams about a romantic partner dropped from 12.87% to 0.87% following a break-up (Domhoff, 2003). However, dream characters often recur, albeit at lower levels, beyond the end of the waking relationship, particularly in cases where there are high levels of waking concern about the break-up (Cartwright et al., 2006). Dreams about school friends persist up to 20 years post-graduation, with higher frequencies observed for individuals who held greater emotional significance or with whom the dreamer had more frequent waking contact (Schredl, 2012). The emotional tone of dreams (Schredl et al., 2020; Schredl & Neuhäusler, 2019) as well as the activities taking place during partner dreams (Schredl, 2011) also change following break-ups. Activities such as travelling, going to the movies, attending a party, and shopping become less frequent (Schredl, 2011).

Bereavement is a unique form of relationship termination. Dreams featuring deceased individuals occur frequently among bereaved populations, with prevalence rates ranging from 57.9% to 86.2% across studies (Black et al., 2019; Hinton et al., 2013; Wright et al., 2014). Dreams about deceased people decrease with time (Schredl, 2021, 2025) and have been reported to extend as far as 22 years post-death (Domhoff, 2015), with a single-case study reporting between two and eleven dreams a year. The emotional tone of deceased-person dreams varies across individuals (Black et al., 2019; Čepulienė & Skruibis, 2024), with positive emotional content reported more frequently than negative themes. When individuals who had lost a romantic partner were surveyed, 91.5% reported at least one positive theme in dreams about them, for example, seeing the deceased happy and healthy. Only 44.3% reported at least one negative theme in dreams about their deceased partner, such as seeing their partner unwell (Black et al., 2019).

Despite this overall positivity in dreams about the deceased, studies into complex grief have not found a link between dream frequency and reductions or increases in complex grief, depression, or anxiety (Germain et al., 2013). The emotional impact of deceased-person dreams may involve more complex mechanisms than frequency-based measures alone can capture. Subsequent research demonstrated that bereaved individuals experiencing positive

deceased-person dreams were more likely to exhibit secure attachment patterns, report closer pre-death relationships, and experience reduced feelings of blame or regret (Black et al., 2021). They were also more likely to maintain bonds with the deceased in ways that acknowledge they are dead, such as looking at photographs (Black et al., 2021). These findings suggest that deceased-person dreams may serve multiple psychological functions, potentially facilitating trauma processing, continuing bond maintenance, and emotional regulation in addition to reflecting waking experiences (Black et al., 2021).

Owczarski (2021) demonstrated how dream content systematically changes and corresponds to phases of grief adjustment, showing clear continuity between the dreamer's evolving psychological state and dream content over time. Barrett (1992) identified four categories of bereavement dreams, including deceased individuals describing their death, delivering messages, scenarios in which dreamers attempt to alter death circumstances, and farewell interactions. These dream categories demonstrated correspondence with specific phases of grief processing in waking life. These findings support the continuity hypothesis while highlighting its complexity during major life transitions, where dreams may reflect not only immediate experiences but also deeper psychological processes of adaptation and schema integration.

The present study analyzed a dream series of 325 dreams recorded over 18 months. During this timeframe, the participant experienced romantic relationship onset with a male partner and paternal bereavement. Based on the continuity hypothesis of dreaming (Domhoff, 2017; Schredl & Hofmann, 2003), we expected increased male dream characters following romantic relationship onset and paternal bereavement, with specific increases in male romantic partner and father characters, respectively. We further hypothesized that male dream characters would demonstrate increased direct engagement with the dream ego, operationalized as higher frequencies of closeness levels 5 and 6, reflecting intensified waking-life interactions. Given the positive waking-life relationship quality with both the romantic partner and father, we predicted that male dream characters would show increased supportive engagement patterns with decreased aggressive interactions. As an exploratory aim, we examined whether observed changes in character engagement and frequency extended beyond father and romantic partner identities to other male dream character types.

2.   Method

2.1. Participants

The sole participant in this study was the author, a 35-year-old White British woman (born 1989). During the data collection period, she resided in the Netherlands from December 2023 to October 2024 and subsequently in the United States from November 2024 to May 2025. She holds a university degree, is unmarried, has no children, and reports no diagnosed mental or neurological conditions.

Until age 18, the participant lived with both parents and three siblings. Throughout adulthood, her relationship with both her mother and father was positive, marked by infrequent conflict. Her father, mother, and all other core family members lived in the United Kingdom. She maintained regular contact through visits approximately four times per year. The participant's mother remained alive throughout the study, while her father died in December 2024 without a preceding illness. During the 18 months of dream collection, the participant visited her mother and father on the following dates: May 7th-10th, 2024; December 7th-20th, 2024; and April 10th-13th, 2025. The participant maintained infrequent contact with her older sister and two younger brothers, with interactions characterized by minimal conflict and limited emotional intensity.

During the 18 months of dream collection, the participant had a single male romantic partner. She met this partner on June 8th, 2024. She lived with this partner from July 21st, 2024, until August 24th, 2024, and from October 15th, 2025, onward.

2.2. Materials

Dream reports were collected using the DreamScope application (https://www.dreamscope.org/), a smartphone-based diary designed for recording dream content immediately upon waking. Dreams were typed in full English within the app's primary narrative field. Additional fields within the application, including waking thoughts, notes, and dream titles, were reviewed to ensure no dream content was inadvertently excluded or misclassified; none was found to require exclusion.

Within each dream report, individual dream characters were manually identified and coded for multiple categorical variables. The dream ego itself was not considered a dream character. Coding was performed by two raters: the participant and a colleague. Each character was coded for gender, male or female, and subsequently categorized into identities based on social roles and relationships within the dream narrative. Characters without an identifiable gender were excluded from subsequent coding procedures. Eight primary identity categories, each with male and female variants, yielded 16 distinct identity classifications: mother, father, sister, brother, male authority, female authority, male child, female child, male romantic/sexual partner (abbreviated to male romantic partner), female romantic/sexual partner (abbreviated to female romantic partner), known male, known female, unknown male, unknown female, female worker, male worker. Identity labels encompassed multiple related terms. The "father" category included terms such as "dad," "papa," and "grandpa," while the "female romantic/sexual partner" category included terms like "wife," "girlfriend," and "partner."

In contrast to the Hall and Van De Castle (1966) system, which organizes dream characters into eight hierarchical identity subclasses ranging from immediate family to strangers (Domhoff, 1996), the present study employed a streamlined set of sixteen identities defined by both relational role and gender. Whereas Hall and Van De Castle distinguish identities by decreasing familiarity (immediate family, relatives, known, prominent, occupational, ethnic, strangers, uncertain), our coding collapsed this hierarchy into discrete role-based identities to allow finer-grained comparisons across major social transitions. This approach preserved core kinship distinctions while incorporating additional identities for romantic/sexual partners, workers, and known versus unknown individuals to address specific research questions.

The closeness level is a six-point ordinal scale used to code the degree of engagement between the dream ego and each dream character. It captures how directly the

dream ego is involved with the character within the narrative, ranging from absent to emotionally intense encounters. The six-point scale ranged from minimal to maximal engagement intensity. Level 1 represented characters who are mentioned or implied but not physically present, level 2 indicated physical presence without direct engagement, and level 3 reflected observed engagement where the dream ego witnesses the character interacting with others or the environment. Level 4 captured mediated or symbolic engagement, such as overheard conversations or indirect communication, level 5 corresponded to direct verbal or physical engagement between the dream ego and the character, and level 6 denoted close-proximity, emotionally charged engagement, including violence and sexual contact.

Additionally, each dream character was assigned an engagement type describing the affective or functional role they played in relation to the dream ego within the narrative. Engagement types included supportive (nurturing or protective), aggressive (threatening or overpowering), sexualized (erotic or flirtatious), indifferent (neutral or background), authoritative (instructive or managerial), vulnerable (passive or in need of help), and ambiguous/mixed (abbreviated to ambiguous; unclear or shifting role). The aggression and sexualization engagement types corresponded directly to equivalent constructs in Hall and Van De Castle's (1966) content analysis system. The supportive engagement category demonstrated partial overlap with Hall and Van De Castle's (1966) friendliness construct, particularly subclasses F4 (assistance provision) and F3 (gift-giving behaviors).

Coding of all dream characters for gender, identity, closeness level, and engagement category was conducted by both the author and a second rater. The second rater was experienced in systematic dream content analysis procedures. Inter-rater reliability was assessed using Cohen's κ to quantify agreement between the two raters. Of 595 dream characters, 88.59% were coded consistently across all four dimensions. 83.03% were coded consistently across identity (κ = 0.95), 94.62% across closeness level (κ = 0.92), and 91.60% across engagement category (κ = 0.89). Gender was coded consistently for 100% of the dream characters (κ = 1.00). Full instructions provided to coders are shown in the Appendix. Examples of coded dream snippets are detailed in Table 1.

2.3. Data Overview

A total of 323 dreams were recorded between December 11, 2023, and May 19, 2025. All dreams took place during overnight sleep. Fifty-seven dreams contained no male or female dream characters (e.g., the dreams either included no humans, or only humans with ambiguous gender). Dreams containing one or more characters with an identifiable gender demonstrated significantly higher word counts (M = 125.99, SD = 79.95) compared to dreams without male or female characters (M = 73.10, SD = 37.91). Among the dreams that included at least one character with an identifiable gender, the mean number of dream characters with an identifiable gender per dream was 2.24 (range = 1-8). The anonymized dataset supporting this study is available on the Open Science Framework (https://osf.io/vz8at/). All identifying information has been removed. Data are shared under a CC BY-NC 4.0 license.

Table 1. Example Dream Snippets with Corresponding Closeness Level, Engagement Category, and Identity Coding.

Dream Snippet	Closeness	Engagement	Identity
My best friend from high school was crying on the roof of a building. She showed me a poster with lots of photos in black and white of people's faces- they had all died. **Her mum** and dad had died.	1 - mentioned or implied but not physically present	Vulnerable- appearing weak, hurt, dependent, in distress, or needing protection or care	Mother (female)
I was sleeping on the sofa in my parents' living room. **My sister** was sitting on the sofa by my feet. I could smell my mother cooking food in the kitchen.	2 – physical presence without direct engagement	Indifferent- emotionally or functionally neutral, showing no strong reaction or engagement	Sister (female)
A working-class man yelled at the king and queen about how they were bad people. Everyone gathered around him, I felt drawn to him.	3 – observed engagement with others or environment	Authoritative- exerting control, setting rules, judging, instructing, or representing formal authority or power	Unknown male (male)
A man I'm dating sent me a message on LinkedIn that said he was with the love of his life, but would come over later to have sex.	4 – mediated or symbolic engagement	Sexualized- linked to attraction, seduction, flirtation, or romantic/sexual interest	Male romantic / sexual partner (male)
I was ashamed, and the mother of my friend was angry. But **my friend** said, "You know none of this is your fault, right?"	5 – direct verbal or physical engagement	Supportive- offering help, comfort, encouragement, guidance, or emotional backing.	Known female (female)
At the start, **my mum** was supportive of me trying to get rid of her, but then she started to try to get me to compromise and tolerate the girlfriend.	5 – direct verbal or physical engagement	Ambiguous/Mixed- Characters whose affect or function cannot be categorized or who show blended/conflicted qualities across categories.	Mother (female)
My little brother was chasing me, trying to get the paper back on behalf of the sexist teacher.	6 – close-proximity emotionally charged engagement	Aggressive- showing hostility, threat, violence, anger, or antagonism	Brother (male)

Note. The bolded phrase indicates the target dream character being coded for closeness level, engagement category, and identity.

2.4. Data Preparation

The raw dataset was subjected to minor typographical corrections, and no duplicate records were identified. Dream report dates, automatically attached by the DreamScope application, were used to segment the dataset into three distinct periods corresponding to significant life events experienced by the participant. Segment 1 spanned from December 11, 2023, to June 13, 2024, representing baseline pre-event data (119 dreams). Segment 2 extended from June 14, 2024, to December 6, 2024 (120 dreams), capturing the period following the participant's onset of a heterosexual romantic relationship. Segment 3 ranged from December 7, 2024, to May 19, 2025 (84 dreams), encompassing the post-bereavement phase following the participant's father's death on December 7, 2024.

2.5. Analytic Strategy

Individual dream characters were coded for analysis, with dream reports serving as the primary analysis unit. Character-level analyses were conducted only for gender ratio comparisons with established norms. The data were exported into an Excel spreadsheet (Microsoft), and data analysis was carried out using the SAS 9.4 software package for Windows. Dream reports were analyzed for the occurrence of male characters within each dream. To analyze the single binary time series, an autoregressive Generalized Linear Mixed Model (AR-GLMM) with a logit link and serial correlation was applied using the GLIMMIX procedure with an AR(1) covariance structure. This binary time-series approach with gaps (Klingenberg, 2008) accommodates intermittent dream recall patterns across the collection period (Schredl, 2018). To complement the statistical analysis of changes in male and female dream characters across three segments, descriptives are reported on identities, closeness levels, and engagement types.

3. Results

3.1. Gender differences across all segments

Across the 18 months of dream collection, 62.62% of dreams had at least one male character, and 57.55% had at least one female character. Dreams containing both male and female characters occurred in 37.78% of reports, while dreams without either male or female characters comprised 17.61% of the sample.

In terms of identities, male romantic characters were the most common, appearing in 23.84% of dreams. Unknown female characters were the second most common, occurring in 18.89% of dreams. The remaining male identities were: unknown male 14.86%, father 11.46%, male worker 9.6%, male authority 8.67%, known male 7.74%, brother 7.43%, male child 2.48%. The remaining female identities were: mother 18.27%, known female 11.76%, female worker 7.12%, sister 5.88%, female authority 5.26%, female romantic partner 5.26%, and female child 3.10%.

Indifference was the most common engagement type, with 41.8% of dreams including an indifferent character. 26.01% of dreams had an indifferent male character, and 26.63% of dreams had an indifferent female character. Sexualized engagement represented the least frequent category for both male characters (7.74%) and female characters (2.79%), occurring in 9.29% of dreams overall. Vulnerable and ambiguous engagement types demonstrated similarly low frequencies across genders, with vulnerable engagement occurring in 8.05% of male and 8.67% of female character interactions, and ambiguous engagement in 8.05% and 7.74%, respectively. There was a slightly higher prevalence of male characters with aggressive interactions (14.24% vs 8.36%). Authoritative and supportive interactions were similar across genders (male 10.53%, 10.22%; female 9.88%, 10.83%).

Closeness levels between dream characters and the dream ego showed minimal gender differences. Level 5 closeness interactions (i.e., direct verbal or physical engagement) occurred in 61.61% of all dreams. 37.46% of dreams included a level 5 closeness female character (vs 38.08% for male). Level 6 closeness interactions (i.e., emotionally charged close-proximity engagement, including violence and sex) occurred in 13.93% of dreams, with higher frequencies for male characters (11.46%) than female characters (4.64%).

3.2. Segment changes

The percentage of dreams containing male characters increased systematically across segments, from 47.90% in Segment 1 to 65.83% in Segment 2 to 78.57% in Segment 3 (Figure 1). The overall effect of the segment was highly significant ($F(2, 92.08) = 8.03$, $p < .001$). Pairwise

Table 2. Descriptive Statistics for Male Identity by Date Segment.

Identity	Segment 1	Segment 2	Segment 3
Male Romantic/Sexual Partner	13.45%	30.83%	28.57%
Unknown Male	10.92%	16.67%	17.86%
Father	6.72%	8.33%	22.62%
Male Worker	8.40%	8.33%	13.10%
Male Authority	7.56%	9.17%	9.52%
Brother	5.88%	4.17%	14.29%
Known Male	5.04%	10.83%	7.14%
Male Child	2.52%	2.50%	2.38%

Note. Values reflect the percentage of total dreams per segment that include at least one dream in which the identity is present.
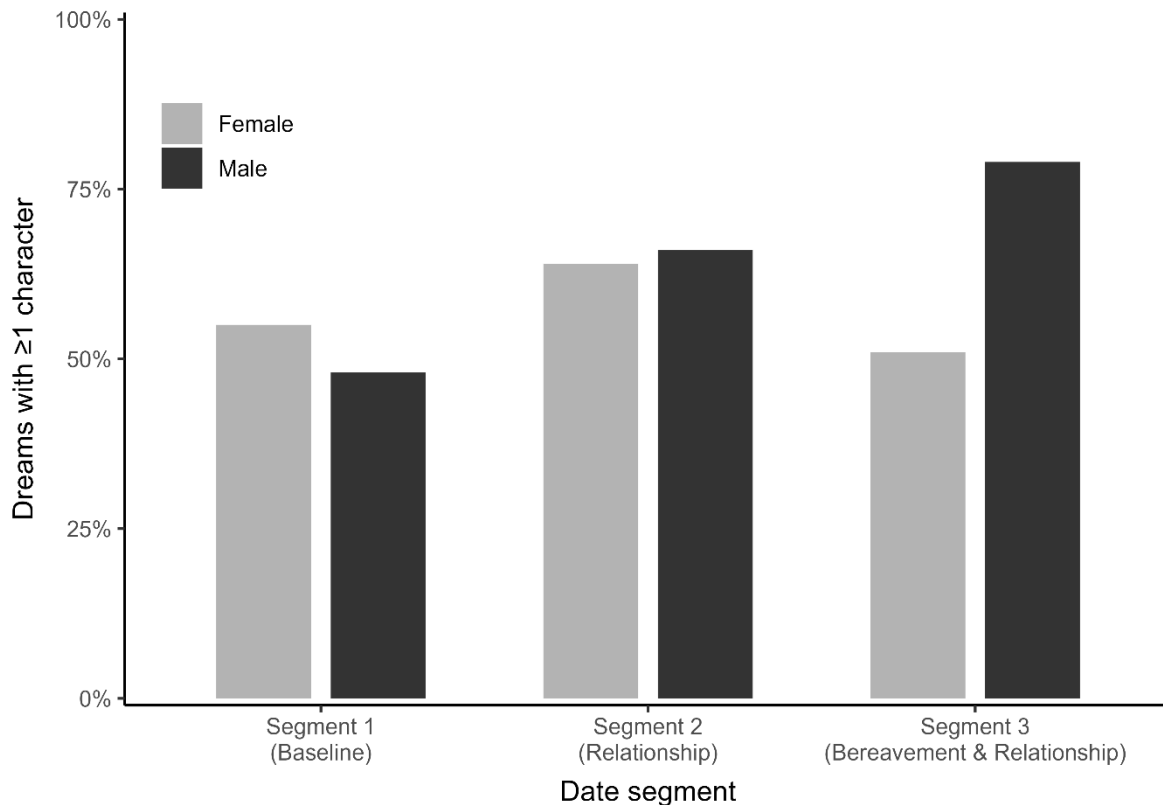
Figure 1. Percentage of Dreams per Segment That Included at Least One Male or Female Dream Character.

comparisons revealed significant differences between segments: Segment 1 vs Segment 2 (t = -2.49, *p* = .0147), and Segment 1 vs Segment 3 (*t* = -3.87, *p* < .001). The comparison between Segment 2 and Segment 3 approached significance (*t* = -1.80, *p* = .0755). The frequency of dreams with female characters varied across the three time segments (55.46%, 64.17%, and 51.19% for Segments 1, 2, and 3, respectively). Applying the AR-GLMM approach, the overall effect of segment was not significant (*F*(2, 102.2) = 1.76, *p* = .1764). The overall mean male/female percent, calculated at the character level, was 53.23%. This increased between segments (45.36%, 49.87%, 66.94%).

Male character identity frequencies aligned with concurrent life events. Male romantic partners increased following relationship onset, while father characters increased following bereavement (Table 2). For male dream charac-

ters, increases were seen across multiple closeness levels between segments 1 and 3, with the most substantial increases in closeness levels 1 and 5. In segment 1, only 26.89% of dreams included direct verbal or physical engagement between the dream ego and a male character. This increased to 48.81% by segment 3. Similarly, the occurrences of dreams in which a male character is mentioned but not present increased from 5.04% to 14.29% between segments 1 and 3 (Table 3). For male dream characters, changes in engagement were constrained to indifferent, authoritative, ambiguous, and aggressive. Male dream characters displaying these engagement types increased in frequency between segment 1 and 2, and between segment 2 and 3 (Table 4). Changes in vulnerable, sexualized, and supportive male character frequencies were minimal (Table 4).

Table 3. Descriptive Statistics for Male Closeness Level by Date Segment.

Closeness level	Segment 1	Segment 2	Segment 3
1. mentioned or implied but not physically present	5.04%	9.17%	14.29%
2. physical presence without direct engagement	10.08%	9.17%	13.10%
3. observed engagement with others or environment	3.36%	9.17%	10.71%
4. mediated or symbolic engagement	5.88%	5.00%	10.71%
5. direct verbal or physical engagement	26.89%	41.67%	48.81%
6. close-proximity emotionally charged engagement	10.08%	12.50%	11.90%

Note. Values reflect the percentage of total dreams per segment that include at least one dream in which a male character representing the closeness level is present.

Table 4. Descriptive Statistics for Male Engagement Category by Date Segment.

Engagement category	Segment 1	Segment 2	Segment 3
Aggressive	12.61%	11.67%	20.24%
Ambiguous/Mixed	5.04%	8.33%	10.71%
Authoritative	5.88%	11.67%	15.48%
Indifferent	15.13%	30.00%	35.71%
Sexualized	7.56%	6.67%	9.52%
Supportive	9.24%	12.50%	8.33%
Vulnerable	6.72%	10.83%	8.33%

Note. Values reflect the percentage of total dreams per segment that include at least one dream in which a male character representing the engagement category is present.

4. Discussion

The present study examined changes in male dream character frequency and characteristics across two major social transitions experienced by a female participant: heterosexual romantic relationship formation and opposite-gender parental bereavement, within the framework of the continuity hypothesis of dreaming (Domhoff, 2017; Schredl & Hofmann, 2003). Across the longitudinal dataset, several patterns emerged. The gender ratio of dream characters changed, with significant increases in the number of dreams including a male character, but no change in the number of dreams including a female character. The most substantial changes were seen for father, male romantic partner, and brother dream characters. Closeness levels 5 (direct verbal or physical engagement) and 1 (mentioned or implied but not physically present) for male characters showed the greatest increase across the 18-month dream collection period. In contrast to expectations, male characters became more likely to demonstrate aggression and authority following romantic relationship onset and bereavement, with little change in sexuality, supportiveness, or vulnerability. These findings provide preliminary evidence that dream content incorporates both immediate waking experiences and enduring cognitive schemas.

The prevalence of male and female dream characters is broadly in line with established norms. During the baseline period, the ratio of female to male dream characters in the present study corresponded to established norms for female dreamers (Hall & Van De Castle, 1966). Female students have been reported to dream more often of their female relatives relative to their male relatives, with the opposite being true of male students (Hall & Van De Castle, 1966). This was indeed the case for the present study, with figures remarkably close to established norms (e.g., father: 12.4%, mother: 16.2%). Conversely, the participant dreamed more often of brothers than sisters, whilst still at levels consistent with previous reports (Nöltner & Schredl, 2023). Following the onset of the romantic relationship, dreams about male characters increased, consistent with previous studies (Paul & Schredl, 2012). Dreams about male romantic partners in particular increased, to slightly higher levels than prior work into partnered women (Schredl et al., 2020; Schredl & Reinhard, 2012). This elevation may reflect the broader definitional scope of male romantic partner categories employed in the current study compared to previous research.

In addition to the increase in male romantic characters, the frequency of father characters also increased. Father character frequency increased substantially following paternal bereavement, rising from 8.33% to 22.62% of dreams across segments. Unlike the male romantic partner frequency changes, increased father character occurrence cannot be attributed to enhanced waking contact. This pattern likely reflects heightened cognitive preoccupation with paternal concerns and memories during the bereavement process (Domhoff, 2011). Male character identities other than father and romantic partner demonstrated minimal frequency variation across segments. Additionally, female dream character frequencies remained stable across segments.

Beyond frequency analysis, this study examined two additional dimensions of dream character interactions. The six-point ordinal closeness level scale was developed as a novel contribution of this study, designed to capture the degree of engagement between the dream ego and individual dream characters while preserving sufficient simplicity for future coding automation. This methodology builds upon previous work advocating graded intensity ratings for dream elements (Gaillard & Phelippeau, 1977). The approach aligns with contemporary efforts to refine social interaction coding beyond binary categories, exemplified by the Social Content Scale (Tuominen et al., 2019). Hall and Van De Castle's (1966) content analysis system provided the foundational framework for identifying social interactions. The present scale additionally incorporates structured proximity and engagement coding from prior research (McNamara et al., 2014) that distinguishes spatial and emotional relational markers within dream reports. The relational and affective emphasis of this coding framework corresponds to Structural Dream Analysis principles (Jenni & Roesler, 2024; Roesler, 2018), which prioritize systematic examination of dream ego positioning relative to other characters across dream series.

Although male characters increased across all closeness levels, level 5 interactions (direct verbal or physical engagement) demonstrated the largest increases. This pattern reflects continuity with waking life experiences, given the increased frequency of direct verbal and physical interactions with male characters following the onset of a romantic relationship and cohabitation. Level 6, close-proximity, emotionally charged engagement, including sex, did not increase. These results are consistent with previous research demonstrating that sexual activity frequency in waking life

does not predict erotic dream content (Schredl et al., 2009), particularly within relationships of shorter duration (Vaillancourt-Morel et al., 2021). Considering the dimension of engagement type, indifferent male characters increased in prevalence across all three segments. This pattern aligns with expectations, given that romantic relationship onset increased the proportion of daily interactions involving low-intensity male contact.

Additional changes in engagement between the dream ego and male characters were present, but inconsistent with expectations. The percentage of dreams including a male, aggressive, and authoritative character increased over the 18 months of dream collection. Conversely, supportive, sexualized, and vulnerable male dream characters did not increase. These patterns diverged from the dreamer's waking experiences with men, which included a supportive romantic partner and a father who was vulnerable as a consequence of death. Previous studies have shown that friendly or aggressive interactions with family members in dreams correspond to the nature of these relationships during wakefulness (Domhoff, 2003; Schredl, 2013).

The observed engagement patterns may reflect the activation of early maladaptive schemas (Young et al., 2003) associated with male attachment figures, suggesting that dream content incorporates not only direct waking-life interactions but also deeper cognitive patterns about relationships (McNamara et al., 2014; Simard et al., 2021). The predominance of aggressive and authoritative over supportive and vulnerable male engagements may indicate the reactivation of enduring relational schemas associated with male attachment figures. Specifically, male dream character behaviors may represent generalized beliefs about men rather than accurate reflections of the specific individuals being dreamed about. Such schemas may become more salient during significant life events, when relationship formation and bereavement activate associated emotional needs. The activation of EMSs fluctuates, exerting increased influence following triggering events (Baxendell et al., 2025).

This interpretation of the findings, that changes in male dream characters reflect continuity of generalized schemas rather than direct waking experiences with specific individuals, may address a theoretical challenge within the Social Simulation Theory framework (Revonsuo et al., 2016). While SST proposes that dreams serve as rehearsal mechanisms for social interactions, the increased frequency of father characters following bereavement presents a challenge, as practicing interactions with deceased individuals offers no immediate adaptive benefit since strengthening the bond is no longer possible (Schredl, 2021). However, if dream characters represent activated relational schemas rather than literal practice partners, this supports a modified understanding of SST wherein dreams rehearse generalized social and emotional responses that can be applied across relationship contexts, rather than specific interpersonal behaviors.

Supporting this schema-based interpretation, the documented instances of character metamorphosis provide direct evidence of relational integration processes during periods of heightened emotional activation. The two documented instances of character metamorphosis occurred exclusively in segment 3, after both bereavement and relationship formation, involving father and romantic male partner identities. The first metamorphosis dream, occurring 8 days post-bereavement, featured the merger of the father character with an unknown fictional historical male character:

I was in a library in ancient Rome or Greece. A teacher was reading to a room full of people from a book. It was about a man called [FATHER'S FULL NAME] who left Greece or Rome to go to the UK. The man went to North Yorkshire. I thought it was strange that the man had the same name as my dad, and also that he lived in the same part of the UK as my dad. Later, the teacher showed us a corridor with busts of heads (statues) on either side. The statue of [FATHER'S FULL NAME] looked just like my dad.

Hartmann (2011) documented metamorphosis dreams involving male romantic partners and fathers among female dreamers, proposing that such dreams reflect attempts to integrate relational patterns between these significant male attachment figures. In a subsequent dream within segment 3, occurring 105 days post-bereavement and 243 days after relationship onset, a composite male dream character emerged, incorporating three known males. Although the father was not incorporated into this composite character, he appeared as a separate character later in the dream narrative, potentially addressing conflicts generated by the composite male character's actions:

I was on a date with a boy I used to work with at [CAFÉ]. Maybe his name was [MALE EX-WORK COLLEAGUE]. He was also a man from my current job, [MALE WORK COLLEAGUE]… The boy I was on a date with said I had to get out [of his taxi] and find my taxi. At that point, he had become [EX-ROMANTIC PARTNER], a boy I dated in high school... I thought I should call my dad for a lift because he's dead, so it would be a nice opportunity to see him.

The present study extends the existing literature on single-case longitudinal dream series examining dream content during major life transitions (Owczarski, 2021; Schredl, 2025) by investigating the effects of concurrent life events. Single-case dream series methodology provides a comprehensive dream collection (Schredl, 2025) while enabling within-subject comparisons of dream content before and after major life events (Schredl, 2011). However, this approach also represents a methodological constraint that restricts the generalizability of these findings to broader populations. These findings, while limited to a single-case longitudinal design, provide preliminary empirical support for investigating social transition effects on dream content and may inform hypothesis generation for subsequent large-scale studies examining wake-dream continuity during major life events. The coding framework developed in this study may facilitate future computational analyses of dream character patterns across larger datasets (Cook & Napierkowski, 2025; Das et al., 2025).

Major social transitions, specifically romantic relationship formation and parental bereavement, demonstrated systematic associations with changes in male dream character frequency and characteristics. These shifts support the continuity hypothesis, with increases in father and male romantic partner characters aligning with related waking life events. Concurrently, observed engagement patterns provide evidence for the potential influence of enduring cognitive schemas on dream character behavior. Dream content appears to incorporate both immediate social experiences and enduring cognitive schemas governing interpersonal relationships, supporting a multifaceted model of wake-dream continuity.

Author Note

Emily Cook   https://orcid.org/0009-0003-5069-7467
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Appendix

Coding instructions

Target Dream Character

This field specifies the name or description of the target character for each coding row. All subsequent coding dimensions should focus exclusively on this specific dream character. In the majority of cases, this refers to a single, identifiable dream character. In a subset of cases, it may refer to a group of same-gender characters who cannot be distinguished from one another and constitute a size-ambiguous collective (e.g., "the women went to sleep").

Gender

Select from Male or Female. If the gender is ambiguous, code as NA for this dimension and all remaining dimensions. Gender may be inferred through pronouns ("I asked her to help"), first names ("I asked Emily to help"), or explicit gendered nouns ("I asked the policewoman to help").

Identity

Select identity based on specific keyword matches that reflect social roles and relationships within the dream narrative. There are eight primary identities with male and female equivalents, yielding 16 total identities: Mother, Father, Sister, Brother, Male Authority, Female Authority, Male Child, Female Child, Male Romantic/Sexual Partner, Female Romantic/Sexual Partner, Known Male, Known Female, Unknown Male, Unknown Female, Male Worker, Female Worker.

Ensure consistency between the gender selected in the gender dimension and identity. For example, Female Child is incompatible with Male gender coding. These identities are broader than their labels; for instance, the "Father" category includes terms such as "dad," "papa," and "grandpa," while the "Female Romantic Partner" category encompasses terms like "wife," "girlfriend," and "partner." Select "Known Male/Female" only if the character cannot be assigned one of the more specific identities (e.g., Father, Brother, Male Romantic Partner, Male Child, Male Worker, Male Authority is prioritized over Known Male).

Closeness Level

The closeness level is rated through a six-point ordinal scale to quantify the degree of engagement between the dreamer and each dream character. This dimension captures the directness of the dreamer's involvement with the character within the narrative, ranging from absent to emotionally intense encounters. This dimension codes engagement intensity rather than engagement valence; the emotional positivity or negativity of the interaction is irrelevant to closeness coding.

Level 1 represents characters who are mentioned or implied but not physically present in the dream scene ("She told me she used to have a husband and two children but they died in a car crash").

Level 2 indicates physical presence without direct engagement ("I saw an old colleague in the street").

Level 3 reflects observed engagement, where the dream ego witnesses the character interacting with others or the environment ("she was saying to the husband, please don't do this").

Level 4 captures mediated or symbolic engagement, such as overheard conversations or indirect communication ("My ex boyfriend sent me an email").

Level 5 corresponds to direct verbal or physical engagement between the dream ego and the character ("I got up to leave and told the teacher I didn't want to be near the smoke").

Level 6 denotes close-proximity emotionally charged engagement, including violence and sexual contact ("I tried to run but George grabbed me").

This dimension codes engagement exclusively between the target dream character and the dreamer. When multiple dream characters are present in the dream report, disregard any engagement between those characters that does not involve the dreamer.

When the dreamer and dream character interact multiple times within a single dream, code using the highest level of interaction achieved. For example, "I read an email from a man that asked me to meet him. Later, when we met, he punched me" should be coded as Level 6 rather than Level 4.

Engagement Type

This dimension codes the behavior or implied intention of the dream character, not the dreamer's behavior. This dimension operates independently of identity. For example, a dream character categorized as Romantic Male Partner should not automatically be coded as Sexualized engagement type in the absence of explicitly sexualized behavior or implied intention. When dream characters exhibit diverse behaviors representing multiple engagement types, code as Ambiguous/Mixed. This coding applies to dream characters whose affect or function cannot be categorized clearly or who display blended/conflicted qualities across engagement types.

Sexualized. Linked to attraction, seduction, flirtation, or romantic/sexual interest. The dream character engages in sexualized behavior with the dreamer or another dream character. This includes physical sexual acts, propositions, and intentions inferred by the dreamer. Sexual acts are coded as such even when the initiator is acting in a professional capacity. Reciprocated sexual acts follow the same coding rules as initiated sexual acts. Sexual violence is coded as Aggressive, not Sexualized.

Aggressive. Defined as displaying hostility, threat, violence, anger, or antagonism. The dream character engages in aggressive behavior toward the dreamer or another dream character. This includes intentional physical and sexual violence, as well as attempts or implied intentions. Verbal and expressive aggression are included, as are damage or threats of damage to property. Aggressive acts are coded as such even when the aggressor is a sanctioned agent of punishment or professionally employed for such purposes. Criticism of a character's possessions is treated as criticism of the character themselves. Reciprocated aggressions follow the same coding rules as initiated aggressions.

Supportive. Encompasses offering help, comfort, encouragement, guidance, or emotional backing. The dream character performs a deliberate, purposeful attempt to pro-

vide support to another. Pleasant outcomes for the support recipient are not prerequisite for this coding, nor do unpleasant outcomes negate supportive intention. This category includes extending assistance, gifts, information, and non-sexual affection. Supportive acts are coded as such even when the supporter is acting within a societal or professional role. Reciprocated supportiveness follows the same coding rules as initiated supportiveness.

Vulnerable. Defined as appearing weak, hurt, dependent, in distress, or requiring protection or care. Dream characters are portrayed in states of weakness, distress, or need, regardless of the underlying causation. This encompasses both active suffering and passive states of fragility or dependency. Vulnerability may be explicitly stated ("she was crying") or contextually implied ("I found my daughter drowning in the bath"). Include both major vulnerabilities (life-threatening illness) and more subtle manifestations (feeling overwhelmed, financial stress) provided they render the character in a demonstrable state of weakness or need.

Indifferent. Defined as emotionally or functionally neutral, displaying no strong reaction or engagement. These characters neither help nor hinder, exhibiting neither emotionally positive nor negative characteristics. Code as "Indifferent" when the dream character exhibits neutral presence or engagement without distinctive emotional or behavioral characteristics. While Indifferent often serves as the default category when characters do not clearly fit other engagement types, ensure genuine neutrality rather than unclear categorization. When multiple engagement types are present, consider Ambiguous/Mixed as an alternative coding.

Authoritative. Encompasses exerting control, setting rules, judging, instructing, or representing formal authority or power. Code as Authoritative when the dream character exhibits power dynamics, control mechanisms, or directive behavior toward the dreamer or others. Include both major authority exercises ("He probably wouldn't grant bail, so then we would have to wait in jail for the full trial") and minor authority displays ("A man told us we couldn't work on our laptops there"). Code as Authoritative regardless of whether the authority is accepted or resisted by other characters. Include situational authority even when brief or context-specific.