

With or without you? Dreaming about the romantic partner – A case study

Michael Schredl and Annabelle Neuhäusler

Central Institute of Mental Health, Medical Faculty Mannheim/Heidelberg University, Germany

Summary. Romantic relations do not only play a major role in pop songs like the U2 song "With or without you" but also in "real" life. Empirical data support the continuity hypothesis of dreaming as romantic partners are quite prominent in dreams; however, content analytic studies of partner dreams are quite scarce. The present dream series over a four-year time period (included a romantic relationship) of a female dreamer included 132 dream reports. Partner-related activities (sexuality, friendly interactions) are more prominent in dreams with the partner compared to dreams without the partner. After separation, the friendly interactions in partner dreams decreased and negative emotions increased. This single-case study might stimulate research to take a closer look on ex-partner dreams and test whether they are helpful – also within a clinical context (psychotherapy) – in coping with the separation.

Keywords: Dreams, continuity hypothesis, romantic relationship

1. Introduction

Romantic relations do not only play a major role in pop songs (Scheff, 2011) like the U2 song "With or without you" released in 1987 but also in "real" life (e.g., Ogolsky, Monk, Rice, Theisen, & Maniotes, 2017). According to the continuity hypothesis of dreaming (Schredl, 2003) important issues should be present in dreams and, indeed, research indicate that about 20% of all recalled dreams included the romantic partner (Schredl, 2001; Schredl & Reinhard, 2012; Selterman, Apetroaia, & Waters, 2012; Selterman & Drigotas, 2009; Uslar, 2003). But former romantic partners also show up in dreams long after the relationship ended; in an unpublished analysis of a sample consisted of 1612 diary dreams reported by 425 students (sample description in: Mathes & Schredl, 2014) 4.78% included an ex-partner. A single dream series included the former romantic partner in about 2% to 5% of the dreams even years after their breakup (Schredl & Reinhard, 2012). Additional analyses showed that relationship duration and probably relationship intensity modulated the frequency of different former partners in the dreams of the long-term journalist (Schredl, 2018a). Even 20 years after her divorce, "Barb Sanders" (pseudonym) ex-husband (they were married for 10 years and had three daughters) was present in about 5% of the dreams (Domhoff, 2003). Even a long time after separation aggression was prominent in the ex-husband dreams but eventually aggressive interactions in these dreams decreased (Domhoff, 2003). Comparing 227 partner dreams while the dreamer was in relationship with his partner (three phases), with 289 partner dreams after they were separated (total time span of 17 years), emotional tone (in both samples balanced) and

Corresponding address:

Submitted for publication: March 2019 Accepted for publication: April 2019 the frequency of erotic dream content (about 20% of the partner dreams) were comparable (Schredl, 2011). The major difference in content was that mutual activities, doing something together, were much more common in partner dreams during the relationship period (43.17% vs. 17.30% of the dreams) whereas the topic of separation was much more prominent in the partner dreams after separation (39.79%) compared to partner dreams during the relationship periods (2.64%).

To summarize, romantic relationships and break-ups of those relationships are quite common in dreams but content analytic studies of partner dreams are quite scarce. The present article is based on a dream series over a time period of 4 years (including a romantic relationship) reported by a female dreamer. It was expected that partner dreams differ from dreams not featuring the partner regarding activities typical for romantic relationships like sexual and friendly interactions. After the break-up partner dreams should be more negative and include more aggression as a reflection of the arguments that resulted in the separation. These hypotheses are based on the model of the continuity hypothesis that also includes emotional salience of the waking experience as a factor determining its incorporation into subsequent dreams (Schredl, 2003).

2. Method

2.1. Participant and dream reports

For the present study, 132 dream reports recorded from May 2014 to July 2018 were included (21 short dream fragments, word count below 40 words, were not included). The dreamer is female and was 30 years old at the time of the first dream recording. The average dream length was 131.62 \pm 67.23 words. All dream reports were in the 50 to 300 words range, except for three dreams (42 words, 49 words, 346 words). Of the 132 dream reports, 69 dreams included the partner (mean word count: 136.32 \pm 70.79 words) and 63 dreams did not include the partner (mean word count: 126.48 \pm 63.05 words). The difference in dream length was not significant (t = -0.8,

Michael Schredl, Sleep laboratory, Central Institute of Mental Health, PO Box 12 21 20, 68072 Mannheim, Germany. Email: Michael.Schredl@zi-mannheim.de

p = .4029). The romantic relationship lasted from February 2015 to May 2018; the partners did not keep in touch after separation. Of the 69 partner dreams, 38 dreams were recorded before the separation and 31 dreams after the separation. Mean word count did not differ significantly (132.63 \pm 70.32 words vs. 140.89 \pm 72.64 words, t = -0.5, p = .6362).

2.2. Dream content analysis

Dream content analysis were based on the manual by Hall and Van de Castle (1966). Dream reports were scored for characters, aggression, friendliness, sexuality, settings, objects, success and failure, misfortune and good fortune, and emotions. The coding rules in full length are available in Hall and Van de Castle (1966) and Domhoff (1996). Characters are scored for number, gender, identity, and age. Aggressive interactions were scored on an 8-point nominal scale (ranging from aggressive thoughts, verbal aggression to physical aggression including murder). In addition, it was determined whether the dreamer was initiating aggression or the victim of aggression. Friendly interactions are scored similar to aggression but on a 7-point scale (ranging from friendly feelings to the desire for a long-term relationship). Sexuality could be scored on a 5-point scale (ranging from sexual thoughts to sexual intercourse). Settings are scored for location (outdoors or indoors) and for familiarity. Success, failure, and good fortune were coded for presence/ absence whereas misfortune was coded on a 6-point scale (ranging from encountering an obstacle to dying as a result of accident or illness). Emotions are classified into the five subclasses anger, apprehension, sadness, confusion, and happiness. Striving is defined as the sum of successes and failures.

The percentage of male dream characters ("male/female percent") is obtained by dividing the number of male characters by the sum of male and female dream characters. The percentage of familiar dream characters (familiarity percent) is obtained by dividing the number of familiar characters (family and known characters including friends, acquaintances and prominent characters) through the total number of dream characters. The same method is applied to friends percent, family percent, dead and imaginary percent, and animal percent. Aggression/Friendliness percent is computed by dividing all aggressive interactions through the sum of aggressive and friendly interactions. Befriender percent is defined as friendly interactions initiated by the dreamer divided by all friendly interactions. The same principle is applied to the aggressor percent which is defined as aggressive interactions initiated by the dreamer divided through all aggressive interactions. Physical aggression percent is all physical aggression divided by all aggressive interactions.

The A/C index is computed by dividing the total of aggressive interactions by the total number of characters in the dreams. The same is performed to obtain the F/C index for friendly interactions and the S/C index for sexual interactions respectively. Indoor setting percent is obtained by dividing all indoor settings through the total of settings of all dreams. The same is done for the familiar settings to obtain the familiar setting percent.

Self-negativity percent is defined as the amount of negativity (aggression directed at the dreamer, failures, misfortunes) divided by the sum of the amount of negativity plus the amount of positivity (friendliness directed at the dreamer, success, good fortune). The bodily misfortunes percent is computed by dividing the total of bodily misfortunes (M5 and M6 categories) by all misfortunes. The M5 score for misfortunes is defined as "a character is injured or ill. This class includes pain, operations, any bodily or mental defects, insanity, amnesia, blindness". The M6 score is defined as "a character is dead or dies as a result of accident or illness or some unknown cause". The negative emotions percent is defined as all negative emotions (anger, apprehension, sadness, and confusion) divided by all emotions. Dreamer-involved successes percent is computed by dividing all dreamer-involved successes through the sum of dreamer-involved successes and dreamer-involved failures. To obtain the torso/anatomy percent the sum of the mentions of the torso, anatomical parts, and sexual organs are divided by the total number of all body parts mentioned (Domhoff, 1996).

2.3. Procedure

The dreamer contacted the first author as she wanted to share her positive experiences with her dream recording and working with her dreams with others. As she was very specific that her identity should remain unknown she did not want any additional personal information (except the beginning and end of this romantic relationship) or dream reports to be published. The dreamer sent photos of her dream diary pages which were transcribed by the second author.

The dream reports were scored according to the method of Hall and Van de Castle (1966) by the second author. The codings of each dream were entered into DreamSAT Excel sheets available on dreamsearch.net which provide an automatic analysis after entering the coding of each dream (Domhoff & Schneider, 1998; Schneider & Domhoff, 2017). The program computed h statistics comparing two dream samples. After computing the h effects sizes for the difference between the percentages of the two samples, the h effect size can be tested for significant differences using the z statistic (Domhoff, 1996). The SAT Excel sheets do not provide significance levels for the A/C, F/C, S/C indexes because the statistical testing of the h statistic only works for values between 0 and 1 (Schneider & Domhoff, 2017).

3. Results

Results for the dream content analysis for dreams with partner vs. dreams without partner are presented in Table 1. including the h statistics (see also Figure 1). As the partner is male and coded as family and familiar character, the increased percentages of male/female percent, familiarity percent, and family percent are plausible. Dead and imaginary characters occurred very rarely in the dream series but less often if the partner was present in the dream compared to dreams without partner. Partner dreams more often included sexuality and aggression. In addition, a trend for more friendly interaction was observed, supported by the higher friendly interactions per character index (medium effect size). Interestingly, there are fewer misfortunes in partner dreams compared to dreams without partner. Regarding other dream characteristics like emotions, settings, befriender percent, physical aggression percent no differences between the two dream samples were found.

After separation the partner dreams included more negative emotions and a higher aggression/friendliness percent (see Table 2); however, the increase of this ratio is due to the decrease of friendly interactions per character (no change



	Dreams with partner	Dreams with- out partner	Effect size	p- value	Dreams with partner (N =)	Dreams with- out partner (N =)
Characters						
Male Percent	69%	56%	+,26	* ,026	176	128
Familiarity Percent	86%	58%	+,65	** ,000	212	171
Friends Percent	36%	32%	+,09	,379	212	171
Family Percent	50%	25%	+,52	** ,000	212	171
Dead & Imaginary Percent	00%	03%	-,20	* ,048	219	181
Animal Percent	03%	06%	-,12	,252	219	181
Social Interaction Percents						
Aggression/Friendliness Percent	40%	50%	-,20	,117	169	102
Befriender Percent	63%	71%	-,16	,375	76	48
Aggressor Percent	58%	71%	-,26	,176	60	48
Physical Aggression Percent	39%	34%	+,10	,613	67	44
Social Interaction Ratios						
A/C Index	,31	,24	+,15		219	181
F/C Index	,48	,30	+,44		219	181
S/C Index	,12	,02	+,24		219	181
Settings						
Indoor Setting Percent	61%	66%	-,09	,597	80	61
Familiar Setting Percent	38%	44%	-,13	,486	66	52
Self-Concept Percents						
Self-Negativity Percent	41%	45%	-,08	,472	167	141
Bodily Misfortunes Percent	30%	29%	+,04	,879	23	35
Negative Emotions Percent	75%	74%	+,04	,773	142	95
Dreamer-Involved Success Percent	64%	68%	-,09	,533	94	82
Torso/Anatomy Percent	39%	41%	-,03	,867	46	49
Topics per Dream						
Aggression	68%	49%	+,39	* ,027	69	63
Friendliness	80%	65%	+,33	,058	69	63
Sexuality	30%	05%	+,73	** ,000	69	63
Misfortune	22%	44%	-,49	** ,005	69	63
Good Fortune	19%	13%	+,17	,331	69	63
Success	71%	73%	-,04	,798	69	63
Failure	48%	48%	+,00	,981	69	63
Striving	84%	87%	-,09	,595	69	63

Table 1. Dream content for dreams with partner (N = 69) vs. dreams without partner (N = 63)

*p<.05, **p<.01

in aggressions per character). Interestingly, there is also an increase in friends percent from 29% in partner dreams during the relationship to 43% in partner dreams after separation (h = 0.30, p = .031).

4. Discussion

Overall, the findings of the present case study indicate that partner-related activities (sexuality, friendly interactions) are more prominent in dreams with the partner compared to dreams without the partner. After separation, the friendly interactions in partner dreams decreased and negative emotions increased. Both findings are in line with the continuity hypothesis of dreaming (Schredl, 2003) and indicate that romantic relationships including their break-up affect dream content considerably.

From a methodological viewpoint, it has to be taken into account that this is a single case study; rather providing ideas for developing hypotheses that can be tested in larger samples than providing empirical support for a specific hypothesis. Although Domhoff and Schneider advocated the basis for statistical testing within a dream series (Domhoff

	Dreams dur- ing Relation- ship	Dreams after Separation	Effect size	p- value	Relationship dreams (N =)	After separa- tion dreams (N =)
Social Interaction Percents						
Aggression/Friendliness Percent	33%	49%	+,33	* ,031	94	75
Befriender Percent	65%	61%	-,09	,687	43	33
Aggressor Percent	54%	63%	+,18	,484	28	32
Physical Aggression Percent	37%	41%	+,07	,770	35	32
Social Interaction Ratios						
A/C Index	,30	,31	+,01		115	104
F/C Index	,58	,38	-,49		115	104
S/C Index	,16	,08	-,19		115	104
Negative Emotions Percent	67%	88%	+,51	** ,003	85	57

Table 2. Social interaction in dreams with the partner during the relationship (N = 38) and after separation (N = 31)

*p<.05, **p<.01

& Schneider, 2015a, 2015b), one might argue that findings from single-case studies cannot be generalized but – as mentioned above – can stimulate studies in larger samples.

The advantage of using dream series is their longitudinal character, it would be quite difficult to ask participants in a typical research setting to keep a dream diary for four years (Domhoff, 2018; Schredl, 2018b). Interestingly, the difference in male/female percent between partner dreams and dreams without partner reflect the difference in male/ female percent between single women (48.3%) and women in stable partnership (62.3%), i.e., the "ubiquitous" gender difference that men dream more often about men whereas women dream equally often about men and women (Hall, 1984; Hall & Domhoff, 1963) seem to depend on the waking-life relationship pattern, in this case being in a romantic relationship.

The findings indicate that partner dreams of this particular dreamer included social interactions (sexuality, friendliness, aggression) very often (compared to dreams without partner) which would be expected to be the case in waking life being in an intense romantic relationship. As the topic jealousy in dreams affect negatively relationship intimacy on the next day (Selterman, Apetroaia, Riela, & Aron, 2014), it would be interesting to study the dreams with sexual interaction but without the partner (about 5% of the dreams). After the break-up the friendly interactions decreased whereas negative emotions increased very likely reflecting the problems that caused the separation. It would be very interesting to study dreams with the partner years later (the present dream sample included only partner dreams up to three months after separating) as dream emotions might be more balanced (Schredl, 2011) and aggression might decline (Domhoff, 2003). The dreamer reported that recording the dreams and getting feedback regarding the findings had helped her coping with the break-up; this fits with the findings of Cartwright (1991) indicating that women who dreamed about their exspouse during the divorce period were better adapted (less depressed) a year later. Within the framework of the Social Simulation Theory (Revonsuo, Tuominen, & Valli, 2015) it would be very interesting to study whether dreams of the former partner are beneficial in coping with the separation and shortened the interval to a new romantic relationship (higher possibility to produce offspring).

To summarize, the present case study supported the notion that social interactions like romantic relationships and break-ups of those relationships affect dream content. This single-case study might stimulate research to take a closer look on ex-partner dreams and test whether they are helpful – also within a clinical context (psychotherapy) – in coping with the separation. Although working with dreams can be beneficial for hetero-sexual couples (Kolchakian & Hill, 2002), so far specific empirical studies integrating ex-partner dreams into the psychotherapeutic process are lacking.

References

- Cartwright, R. D. (1991). Dreams that work: The relation of dream incorporation to adaption to stressful events. Dreaming, 1, 3-9.
- Domhoff, G. W. (1996). Finding meaning in dreams: a quantitative approach. New York: Plenum Press.
- Domhoff, G. W. (2003). The scientific study of dreams: neural networks, cognitive development and content analysis. Washington: American Psychological Association.
- Domhoff, G. W. (2018). The emergence of dreaming: Mind-wandering, embodied simulation, and the default network. New York: Oxford University Press.
- Domhoff, G. W., & Schneider, A. (1998). New rationales and methods for quantitative dream research outside the laboratory. Sleep, 21, 398-404.
- Domhoff, G. W., & Schneider, A. (2015a). Assessing autocorrelation in studies using the Hall and Van de Castle coding system to study individual dream series. Dreaming, 25(1), 70-79. doi:10.1037/a0038791
- Domhoff, G. W., & Schneider, A. (2015b). Correcting for multiple comparisons in studies of dream content: A statistical addition to the Hall/Van de Castle coding system. Dreaming, 25(1), 59-69. doi:10.1037/a0038790
- Hall, C. S. (1984). "A ubiquitous sex difference in dreams" revisited. Journal of Personality and Social Psychology, 46, 1109-1117.
- Hall, C. S., & Domhoff, B. J. (1963). A ubiquitous sex difference in dreams. Journal of Abnormal and Social Psychology, 66, 278-280.

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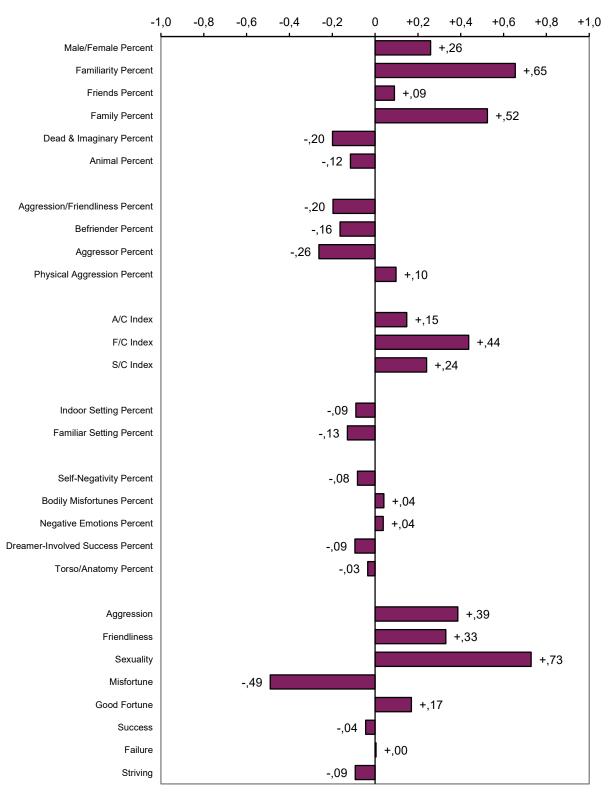


Figure 1. h-profile: Dreams with partner vs. Dreams without partner

- Hall, C. S., & Van de Castle, R. L. (1966). The content analysis of dreams. New York: Appleton-Century-Crofts.
- Kolchakian, M. R., & Hill, C. E. (2002). Dream interpretation with heterosexual dating couples. Dreaming, 12, 1-16.
- Mathes, J., & Schredl, M. (2014). Analyzing a large sample of diary dreams - How typical are typical dreams? Somnologie, 18, 107-112.
- Ogolsky, B. G., Monk, J. K., Rice, T. M., Theisen, J. C., & Maniotes, C. R. (2017). Relationship maintenance: A review of research on romantic relationships. Journal of Family Theory & Review, 9(3), 275-306. doi:10.1111/ jftr.12205
- Revonsuo, A., Tuominen, J., & Valli, K. (2015). The Avatars in the Machine. In T. K. Metzinger & J. M. Windt (Eds.), Open



MIND (pp. 1-28). Frankfurt am Main: MIND Group.

- Scheff, T. J. (2011). What's love got to to with it?: Emotions and relationships in popular songs. Boulder, CO: Paradigm Publishers.
- Schneider, A., & Domhoff, G. W. (2017). The Quantitative Study of Dreams. Retrieved from http://www.dreamresearch. net/
- Schredl, M. (2001). Dreams of singles: effects of waking-life social contacts on dream content. Personality and Individual Differences, 31, 269-275.
- Schredl, M. (2003). Continuity between waking and dreaming: a proposal for a mathematical model. Sleep and Hypnosis, 5, 38-52.
- Schredl, M. (2011). Dreams of a romantic partner in a dream series: Comparing relationship periods with periods of being separated. International Journal of Dream Research, 4, 127-131.
- Schredl, M. (2018a). Reminiscences of love: Former romantic partners in dreams. International Journal of Dream Research, 11(1), 69-73.
- Schredl, M. (2018b). Researching Dreams: The Fundamentals. Cham: Palgrave Macmillan.
- Schredl, M., & Reinhard, I. (2012). Frequency of a romantic partner in a dream series. Dreaming, 22(4), 223-229. doi:10.1037/a0030252
- Selterman, D., Apetroaia, A., & Waters, E. (2012). Script-like attachment representations in dreams containing current romantic partners. Attachment & Human Development, 14(5), 501-515. doi:10.1080/14616734.2012.706395
- Selterman, D., Apetroaia, A. I., Riela, S., & Aron, A. (2014). Dreaming of you: Behavior and emotion in dreams of significant others predict subsequent relational behavior. Social Psychological and Personality Science, 5(1), 111-118.
- Selterman, D., & Drigotas, S. (2009). Attachment styles and emotional content, stress, and conflict in dreams of romantic partners. Dreaming, 19, 135-151.
- Uslar, D. v. (2003). Tagebuch des Unbewussten. Abenteuer im Reich der Träume. Würzburg: Königshausen & Neumann.