

Old school friends: Former social relationship patterns in a long dream series

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Summary. Social interactions are a very common theme in dreams. The present study based on a dream series of 7,747 dreams, investigated the long-term effect of the dreamer's social pattern during school years on his adult dreaming. Overall, school-related dreams were found even 20 years after graduation. For the social pattern, personal significance and time spent together seems to be the main factor explaining the frequency of former schoolmates in dreams. To extend this single-case study, it would be fruitful to study similar dream series in order to shed light on the long-term effects of waking life on dreaming.

Keywords: Dream series, social interactions, friends, schoolmates

1. Introduction

The term "continuity hypothesis" was coined by Hall and Nordby (1972). Subsequent research has studied how different aspects of waking life, such as concerns, experiences, conceptions, fantasies, or preoccupations, are reflected in waking life (cf. Schredl, 2012a). As dream characters play a prominent role in many dreams (Domhoff, 1996; Hall & Van de Castle, 1966; Schweickert, 2007), it seems promising to study the continuity of waking social patterns and social patterns found within dreams. Whereas general aspects, e.g. male/female ratio or familiarity vs. unfamiliarity of dream characters, have been studied quite extensively (Hall, 1984; Hall & Van de Castle, 1966), systematic studies of specific types of persons, such as parents, spouse, or friends, were carried out quite rarely in dream research, even though they are quite often incorporated into dreams. The romantic partner, for example, is present in about 20% of the dreams (Schredl, 2001, 2011; Selterman & Drigotas, 2009; Uslar, 2003). Longitudinal research indicates that the percentage of partner dreams decreases after separation (Schredl, 2012b) or death of the spouse (Arkin, Gerber, Wiener, & Battin, 1976). Friends of the dreamer were found in about twenty percent (20%) of the dreams (Roll & Millen, 1979), and a recent study (Schredl & Reinhard, 2009-2010) indicated that problems and positive experiences in the peer group have strong effects on dream emotions, clearly indicating that social interactions with friends has an important effect on the dream life of the person. A researcher (Merei, 1994), who had been in prison for 4 years, found that friends were present in about ten percent (10%) of his dreams dur-

ing his imprisonment, but this figure doubled when he was released and had regular contact with them. To summarize, the waking life social pattern of the dreamer is reflected in the dreamer's dreams.

The present study analyzed the frequency of persons related to school within a dream series of 7,747 dreams recorded by a dreamer over a period of seventeen years. The series started three years after he left school, and thus provided an excellent opportunity to study the long-term affects of social relationships. It was hypothesized that there was a decline in frequency of dreams featuring school-related persons and that persons who were close friends with the dreamer during this period would occur more often than other school mates. In addition, how often the old schools were incorporated in the dreams as settings was also studied.

2. Method

2.1. Dream diary

The participant kept an unstructured dream diary from the age of 22, beginning in September, 1984 through April 2005. For the present analysis, 7,747 dreams from that period were included (see Figure 1). The mean dream length was 129.1 ± 83.2 words.

2.2. Participant and procedure

The male participant attended "Grundschule" (elementary or primary school) from 1968 to 1972 (4 years; age 6 to age 12) and the "Gymnasium" (grammar or secondary school) from 1972 to 1981 (9 years; age 12 to age 18). He visited two reunion evenings: one after 8 years (1989) and the other after 20 years (2001). In 1992, there was a festivity regarding the 25th anniversary of the "Gymnasium" which the dreamer also attended. Overall, ninety (90) students (including the dreamer) completed the school at same time as the dreamer. As the last two years were organized in courses, the dreamer had classes with almost all other students. Forty-six (46) of the students were female and forty-four (44) were male. After school, the dreamer studied electrical

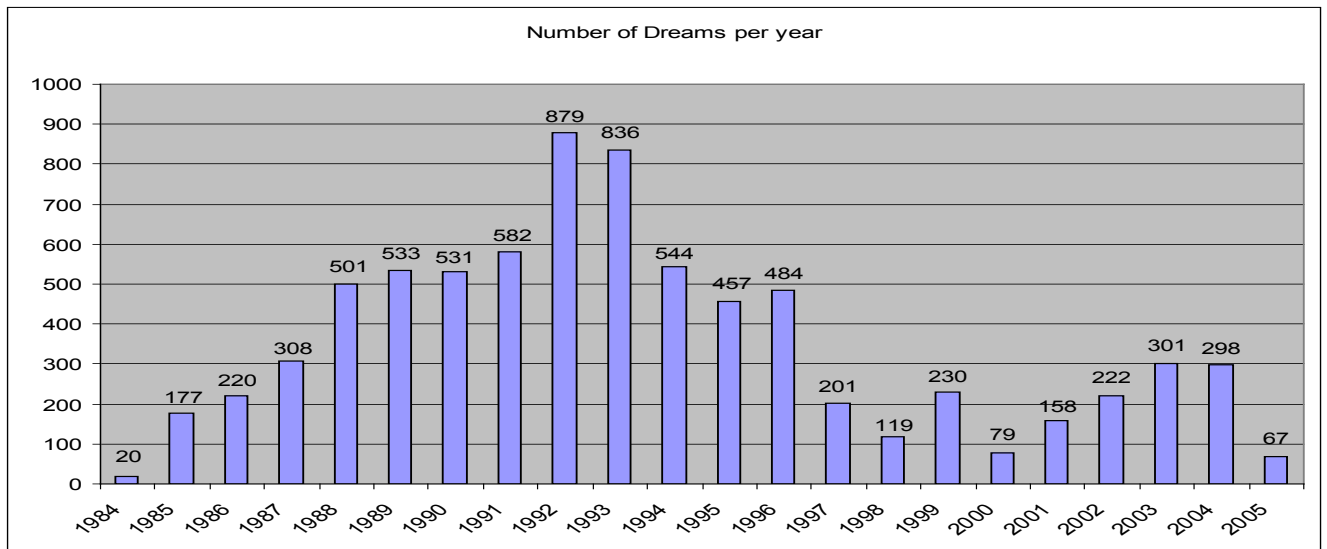
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Figure 1. Number of dreams per year



engineering with two of his school-mates and kept in contact with them for the first two years; afterwards, the contact ceased. He didn't keep in touch with any other school mate during the time under consideration (September 1984 through April 2005).

The dream reports were typed and entered into a database, Alchera 3.72, created by Harry Bosma, www.mythwell.com. This database allows the assignment of key words to the dreams, a task carried out by the dreamer himself. Each dream was rated for the presence of the "Grundschule" (setting); "Gymnasium" (setting); teachers and fellow pupils/students (using the name of the person). In some cases, the dreamer did remember that a fellow student occurred within a dream, but could not identify the person. This was coded separately ("Schoolmates").

The Alchera software also provides a word count for each dream report. The analysis unit was a single dream report. The data were entered into an Excel spreadsheet (Microsoft) and data analysis was carried out using the SAS 9.2 for

Windows software package. For analyzing possible linear trends within the binary time series, Bortz (1990) suggested the use of the biserial rank correlation (Kendall's tau).

3. Results

Overall, twenty-three (23) dreams included references to "Grundschule" (0.30%). The setting of the old secondary school ("Gymnasium") was present in 179 dreams (2.31%). The frequency of the two (2) school settings over the years is shown in Figure 2. Whereas there were no significant linear trends in the whole time series, a significant decline for "Gymnasium" was found from 1984 to 1988, but not for "Grundschule" (see Table 1). For the second time period (1989 to 2005), neither "Gymnasium" nor "Grundschule" were significantly associated with time.

Within 440 dreams at least one schoolmate was present. Adding the 27 dreams where the dreamer remembered that one or more schoolmates was present but not remem-

Figure 2. Percentages of dreams including "Grundschule" (primary school) and "Gymnasium" (secondary school)

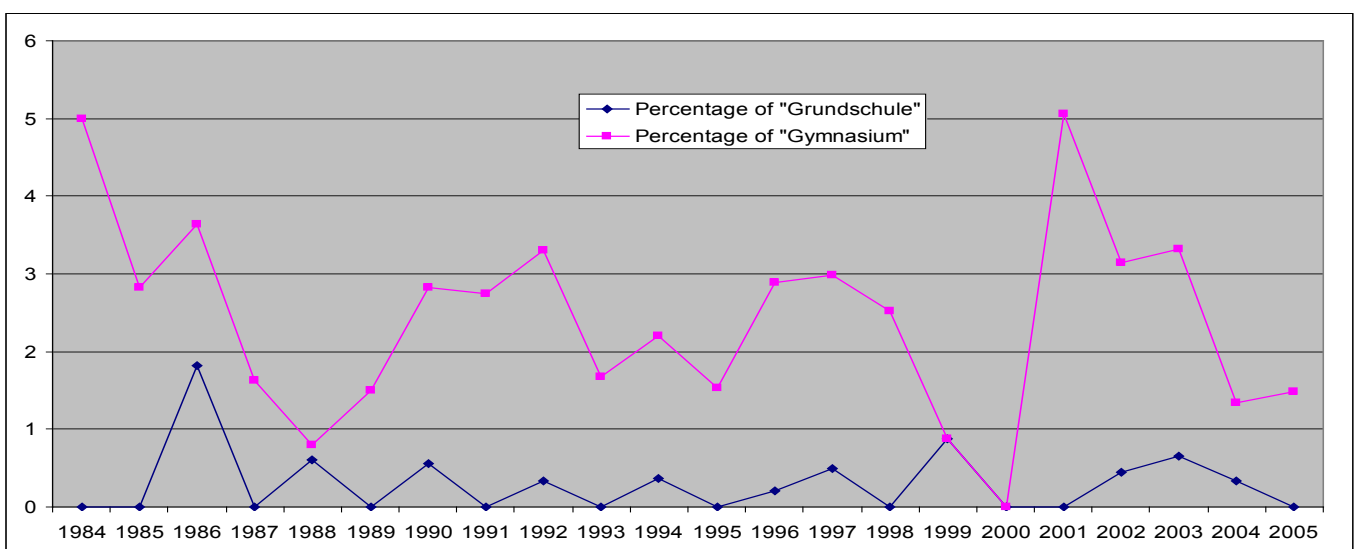


Table 1. Analyzing linear trends within the binary time series (Kendall's tau)

Variable	Total dream sample (N = 7747)	Dream sample (till 1988) (N = 1226)	Dream sample (after 1988) (N = 6521)
"Grundschule"	-.006	.001	.010
"Gymnasium"	.004	-.058 *	-.003
Schoolmate dreams	-.003	-.155 ***	.007

* $p < .05$, *** $p < .0001$

bered, 5.90% of the total dream sample included at least one schoolmate (N = 457 dreams). Similar to the occurrence of "Gymnasium" as a dream setting, there is a significant decline in the first years of the dream series, but not in the second time period (see Table 1). Interestingly, there is a marked increase in dreams with school-related persons in 2001, the year of the 20th anniversary of final exams.

In 353 of the 440 dreams, only one person related to school was present. In 57 dreams, two persons related to school were present. In 20 dreams, three persons related to school were present. In 7 dreams, four persons related to school were present. In 2 dreams, five persons related to school were present, and in one dream, six persons related to school were present. Interestingly, the persons related to school quite rarely were met in the school setting (14.0%; see Table 2). Overall, 86 different persons related to school occurred in the dreams: five (5) female teachers; 13 male teachers; 29 female school mates; and 32 male schoolmates who passed final secondary-school examinations with the dreamer; and seven (7) other schoolmates (one younger; the others left school long before the final examinations). Female teachers were present in 20 dreams, whereas male teachers were present in 54 dreams, resulting in a male to female and male ratio of 73.0%. A similar figure (78.3%) was obtained by computing the male ratio for the schoolmates (108 dreams with female school mates; 389 dreams

Table 2. Cross table of dream setting "Gymnasium" and occurrence of school mates

School-mates "Gymnasium"	Not present	Present	Sum
Not present	7175	393	7568
Present	115	64	179
Sum	7290	457	7747

with male school mates). Of the 89 persons who passed final secondary-school examinations with the dreamer, 61 showed up in the dream series (68.5%). There was a slight gender difference (affect size: $d = 0.247$) as more male schoolmates (32 out of 43; 74.4%) than female schoolmates (29 out of 46; 63.0%) were found in the dreams.

Table 3 displays the seven (7) male and seven (7) female school mates who occurred most often within the dream series. All other male schoolmates had frequencies of 13 or below, and the frequencies of the other female school mates were 4 and fewer. First, frequencies of the male schoolmates were considerably higher than those of the female schoolmates (see Table 3). The frequencies of the male schoolmates parallel the closeness of the schoolmate to the dreamer. James was his best friend in "Grundschule". In the first three years of "Gymnasium", John was his best friend for about three years. They studied electrical engineering together for the first year, Mark was a close friend of John. Robert was his best friend in the last two years of "Gymnasium". David also studied electrical engineering with John and the dreamer. Richard and Charles were dizygotic twins who attended the physics course with the dreamer in the last two years. For the female schoolmates, the pattern is less clear, reflecting the fact that the dreamer had no close relationship (of a romantic nature or friendship) with a fe-

Figure 3. Percentage of dreams with persons related to school

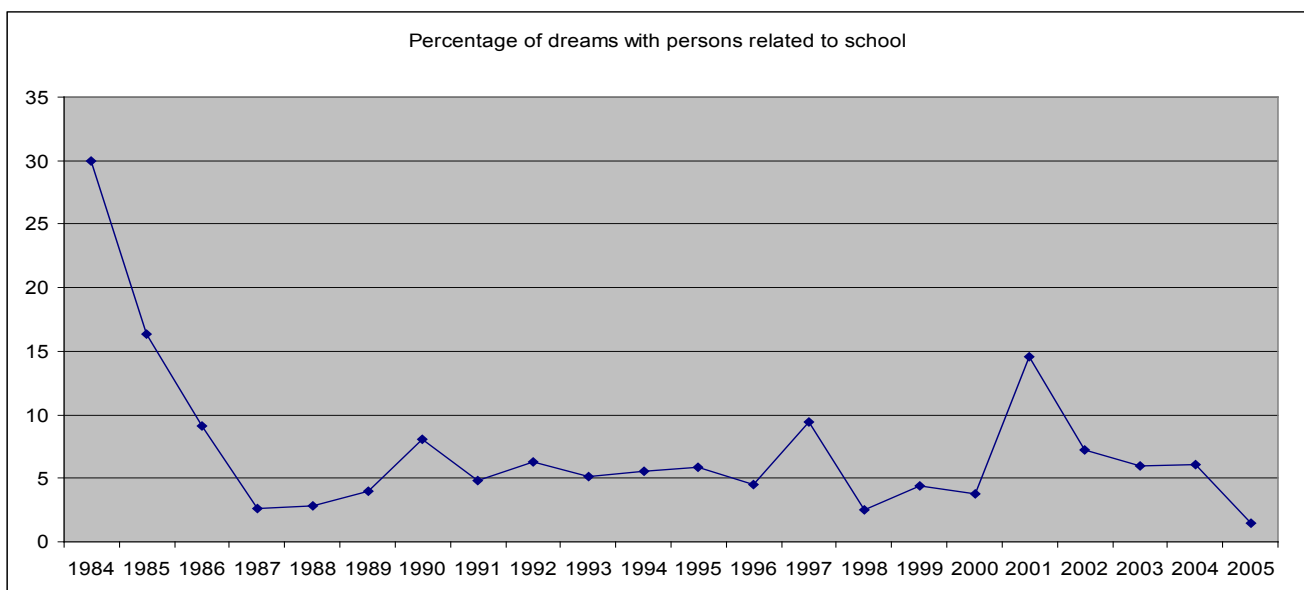


Table 3. Top 7 male and female school-mates

Males ¹	Frequency	Females ¹	Frequency
James	80	Mary	11
John	65	Patricia	7
Robert	35	Linda	7
David	23	Barbara	6
Richard	21	Elizabeth	6
Charles	16	Dorothy	6
Mark	16	Nancy	6

¹ Names were changed

male schoolmate. Interestingly, Patricia is the only schoolmate that is about 3 years younger than the dreamer. He had a crush on her for several months, but did not contact her. The two most frequent male teachers (N = 10 dreams each) were the most loved teachers of the dreamer. This is also the case for the most frequent female teacher (N = 10 dreams) who was the dreamer's first class teacher in the "Gymnasium".

4. Discussion

Overall, school-related dreams were found even 20 years after the graduation of the dreamer. There was not much contact with persons from this life period, nor with the setting of the school. Even though there is a decline in frequency of "Gymnasium" dreams and dreams with school-related persons from 1984 to 1988, the overall picture does not resemble the logarithmic function postulated by Botman and Crovitz (1989). Their findings were based on a retrospective assessment of the time interval by the dreamer – an approach which has been used in other studies (Strauch & Meier, 1996; Verdone, 1965). The retrospective assessment, however, is problematic as it relies on the memory of the dreamer in order to make matches. It is very likely that the ability to retrieve memories showed a logarithmic decrease, and not the temporal references of dreams. In order to validate findings using the retrospective approach, longitudinal studies – like the present study – are necessary. As the analysis of binary time series of a single participant is a challenging task for statisticians (for discussion see Schredl, 2012b), more dream series are needed to test whether the decline of frequency is best fitted by a logarithmic function.

The comparison between "Grundschule" dreams and "Gymnasium" dreams clearly show that the time interval ("Grundschule" was before "Gymnasium") and the time spent in school (4 years "Grundschule", 9 years "Gymnasium") did have an effect on incorporation rate. In addition, the increase of dreams with school-related persons in 2001 supports the hypothesis that dreaming is continuous to waking life as the dreamer has been in contact with his former schoolmates for one evening, and had his mind on school quite a lot during this year.

For the social pattern, personal significance and time spent together seem to be the main factors explaining the frequency of former schoolmates in dreams. The dreamer's best friends were most often found in the dream series (and the woman on whom the dreamer had a crush), indicating that the social pattern of his adolescence still repeats in his adult dreams. Interestingly, the male/female ratio was very

high (78.3%), much higher than his overall male/female ratio in 1984/1985 (63%) and in 1987/1988 (51%; Schredl & Jacob, 1998). This ratio reflects his waking life social pattern as he spent much more time with male persons during his time at school, than later while studying electrical engineering (1984/1985) and psychology (1987/1988). A similar correlation between waking-life social patterns and dream characters has been reported by Schredl, Loßnitzer, and Vetter (1998).

In addition to the above reported results, it is quite interesting that school-related persons occurred quite rarely within the school setting. This supports the notion that dreams are not simple replays of episodic memories (Fosse, Fosse, Hobson, & Stickgold, 2003), but creatively insert parts of old memories into current dreams. From a Jungian point of view (Jung, 1979), it might be advantageous to study the personality traits of the former schoolmates because these dream characters might reflect aspects of the dreamer which are important in his current life. Richard and Charles, not close to the dreamer during school years, for example, might reflect the topic of intense brother relationship which the dreamer did not have with his own brother who is about 2 ½ years his junior. These kinds of analyses are very interesting, but would be very time consuming as one would have to collect a lot of information about the dreamer's waking life issues at times when these dreams occur.

To summarize, the analysis of this long dream series showed that personal significant experiences of the dreamer's waking life can be found even years after they happened. To extend this single-case study, it would be fruitful to study similar dream series in order to shed light on the long-term effects of waking life on dreaming.

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