

Influence of Gender and Age in Aggressive Dream Content of Spanish Children and Adolescents

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This study investigated the aggressive components of the dream content of 120 Spanish children and adolescents of 4 different age groups. The C. S. Hall and R. L. Van de Castle (1966) coding system was used to rate the number of dream characters and aggressions, and the content findings were analyzed via the indicators presented by G. W. Domhoff (1993, 1996, 2003). Results confirm the findings of previous studies of gender and age differences in dream content: Boys tend to have more aggressive dream content, which tends to decrease with age until reaching a pattern similar to the normative group; younger children, especially boys, tend to be victims of aggression more frequently than do older children. In addition, a data analysis procedure involving cumulative scoring of the aggression scale as well as nonparametric statistics yielded significant differences between boys and girls of the youngest group for severity of aggression.

Keywords: dream content, dream content analysis, gender, children, adolescents

GENDER DIFFERENCES IN DREAM CONTENT

Women's dreams have been found to differ from those of men in a number of areas. One of the earliest and most frequently replicated findings is that male characters predominate in men's dreams (67%), whereas male and female characters appear in equal proportion in women's dreams (Hall & Van de Castle, 1966). Compared with women, men are also more likely to report dreams with aggressive content (Domhoff, 1996; Hall, Domhoff, Blick, & Weesner, 1982; Winget, Kramer, & Whitman, 1972). Cross-cultural studies (for an overview, see Domhoff, 1996) have shown the "ubiquitous" nature of the character ratio findings and of the aggression pattern in dream content: In most cultures, men dream more frequently of other men than of women and have more physical aggression in their dreams, whereas women dream of men and women in an equal proportion and are more frequently victims of aggression.

Schredl, Sahin, and Schäfer (1998) also found a higher frequency of male dream characters in men's dreams, in addition to more sexuality and physical

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aggression. In women's dreams they found more inwardly directed aggression, themes of depression, and help seeking to cope with problems. Bursik (1998) reported that although many of the "classic" findings and apparently ubiquitous gender differences failed to emerge in her study, two differences prevailed: First, women had more dreams with failure outcomes (e.g., in an exam); second, consistent with findings in gender studies of aggression in the waking state, men had more dreams in which the dreamer performed some type of physical aggression.

Recent studies on gender differences in dream content have explained the observed differences by citing the social roles of women (Lortie-Lussier, Schwab, & De Koninck, 1985; Lortie-Lussier, Simond, Rinfret, & De Koninck, 1992). These authors have argued that homemakers show a more typical female dream content pattern, whereas wage-earning women have a more male pattern; they suggested that the new occupational roles of women will decrease stereotypic feminine dream imagery. Schredl et al. (1998), in their review of studies on gender differences in dream content, also claimed that the dream content of men and women reflects not gender per se but the pattern of social roles in waking life. They suggested that the differences in dream content should be analyzed with respect to gender theories.

AGE DIFFERENCES IN DREAM CONTENT

There are few publications on differences, particularly gender differences, in children's dream reports. One notable exception is Foulkes's (1982) longitudinal study, in which dreams of children ages 3 to 15 years were collected over 5 years in a sleep laboratory. Foulkes found that the developmental changes that occurred in dream content mirrored children's cognitive and emotional changes in waking life. He concluded that children adopt an adult-like level of dreaming in middle childhood and that from this developmental stage on, dreams reflect differences in personal style.

Hall and Domhoff (1963) already concluded that children have higher aggression per character (A/C scores), higher victimization percentages (they are victims of aggression more often than adults and they are often victims of an attack by an animal), and higher percentages of dreams with at least one misfortune in them (for a summary, see Domhoff, 1996). Domhoff (1996) compared his studies with Foulkes's (1982) longitudinal findings and stated that there was less "dramatic intensity" (less aggression, misfortune, and negativity) in Foulkes's results. Although the main findings with respect to gender differences are similar in both studies, there were more prosocial interactions in the teenage group of Foulkes's data. Domhoff (1996) stated that Hall and Domhoff were "guilty of exaggeration" (p. 96).

Avila-White, Schneider, and Domhoff (1999) used the most recent dream method with a sample of 12–13-year-old teenagers (110 boys and 162 girls) and compared the data with the Hall and Van de Castle (1966) normative data for young adults. Their results showed that boys differed from girls in the same ways men differed from women on almost every indicator (characters, social interactions that include aggression and friendliness, settings, success/misfortunes); girls had the same male/female ratio in their dream characters as women, and boys had the same ratio as men.

With respect to aggression, the A/C index for teenagers was higher than for the young adult normative group; this difference was even stronger for boys versus men. Conversely, girls had a higher friendliness per character score than women, whereas for boys this ratio was lower than that of men.

Strauch and Lederbogen (1999) compared the dreams and waking fantasies of three age groups (9–11, 12–13, and 13–15 years) of Swiss boys and girls, and it is not surprising that the “ubiquitous sex difference” was confirmed: Boys dreamed mainly about male characters, whereas girls showed a more balanced gender distribution. With respect to aggression, boys had more physical aggression in their dreams than girls, and whereas the latter showed little variance across age groups, boys showed their highest physical aggression level in the 9–11-year-old group, a sharp decline in the next age group (11–13), and a subsequent increase at ages 13–15. Both boys and girls were more likely to receive acts of aggression or friendliness in their dreams than to be aggressors or befrienders.

In summary, most of the investigations of children’s dream reports have confirmed the two “classic” gender differences: First, boys show more aggressive content in their dreams than do girls; second, boys dream mainly of same-sex peers, whereas girls allow more female characters into their dreams. Furthermore, as Proksch and Schredl (1999) suggested, the continuity hypothesis (the view that predominant dream topics represent aspects of the dreamer’s waking life) works also for children.

Using a sample of Spanish children, the present study aims to contribute data to the ongoing debate over the pattern of gender and age differences in children’s dream reports of aggression.

METHOD

Participants and Data Collection

Participants were 120 children and adolescents from different schools in the city of Barcelona, Spain, who volunteered to participate in this study; 30 were 7–8 years old (Group 1), 30 were 11–12 years old (Group 2), 30 were 14–15 years old (Group 3), and 30 were 17–18 years old (Group 4). There were 15 boys and 15 girls in each age group.

For data collection, we used the most recent dream method; participants were asked to write down the last dream they could remember having. Avila-White et al. (1999) have argued that this procedure provides a representative sample of dream reports not only from adults but also from teenagers.

The dreams were collected by four students who participated in this study as fellow investigators. Eligible participants were approached by one of the students in the classroom in the presence of their teachers and informed of the purpose of this study (to learn about the dream content of children and adolescents) and that their participation was voluntary and anonymous. The volunteering participants were then given 15 min to write down a recent dream and hand it in to the investigator. The group of 7–8-year-olds were asked to dictate their dreams to the student.

Dream Content Ratings

Every dream was coded separately according to the Hall and Van de Castle (1966) coding system, as presented by Domhoff (1996). Four trained judges (including Ursula Oberst) were asked to rate dream content with respect to the number of characters and aggressive interactions. The judges were asked to agree on each coding, so only one judgment per item was produced and no interrater reliability was calculated.

RESULTS

Table 1 shows the mean word lengths and standard deviations for the children's dreams. A one-factor analysis of variance yielded no significant effects for age or gender, only a slight but significant influence of age and gender combined, $F(3, 1) = 3.37, p = .021$.

For further data analysis, we used the DreamSAT spreadsheet developed by Schneider and Domhoff (1995). Table 2 depicts the percentage of male and female characters in the dreams. The results show the classic pattern of higher male/female ratios in boys of all age groups; the male/female ratio increased with age in girls. When the 17–18-year-old boys and girls were compared with Hall and Van de Castle's (1966) normative data, as provided in Domhoff (1996), a significant effect ($h = .56, p = .026$) for girls was found; that is, the 17- and 18-year-old girls of our sample had a higher male/female ratio than the normative group.

The DreamSAT spreadsheet was also used to calculate the aggression patterns for gender and age groups: percentage of dreams with at least one act of aggression, aggressor percentage, victimization percentage (degree to which the dreamer was an aggressor or victim), physical aggression percentage, and A/C index (number of aggressions per character). The results are shown in Table 3.

The most important finding is that the aggression variables were highest in the youngest group and then decreased across age groups (except for aggressor percentage, which increased as victimization percentage decreased). As expected, across all age groups there were more aggressive interactions and more physical aggression (except for Group 3) in boys' dreams. Boys also had a much higher A/C index than girls, especially in the youngest group.

To assess the effect size for the differences between boys and girls, we calculated the h values for all percentages (percentage of dreams with at least one aggression, aggressor percentage, physical aggression percentage, and victimization

Table 1. Mean Word Lengths and Standard Deviations by Gender and Age Group

	Age group							
	1		2		3		4	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Boys	59.00	34.93	56.00	32.43	79.00	89.29	68.00	43.04
Girls	81.00	38.82	94.00	54.33	60.00	40.13	89.00	36.04

Note. Children were 7–8 years old in Group 1, 11–12 years old in Group 2, 14–15 years old in Group 3, and 17–18 years old in Group 4.

Table 2. Male/Female Character Percentages by Gender and Age Group, Compared With the Normative Group

Gender	Age group				Norm
	1	2	3	4	
Boys	79	71	75	90	67
Girls	38	39	52	75	48

Note. Children were 7–8 years old in Group 1, 11–12 years old in Group 2, 14–15 years old in Group 3, and 17–18 years old in Group 4.

percentage). We found no significant effects for any of the variables between boys and girls in any of the age groups; the highest h value was for physical aggression ($h = .69$), but it was not significant, most likely because of the small sample size.

When the aggression values of Group 4 were compared with the normative data, no significant difference was found. This finding confirms the consistency of aggression patterns across cultures.

Another interesting finding is that younger children (both boys and girls) were more often victims than aggressors in their dreams, as indicated by the victimization percentage, and this tendency decreased with age. Given that boys have (i.e., suffer) more physical aggression in their dreams, we wanted to explore the severity of this aggression and obtain a more precise indicator of the intensity of aggressive acts. The Hall and Van de Castle (1966) coding system does not provide indicators of severity, except by distinguishing between physical and nonphysical aggressive acts: Aggression is coded from A1 (hostility feelings) to A8 (killing or being killed). Although Domhoff (1996, 2003) insisted that all the Hall and Van de Castle coding categories are nominal scales and pointed out that “there are no assumptions made about how much ‘stronger’ or ‘weightier’ one aggression is compared to another” (Domhoff, 1996, p. 12), one can assume that being killed (A8) is stronger than being threatened with a weapon or harmed (A7), being chased or coerced (A6), or perceiving a feeling of hostility (A1), and of course eight hostile feelings are not necessarily equivalent to one murder. Thus, we assumed an aggressive act with a higher coding number to be somewhat stronger than an aggressive act with a lower coding number. This assumption allowed us to code aggression on an ordinal scale (instead of the nominal scale recommended by Domhoff), to compare and sum up

Table 3. Aggression Patterns by Gender and Age Group Compared With the Normative Group

Aggression pattern	Age group								Norm	
	1		2		3		4		Boys	Girls
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls		
At least one aggression	87	60	60	74	40	20	47	40	47	44
Aggressor %	10	13	08	6	33	34	29	40	40	33
Physical aggression %	96	73	71	65	70	75	67	50	50	34
Victimization %	90	87	77	94	67	67	71	60		
A/C index	.61	.24	.41	.43	.30	.13	.53	.21	.34	.24

Note. Children were 7–8 years old in Group 1, 11–12 years old in Group 2, 14–15 years old in Group 3, and 17–18 years old in Group 4. A/C = aggression per character.

different acts and types of aggressions, and to use nonparametrical statistics. Thus, in addition to the first (standard) data analysis procedure described above—in which a dream character who is first menaced (A4) and then killed (A8) is coded as receiving two acts of aggression—we also used an ordinal procedure with cumulative scores; in this case, the character would receive $8 + 4 = 12$ points for aggression received.

The mean accumulative scores for all aggressive interactions and for received aggressions only (when the dreamer was the victim) are depicted in Table 4. Using the Mann–Whitney nonparametrical statistical test on the gender differences, we found a significant difference between boys and girls in Group 1 for overall ($U = 44.00, p = .004$) and received aggression ($U = 48.00, p = .005$). Thus, in their dreams, younger boys not only had a higher level of general aggression but also received more *severe* aggressive acts than girls of the same age.

DISCUSSION

Our study of a Spanish sample of children and adolescents confirms the classic findings that (a) boys tend to dream of more same-sex characters than do girls, (b) boys tend to have more aggressive content in their dreams, and (c) younger boys and girls have a stronger tendency than adolescents and young adults to be victims in their aggressive interactions. In addition, younger boys are victims more often than younger girls. The active component of aggression (aggressor percentage) was hardly present in the dreams of children and preadolescents. At the age of 17–18 years, our sample conformed to a pattern similar to Hall and Van de Castle's (1966) normative data for early adulthood.

In addition, we used a different data analysis procedure to refine these findings with respect to the severity of aggression by measuring aggression scores on an ordinal scale. We generally agree with Domhoff (2003) on the nominal character of the data produced by the Hall and Van de Castle (1966) coding system and with his critics with respect to adding the numbers assigned to codings. However, this procedure, together with nonparametrical statistics, could be marginally acceptable for the aggression variable. The results of this procedure, according to Mann–Whitney's U , indicate that boys at age 7–8 were subject to significantly more severe aggressive acts than were girls. In the standard procedure, according to the victimization percentage, there was a tendency for boys at that age to be victims more often than girls, but the difference was not significant. There was no gender

Table 4. Mean Accumulative Scores for All Aggressive Interactions and for Received Aggression

Variable	Age group							
	1		2		3		4	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Overall aggression	10.13	3.87	6.73	6.80	3.33	1.67	4.27	2.20
Received aggression	7.27	2.00	4.13	5.47	1.20	0.53	3.48	0.93

Note. Children were 7–8 years old in Group 1, 11–12 years old in Group 2, 14–15 years old in Group 3, and 17–18 years old in Group 4.

difference for the rest of the age groups, but, whereas boys' received aggression decreased with age, girls' received aggression started low at age 7–8, increased at age 11–12 to the boys' level, and then decreased again at a rate similar to boys'. We conclude that, although our accumulative scoring procedure might be questionable, it contributes to refine the results with respect to victimization in children's dream content, and we suggest that the degree or severity of aggressions should be taken into account in future studies.

It is difficult to explain why younger children have more aggressive content in their dreams and tend to be the victims instead of the aggressors. Feelings of vulnerability and dependency could account for this finding. Strauch and Lederbogen (1999) found children tended to be victims of aggression in their dreams, whereas in waking fantasies they took more active roles. The authors argued that dreams represent concerns and private self-appraisals. This assertion is consistent with theories that deal with the meaning and function of dreams, especially those that consider dreams to have the function of elaborating and assimilating events of the dreamer's life (e.g., Domhoff, 1993; Hill, 1996; Kramer, 1993) or of dealing with present concerns and anticipating future events (Oberst, 2002). Fear of being the victim of aggression could be a more important concern for younger children than for older children, especially for young boys, as boys tend to be involved in more aggressive interactions than girls. To explore this hypothesis, researchers need to investigate with larger samples to compare the evolution of dream content across ages with respect to the developmental aspects of childhood and adolescence.

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