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Broken Dreams: A Study of the Effects of Divorce and Depression on Dream Content

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TO INVESTIGATE the dream characteristics associated with a major life change, 29 women (ages 30–55) undergoing divorce were studied six nights in a sleep laboratory. The group was stratified on a self-report depression scale (the Beck Depression Inventory) into a depressed ($N=19, \overline{X}=23.2$) and nondepressed ($N=10, \overline{X}=8.2$) group and compared to a nondepressed married group who had never considered divorce. The dreams of those divorcing without major mood upset were longer and dealt with a wider time frame than those of the other two groups. They also dealt with marital status issues which were absent in the dreams of the depressed group. On follow-up those who had been depressed showed positive dream changes in mood, dreamlike quality, and identification of dream self with the marital role. The study suggests that some dream characteristics respond adaptively during life changes but that this is delayed when subjects are depressed. This raises the possibility of a corrective intervention for such persons.

Of the many suggested functions of dreaming (Dallett 1973) perhaps the one that has been the most influential is the adaptive function proposed by Breger (1969). This hypothesis states that dreams integrate affect-related information into existing memory systems which have proved satisfactory in dealing with similar material in the past. Most tests of this proposition have looked for a significant difference in level of affect, or in the information retrievable, following dreaming versus nondreaming time periods, after some affect-inducing versus neutral experimen-

tal stimulus. The failure of these studies to produce any clear-cut evidence in support of this hypothesis has been variously attributed to the failure of the stimulus materials to elicit genuine affect or to the competition of some other more salient personal material (Cartwright and Kaszniak 1978). This still leaves open the question of whether the content of the dreams themselves varies systematically with the kind and amount of "emotional work" required to integrate new affect-inducing information. Are there, in fact, good productive dreams and less effective dreams in either

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reflecting or accomplishing adaptation to some emotional experience?

It has been well documented that patients diagnosed as having a major depressive disorder show specific disturbances of the sleep stage associated with dreaming. Rapid Eye Movement (REM) sleep (Revnolds et al. 1982), and that the more severe the clinical depression the more extremely these sleep variables depart from normative values (Kupfer et al. 1980). Specifically, the sleep time prior to the first REM period of the night (REM latency) is reduced, the phasic eye movement activity in that REM period (REM density) is increased, and the distribution of REM sleep time and eye movement density across the night differs from norms for depressed inpatients and outpatients suffering from either unipolar or bipolar disorders. Therefore, it might be expected that those experiencing significant depression will also show differences in dream content. Further, if dreaming has an emotional information processing, adaptive, ego-synthesizing function (Jones 1962), the early, highly active, longer first REM period may indicate some disturbance in the carrying out of this psychological function.

The purpose of the present study was to investigate dreams during a period of a major life change when the amount of new affective information needing to be organized is high. The question being asked in its most general terms is: How does dream content differ during a period of adjustment to a major change in waking identity versus a period of stability? In general, the prediction is that dreams will be more adaptive during a life change period than during a period of relative stability provided the change is not accompanied by major mood disturbance, and that with significant depression dreams will actually become maladaptive. The event chosen for study was divorce, because it is prevalent and affects a wide range of persons for whom the affective response varies in level and kind from elation to depression.

In a previous paper (Cartwright 1983) it was reported that among a group of women

undergoing divorce, those who were depressed on a self-report measure (Beck Depression Inventory; BDI) (Beck 1967) differed from those who were not depressed on their REM sleep parameters. The present study looks into the differences in the dreams of these women in comparison to those of a small group of women who were neither divorcing nor depressed.

Based on a review of previous studies of dreams of the depressed (Hauri 1976; Beck and Ward 1961; Kramer et al. 1966; Kramer and Roth 1979) and of those suffering from a different life stress, traumatic war neurosis (Greenberg, Pearlman, and Gampel 1972), five variables were selected as likely to show differences among the groups involved in this study: dream length, dreamlike quality, mood tone, time orientation, and dream identity. Kramer et al., Hauri, and Greenberg et al. all report that the narratives following laboratory awakenings from REM sleep periods are markedly shorter in depressed inpatients, reactively depressed patients in remission, and patients with war neurosis than are the reports of control subjects. Although Hauri reported no difference between the depressed patients in remission and control subjects on the Foulkes Dreamlike Fantasy Scale (1971), it seemed worthwhile to investigate this variable during a period of self-reported depression on the basis of the statement by Kramer and Roth that dream experience during depression can be characterized as "barren" (p. 378). Hauri reported that a sample of women in remission following a reactive depression rated their dreams as significantly more unhappy than did controls. In fact, happy and unhappy feelings were equal in the formerly depressed, but happy feelings were four times more frequent than unhappy in the dreams of controls. An emphasis on the past in the dreams of depressives in contrast to an emphasis on the present in controls was also supported in the Hauri study. The last variable, the dream identity in relation to waking identity, was based on the report by Beck and Ward of higher masochism in the dreams of the depressed. Beck (1963) reports that the depressed dreamer not only portrays himself as the recipient of painful experiences, but also has low self-regard and high self-criticism and self-blame.

On the basis of these findings it was predicted that an adaptive response to divorce would result in longer dreams, which are more dreamlike in quality, express more negative affect, include a wide range of time references (past, present and future), and reflect some work on the change in self-identity from married to single status. Specifically, the hypothesized group differences are:

- 1. The mean number of words in the spontaneous reports from standardized time samples of REM sleep will be significantly higher for divorcing nondepressed subjects than for a married comparison group and lowest for divorcing depressed subjects.
- 2. The dreamlike quality of the REM reports, as measured by the Brown and Cartwright (1978) five-point scale, will be higher (more imagistic and storylike) for the divorcing nondepressed than for the married group and lowest for the divorcing depressed subjects.
- 3. Given that the process of divorce is typically unpleasant regardless of the motivation involved to end the relationship, it was predicted that the mood tone of the REM reports for both divorcing groups will be more negative than for those of the stably married comparison group as rated on a three-point scale (positive, neutral, negative).
- 4. The time orientation of the REM reports of the divorcing nondepressed will have a wider range than those of the married group, which will have a focus on the present, and a wider range than those of the divorcing depressed group, which will be more restricted to the past, as rated on a three-point scale (past, present, future).
- 5. The dreams of those in the divorcing nondepressed group will include marital issues more often than will the dreams of depressed women.
- 6. Given that divorce is typically conceptualized as a failure experience, the roles

occupied by the dream self will show more self-acceptance in the married than in the divorcing women.

Two other, more general predictions were made: (1) that the dream dimensions of those who were initially depressed will show significant improvement at a later follow-up point when they are less depressed, and (2) that dreams from the first REM period of the night of depressed subjects will be less adaptive than those retrieved from the first REM of the nondepressed subjects.

Метнор

The experimental sample was made up of 30 women, ages 30-55, who either were currently in the process of separating or filing for divorce or had completed a divorce hearing not more than three months previously. These were selected from a larger sample of 56 women who responded to advertisements in local city and suburban newspapers soliciting paid volunteers for a study of the laboratory-monitored sleep and dreams of women undergoing divorce. The selection criteria included scores on the Beck Depression scale and on a Traditional-Liberated Self-Concept scale (Cartwright et al. 1983) developed for the Adjective Check List (ACL) (Gough and Heilbrun 1965). The TLSC scale was developed as a trait measure of the degree of investment in the role of wife regardless of the problems of the particular marriage. It was thought that this trait might be associated with difficulty in adapting to loss of this role. An exclusion criterion was concurrent antidepressant medication or psychotherapy. One subject was dropped from the data analysis when pharmacotherapy was started during the course of the study.

A small married comparison sample (N = 9), also solicited by advertisement, was carefully selected to match the experimental subject group in age, education and race, but to differ in never having contemplated divorce, and to be not depressed on the BDI. A description of the samples is found in Table 1. The three groups did not differ

ROSALIND D. CARTWRIGHT ET AL.

Table 1
DESCRIPTION OF DIVORCING AND MARRIED SAMPLES

	Mar	ried	Divorcing				
	2.24		Not Depressed		Depressed		
	(N=9)		(N =	(N = 10)		19)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Age	35.22	6.63	37.30	6.15	36.74	6.87	
Years married	13.63	7.39	11.10	5.49	10.53	6.44	
No. of children	1.67	2.12	1.60	1.26	1.63	1.74	
Education	14.44	2.92	16.80	1.99	14.63	2.41	
TLSC	43.33	8.76	49.46	8.42	56.28	9.02	
IDI							
1. Emotional reliance	40.67	8.50	41.20	7.00	46.05	8.14	
2. Lack of							
self-confidence	24.78	7.30	34.40	5.00	32.95	7.11	
3. Assertion of autonomy	25.89	5.90	23.20	6.43	29.63	5.74	
SAS		4 1 × 12 × 12	ar e din				
1. Work	1.61	.30	1.76	.50	2.30	.89	
2. Social and leisure	1.45	.25	1.95	.34	2.55	.51	
3. Extended family	1.49	.30	1.90	.52	2.04	.66	
5. Parental	1.25	.35	2.00	.50	2.27	.88	
6. Family unit	1.67	.44	2.30	.48	2.84	.74	
Overall adjustment	1.62	.19	1.98	.29	2.39	.45	

significantly on Analysis of Variance (AN-OVA) in age, number of years married, number of children, or TLSC scores but did differ in BDI score ($F_{2,35} p < .01$) and social adjustment ($F_{2,35}$ p < .01). Among the divorced, the nondepressed had significantly more education (t = 2.44, p < .05) than the depressed group but the difference between these two groups and the married sample did not reach significance. The depressed group had significantly poorer adjustment than the other two groups on the social and leisure and family unit subscales of the Social Adjustment Scale (SAS) (Weissman and Bothwell 1976) and was higher on the assertion of autonomy scale of the Interpersonal Dependency Inventory (IDI) (Hirschfeld et al. 1977).

Following a preliminary interview which concentrated on the history of the marriage, subjects signed informed consent forms and completed a self-administered test battery consisting of the BDI, ACL, SAS, IDI, and a role inventory developed for this study by the senior author, called the Who Are You (WAY) test. The WAY test consists of a listing of 54 roles (family, work, leisure, social, etc.). The instructions

ask the subject to check off all those roles needed to express her own sense of her identity. Next the subject is asked to read over all the roles again and to select five of her most preferred roles whether these are roles she currently has or not. Third, she is instructed to select from among those originally chosen as making up her sense of self, five which are least preferred, i.e., those roles she has but would like to eliminate from her repertory.

The experimental subjects slept in the laboratory for six nights, Monday, Tuesday, and Wednesday, for two consecutive weeks. On Nights 1 and 2 no awakenings were made. On Nights 3 and 5 each Rapid Eye Movement period was interrupted on a fixed time schedule and a report of ongoing mentation solicited. Subjects were awakened 5 minutes after the onset of the first REM period, identified by the criteria established by Rechtschaffen and Kales (1968), 10 minutes after the onset of REM₂, 15 minutes after the onset of REM₃, 20 minutes after the onset of REM4 and any subsequent REM period. On Nights 4 and 6 an equal number of non-REM (NREM) awakenings were made from the same clock time of night as the Nights 3 and 5 awakenings. A sample of those who were initially depressed who could be located at a follow-up point one to two years later (N=13) was retested and their sleep monitored for three additional nights. REM awakenings were made on the same schedule on the third follow-up night.

The married comparison subjects found it more difficult to accommodate to the all-night laboratory schedule. As a result, they were monitored for four nights only, with Night 3 being a REM collection and Night 4 an NREM collection night. The data reported in this paper are based on the mean of Nights 3 and 5 REM reports for the experimental subjects, Night 3 for the married comparison sample, and the third follow-up night reports for those who had been depressed.

The $\hat{B}DI$ was used to stratify the experimental group on self-reported depression. There were 19 who were mildly to moderately depressed (BDI 15-36, $\bar{X}=22.89$) and 10 who were not depressed on this measure (BDI 2-10, $\bar{X}=5.33$). Nine of the 13 depressed subjects who were followed up were no longer depressed. The mean BDI at follow-up was 8.92.

All REM reports were transcribed and edited to remove identifying material. A sample of 20 reports was rated separately by two raters, who established and maintained their reliability on all variables. The reliability coefficients (Pearson product moment) ranged from .99 for the dream length (word count) to .89 for the Brown-Cartwright scores. All dream reports were distributed for rating randomly to these two raters.

RESULTS

1. The difference in the mean number of words in the spontaneous dream reports of the three groups was tested by linear trend analysis. This yielded a significant $F_{1,35} = 5.498$ (p < .05). As predicted, subjects who were being divorced without significant depression had longer dream content reports following the same amount of REM time than those who were remaining married or

divorcing subjects who were depressed (see Table 2).

2. The hypothesized differences in the dreamlike quality of the REM reports were not supported by the data analysis. The married group had the highest dream quality scores, the nondepressed divorcing the next highest, and the depressed divorcing the next highest, and the depressed the lowest quality. The t test between the married and depressed groups was significant, t = 2.06, p < .05, in the predicted direction. Also, the married group had a higher mean dreamlike quality score for the first REM report at 3.57 than either the depressed at 2.87 (t = 2.72, p < .01) or the nondepressed at 2.55 (t= 2.70, p < .01), showing that the quality of the first dream suffered during the initial period of this life change. The dreamlike quality of the first REM report improved at the follow-up point, when this score was 3.25 for these formerly depressed subjects. This score was not significantly different from the initial score of the married group.

3. The mood tone hypothesis predicted that both divorcing groups would have more negative tone in their REM reports than the married subjects. This was supported in the analysis. A planned comparison to test this hypothesis was significant (t=2.11, p<.05). The mean mood scores for the first REM reports were not significantly different. A significant difference was found in the mood tone of the first REM reports at follow-up. On the second occasion the mood score of .36 was significantly more positive in tone than their original score (t=2.20, p<.05).

4. The prediction that the dreams of the nondepressed divorcing subjects will encompass a wider variance in the time orientation was upheld. The standard deviation of the time orientation for this group was larger than for the depressed ($F_{18,9} = 3.92, p < .05$) and the difference in variance between both divorcing groups and the married group was also significant ($F_{8,28} = 4.13, p < .05$). The depressed group increased their variance in the time dimension significantly ($F_{12,18} = 3.455, p < .01$) on their follow-up reevaluation. The mean

Table 2 REM REPORTS

	Mai	Married		Divo	rcing		
			Not Dep	Not Depressed		essed	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Initial Scores, All Reports							.*
Word count	74.18	37.21	133.02	73.05	76.38	56.63	*
Dreamlike quality	3.56	.33	3.35	.50	3.25	.44	n.s.
Time orientation	2.00	.12	1.96	.37	1.97	.18	*
Mood tone	.21	.31	10	.35	04	.44	*
First REM Only				,,,,		•••	
Word count	38.57	35.04	19.05	19.97	35.66	32.04	n.s.
Dreamlike quality	3.57	.34	2.55	1.01	2.87	.70	*
Time orientation	2.14	.38	1.89	.33	2.08	.34	n.s.
Mood tone	14	.69	0.00	.60	16	.55	n.s.
Follow-up Scores (Depress	ed Only, N =	= 13), All R	eports**		.10	.00	11.0.
Word count			•		133.81	85.52	n.s.
Dreamlike quality					3.64	.43	n.s.
Time orientation					1.98	.34	*
Mood tone					.36	.53	*
						,,,,,	

* Significant, greater than p < .05.

time scores for the dreams of both divorcing groups show a slight weighting toward the past, while the mean of the married subjects is strongly present time oriented.

5. Tables 3 and 4 compare the ten most frequently chosen of the 54 roles as part of the waking sense of identity for the divorcing and married subjects, and the most and least preferred roles of both groups.

A comparison of the waking self-identities of the two groups shows some clear differences not only in the ranking of the role of "wife" and "lover" (low for the divorcing and high for the married women) but also in importance of the feminine support roles of "sister" and "sister-in-law" (more important to the identity of the divorcing and less in that of the married subjects). There is a very close agreement in the two groups between their rankings of their most preferred roles (both value roles involving affection exchange and dignified work), but there are clear differences in the rankings of roles they would like to eliminate. The divorcing groups would like not to be "victims," "separated," "alone," and "strangers," emphasizing their sense of

being put upon and bereft of connections, and the married women would like not to be "cooks," "viewers," "customers," "patients," and "members of an audience," which may express unhappiness in these more passive and traditionally homemaker roles. The divorcing group shows the tension over their lost roles in the high ranking given to "lover" and "wife" (2 and 7) on their most preferred list and the low ranking of these on their present self-concept list (30.5 and 39.5).

The top-ranking roles occupied by the self character in the dreams of the divorcing and married groups are much alike except for the obvious difference in the frequency of dreaming they are a "wife" or "ex-wife." For the divorcing group the highly preferred (but not currently part of self) role of "lover" does not appear at all among the top-ranking dream self roles and "wife" ranks only 13.

Comparing the dream identities of the depressed and not depressed divorcing subjects revealed another strong difference: the frequency with which they deal with the marital role. None of the marital status

^{**} Initial scores for N = 13 did not differ significantly from those of the earlier reports of the depressed group (N = 19) listed above.

EFFECTS OF DIVORCE AND DEPRESSION ON DREAMS

 $Table\ 3$ The Ten Most Frequently Chosen Self-Descriptive Roles by Rank for Divorcing (D) and Married (M) Groups, and Comparative Ranking in Other Group

Self D		Comparison Rank M	Self M		Comparison Rank D
Friend	1.0	4.0	Wife	4.0	39.5
Separated or Ex-Wife	2.5	52.0	Homemaker	4.0	12.0
Citizen	2.5	4.0	Friend	4.0	1.0
Sister	4.0	30.5	Daughter	4.0	5.0
Daughter	5.0	4.0	Cook	4.0	6.0
Cook	6.0	4.0	Citizen	4.0	2.5
Alone	7.0	47.0	Member of Aud.	4.0	26.5
Aunt	8.0	10.5	Aunt	10.5	8.0
Reader	9.0	10.5	Lover	10.5	30.5
Mother	10.5	18.0	Customer	10.5	22.0
Sister-in-law	10.5	18.0	Reader	10.5	9.0
			Hostess	10.5	18.5
			Teacher	10.5	35.5

Table 4 $\begin{tabular}{ll} Most Frequently Preferred Roles and Least Preferred Roles by Divorcing (D) and \\ Married (M) Groups \\ \end{tabular}$

		MARKIED (M)	GROUPS		
Most Preferred D		Comparison Rank M	Most Preferre	d M	Comparison Rank D
Friend	1.0	3.0	Wife	1.0	7.0
Lover	2.0	4.5	Mother	2.0	3.0
Mother	3.0	2.0	Friend	3.0	1.0
Artist	4.0	13.0	Professional	4.5	5.0
Professional	5.0	4.5	Lover	4.5	2.0
Self-employed	7.0	6.5	Teacher	6.5	9.0
Traveler	7.0	8.0	Self-employed	6.5	7.0
Wife	7.0	1.0			
Teacher	9.0	6.5			
		Comparison			Comparison
Least Preferred D		Rank M	Least Preferre	dM	$Rank\ D$
Victim	1.0	8.5	Cook	1.0	30.0
Separated	2.0	·	Viewer	4.0	13.5
Alone	3.5	15.0	Customer	4.0	20.5
Stranger	3.5	8.5	Patient	4.0	9.0
Slave	5.5	8.5	Member of Aud.	4.0	30.0
Employee	5.5	4.0	Employee	4.0	5.5
Commuter	7.5	15.0	Victim	8.5	1.0
Unemployed	7.5	15.0	Stranger	8.5	3.5
Patient	9.0	4.0	Slave	8.5	5.5
			Fellow worker	8.5	19.5

roles: "wife," "separated or ex-wife," or "alone," ranked among the most frequent dream self roles of the depressed group. However, all three of these roles ranked among the ten most frequent self roles in the dreams of the nondepressed group. This

suggests that when the level of dysphoric affect concerning a role change is high the dreams do not reflect any obvious ongoing work on this issue despite the waking recognition of its reality ("separated or exwife" ranked 2.5 and "alone" 7.5 in the

Table 5

Ten Most Frequently Appearing Dream Self Roles by Rank for Divorcing (D) and Married (M) Groups, and Depressed and Nondepressed Subgroups

D		M		$D\ Depressed$		$D\ Nondepressed$	
Friend	1.0	Mother	1.5	Friend	1.0	Friend	1.0
Mother	2.0	Friend	1.5	Mother	2.0	Mother	2.0
Traveler	3.0	Experimental Subject	3.0	Traveler	3.0	Experimental Subject	3.0
Experimental Subject	4.0	Guest	4.0	Daughter	4.5	Member of Aud.	4.0
Daughter	5.0	Wife	6.0	Customer	4.5	Separated or	
Employee	6.5	Sister	6.0		6.0	$\mathbf{E}_{\mathbf{x}}$ -wife	6.0
Fellow Worker	6.5	Daughter	12.5	Sister	8.0	Fellow Worker	6.0
Sister	8.5	Professional	12.5	Employee	8.0	Alone	6.0
							9.5
Customer	8.5	Fellow Worker	12.5	Fellow Worker	8.0	Daughter	9.0
Separated or		Hostess	12.5			Wife	9.5
Ex-wife	11.5	Customer	12.5			Employee	9.5
Guest	11.5	Alone	12.5			Customer	9.5
		Teacher	12.5				
		Reader	12.5				
		Party Goer	12.5				

depressed group's waking self-identity).

To test the hypothesis of greater selfacceptance in the dreams of married versus depressed subjects, rho correlations corrected for multiple ties were computed between the frequency distributions across all 54 roles for the dream self and waking self and between dream self roles and the most preferred roles for all groups. For the married subjects both waking self/dream self rho correlation of .35 and the preferred self/ dream self correlation of .44 were significant (df 53) and the difference between them was not significant (df 52). However, for the depressed subgroup the waking self/ dream self rho of .44 was significant but the preferred self/dream self rho of .11 was not. and the difference between them was significant (z = 1.78, p < .05 one-tailed). The depressed subjects dream of themselves less in their preferred than in their self-defined real roles. This is some support for Beck's contention that the dreams of the depressed are more masochistic.

DISCUSSION

Although the sample sizes were small, several findings emerge which replicate

previous findings on depression and support the hypothesis that there are systematic changes in dreaming during a period of major life change. For those undergoing divorce without significant selfreported depression, most of these changes were in the direction predicted to show adaptive dream work. The dream reports were longer, dealt with negatively toned affect, had a wider time perspective, and included the self in the marital and in preferred roles. The dreams of those who were depressed, on the other hand, were lowest in dreamlike quality scores (less visual and storylike), were more locked into a narrow past-oriented time frame, and failed to display any identification with the marital role or its loss in the dreams. Not only was the whole marital issue avoided, but so too were the preferred self roles. This finding might be explained on the basis of personality differences between the groups if not for the fact that this picture changed markedly at the follow-up point. At that time there was a significant increase in the dreamlike quality of the reports, the dream mood tone became more positive, the variance in time frame increased, and the role of wife again became a common one for the dream self

EFFECTS OF DIVORCE AND DEPRESSION ON DREAMS

to occupy. Associated with the waking mood change was an improvement in dream characteristics.

The present study lends support to the general hypothesis that dream characteristics respond to major life events. When affect levels in response to events are moderate, dream changes appear to be more adaptive than when events are accompanied by disruptively high affect levels. Further, these data suggest specific dimensions on which these differences occur and can be tracked through the course of a depressive episode. One way to tease apart the relation of dreams to waking affect and behavior change would be to treat some depressed patients with psychotherapy di-

rected toward modifying some of the nonproductive cognitive elements of the dreams identified in this study (the failure to deal with the future, the failure to integrate the role change as part of the dream self, and the failure to entertain the possibility of occupying preferred roles, for example). The test for the effect of such an intervention should be conducted over several points in time on three levels of dependent measures: the physiological REM sleep markers, the unconscious dreams, and the waking symptoms of depression. Such a study might help clarify the sequence of physiological and psychological changes in depression and especially the function and malfunction of dreams in this process.

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