

# Experiencing and Recalling Pain and Stress during Giving Birth: Differences between Women High and Low on Anxiety Trait

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## Introduction

The physical and mental efforts needed in giving birth are a fundamental theme in our culture. Like other experiences they have two temporal domains: the actual experience, and its memory. Kahneman and his associates (Kahneman, Wakker, & Sarin, 1997; Kahneman, Fredrickson, Schreiber, & Redelmeier, 1993) showed that the overall evaluations of painful experience does not seem to fully take the duration of the experience into account, and instead people tend to focus on a few key characteristics of the painful experience – mostly its peak and its final intensity.

The current study compared differences in actual and recollection of labor pain and stress in two groups: Women high in trait anxiety and women low in this trait.

We sought to find the influence of this trait on experiencing and remembering one of the monumental human experiences.

## Method

*Trait anxiety* was measured using STAI (Spielberger, 1983). Women were divided into two groups according to their score on Trait Anxiety Scale: 62 women scored below the 33 percentile and 70 scored above the 66 percentile. There were no significant differences in age or in delivery duration between these two groups.

Women reported their *actual pain and stress* continuously during giving birth and their latter recollection two days and two months later.

	Low (N = 62)	High (N = 70)
Age	29.98 (4.72)	30.04 (4.79)
Delivery duration	6h23m (4h43m)	6h18m (3h37m)

## Results

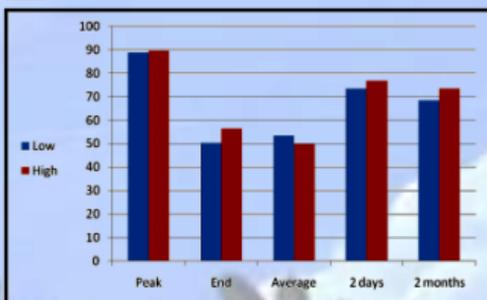
No differences were found between high and low anxious individuals in experiencing and recalling physical pain. Both pain and stress recollection were biased toward the peak and end events of the labor experience while the duration of the experience was neglected (peak-and-end rule, and duration neglect).

However, in experiencing stress, highly anxious women reported higher peak of stress and higher level of stress at the end moment. Therefore they remembered the experience as more stressful.

## References

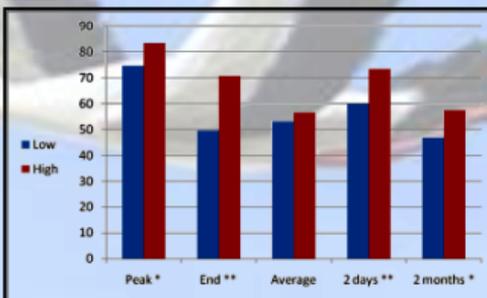
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## Pain



Predictor	2 days		2 months	
	Beta	t	Beta	t
Peak pain	.41	5.85**	.38	4.18**
End pain	.23	3.04*		
Average pain	.26	3.24*	.39	3.93**
Anxiety			.18	2.34*
Delivery duration			-.18	2.21*
adjusted R <sup>2</sup>	0.52 F(3,125) = 47.45**		0.41 F(4,102) = 19.40**	

## Stress



Predictor	2 days		2 months	
	Beta	t	Beta	t
Peak pain	.47	6.62**	.25	2.73*
End pain	.40	5.69**		
Anxiety			.29	3.11*
adjusted R <sup>2</sup>	0.60 F(2,125) = 91.76**		0.41 F(4,102) = 19.40**	

\* p < .05, \*\* p < .001

## Conclusions

The findings reveal clear difference between the memory of *physical* and the *emotional* aspects of giving birth. While anxiety did not influence the experience and the immediate recall of labor pain, it influenced the experiencing (and therefore also the recalling) of stress. Moreover, the results of the regressions reveal a delayed (2 months) influence of individual differences (trait anxiety) on pain reconstruction.