

Studying Optimal Experience: Flow Theory and Research

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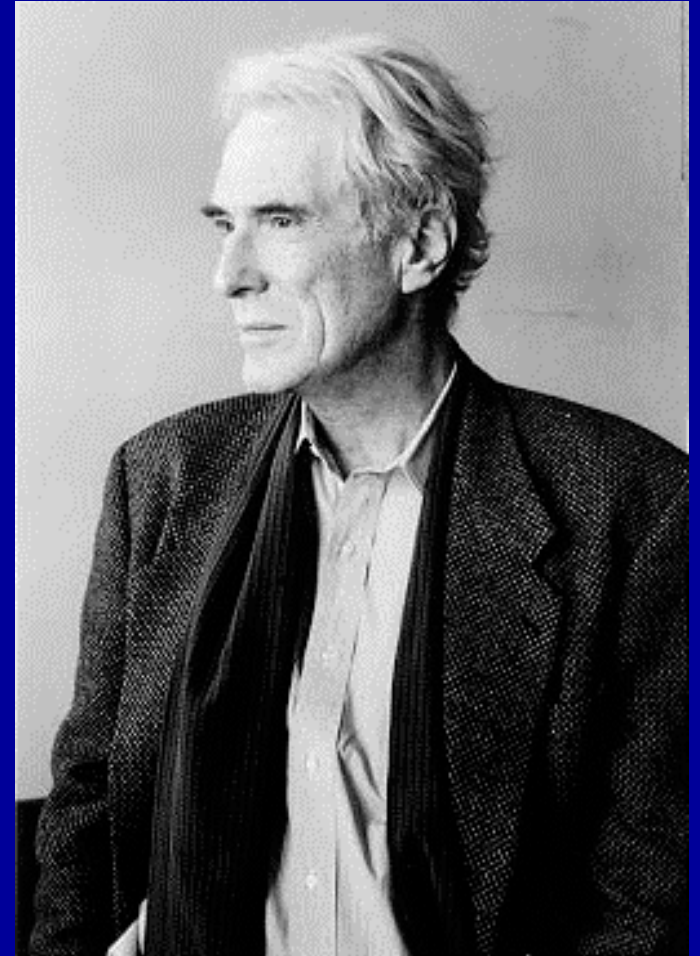
WHAT MAKES AN ACTIVITY INTRINSICALLY REWARDING?

- Why is an artist completely involved while painting, but loses interest in the canvas as soon as the painting is finished?
- Why does a climber endure physical discomfort and risk injury to ascend a rock face?
- Why does a surgeon on vacation decide to volunteer to work in a free clinic?
- Why does a child spend hours at play?

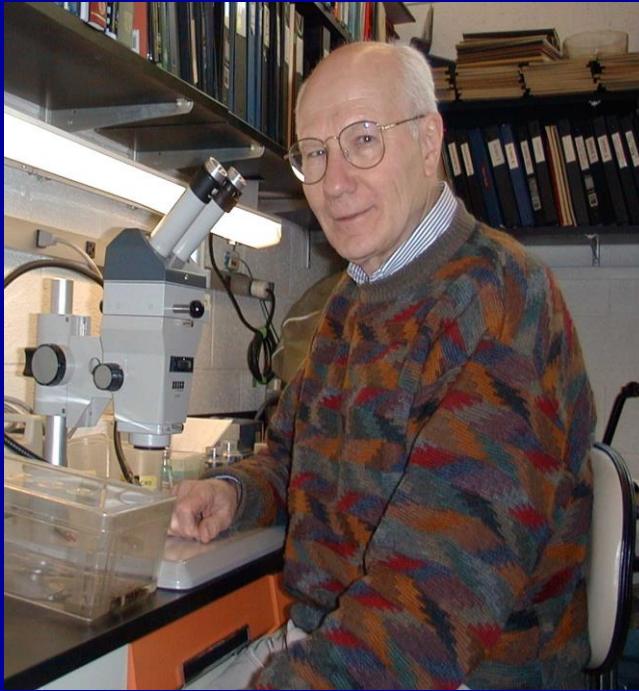
DESCRIPTION OF THE FLOW EXPERIENCE WHEN WRITING POETRY

“You're right in the work, you lose your sense of time, you're completely enraptured, you're completely caught up in what you're doing.... there's no future or past, it's just an extended present in which you're making meaning. And dismantling meaning, and remaking it. With a due regard for the words you're using.... when you're working on something and you're working well, you have the feeling that there's no other way of saying what you're saying.”

-Poet Mark Strand, 1991



DESCRIPTION OF THE FLOW EXPERIENCE WHEN DOING RESEARCH



“To go into a dark room and look through the microscope and see these glowing objects which may be moving around or may be stationary, and in different colors— it's a video game, if you will. It's just beautiful...I can sit— and I do— in front of a microscope sometimes for three or four hours at a time, just looking at the material and analyzing it....I can probably be very disconcerting to other people in the degree to which I can concentrate on something and not pay too much attention to what's going on around me.”

- *Cell biologist Joseph G. Gall (1998)*

DIMENSIONS OF THE FLOW EXPERIENCE:

1. Attention is focused on a limited stimulus field. There is full concentration, complete involvement.

- *“Your concentration is very complete. Your mind isn’t wandering, you are not thinking of something else; you are totally involved in what you are doing...”*

-Social dancer (Csikszentmihalyi, 1975)

- *“Concentration is like breathing: you never think of it. The roof could fall in and, if it missed you, you would be unaware of it.”*

-Chess player (Csikszentmihalyi, 1975)



DIMENSIONS OF THE FLOW EXPERIENCE:

2. Action and awareness merge.

- *“You’re so involved in what you’re doing, you aren’t thinking about yourself as separate from the immediate activity. You’re no longer a participant observer, only a participant. You’re moving in harmony with something else you’re part of.”*

-Rock climber (Csikszentmihalyi, 1975)



DIMENSIONS OF THE FLOW EXPERIENCE:

3. There is freedom from worry about failure.

- *“You feel like...there’s nothing that will be able to stop you or get in your way. And you’re ready to tackle anything, and you don’t fear any possibility happening, and it’s just exhilarating.”*

-Cyclist (Jackson & Csikszentmihalyi, 1999)



DIMENSIONS OF THE FLOW EXPERIENCE:

4. Self-consciousness disappears.

- *“You are not aware of the body except your hands....not aware of self or personal problems....If involved, you are not aware of aching feet, not aware of self.”*

-Surgeon (Csikszentmihalyi, 1975)

- *“When you get hot in a game...you don't think about it at all. If you step back and think about why you are so hot, all of a sudden you get creamed.”*

-Basketball player (Csikszentmihalyi, 1975)

DIMENSIONS OF THE FLOW EXPERIENCE:

5. The sense of time becomes distorted.

- *“Two things happen.... After it’s passed, [time] seems to have passed*
- *really fast. I see that it’s one o’clock in the morning and I say,*
- *‘Ah-ha, just a few minutes ago it was eight o’clock.’ But then while*
- *I’m dancing...it seems like it’s been much longer than it really was.”*
-Social dancer (Csikszentmihalyi, 1975)



DIMENSIONS OF THE FLOW EXPERIENCE:

6. The experience becomes its own reward - *auto-telic*.

- *“You move up only to keep the flow going. There is no possible reason for climbing except the climbing itself...”*
-Rock climber (Csikszentmihalyi, 1975)
- *“It is so enjoyable that I would do it even if I didn ’t have to.”*
-Surgeon (Csikszentmihalyi, 1990)
- *“the satisfaction it gives....This is what I tell my students. Don ’t expect to make money, don ’t expect fame or a pat on the back, don ’t expect a damn thing. Do it because you love it.”*
-Composer (Csikszentmihalyi, 1975)



TO SUMMARIZE: DIMENSIONS OF THE FLOW EXPERIENCE

- Attention is focused on a limited stimulus field. There is full concentration, complete involvement.
- Action and awareness merge.
- There is freedom from worry about failure.
- Self-consciousness disappears.
- The sense of time becomes distorted.
- The experience become its own reward - *auto-telic*.

...WHAT CONDITIONS FOSTER FLOW?

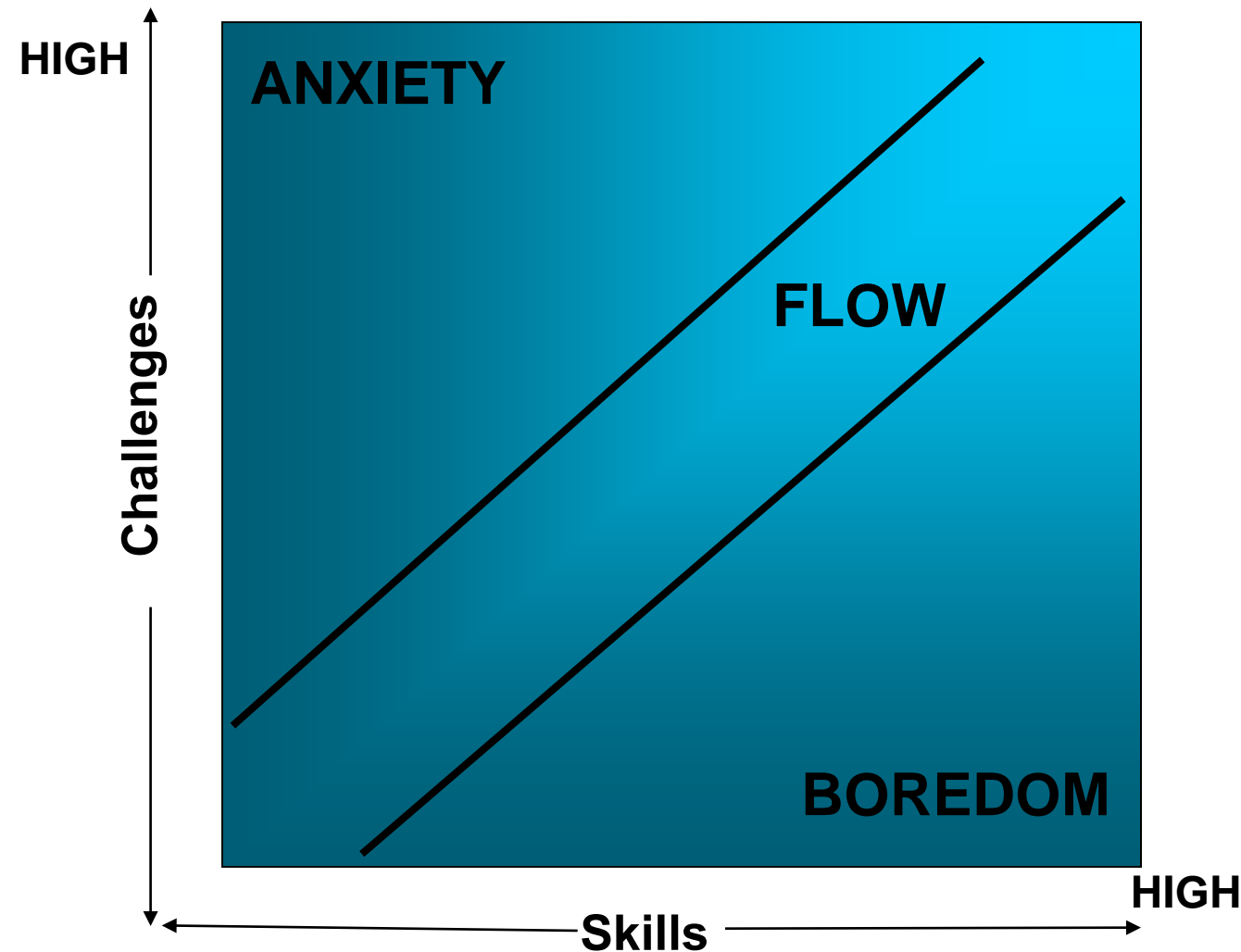
CONDITIONS OF THE FLOW EXPERIENCE:

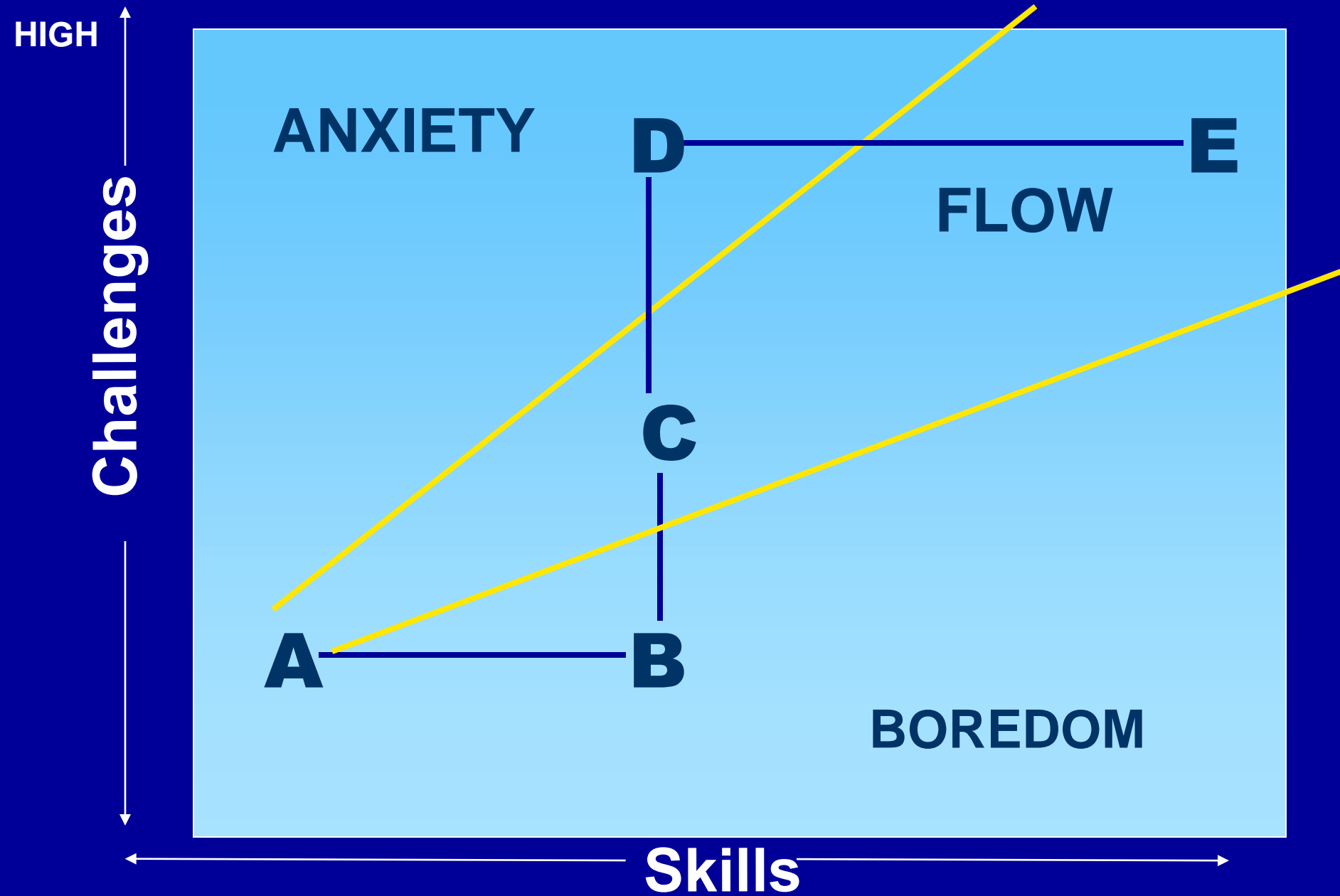
1. There are clear goals every step of the way.
 2. There is immediate feedback to one's action.
- *“All the evidence [is] right there. In chess, everything is in front of you to see. No other variables...can control it.”*
-Chess player (Csikszentmihalyi, 1990)
 - *“It’s self-catalyzing...the moves create each other. The move you’re planning to do is also the genesis of the move you’re going to do after you’ve done that one...”*
-Rock climber (Csikszentmihalyi, 1975)
 - *“As the music is being played, I am very aware. I have prepared my awareness. I can respond swiftly to the whole broad range of what my ears tell me can happen.... [It’s] sensitivity taken to the greatest possible extreme...so I’m aware of every tiny, tiny micro-detail.”*

-Musician Keith Jarrett

CONDITIONS OF THE FLOW EXPERIENCE:

3. There is a balance between challenges and skills.





HOW OFTEN DOES FLOW OCCUR?

Has it happened to you that you were so involved in an activity that everything else became unimportant and you forgot time completely? Would you say...

Yes, I experience this often...	23%
Yes, I experience this now and then...	40%
Yes, I experience this but seldom...	25%
No, it never happened...	10%
I don't know/No response...	2%

Allensbach Institute survey (1995), reported in Finding Flow (1997). Sample: 6,469 Germans age 14 and older.

HIGH

Challenges

**Work Stress,
Sudden Threats**

**New Tasks,
Learning**

**Favorite activity,
Hobby, Work, Love
Life**

**Family Problems,
Work Hassles**

**Driving,
Work**

**Loneliness,
TV Viewing**

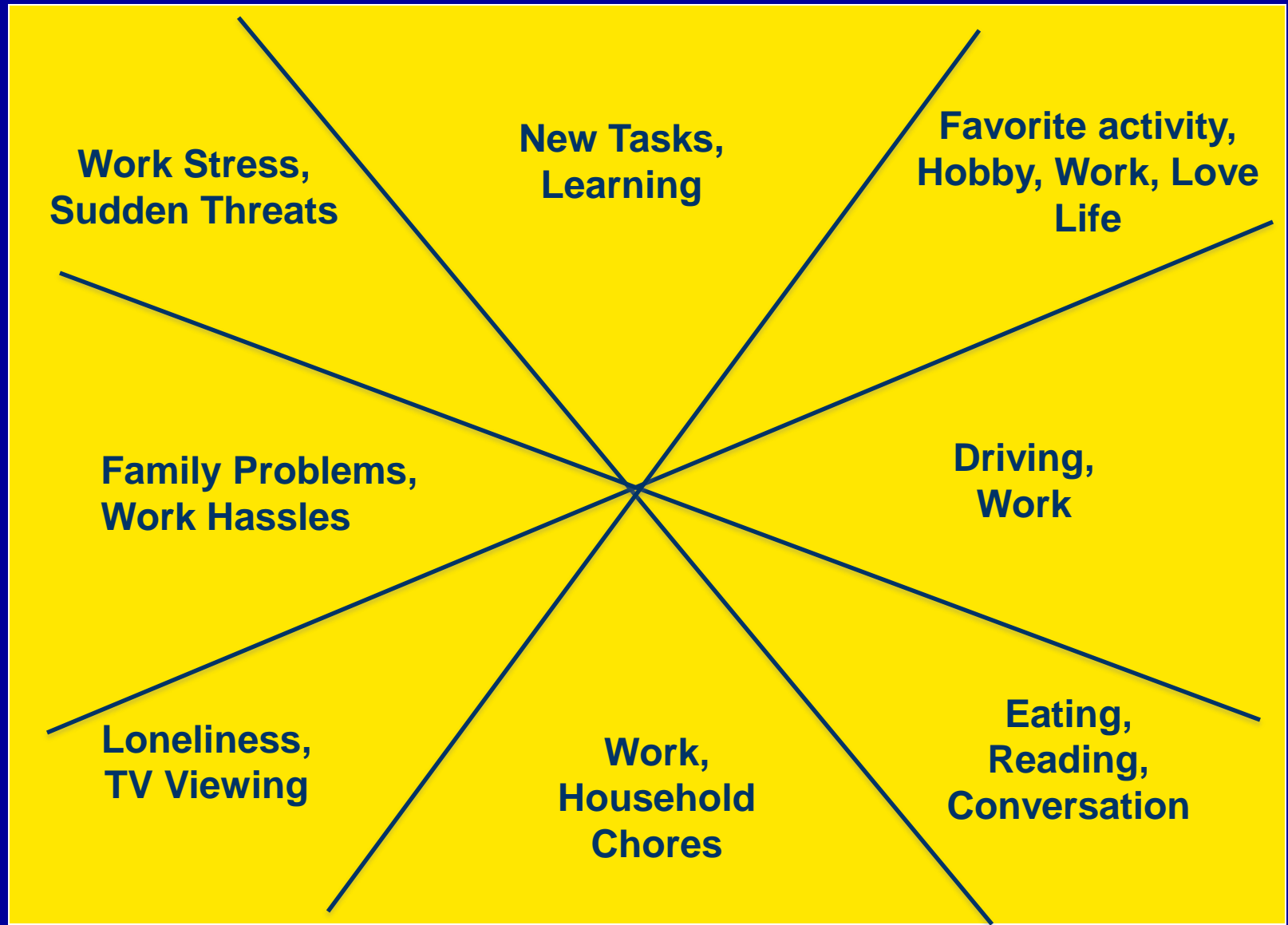
**Work,
Household
Chores**

**Eating,
Reading,
Conversation**

LOW

Skills

HIGH

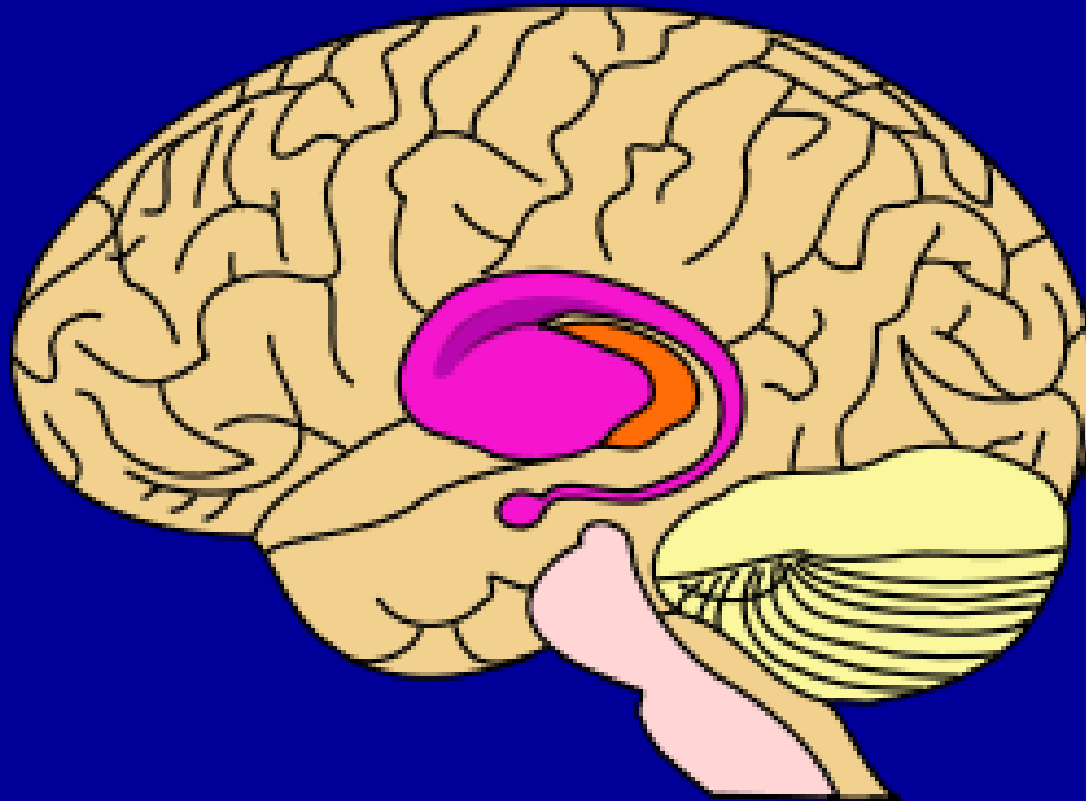


Some Physiological Correlates of Flow While playing the Piano

- **Zygomatic Major Muscle activity
(Smiling)**
- **Respiratory Depth**
- **Heart Period (negative)**
- **Blood Pressure (negative)**

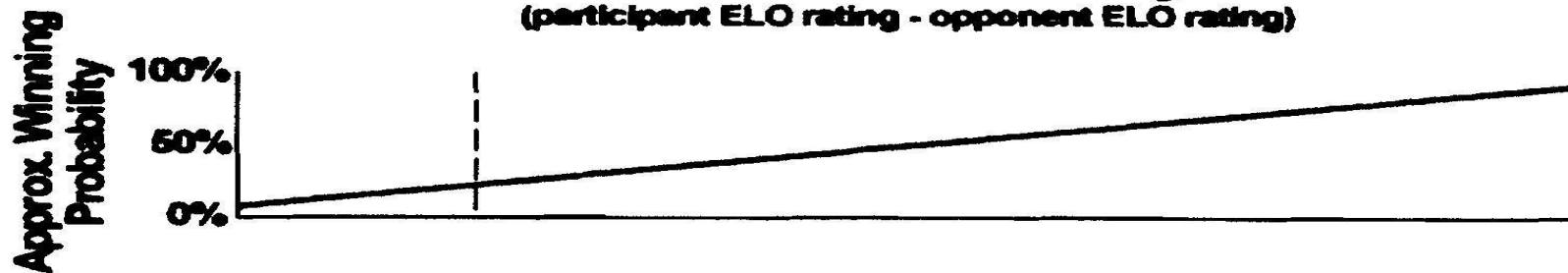
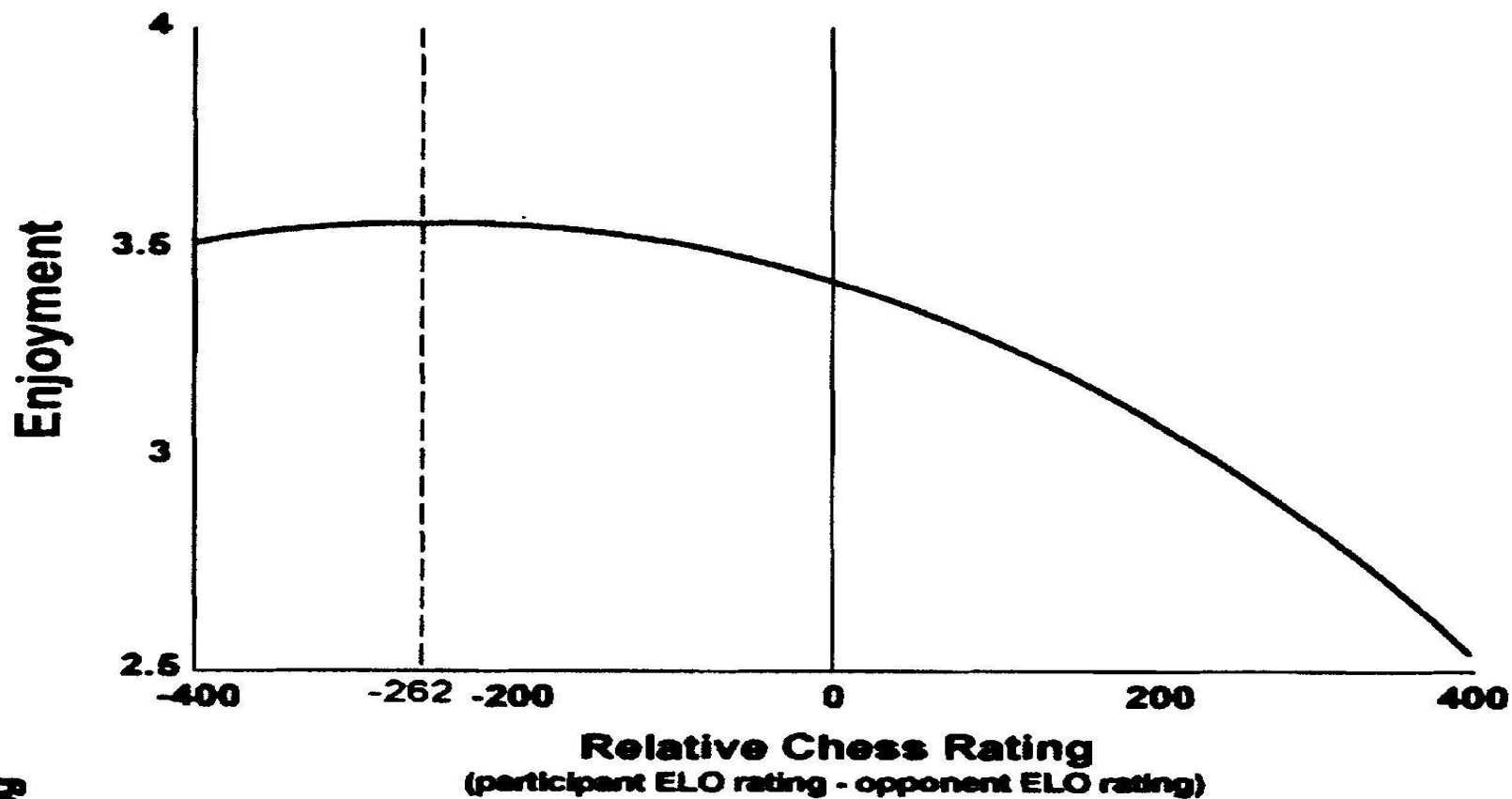
From: De Marzano, Theorell, Harmat, & Ullen (In Press) The Psychophysiology of Flow, *Emotion*.

Brain: Striatum



D2 receptor availability predicts flow proneness

Örjan de Manzano^a, Simon Cervenka^b, Aurelija Jucaite^b,
Oscar Hellenäs^b, Lars Farde^b, and Fredrik Ullén^a



THE EXPERIENCE SAMPLING METHOD (ESM)

(Csikszentmihalyi & Larson, 1978)

Date: _____ Time Beeped: 12:06 am/pm Time Filled Out 12:07 am/pm

As you were beeped...

What were you thinking about? Romeo + Juliet

Where were you? English Class

What was the MAIN thing you were doing? Reading / Reviewing
Romeo + Juliet

What other things were you doing? Chewing on pen

WHY were you doing this particular activity?

(/) I had to () I wanted to do it () I had nothing else to do

	not at all	some what	quite	very
How well were you concentrating?	0 1 2 3 4	5 6 7 8 9		
Was it hard to concentrate?	0 1 2 3 4	5 6 7 8 9		
How self-conscious were you?	0 1 2 3 4	5 6 7 8 9		
Did you feel good about yourself?	0 1 2 3 4	5 6 7 8 9		
Were you in control of the situation?	0 1 2 3 4	5 6 7 8 9		
Were you living up to your own expectations?	0 1 2 3 4	5 6 7 8 9		
Were you living up to expectations of others?	0 1 2 3 4	5 6 7 8 9		

Describe your mood as you were beeped:

	very	quite	some	neither	some	quite	very	
alert	0	0	.	.	0	0	0	drowsy
happy	0	0	.	.	0	0	0	sad
irritable	0	0	0	.	0	0	0	cheerful
strong	0	0	0	.	0	0	0	weak
active	0	0	0	0	0	0	0	passive
lonely	0	0	0	0	0	0	0	sociable
ashamed	0	0	.	0	0	0	0	proud
involved	0	0	.	.	0	0	0	detached
excited	0	0	.	0	0	0	0	bored
closed	0	0	.	0	0	0	0	open
clear	0	0	.	.	0	0	0	confused
tense	0	0	.	0	0	0	0	relaxed
competitive	0	0	.	0	0	0	0	cooperative

Did you feel any physical discomfort as you were beeped:

Overall pain or none slight bothersome severe
discomfort 0 1 2 3 4 5 6 7 8 9

Please specify: I hate english

Who were you with?

() alone () friend(s) How many? _____
() mother female () male ()
() father () strangers
() sister(s) or brother(s) () other students

Indicate how you felt about your activity:

	low	high
Challenges of the activity	0 1 2 3 4 5 6 7 8 9	
Your skills in the activity	0 1 2 3 4 5 6 7 8 9	
Was this activity important to you?	0 1 2 3 4 5 6 7 8 9	
Was this activity important to others?	0 1 2 3 4 5 6 7 8 9	
Were you succeeding at what you were doing?	0 1 2 3 4 5 6 7 8 9	
Do you wish you had been doing something else?	0 1 2 3 4 5 6 7 8 9	
Were you satisfied with how you were doing?	0 1 2 3 4 5 6 7 8 9	
How important was this activity in relation to your overall goals	0 1 2 3 4 5 6 7 8 9	

If you had a choice...

Who would you be with? Anybody

What would you be doing? Anything

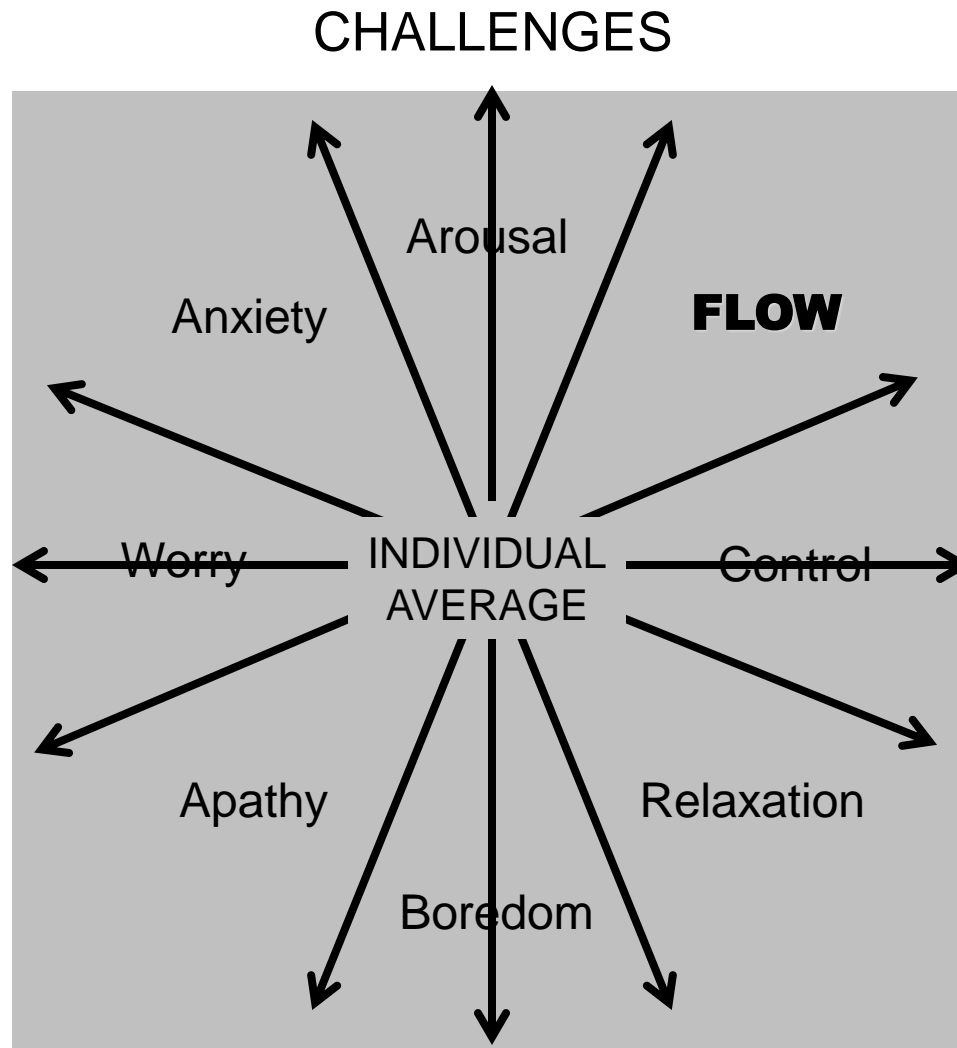
Since you were last beeped has anything happened or have you done anything which could have affected the way you feel?

Lunch

Nasty cracks, comments, etc: *****

English sucks

MEASURING THE CHALLENGE/SKILL BALANCE



SKILLS



