

1

Úvod do neurověd

Kontakt

Kamil Ďuriš

Ústav patologické fyziologie (A18)

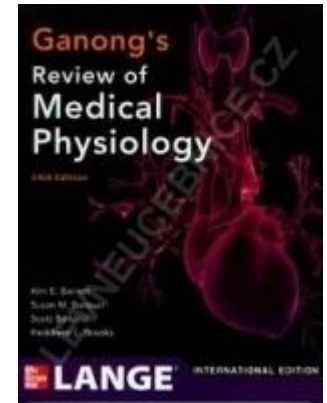
kduris@med.muni.cz

Cíl

V hrubých rysech pochopit význam a funkci nervového systému

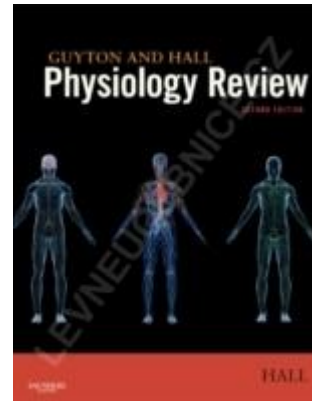
Zdroje

- Ganong's Review of Medical Physiology



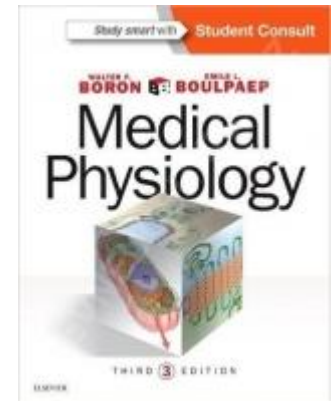
<https://www.levneucebnice.cz/p/ganong-s-review-of-medical-physiology-9781259009624/>

- Guyton – Physiology Review



<https://www.levneucebnice.cz/p/guyton-and-hall-physiology-review/>

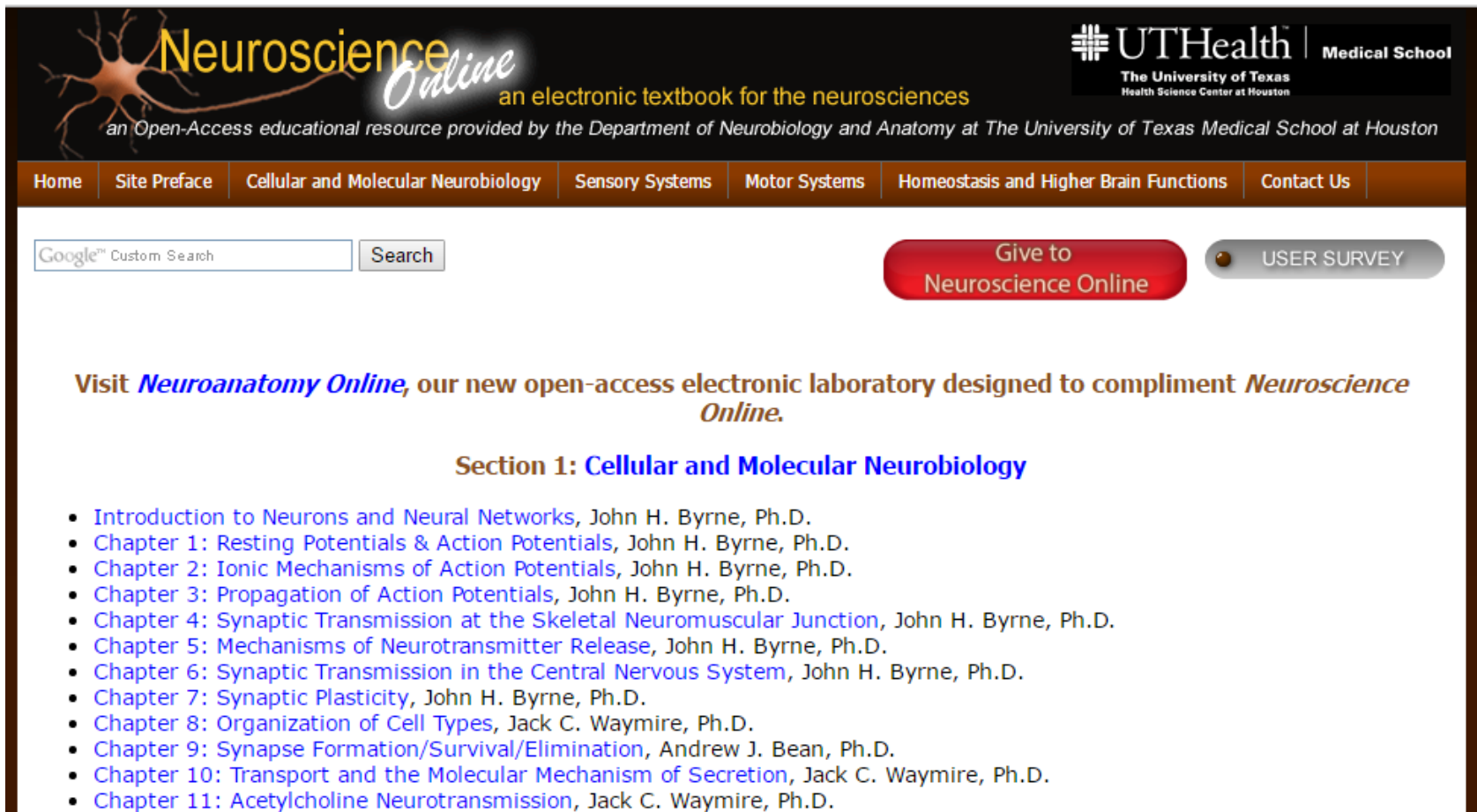
- Boron - Medical Physiology



<https://www.levneucebnice.cz/p/medical-physiology-3rd-ed/>

Zdroje

- Neuroscience Online
- <http://neuroscience.uth.tmc.edu/toc.htm>



The screenshot shows the top section of the Neuroscience Online website. At the top left is a logo featuring a neuron and the text "Neuroscience Online" in a stylized font, with "an electronic textbook for the neurosciences" below it. To the right is the "UTHealth Medical School" logo, including "The University of Texas Health Science Center at Houston". Below the logos is a navigation bar with links: Home, Site Preface, Cellular and Molecular Neurobiology, Sensory Systems, Motor Systems, Homeostasis and Higher Brain Functions, and Contact Us. Below the navigation bar is a Google Custom Search box with a "Search" button. To the right of the search box is a red button labeled "Give to Neuroscience Online" and a grey button labeled "USER SURVEY". Below these elements is a promotional text: "Visit *Neuroanatomy Online*, our new open-access electronic laboratory designed to compliment *Neuroscience Online*." This is followed by a section header "Section 1: Cellular and Molecular Neurobiology" and a list of 11 chapters with their authors.

Neuroscience Online
an electronic textbook for the neurosciences
an Open-Access educational resource provided by the Department of Neurobiology and Anatomy at The University of Texas Medical School at Houston

UTHealth Medical School
The University of Texas Health Science Center at Houston

Home | Site Preface | Cellular and Molecular Neurobiology | Sensory Systems | Motor Systems | Homeostasis and Higher Brain Functions | Contact Us

Google™ Custom Search Search

Give to Neuroscience Online USER SURVEY

Visit *Neuroanatomy Online*, our new open-access electronic laboratory designed to compliment *Neuroscience Online*.

Section 1: Cellular and Molecular Neurobiology

- [Introduction to Neurons and Neural Networks](#), John H. Byrne, Ph.D.
- [Chapter 1: Resting Potentials & Action Potentials](#), John H. Byrne, Ph.D.
- [Chapter 2: Ionic Mechanisms of Action Potentials](#), John H. Byrne, Ph.D.
- [Chapter 3: Propagation of Action Potentials](#), John H. Byrne, Ph.D.
- [Chapter 4: Synaptic Transmission at the Skeletal Neuromuscular Junction](#), John H. Byrne, Ph.D.
- [Chapter 5: Mechanisms of Neurotransmitter Release](#), John H. Byrne, Ph.D.
- [Chapter 6: Synaptic Transmission in the Central Nervous System](#), John H. Byrne, Ph.D.
- [Chapter 7: Synaptic Plasticity](#), John H. Byrne, Ph.D.
- [Chapter 8: Organization of Cell Types](#), Jack C. Waymire, Ph.D.
- [Chapter 9: Synapse Formation/Survival/Elimination](#), Andrew J. Bean, Ph.D.
- [Chapter 10: Transport and the Molecular Mechanism of Secretion](#), Jack C. Waymire, Ph.D.
- [Chapter 11: Acetylcholine Neurotransmission](#), Jack C. Waymire, Ph.D.

Zdroje

- CNS online
- <http://www.cnsonline.cz/>



ÚVOD DO CENTRÁLNÍ
NERVOVÉ SOUSTAVY

Online kurz

1. ZÁKLADY
2. NERVOVÁ TKÁŇ
3. DRÁHY A STRUKTURY CNS
4. KOMORY, CÉVY A PLENY
5. ZÁKLADY PERIFERNÍHO NERVOVÉHO SYSTÉMU
6. SMYSLY
7. MOTORIKA
8. INTEGRACE I – EMOCE A

ÚVOD DO CENTRÁLNÍ NERVOVÉ SOUSTAVY



Zdroje

- MIT - Brain Structure and Its Origins
- <http://ocw.mit.edu/courses/brain-and-cognitive-sciences/9-14-brain-structure-and-its-origins-spring-2014/#>

[Home](#) » [Courses](#) » [Brain and Cognitive Sciences](#) » Brain Structure and Its Origins

Brain Structure and Its Origins

COURSE HOME <

SYLLABUS

THIS COURSE AT MIT

READINGS AND
STUDY QUESTIONS

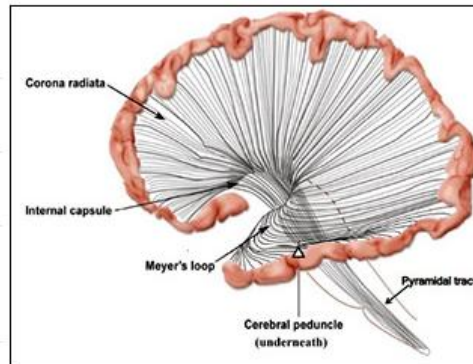
LECTURE NOTES

AUDIO LECTURES

ASSIGNMENTS

EXAMS

STUDY MATERIALS



Drawing of the left hemisphere of the human brain together with the brainstem, dissected to reveal the course of axons that descend to the brainstem and spinal cord. (Courtesy of MIT Press. Used with permission. Figure 22.8 from Schneider, G. E. [Brain Structure and its Origins: In the Development and in Evolution of Behavior and the Mind](#). MIT Press, 2014.)

Instructor(s)

Prof. Gerald E. Schneider

MIT Course Number

9.14

As Taught In

Spring 2014

Level

Undergraduate

[CITE THIS COURSE](#)

Course Features

> [Audio lectures](#)

> [Lecture notes](#)

> [Exams and solutions](#)

> [This Course at MIT](#)

> [Subtitles/transcript](#)

> [Assignments \(no solutions\)](#)

> [Instructor insights](#)

Proč a jak **STUDOVAT** nejen neurovědy



Neuroscience: Brain

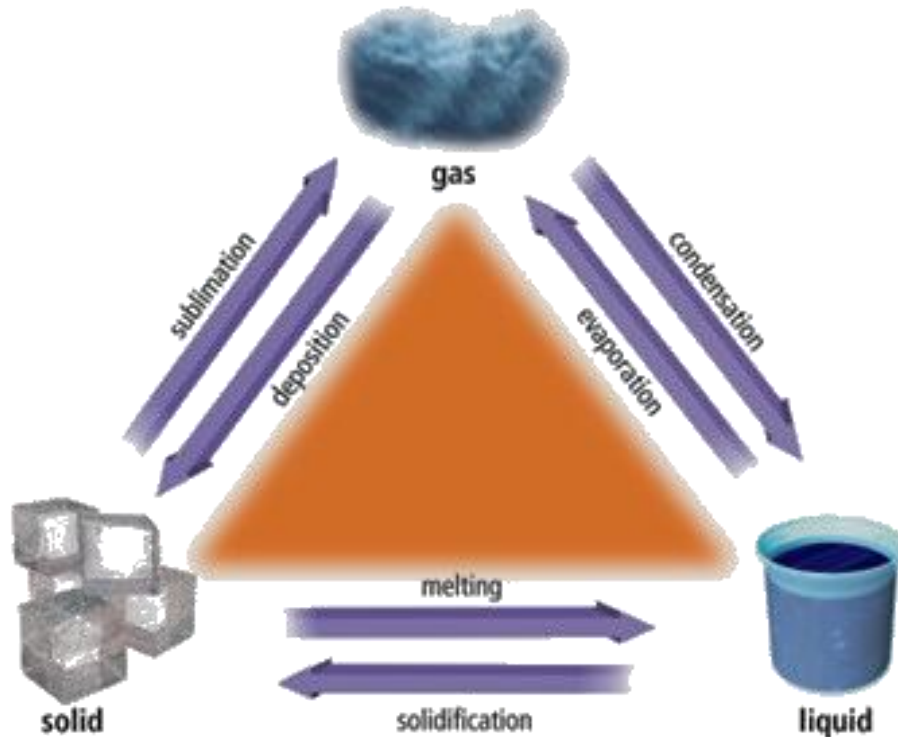
Proč a jak **STUDOVAT** nejen neurovědy

Three States of Cognition

Philosophy : Mind behind Mind



PS Deb



Neuroscience: Brain

Psychology : Mind

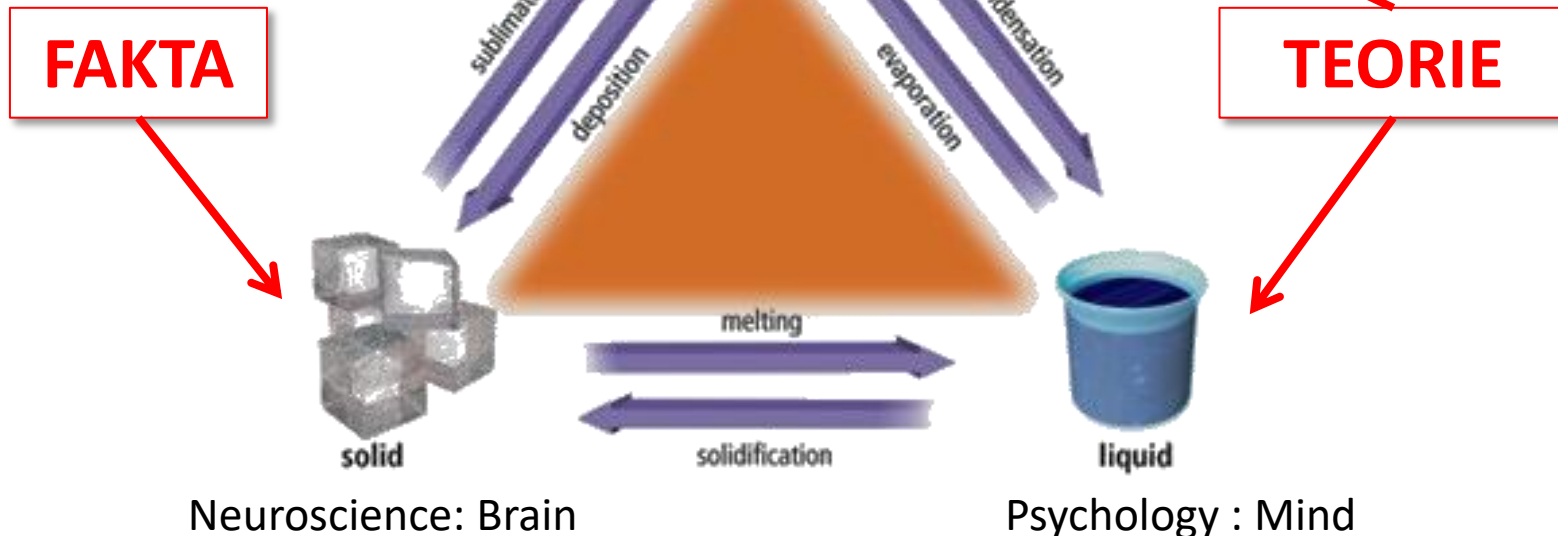
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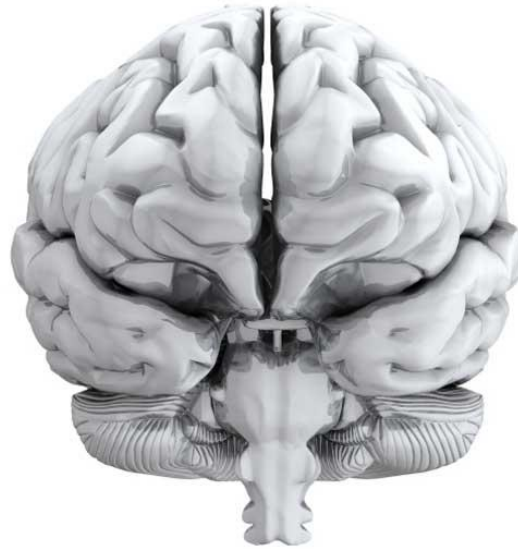


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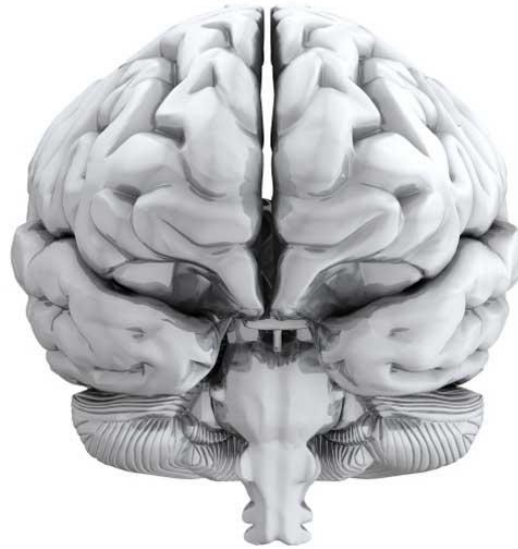
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... který se špatně ovládá



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✓ Konflikt mezi limbickým systémem a neokortexem

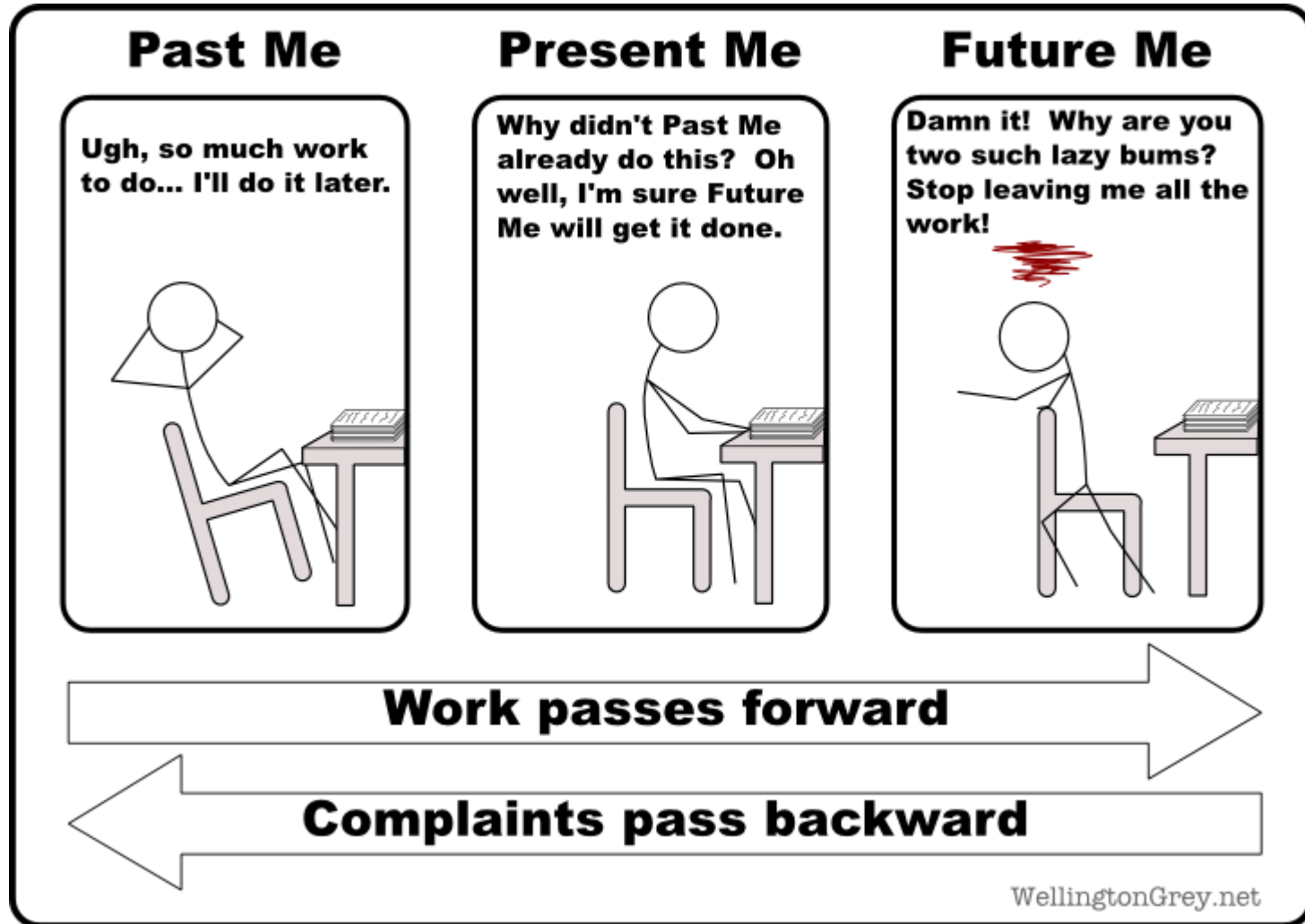
✓ Problém s efektivní kontrolou neokortexu



Konflikt mezi limbickým systémem a neokortexem

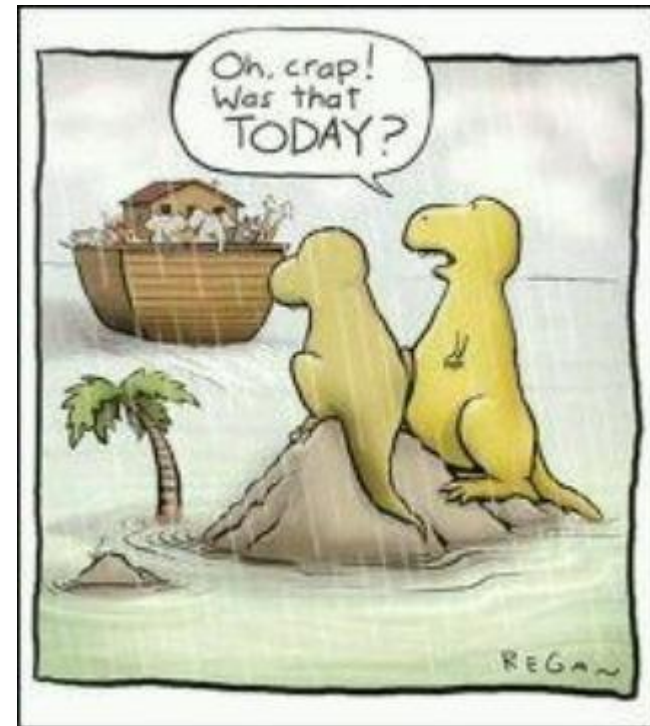


Problém s efektivní kontrolou neokortexu



Prokrastinace

- Odkládání úkolů, které musí být udělány
- Nejedná se o lenost!





http://68.media.tumblr.com/7dc8ae528d3b8732ffd837ef94536423/tumblr_nvanv5R3oJ1tdi9a1o1_400.jpg


Prokrastinace


- Odkl...
- Ne...

According to Joseph Ferrari, a professor of psychology at DePaul University,

 20% of people may be "chronic procrastinators"

 75% of university students consider themselves to be chronic procrastinators

 95% of habitual procrastinators want to reduce it, or reduce its impact upon their lives



REGAN

<https://assets-cf1.tumblr.com/img/2014/09/15/15642.jpg?v=none>

http://68.media.tumblr.com/7dc8ae528d3b8732ffd837ef94536423/tumblr_nvanv5R3oJ1tdi9a1o1_400.jpg

Rizikové faktory

- Intelligence
 - Čím vyšší inteligence, tím lepší schopnost racionalizace

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- Úloha je nudná
 - To mě nebaví
- Úloha je obtížná
 - Kde začít?
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 - Stejně mi to nic nepřinese

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Stresory
✓ Únava
✓ Hlad
✓ Nedostatek času

Rizikové faktory

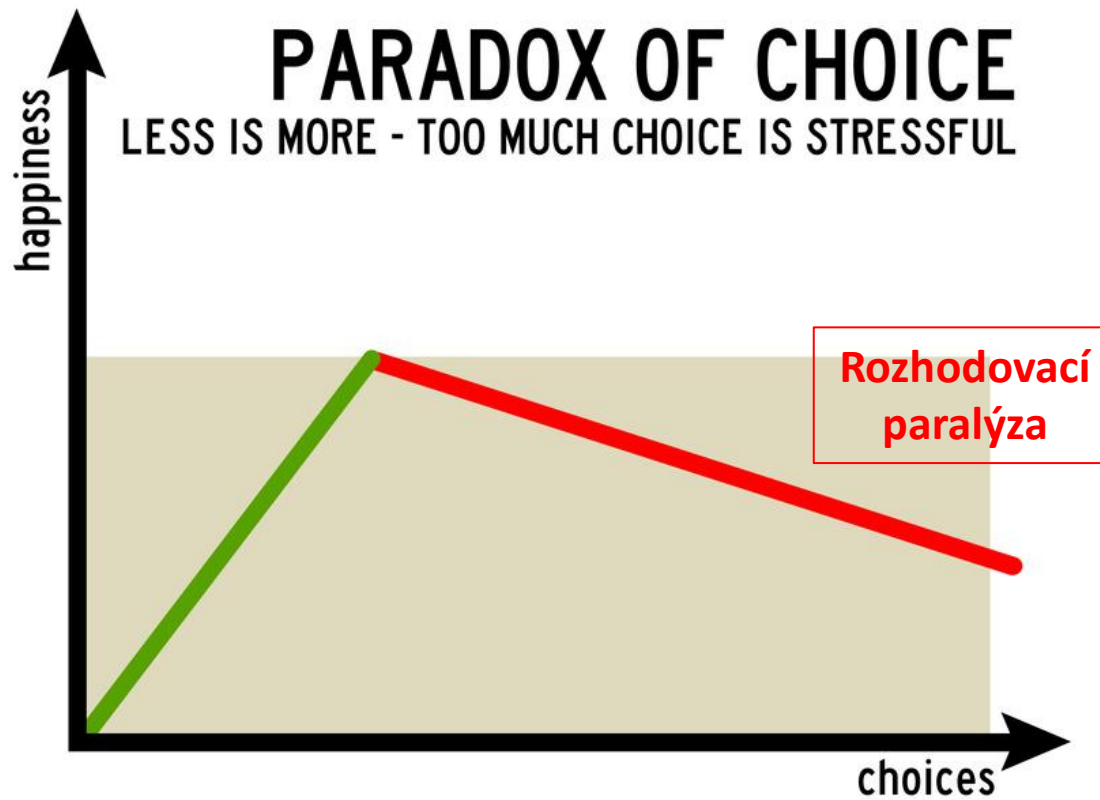
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<https://11tx7b411ycc3zja3v2vhqz9-wpengine.netdna-ssl.com/wp-content/uploads/2015/07/paradox-of-choice.jpg>

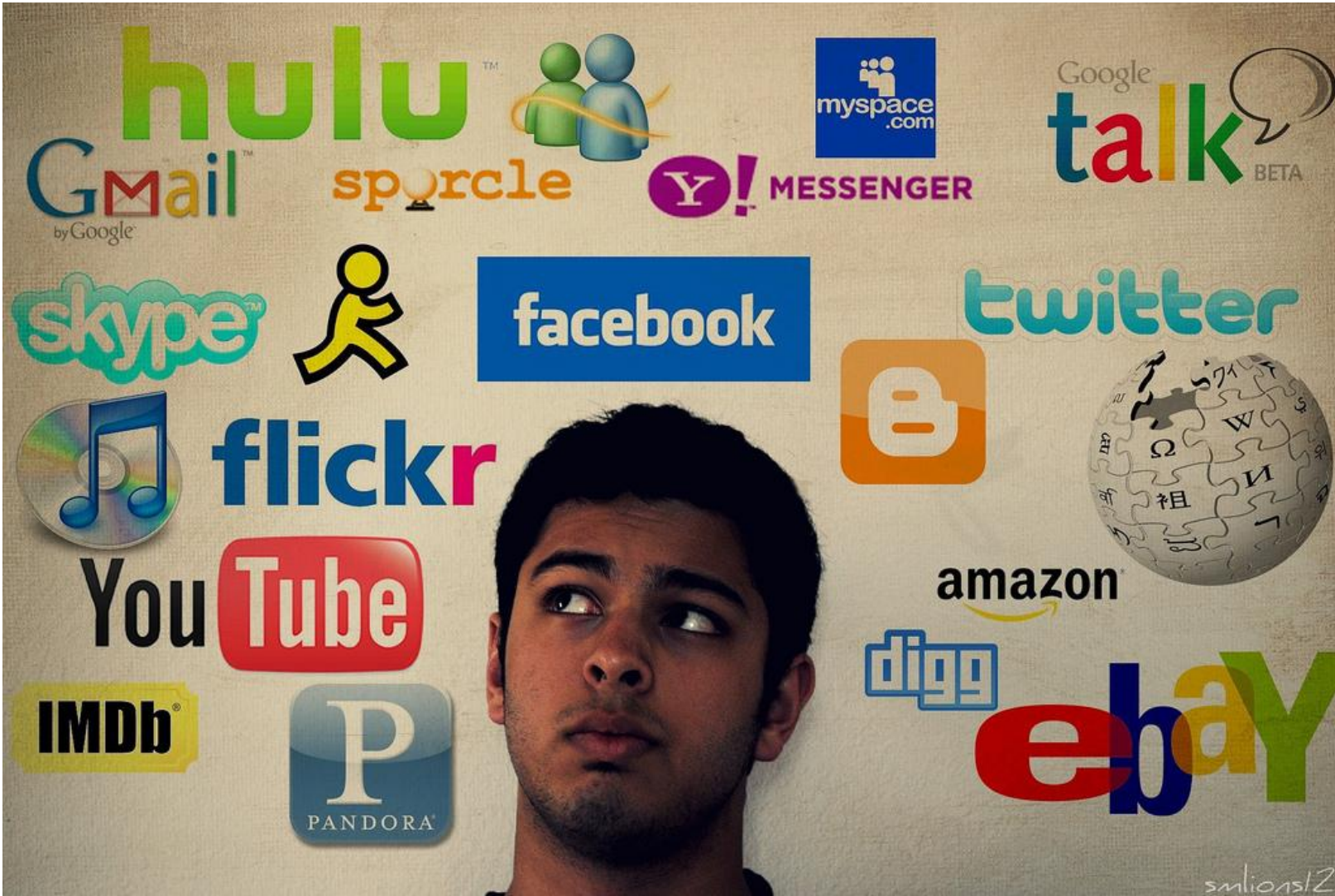


<http://wigan.illarerate.co.uk/wp-content/uploads/2014/01/Empty-supermarket-shelves.jpg>



<https://kristenleoneblog.wordpress.com/2016/04/03/decision-paralysis/>

Distrakce



Prokrastinace



http://howtobehappy.guru/wp-content/uploads/2015/08/imagedit_7_5046245303.jpg

PROCRASTINATION is like a Credit Card: it's a lot of Fun until you get the Bill.

1231 9434 1200 0200

Christopher Parker

Prokrastinace

Zásadní role limbického systému



SOURCES: <http://serendip.brynmawr.edu/bb/neuro/neuro02/web1/jmaryasis.html>
http://www.mindtools.com/pages/article/newHTE_91.htm
<http://www.marccandangel.com/2010/11/22/7-common-causes-and-proven-cures-for-procrastination/>



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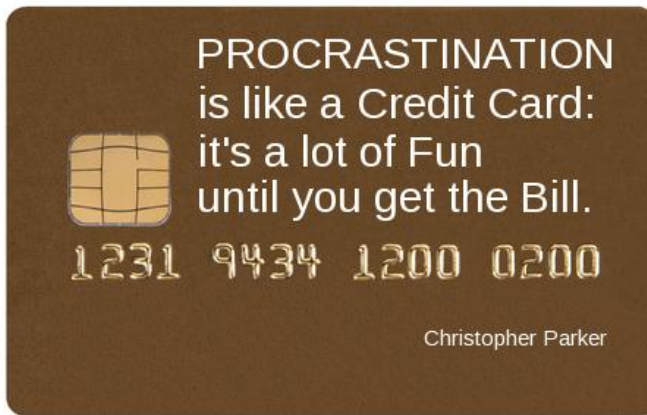
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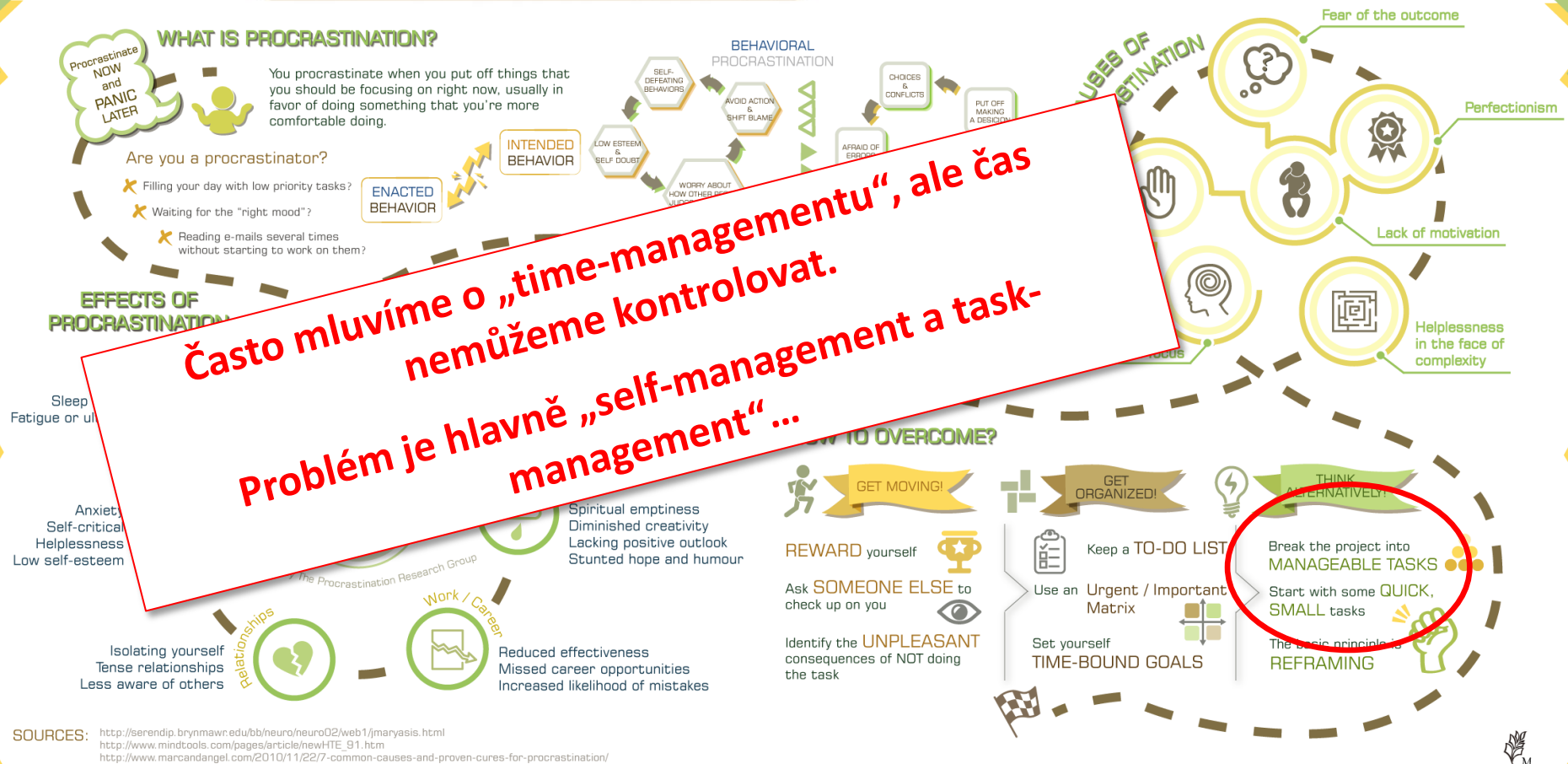


http://howtobehappy.guru/wp-content/uploads/2015/08/imagedit_7_5046245303.jpg



Prokrastinace

Zásadní role limbického systému



Často mluvíme o „time-managementu“, ale čas nemůžeme kontrolovat. Problém je hlavně „self-management a task-management“ ...



Prokrastinace

11 THINGS BY DR. TRAVIS BRADBERRY **ULTRA-PRODUCTIVE PEOPLE DO DIFFERENTLY**

01 THEY NEVER TOUCH THINGS TWICE

02 THEY GET READY FOR TOMORROW BEFORE THEY LEAVE THE OFFICE

03 THEY EAT FROGS

04 THEY FIGHT THE TYRANNY OF THE URGENT

05 THEY STICK TO THE SCHEDULE DURING MEETINGS

06 THEY SAY NO

07 THEY ONLY CHECK E-MAIL AT DESIGNATED TIMES

08 THEY DON'T MULTITASK

09 THEY GO OFF THE GRID

10 THEY DELEGATE

11 THEY PUT TECHNOLOGY TO WORK FOR THEM

E

<https://s-media-cache-ak0.pinnimg.com/736x/6d/d4/6f/6dd46f7ab780817f0f840a9075a60660.jpg>

OVER 15 MILLION SOLD

THE 7 HABITS OF HIGHLY EFFECTIVE PEOPLE

Powerful Lessons
in Personal Change

With a New
Foreword and
Afterword
by the Author

"A wonderful book that could change your life."
- Tom Peters, bestselling author of *In Search of Excellence*

Stephen R. Covey

Stephen Covey – Quadrant system

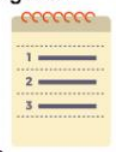
	Urgent	Not Urgent								
Important	Quad I <table border="1"><thead><tr><th>Activities</th><th>Results</th></tr></thead><tbody><tr><td><ul style="list-style-type: none">• Crisis• Pressing Problems• Deadline Driven</td><td><ul style="list-style-type: none">• Stress• Burn-out• Crisis management• Always putting out fires</td></tr></tbody></table>	Activities	Results	<ul style="list-style-type: none">• Crisis• Pressing Problems• Deadline Driven	<ul style="list-style-type: none">• Stress• Burn-out• Crisis management• Always putting out fires	Quad II <table border="1"><thead><tr><th>Activities</th><th>Results</th></tr></thead><tbody><tr><td><ul style="list-style-type: none">• Prevention, capability improvement• Relationship building• Recognizing new opportunities• Planning, recreation</td><td><ul style="list-style-type: none">• Vision, perspective• Balance• Discipline• Control• Few crisis</td></tr></tbody></table>	Activities	Results	<ul style="list-style-type: none">• Prevention, capability improvement• Relationship building• Recognizing new opportunities• Planning, recreation	<ul style="list-style-type: none">• Vision, perspective• Balance• Discipline• Control• Few crisis
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Prokrastinace



Brain Hacks for beating procrastination

1. Focus on the PROCESS not the Product.
Tips: When studying, avoid thinking about how many pages you have to write or problems to solve as that brings on the pain that leads to procrastination. Rather, calmly put the effort into doing the work. No need to grasp or finish everything in one session.
2. Distractions will happen, so accept them and train yourself to move past them quickly.
Tips: Find a quiet space, use noise-cancelling headphones.
3. Plan: Write down 3-6 tasks you want to accomplish.
Tips: Do it the night before, so your mind starts working on them while you sleep. Plan your breaks and quitting time too. It's okay if you did not finish all tasks if you gave it your best.
4. Trust in your new system and yourself.
Tips: Get support when you get stressed out or overwhelmed. Seek out friends who are successful, teachers, school counselors and ask for help.



5. Use The POMODORO Technique


START

SET A TIMER TO 25 MINUTES. Let everyone (Fam, BF, GF etc.) know what you are doing, so they don't interrupt or get upset if you don't respond to them.


CONTINUE

FOCUS ON ONE TASK. Study. Write. Do math. Whatever. **NO INTERRUPTIONS.** No social media, gaming, texting etc.


STOP

REWARD YOURSELF. After successfully completing 25 minutes of hardcore awesomeness (studying, working etc.) do something you enjoy for 5 minutes and repeat the process.

YOU CAN BEAT PROCRASTINATION!

