

**What changes in the brain
as a result of trauma ?**
创伤导致大脑哪些改变？

Speechless terror
无法言说的恐惧



TRAUMA SCRIPT II.

创伤脚本 II.

- You are in the hospital emergency room lying on a stretcher, but feeling as if you were standing on its head. You hear doctors' words echoing, asking if you are pregnant.
- You try hard to understand, but just can't remember. Your little boy is talking to someone in another room, but you don't hear Katie.
- When the doctor comes in, you know something is wrong. He tells you, you have been in an accident. Your heart skips a beat, and you feel sweaty and nauseous. Then you hear him say: 'we could not do anything for your little girl. She is dead.' Your body feels heavy and you start to cry.

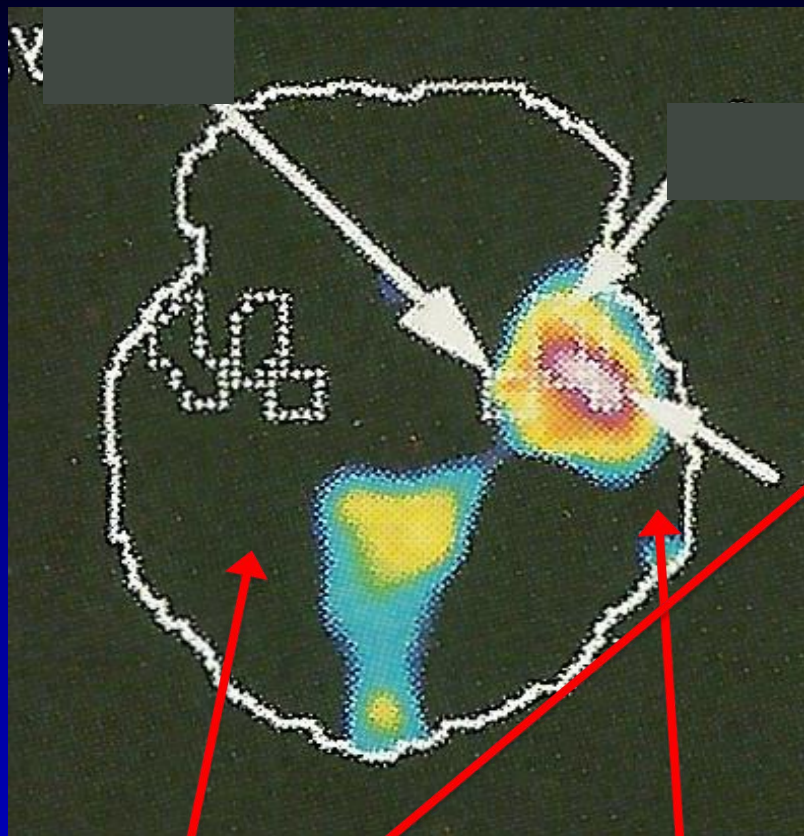
你躺在医院急诊室的担架上，但感觉像是站在上面，
你听到医生的话在回响，问你是否怀孕了。你试着去理解，但就是记不住。

你的小儿子在另外一间屋跟人说话，但是你没有听到Katie的声音。
当医生走进来，你知道出问题了。他说你经历了一个意外事故。你吓了一跳，
感到出汗和恶心。然后你听到他说‘我们对你的小女儿已经尽力了，她死了’。

你的身体感到沉重，你开始哭泣。

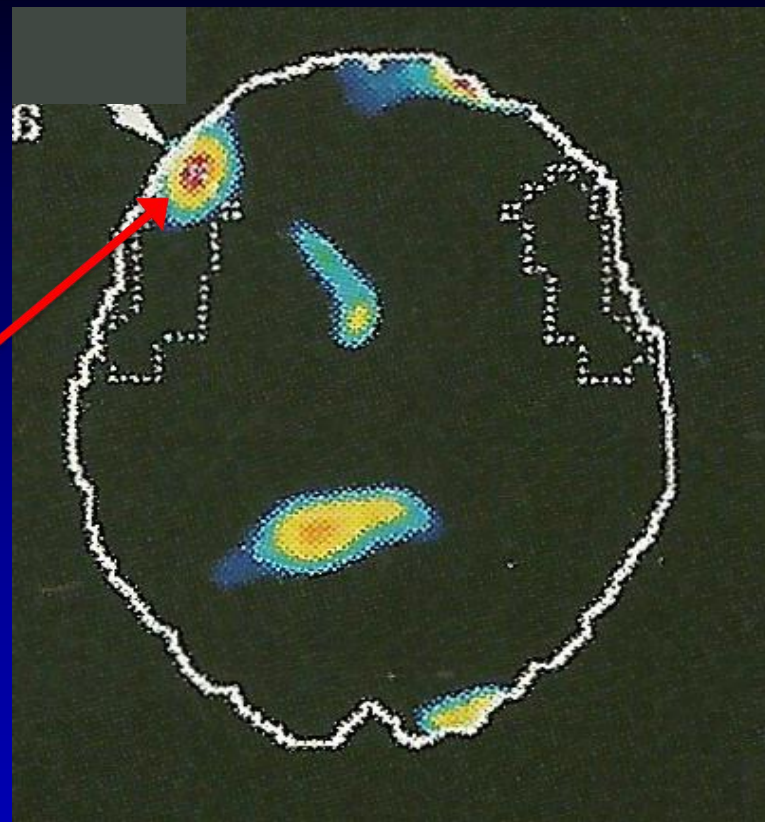


Neuroimaging in PTSD Rauch PTSD Rauch 神经影像, van der Kolk et al, 1994



De-activation
of Left
hemisphere
左侧大脑去激活

Imprint of
trauma on Right
右侧大脑的创伤
痕迹



Left anterior prefrontal cortex
(Broca's area) goes off-line
(speechless terror, dumbfounded)
左前额叶皮质(Broca区)失去功能
(难以言语化的恐惧, 目瞪口呆)



PROPERTIES OF THE LEFT HEMISPHERE

左侧大脑的功能

Organizes memory and problem-solving.

组织记忆和解决问题

Creates symbols: transcribes personal experience into culturally shared meaning.

创造象征：将个体经验转录为共享的文化含义

Creativity the distinguishing feature of L-hemisphere cognition.

创造性是左侧大脑的显著认知特征

Lack of left hemisphere functioning in PTSD responsible for alexithymia: not knowing what you feel. PTSD.

患者缺乏左侧大脑的功能，导致述情障碍：不知道自己的感受是什么



SAD



HAPPY



DISTRAUGHT



HILARIOUS



OUTRAGED



SOMBER



JOVIAL



**GRIEF
STRICKEN**

The Nature of Traumatic Memories I.

创伤性记忆的性质 I.

“At a certain point my father would cut off my breathing; then these feelings would become intolerable....”

“在某一时刻我父亲会将我窒息，这些感受会变得难以忍受...”

“My mind would come to that certain point and then disintegrate ”

我的思绪会回到那个时刻，然后瓦解

“All these intrusive recollections have an experiential quality to them - I get lost, confused and I hear things.”

所有这些侵入性回忆对他们都具有经验的性质——我失控了，
迷惑了，我听到一些东西

“When I have these flashbacks they are not explainable – I cannot make things sequential.”

当闪回出现，它们无法被解释——我无法让它们变得有头绪



The Nature of Traumatic Memories III.

创伤性记忆的性质III.

“The tragedy is the loneliness; the inability to convey the inner experience, and knowing that I cannot get out of it without going through it again.

悲剧是孤独: 无法表达内在的体验,
知道如果不能再次穿越它,
我无法摆脱它.

Going through it by myself over and over again
has certainly not done it”

靠自己不断穿越它显然并不足以摆脱它.



The Experience of Dissociation

解离的体验

Although I know and understand many things now I am limited by the fact that a large number of things I do not know at the same time.

尽管我现在认识和理解了一些事情，但我仍要面对一个事实，即我同时还有很多事情无法认识。

It does me no good to have knowledge without having a sense of time. I do not know the things that I know simultaneously.

我知道一些事情，却没有时间感的区分，这对我没有什么用处。当我同时知道一些事情，我无法真正认识它们。

I need help from outside for somebody to hold what I know – from the outside. That allows me to have continuity of understanding which is crucial for me to go anywhere

我需要外部有人帮助我保留我所知道的—从外部。这让我可以持续地理解到无论我去哪，什么对我来说是最重要的。



The Experience of Dissociation

解离的体验 II

A lot of my work and struggles is in chunks
我常常要在掙扎中做事。

I am so afraid of action.
我很害怕行动

Action that comes from me is bound to be evil, evil, evil.
我的行为一定是邪恶的，邪恶的，邪恶的

My spend my life between pieces of effective action.
我的生命没有花在有效的行动上



An event becomes traumatic
because it overwhelms the brain's
capacity to cope.

事件具有创伤性，是因为它超出
了大脑应对的能力

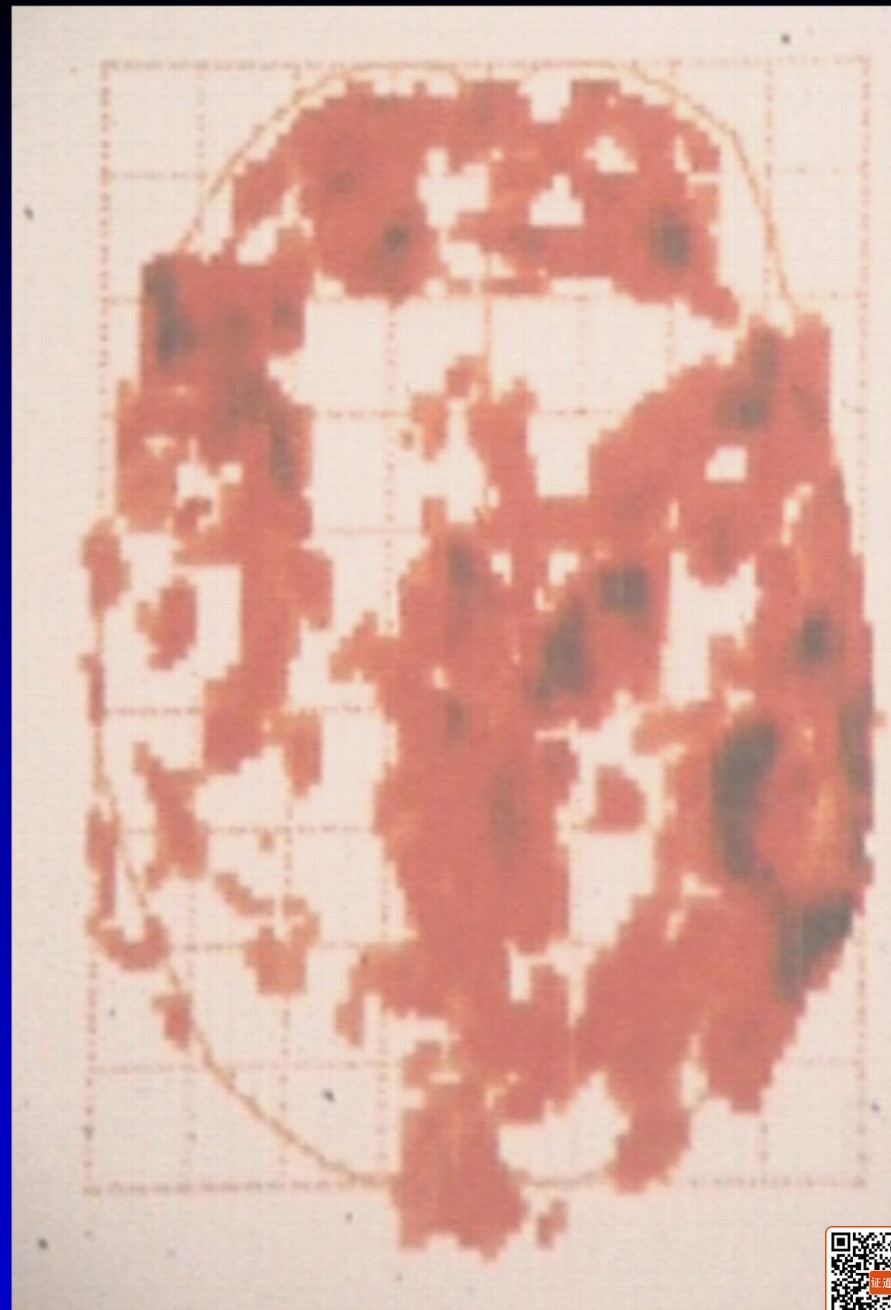




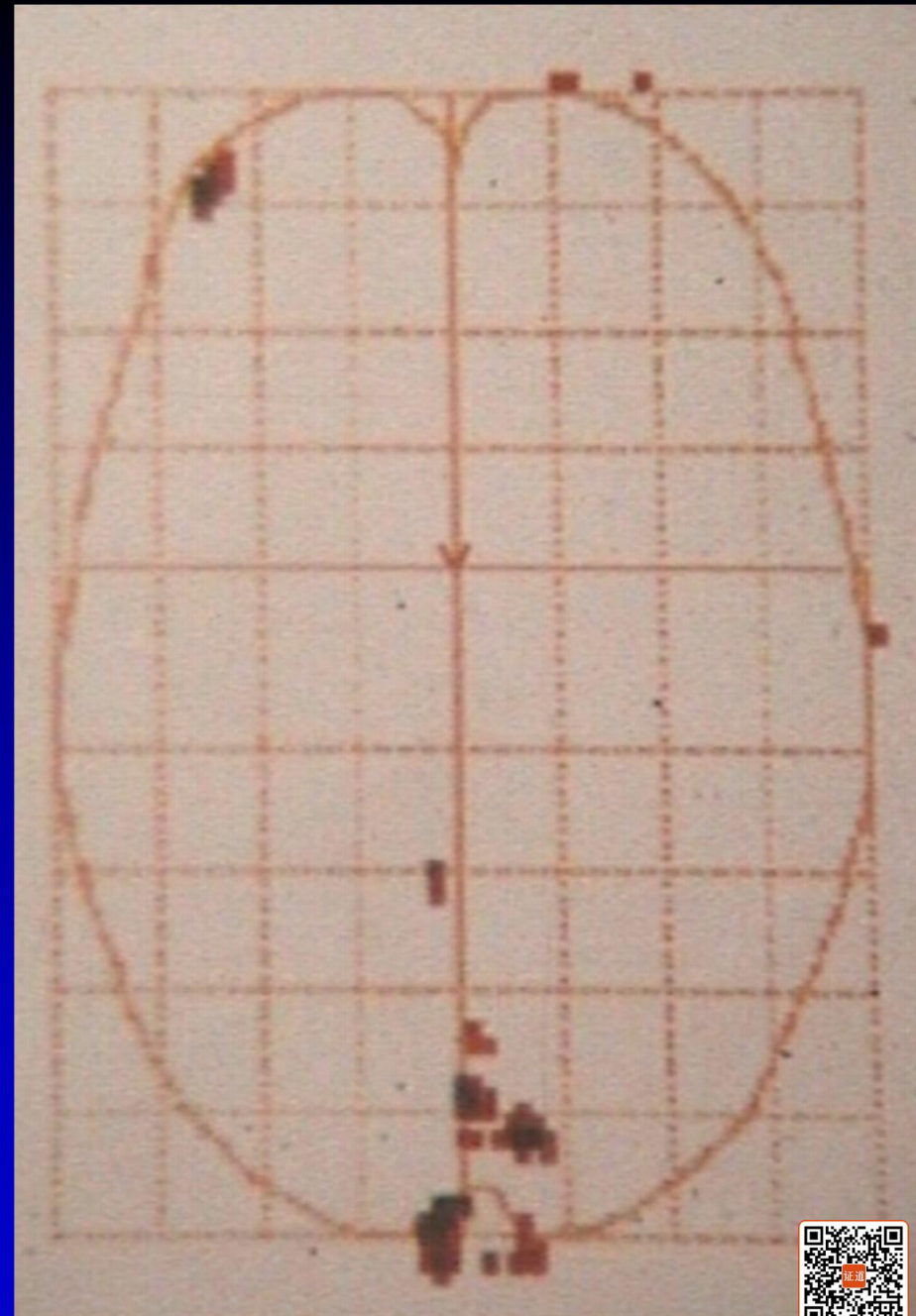
Rigidly stuck in the past
僵化地卡在过去

b/c thalamus (sensory
integration) &
Dorsolateral Prefrontal
Cortex (timekeeper)
off-line b/c

丘脑（感觉整合）&
背外侧前额叶皮质（计时
器）失能



Dissociation/numbing:
parasympathetic
shutdown
解离/麻木：副交感神经
关闭

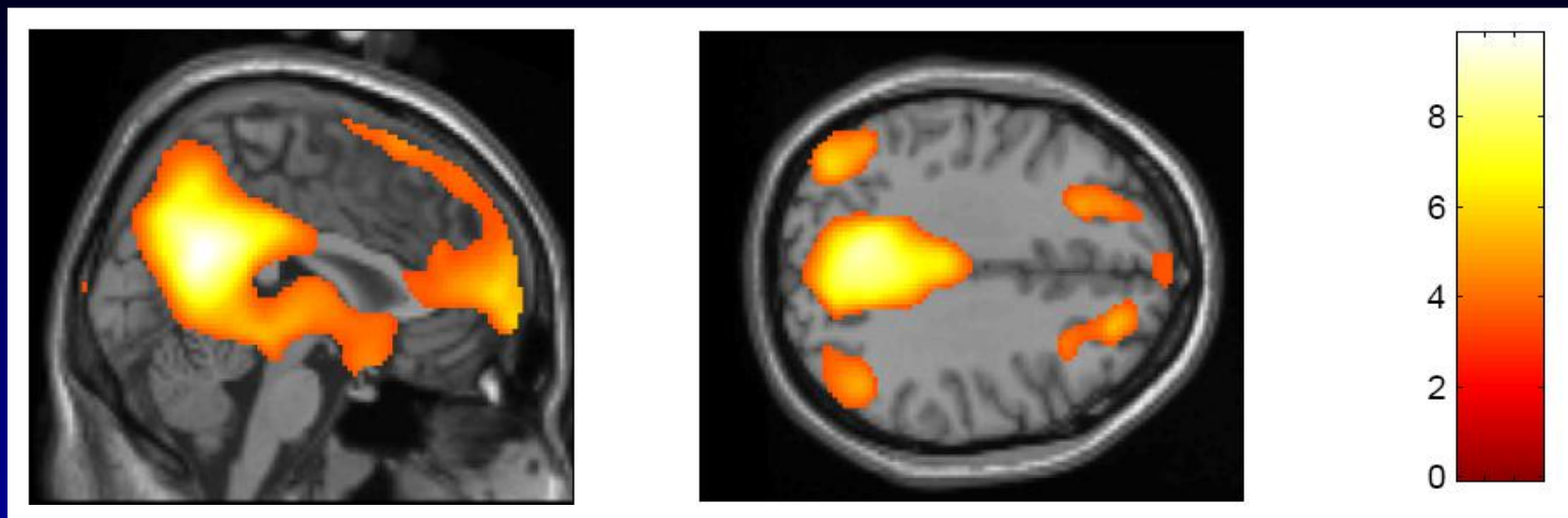


Change in self-perception & organization

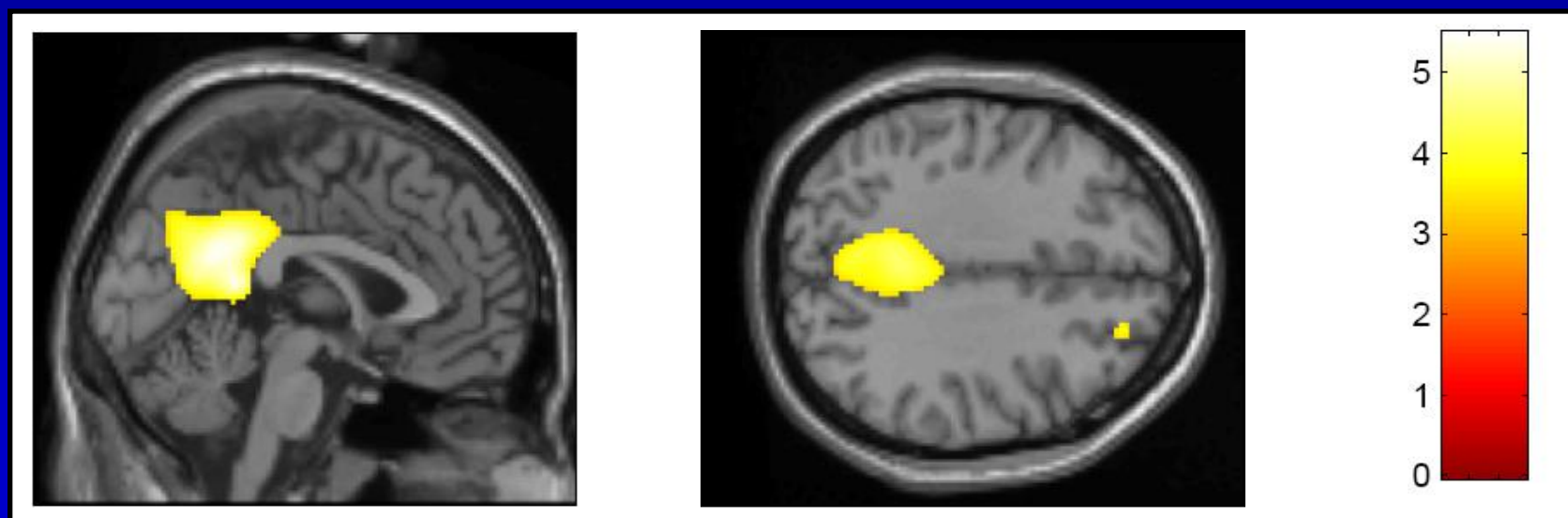
自我感知和组织的改变



控制组 (n=16): 正相关



PTSD (n=18): 正相关



Clinical Implications of Neuroscience Research in PTSD 神经科学对PTSD治疗的临床意义

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Ann. N.Y. Acad. Sci. 1071: 277–293 (2006). © 2006 New York Academy of Sciences.

Interoceptive, body-oriented therapies can directly confront a core clinical issue in PTSD: traumatized individuals are prone to experience the present with physical sensations and emotions associated with the past.

If past experience is embodied in current physiological states and action tendencies and the trauma is reenacted in breath, gestures, sensory perceptions, movement, emotion and thought, therapy may be most effective if it facilitates self-awareness and self-regulation.

内感的，身体导向的治疗方式能直接处理PTSD的核心临床问题：创伤的个体易于体验到跟过去有关的躯体感觉和情绪。

如果过去的经验嵌入到了目前的生理状态和行为倾向中，创伤在呼吸，姿势，感知，运动，情感和想法中重现，那可能最有效的治疗方式是促使自我觉察和自我调节。

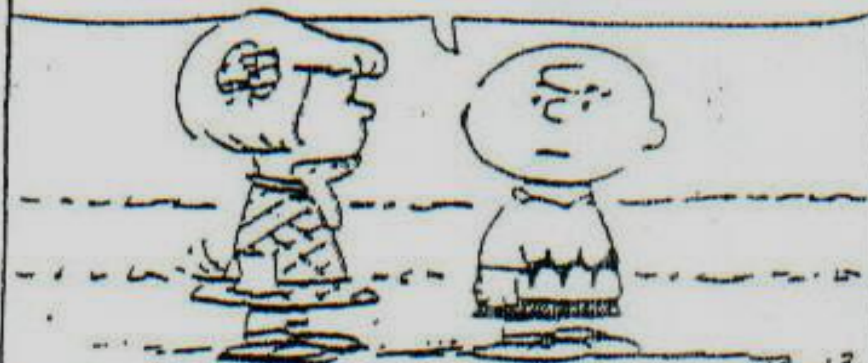


PEANUTS

THIS IS MY
"DEPRESSED
STANCE"



WHEN YOU'RE DEPRESSED, IT
MAKES A LOT OF DIFFERENCE
HOW YOU STAND...



THE WORST THING YOU CAN DO
IS STRAIGHTEN UP AND HOLD
YOUR HEAD HIGH BECAUSE THEN
YOU'LL START TO FEEL BETTER..



IF YOU'RE GOING TO GET ANY
JOY OUT OF BEING DEPRESSED,
YOU'VE GOT TO STAND LIKE THIS..



THIS
IS
MY
HEAD.



IT THINKS.
IT TALKS.
IT CHARMS.

IT WORRIES.
IT LAUGHS.
IT HURTS.



IT HAS A HUN-
DRED WONDER-
FUL TRICKS.



I AM PROUD
OF IT.



THIS
IS
MY
BODY

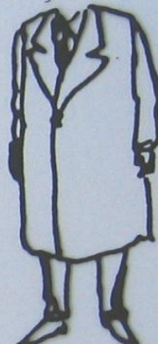
IT IS
FUNNY
LOOKING.
IT MAL-
FUNCTIONS.



IT LOOKS
BEST IN
WINTER
CLOTHES.



I HAVE AS
LITTLE TO
DO WITH IT
AS IS
HUMANLY
POSSIBLE.



LUCKY FOR
MY BODY
THAT I
NEED IT TO
CHAUFFEUR
MY HEAD
AROUND.

OTHER-
WISE
OUT IT WOULD GO.

OTHER-
WISE
OUT IT WOULD GO.



FROM: BODY LEARNING

BY: MICHAEL J. GELB

Brainstem, attachment & self-regulation

脑干，依恋与自我调节



The Interpersonal World of the Infant

A View from Psychoanalysis and
Developmental Psychology



DANIEL N. STERN

婴儿的人际世界

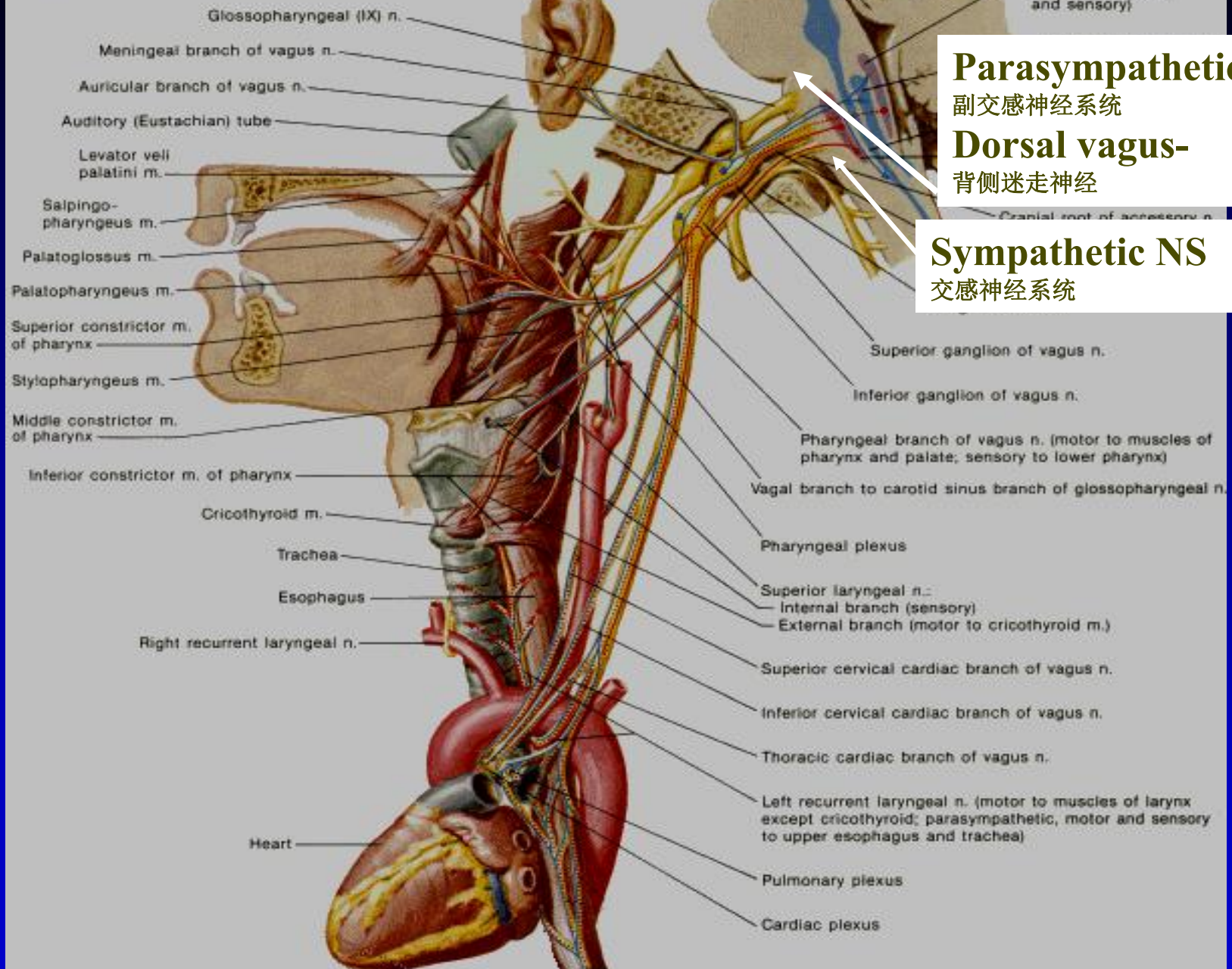
精神分析和发展心理学视角



证道心理



Vagus (X) Nerve



Parasympathetic NS

副交感神经系统

Dorsal vagus-

背侧迷走神经

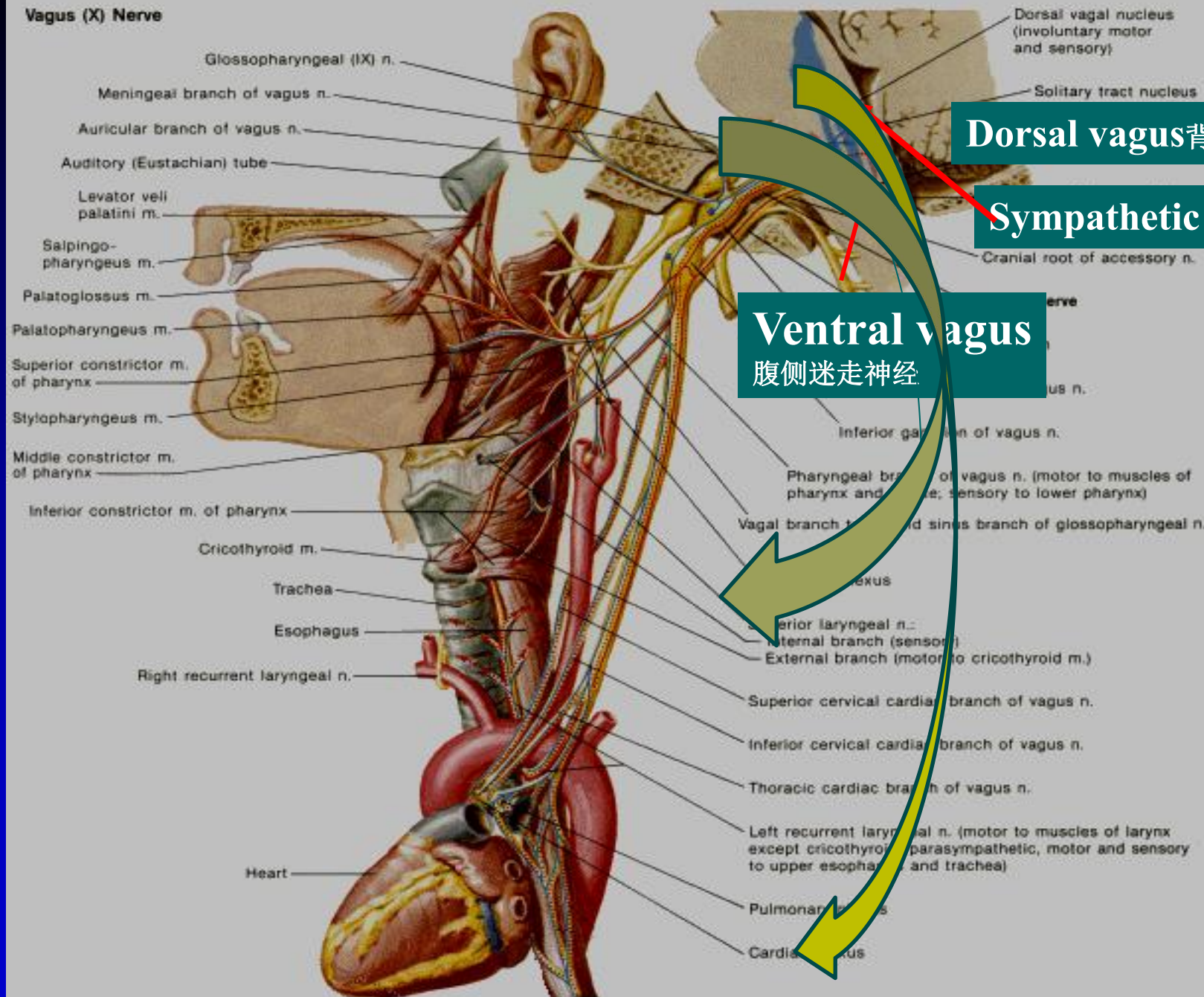
Sympathetic NS

交感神经系统





Vagus (X) Nerve



Dorsal vagus背侧迷走神经

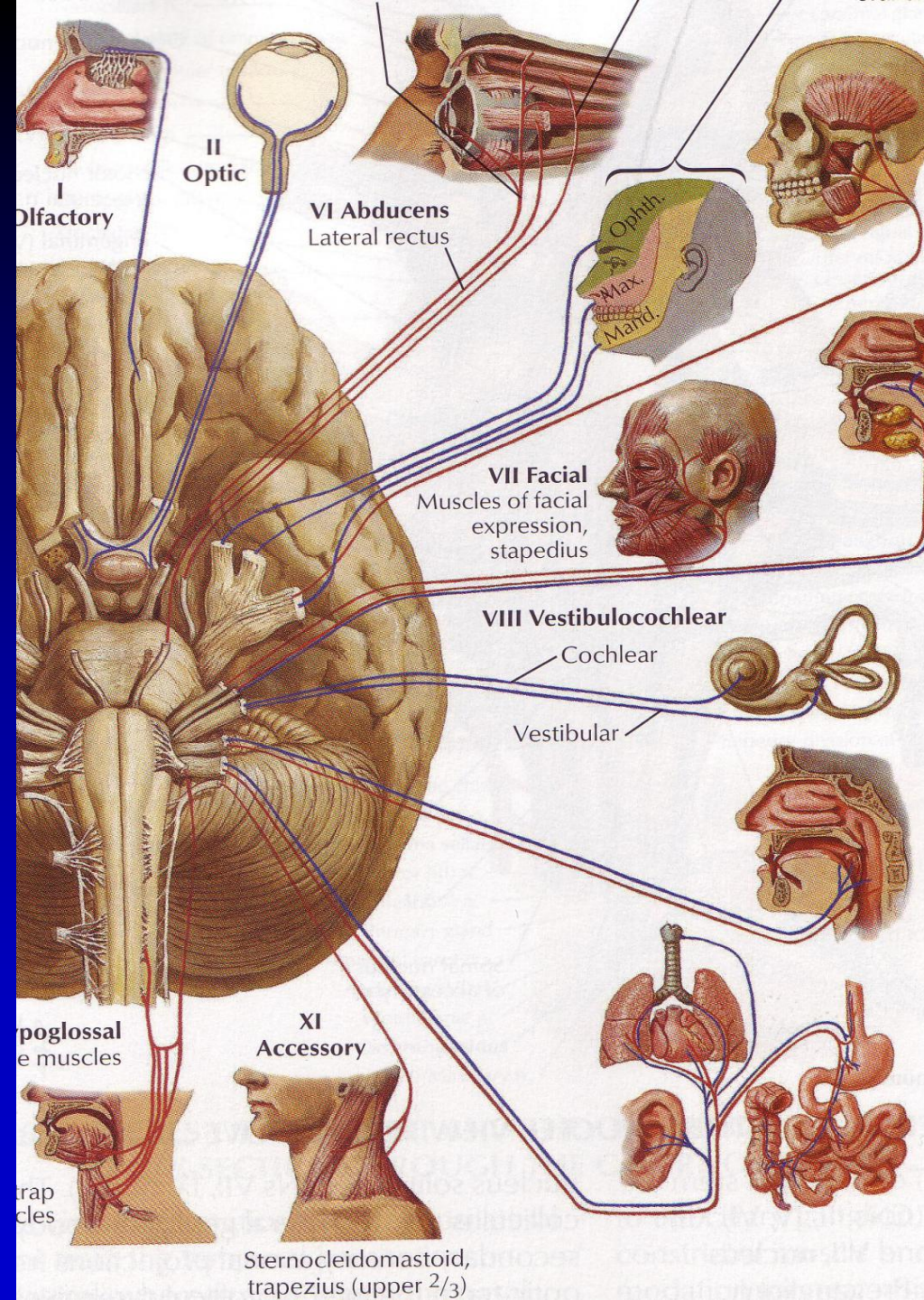
Sympathetic NS交感神经系统

Ventral vagus
腹侧迷走神经



Facial nerves: 面神经

Hooks, filters and magnets
挂钩，过滤器和磁铁







证道心理精彩课程

扫描二维码了解详情



精神分析核心概念 与临床技术 18 讲

Vamik Volkan

五次获诺贝尔和平奖提名
美国精神分析学院前主席
弗洛伊德奖和西格尼奖双料获得者
连续 15 年荣膺美国最佳医生



关系创伤的动力学治疗 全过程及临床操作步骤

Janet Bachant

创伤治疗顶尖专家
纽约精神分析中心督导师
纽约灾难咨询联合会主席



复杂发展创伤的形成 及如何治疗

Janet Bachant

创伤治疗顶尖专家
纽约精神分析中心督导师
纽约灾难咨询联合会主席



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三大系列，正在热招！

证道