

Prāts un domāšana kognitīvo zinātņu perspektīvā

3. lekcija. Emocionālais prāts

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LU **OPEN** MINDED



Saturs

- Kas ir afekts un tā stāvokļi?
- Emociju teoriju evolūcija
- Mīts par universālām jeb pamata emocijām
- Domāšana un emocijas
- Afekta heterogenitāte

MĪTI → FAKTI → JAUTĀJUMI

Īss 2. lekcijas saturs

- Uzmanība un apziņa nav viens un tas pats.
- Uzmanība kā apziņas “vārti” un “vārtsargs”, kas mācās.
- Prāts nodarbina visus smadzeņu resursus un tā funkcijas nav centralizētas.
- Apziņas procesu labai norisei nepieciešami labi kognitīvie resursi (skat. 1. lekciju).
- Prāts un ķermenis prognozē/paredz, nevis gaida stimulus, ko apstrādāt.



Terminoloģija

“Ar vārdu **afekts** apzīmē jebkuru jūtu (feelings) vai emociju pieredzi, sākot no ciešanām, beidzot ar pacilātību, no vienkāršākām uz vissarežģītākām jūtu sajūtām (sensations of feelings), un no visnormālākām līdz vispatoloģiskākām emocionālām reakcijām.

Bieži apzīmēts ar terminiem "pozitīvs afekts" vai "negatīvs afekts", un gan garastāvoklis, gan emocijas tiek uzlūkoti kā afektīvi stāvokļi.

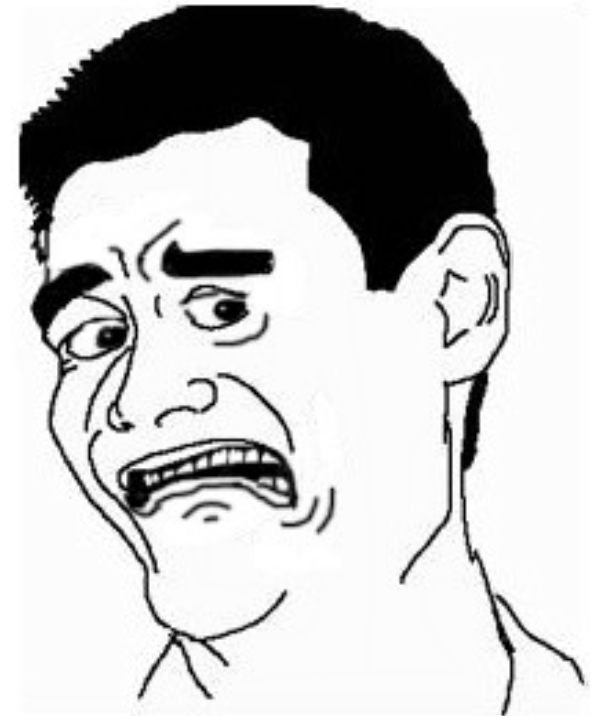
Afekts kopā ar kognīciju un uzvedību ir viens no trīs tradicionāli zināmiem prāta komponentiem."

APA Dictionary of psychology, 2015

ABC of psychology – affect, behaviour, cognition

Terminoloģija

- Latviešu literārās valodas vārdnīcā afekts skaidrots kā "ļoti spēcīgs, īslaicīgs satraukums" (LLVV, 1972.–1996.), Svešvārdu vārdnīcā (Jumava, 1999) šķirklis "afekts" vēsta, ka: "[lat. affectus 'uzbudinājums'] - samērā īslaicīgs, bet ļoti spēcīgs uzbudinājums, kas saistīts ar prāta nekontrolētām bailēm, niknumu vai pēkšņu prieku".
- Afekts ir strauji un ātri plūstošs emocionāls process ar sprādzienbīstamu dabu, kas var, nepakļaujoties apzinātai gribas kontrolei, rast izlādi darbībā. (..) Afekta dezorganizējošā loma var parādīties motorikā - kā motorā aspekta dezorganizācija, kas ietver afekta stāvokļus, kuros notiek piespiedu, organiski determinētas reakcijas" (Rubinšteins, 1940).



Terminoloģija

- Tomēr lietvārds "afekts" (latīņu affectus) darināts no latīņu valodas darbības vārda "afficiō", kas nozīmē "ietekmēt, iekustināt, kustināt vai vājināt", kā norādīts visplašākajā Latīņu pamatu vārdnīcā (Latin Core Vocabulary) (Francese, Christopher, 2014) un "affectus" tuvākais tulkojums latviešu valodā ir "ietekme".
- "Vārdam "affect" ir daudz plašāka nozīme, nekā definēts dažās publikācijās latviešu valodā. (..) Zinātniskos tekstos, lai nodrošinātu nepārprotamību, vēlams ņemt vērā šīs jēdzieniskās atšķirības." (Putniņš, Raščevska, 2016).



1



3



6



4



2



5



7

Heliotype



1.



Heliotype 2

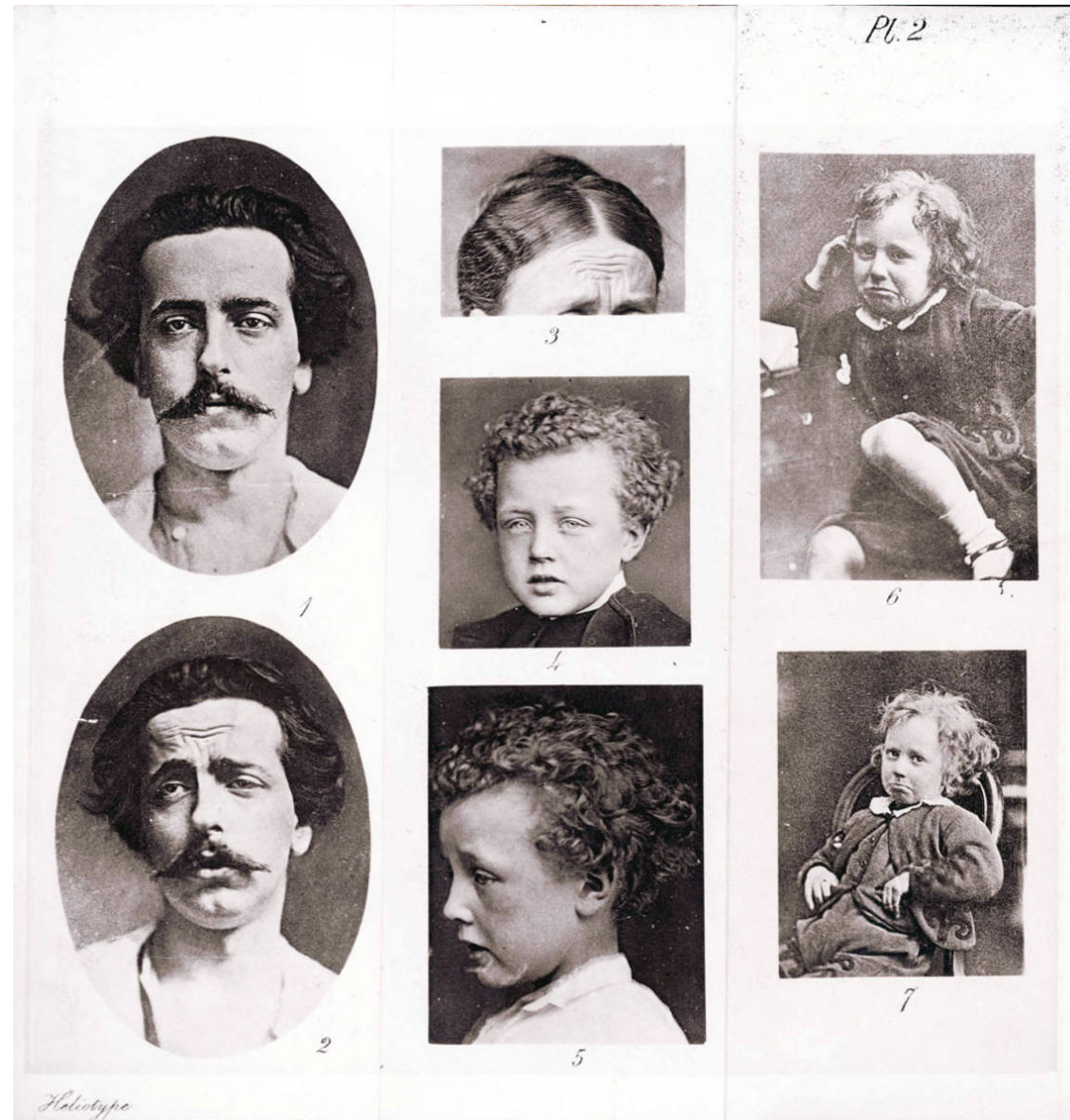
THE
EXPRESSION OF THE EMOTIONS
IN
MAN AND ANIMALS.

By CHARLES DARWIN, M.A., F.R.S., &c.

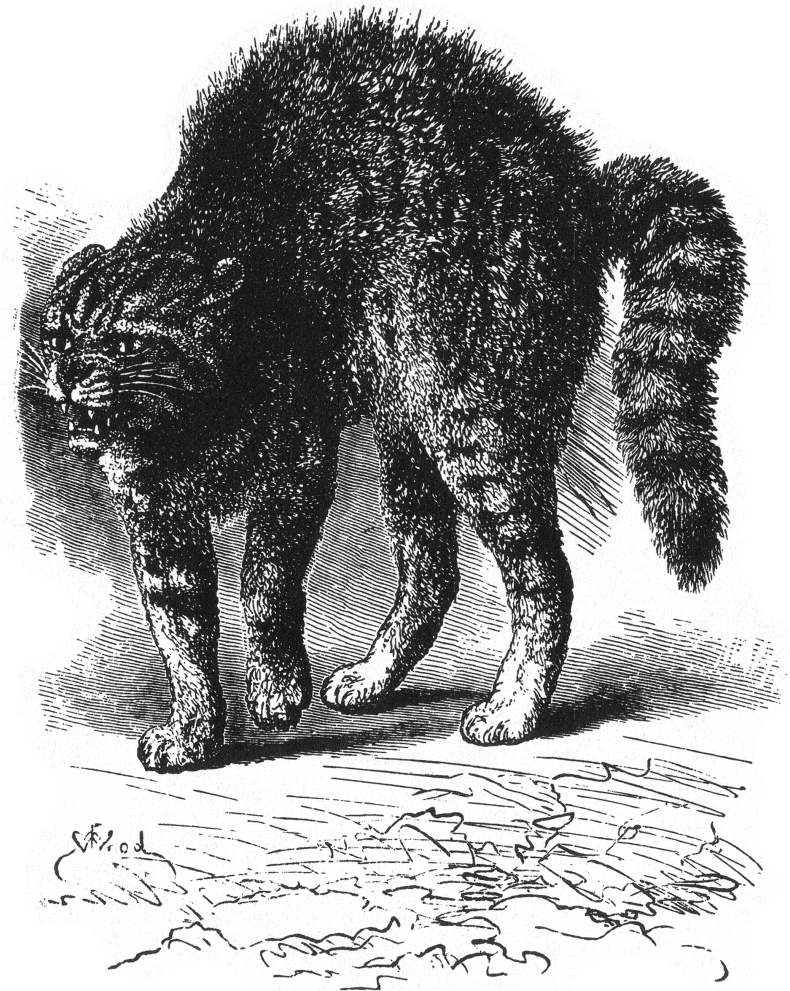
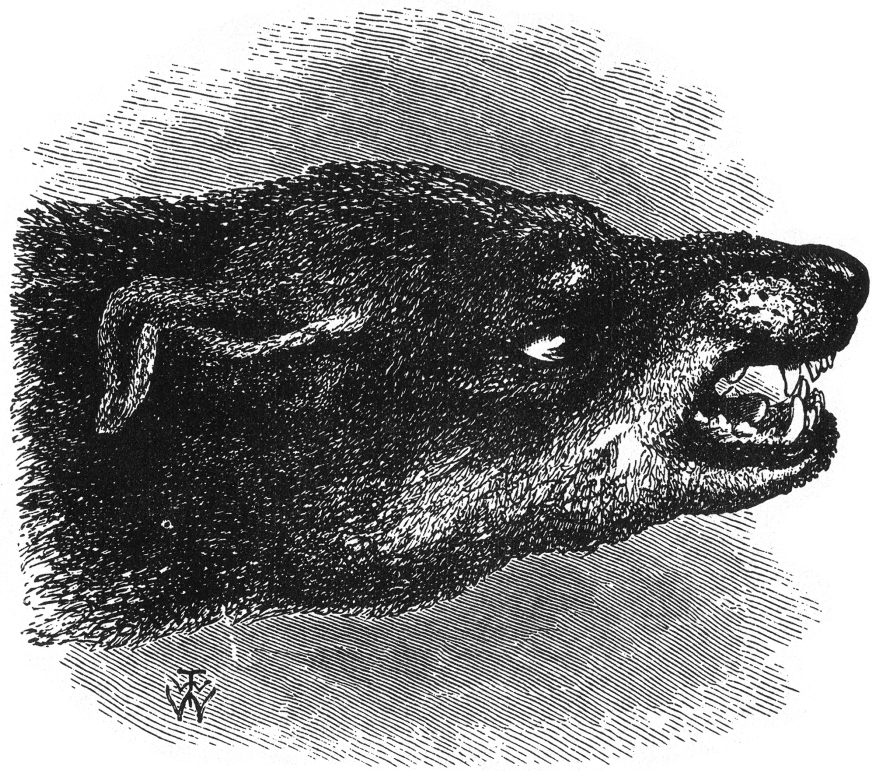
WITH PHOTOGRAPHIC AND OTHER ILLUSTRATIONS.

LONDON:
JOHN MURRAY, ALBEMARLE STREET.
1872.

The right of Translation is reserved.



Darwin, 1872





Ekman, 1971



“Inside out”

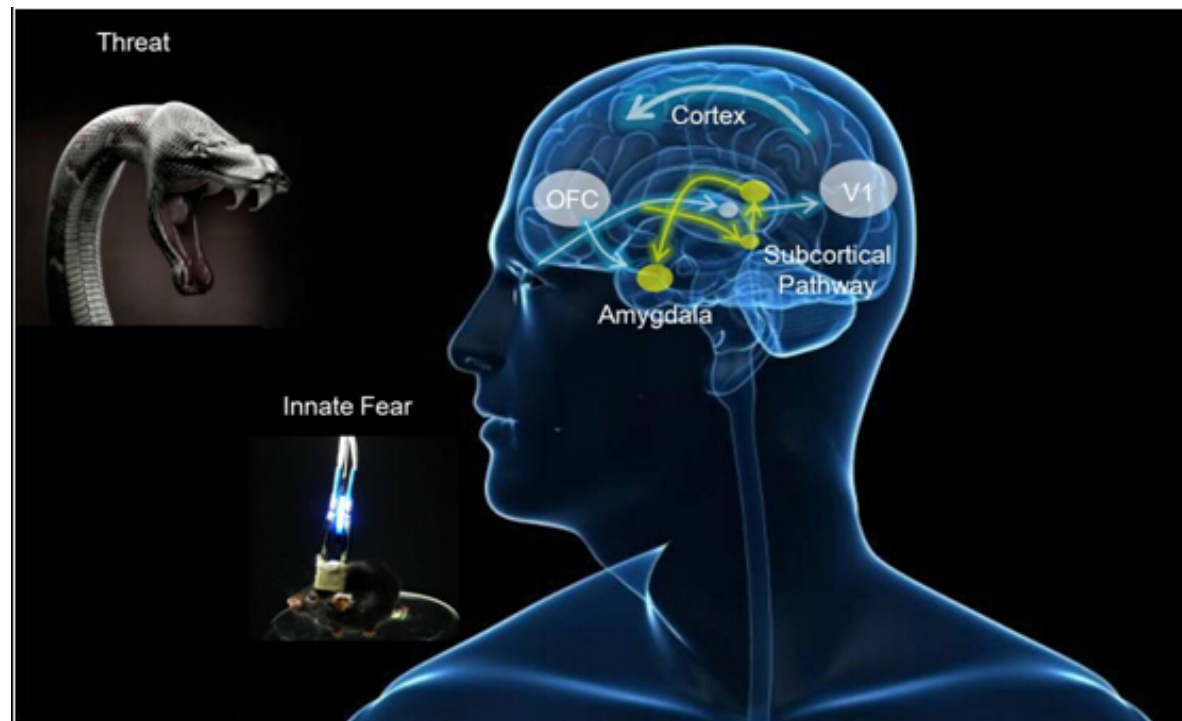
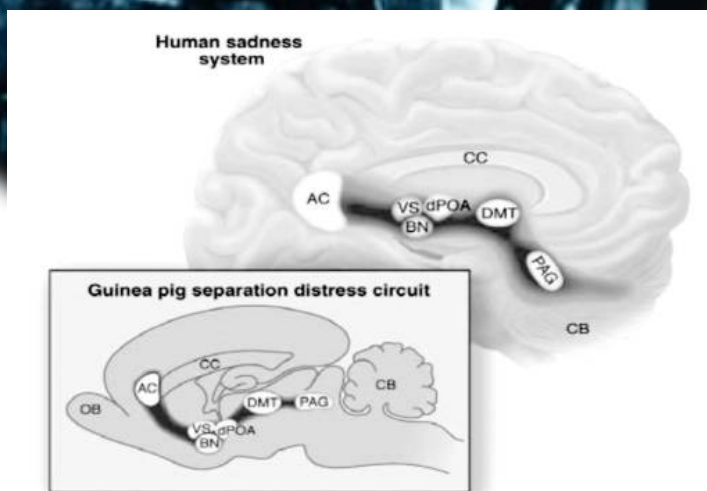
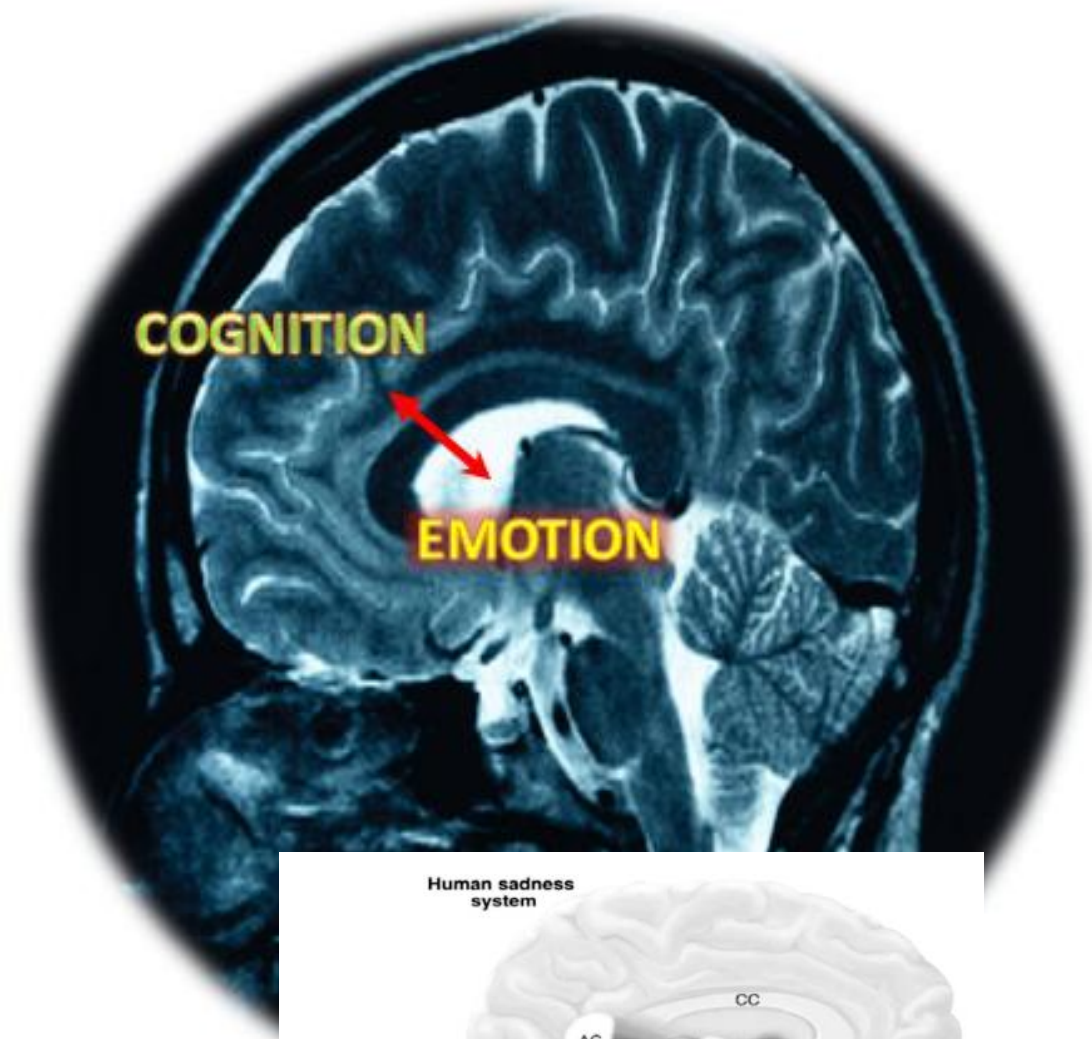
Himba



Himba iedzīvotāji smaidošas sejas kategorizēja kā "smejošas", savukārt, plaši ieplestas acis sejā nevis kā bailes, bet "skatoša seja".

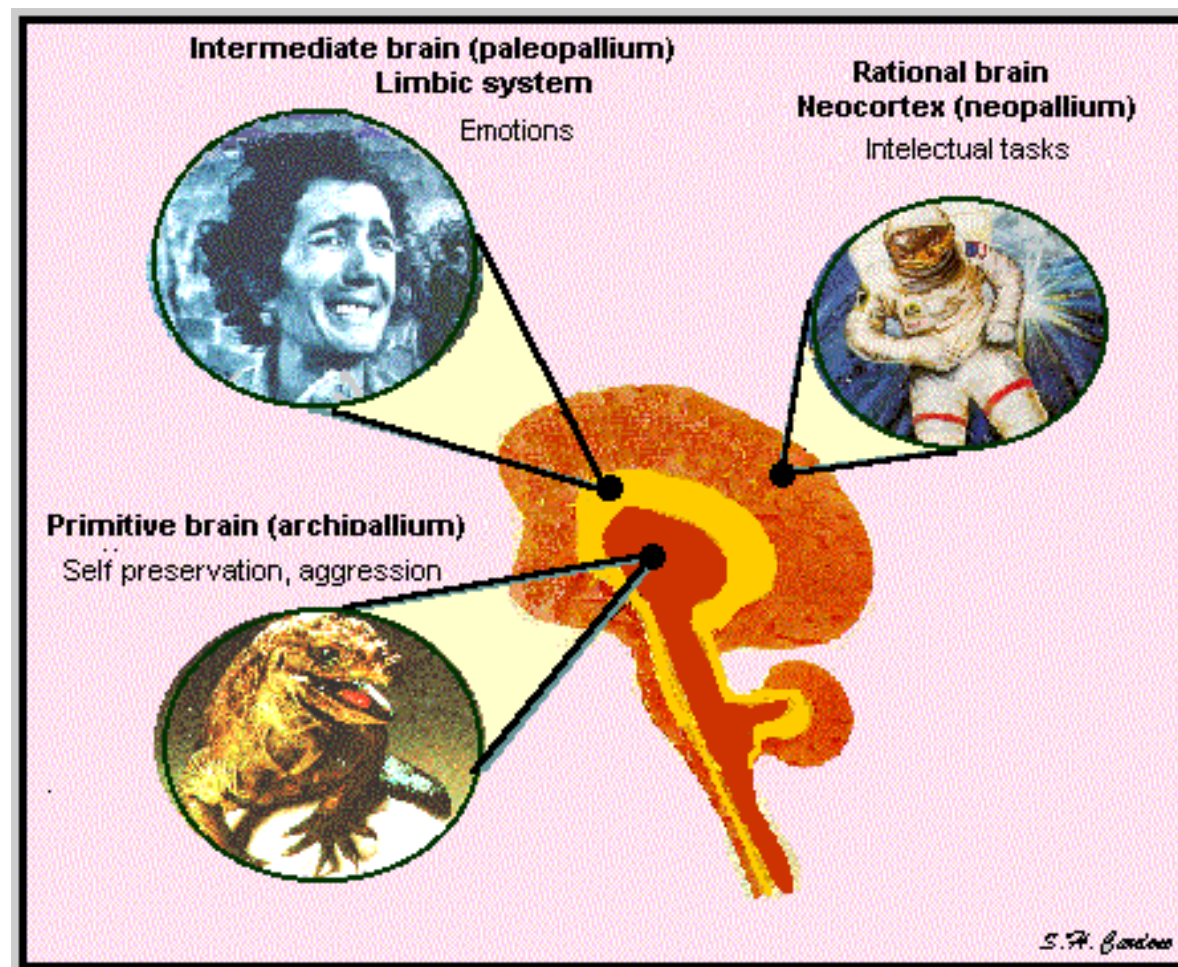
Citu kultūru pārstāvji izmanto citu sejas izteiksmju kategorizāciju jeb konceptualizāciju.

Bēgt vai uzbrukt (piem. Panksepp & Watt, 2011)

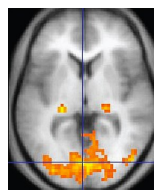
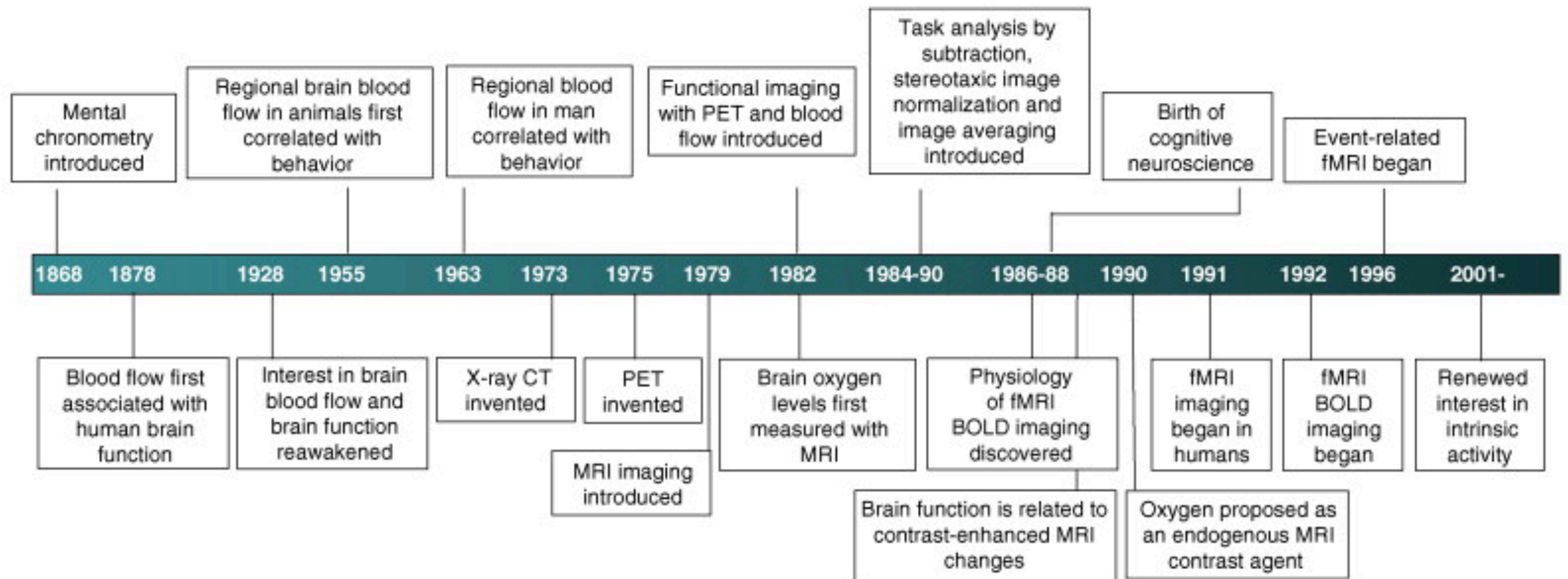


Emociju teoriju vēsture

- Teorijas par emociju lokiem (Papez, 1937) vēlākām teorijām par smadzeņu limbisko sistēmu (Paul MacLean, 1949) sekmējušas daudzu gadu desmitu uzskatus par specifiskiem emociju mehānismiem (Papez, 1937), īpaši nodalītām emociju un domāšanas sistēmām cilvēka centrālajā nervu sistēmā.

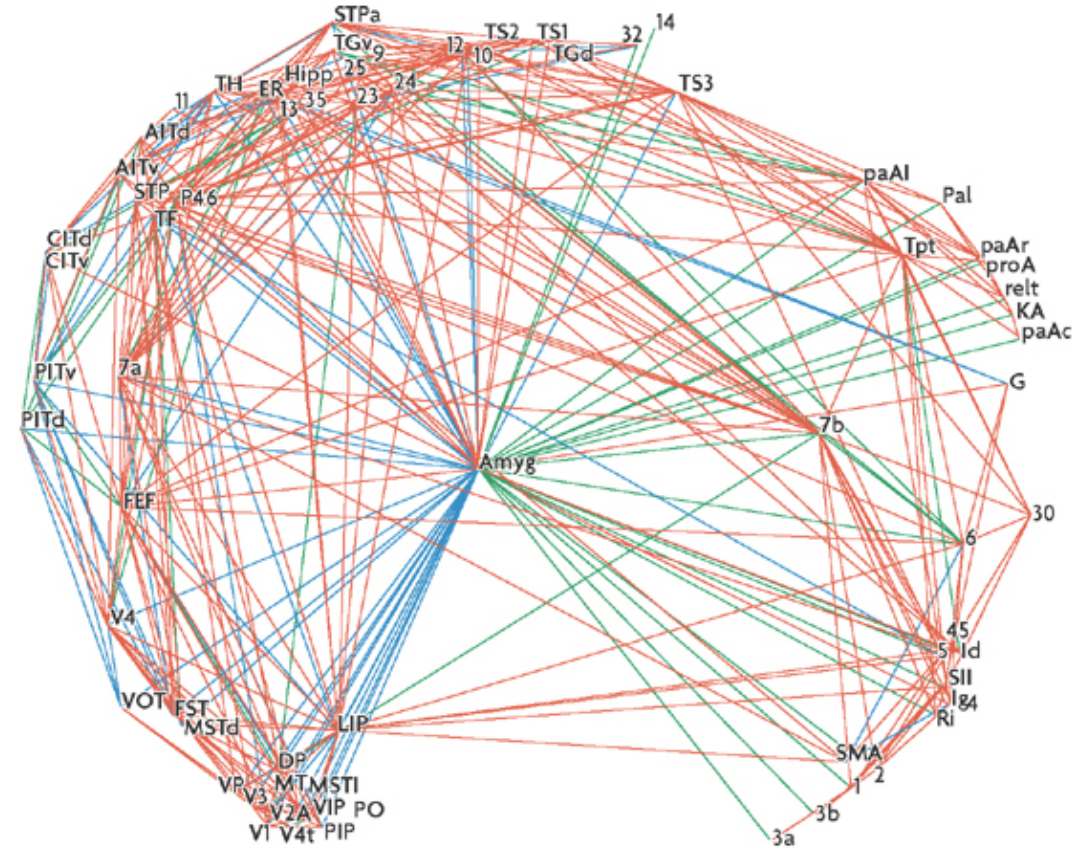


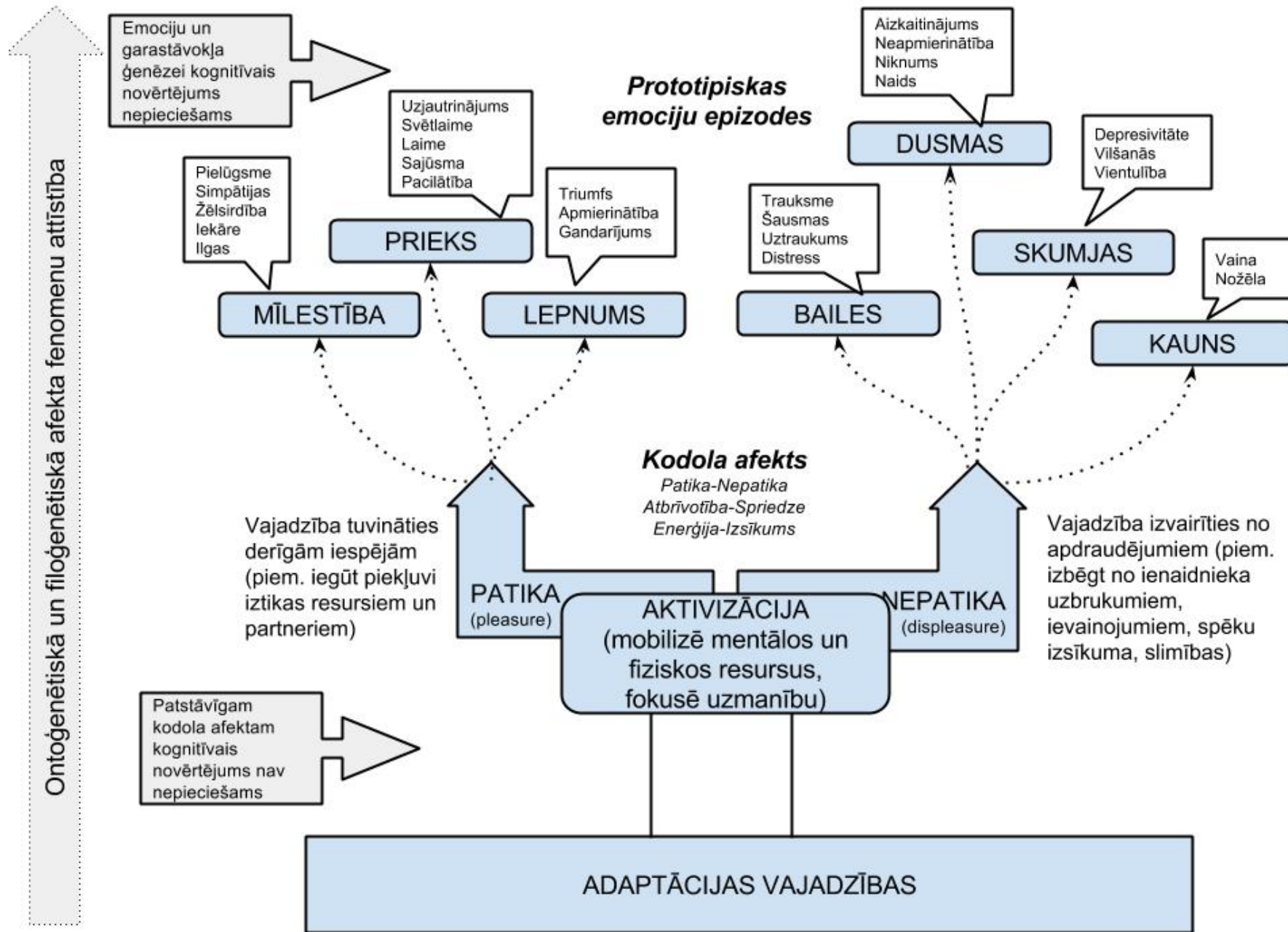
A chronology of human brain imaging with PET and fMRI



Apziņa un afekts

- Pētot, vai pastāv saikne starp afektu un apziņu, identificēta liela smadzeņu reģionu darbības pārklāšanās, lai arī pastāv konceptuāls nošķīrums starp emociju jušanu un sevis pieredzi (Tsuchiya & Adolphs, 2007).
- Pārklājums afektīvos un apziņas procesos novērojams mediālā frontālā korteksā, posteriorā cingulārā korteksā, kas vienlaikus, kā agrāk norādīts, ir svarīgi apziņas uzturēšanai.

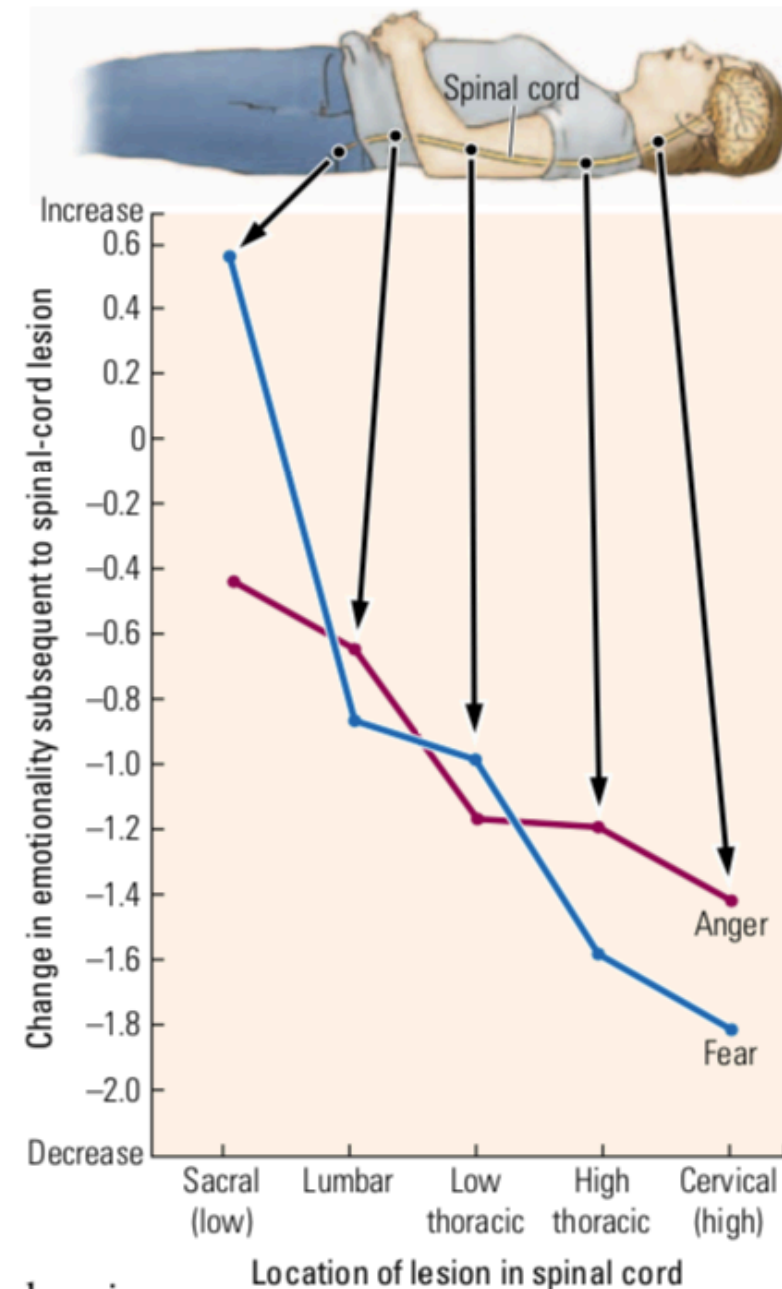




Afekta fenomenu hierarhiskā struktūra, adaptēta no Ekkekakis, 2013 (Nesse, 2004; Shaver et al., 1987; Schimmack & Crites, 2005; Ekkekakis, 2013, lpp. 70-71).

Emociju teorijas

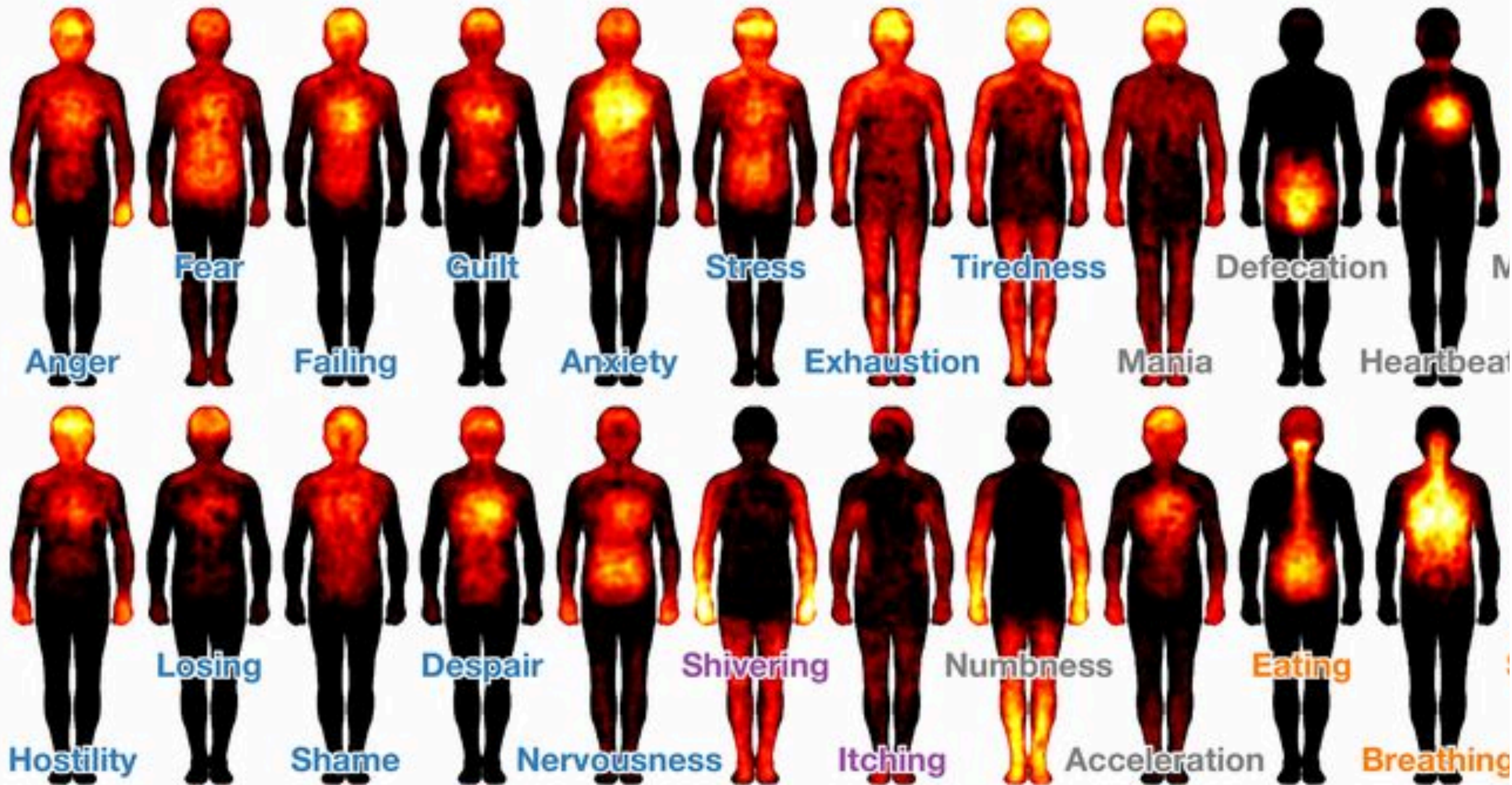
- Emociju procesi iesaista tās neirālās struktūras, kas reprezentē ķermeņa stāvokļus un tās struktūras, kas savieno eksternālo stimulu uztveri ar ķermeņa stāvokļiem (Damasio, 2010).
- Smadzeņu anatomiskie un funkcionālie pētījumi norāda uz paralēliem apstrādes procesiem, proti, vienlaicīgiem, savstarpēji saistītiem afekta un kognīcijas procesiem (Pessoa, 2015).
- Afekta un kognīcijas sistēmas nav pat vāji modulāras - emocijas un kognīcija nav atdalītas, jo afekta smadzeņu reģioni piedalās kognīcijā un kognitīvie smadzeņu reģioni piedalās emociju ģenēzē (Pessoa, 2008).

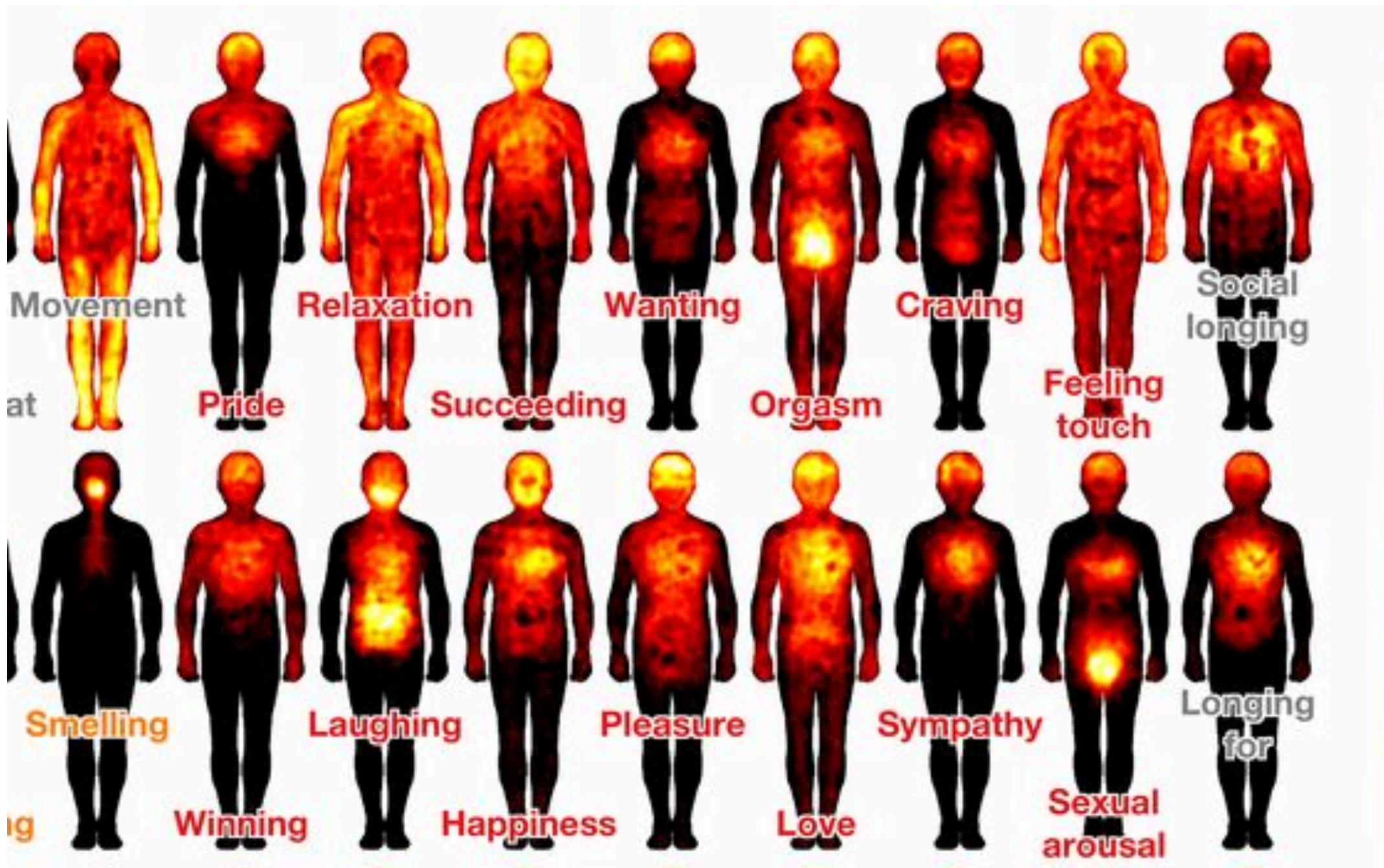


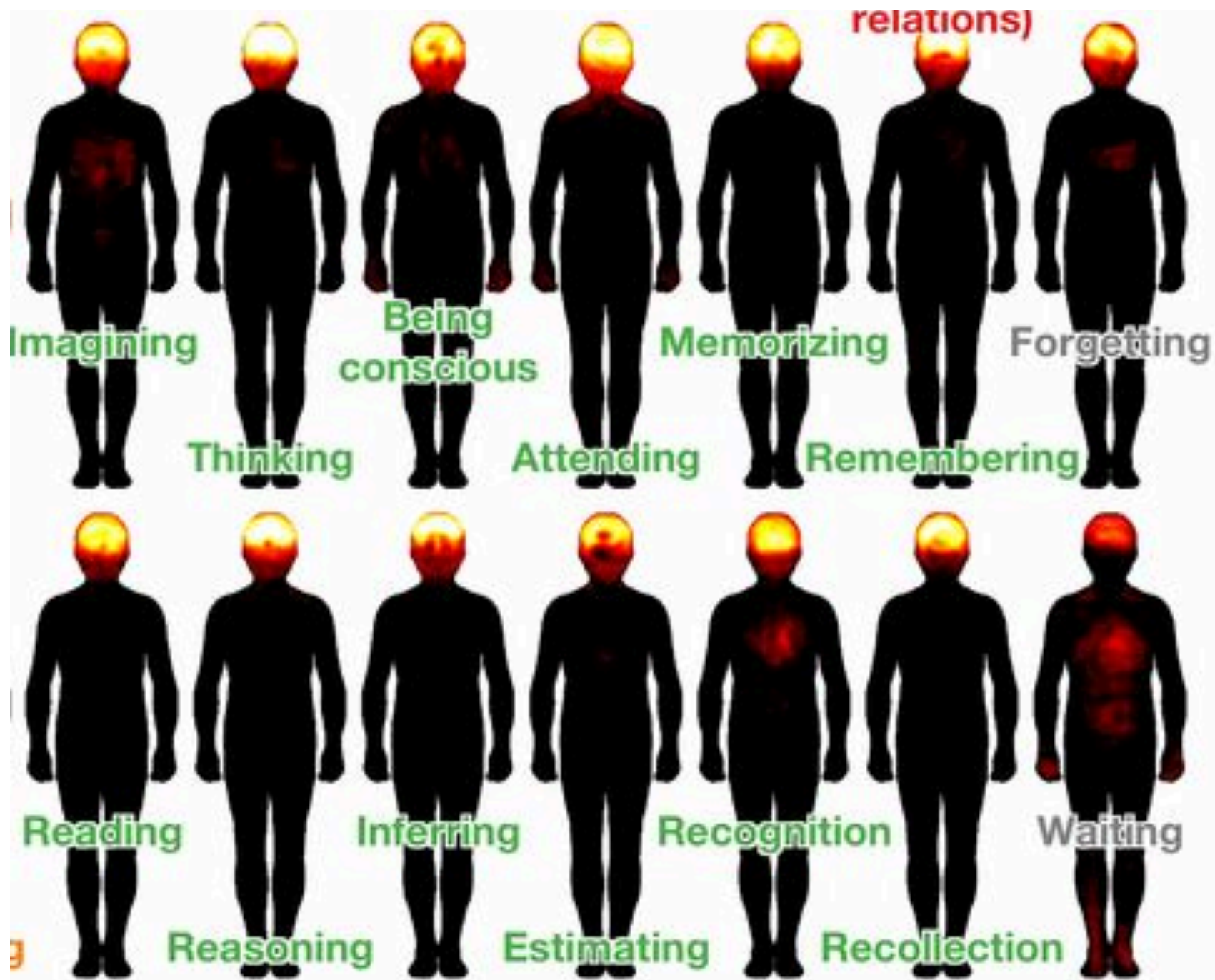
Cilvēka sajūtu telpa



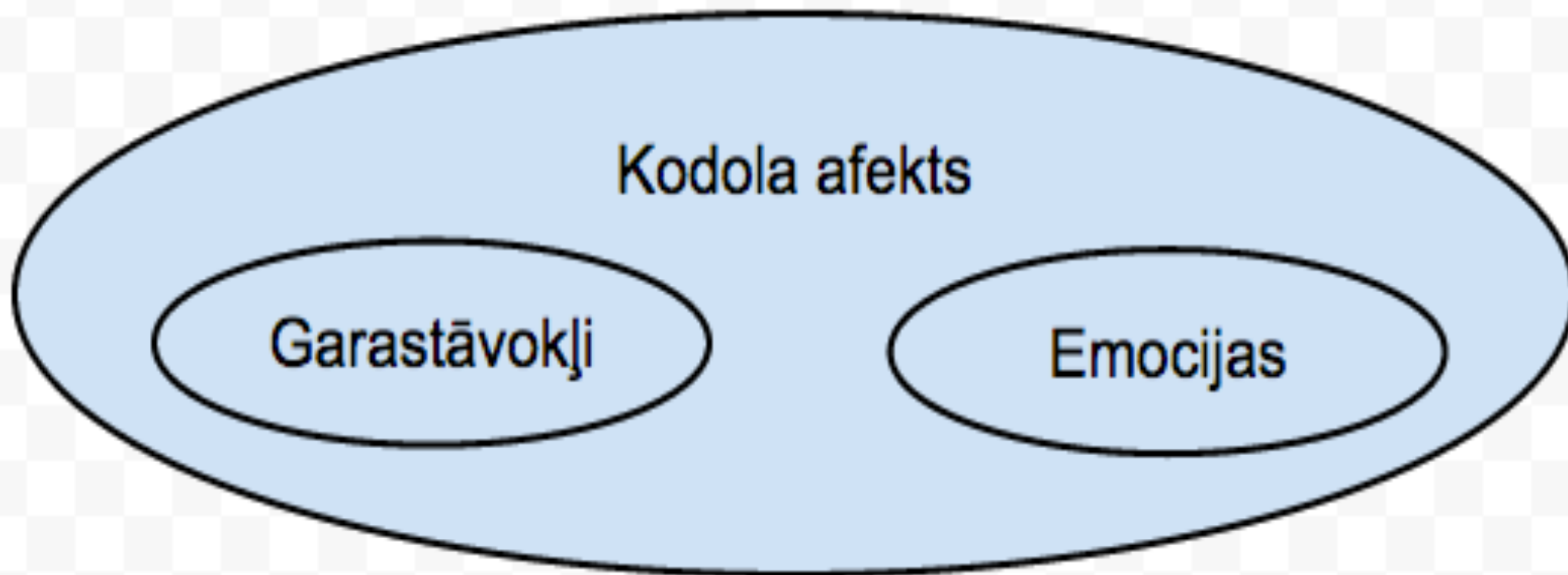
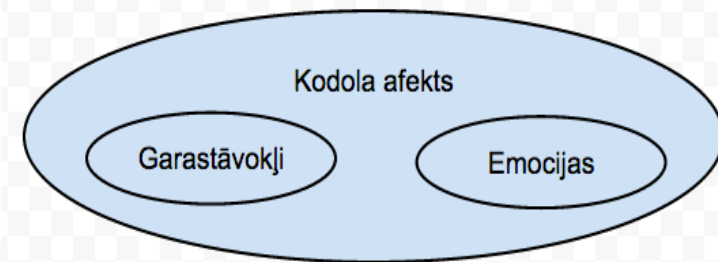
Sajūtas var iedalīt 5 grupās: pozitīvās, negatīvās emocijas, kognitīvie procesi, somatiskie stāvokļi, homeostāzes stāvokļi.







Nošķīrums



Veids, piemēram, depresijas gadījumā nemāksa, aiztums, nesociālais...

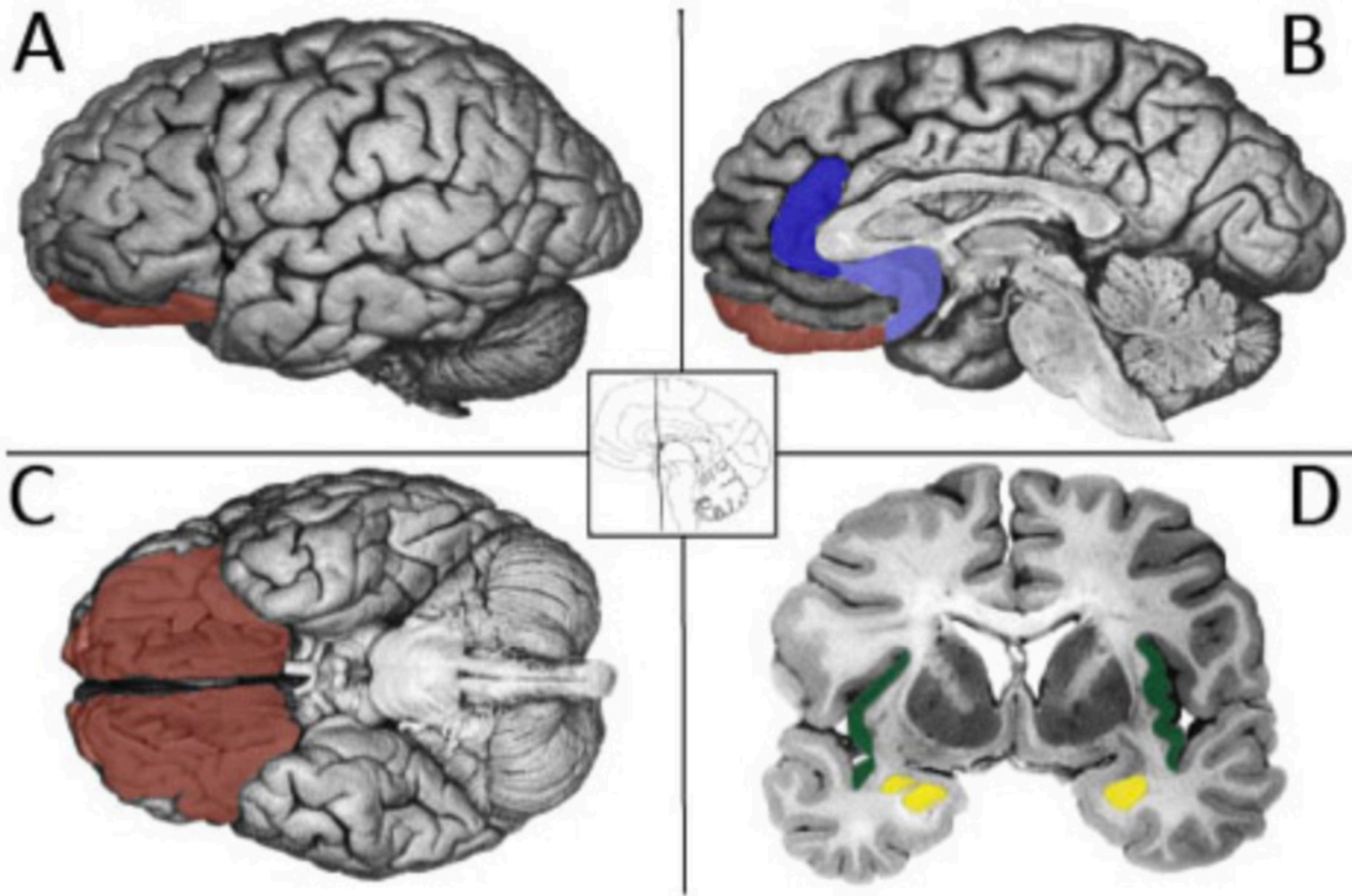
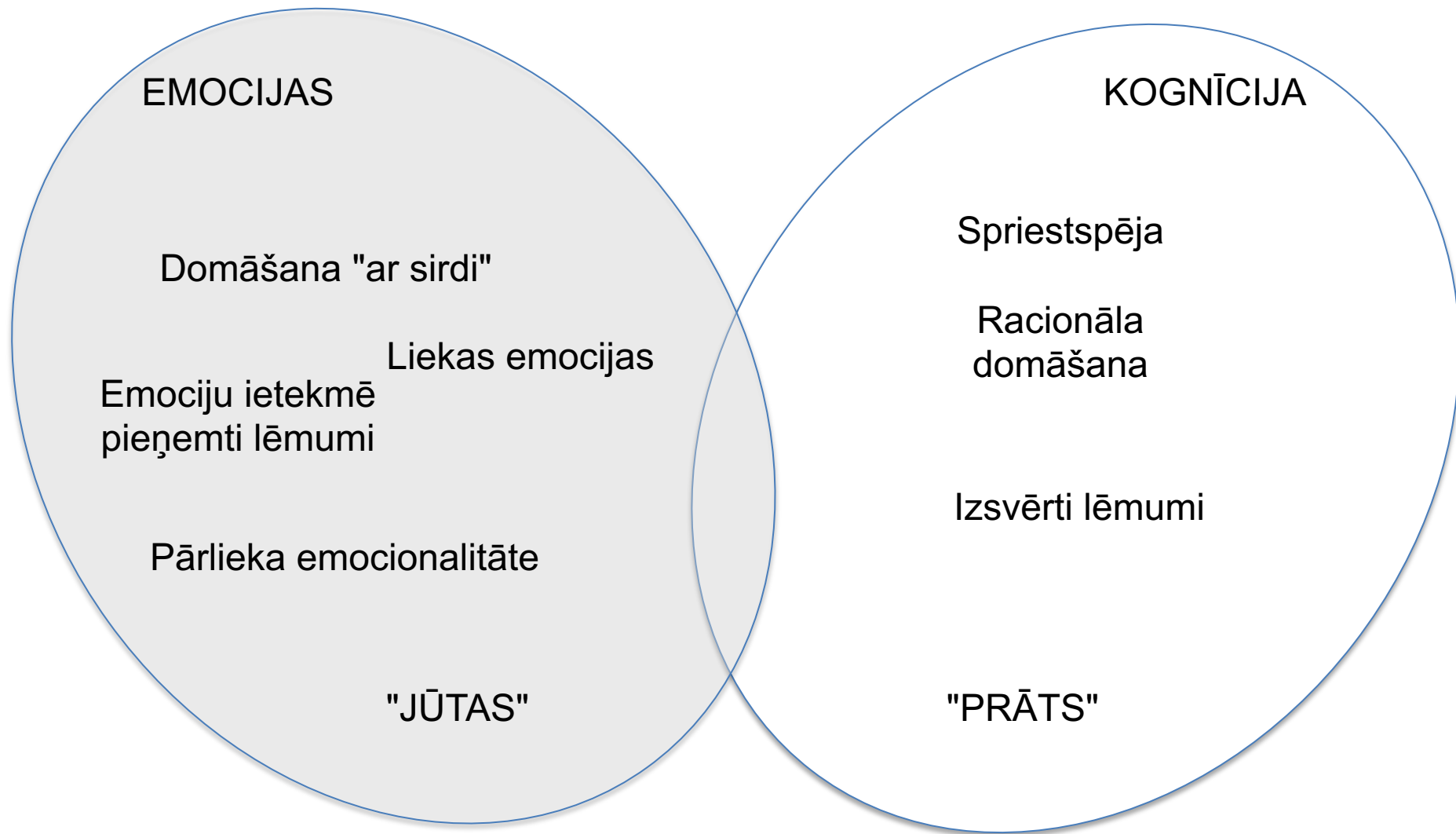


Figure 1. Locationist Hypotheses of Brain-Emotion Correspondence

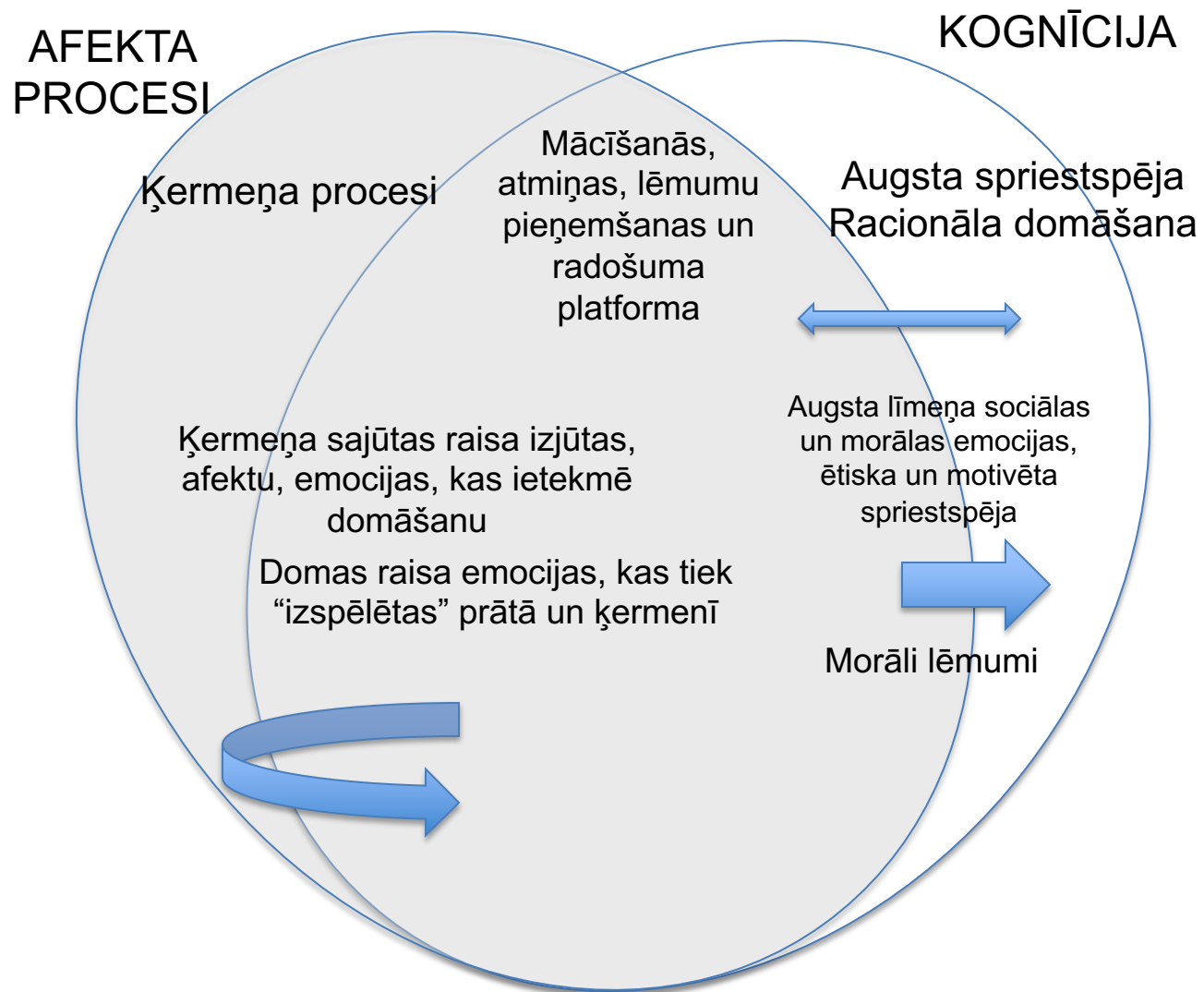
A: Lateral view. B: Sagittal view at the midline. C: Ventral view. D: Coronal view.

Brain regions hypothesized to be associated with emotion categories are depicted. Here we depict the most popular locationist hypotheses, although other locationist hypotheses of brain-emotion correspondence exist (e.g., Panksepp, 1998).

Fear: amygdala (yellow); *Disgust*: insula (green); *Anger*: OFC (rust); *Sadness*: ACC (blue)

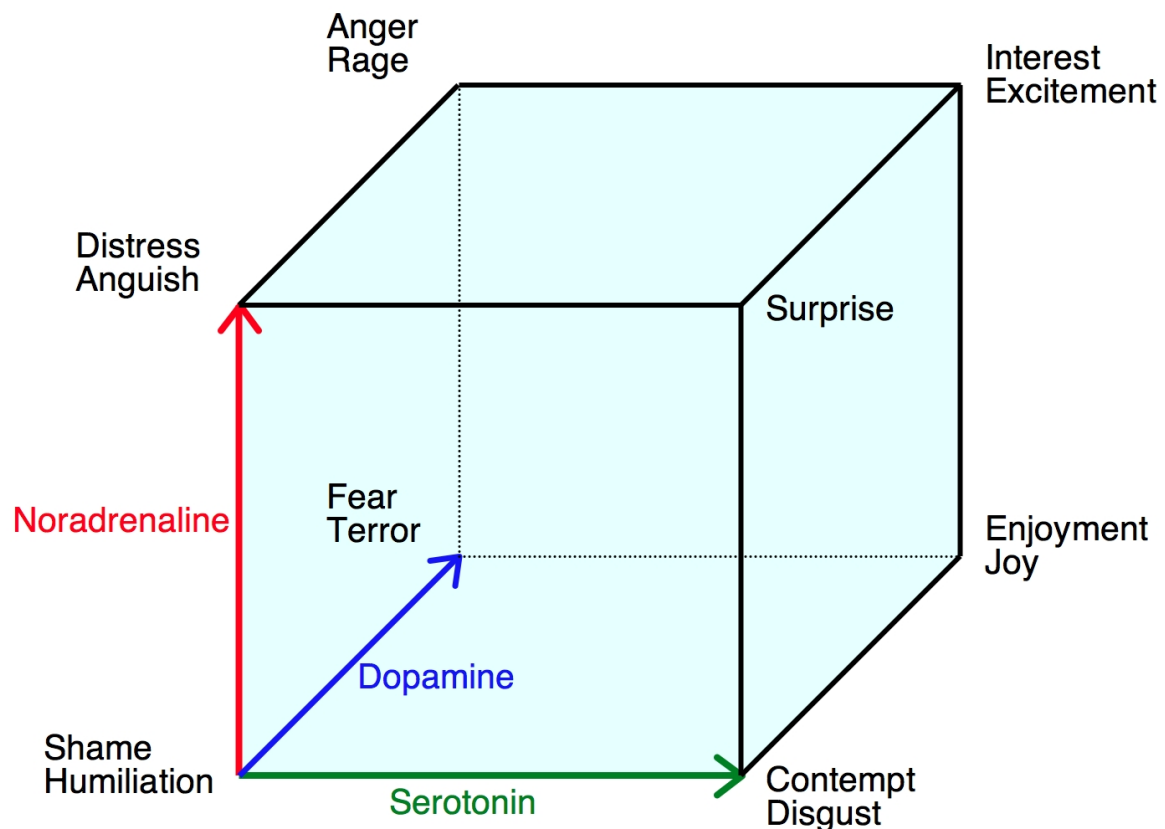


AFEKTĪVA KOGNĪCIJA



Immordino-Yang, Damasio, 2007

Emociju teoriju vēsture



| Basic emotion | Serotonin | Dopamine | Noradrenaline |
|---------------------|-----------|----------|---------------|
| Shame/humiliation | Low | Low | Low |
| Distress/anguish | Low | Low | High |
| Fear/terror | Low | High | Low |
| Anger/rage | Low | High | High |
| Contempt/disgust | High | Low | Low |
| Surprise | High | Low | High |
| Enjoyment/Joy | High | High | Low |
| Interest/excitement | High | High | High |

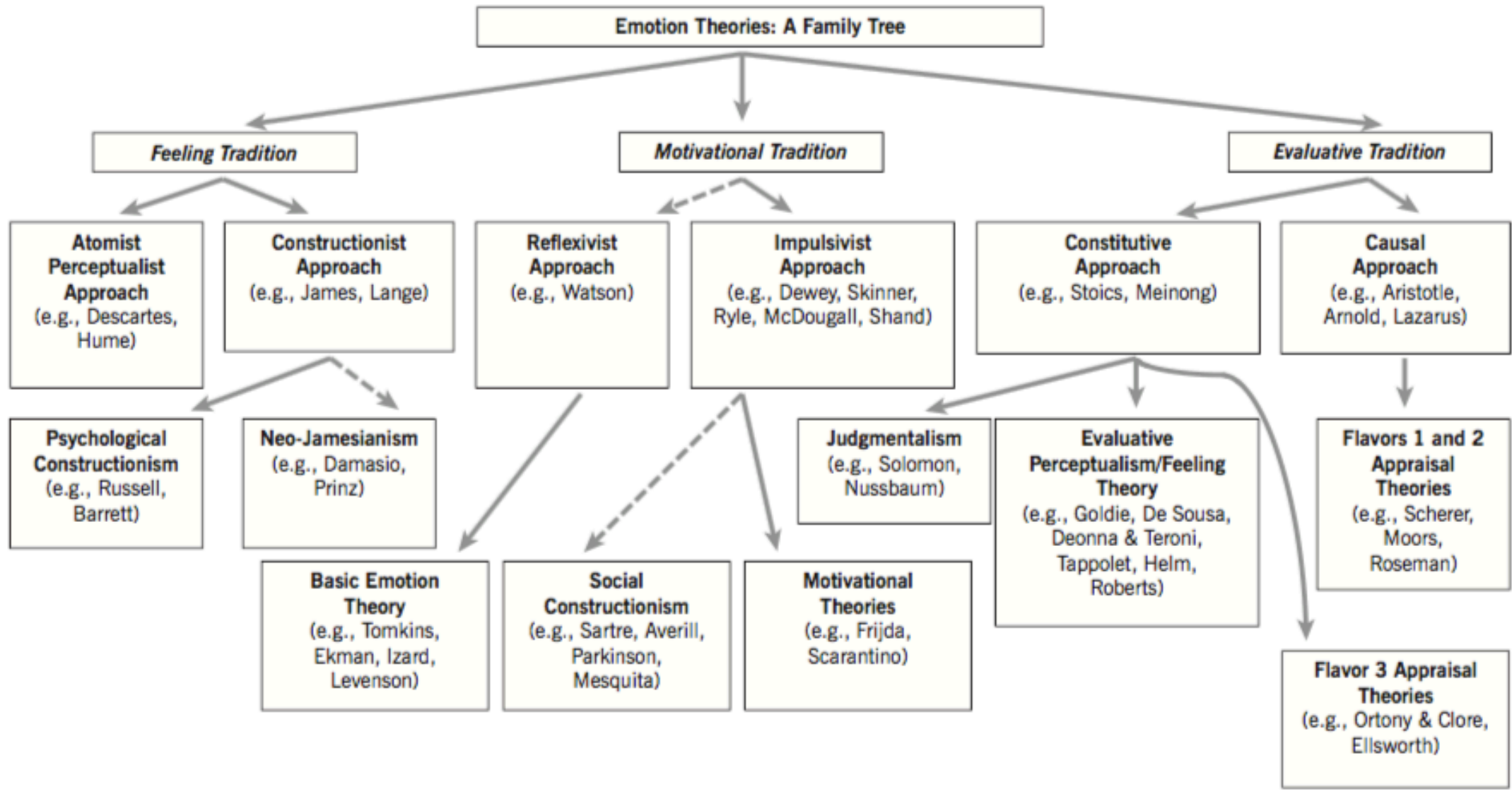


FIGURE 1.1. A family tree for theories of emotions. Dashed lines are meant to signal more tenuous connections among traditions, approaches, and research programs than solid lines.

Surface Similarity

LOW | Situated Variation

Strong Similarity | HIGH

Deep Similarity

Stable Mechanism | HIGH

Stable Function

Situated Variation

LOW |

Behavioral Ecology View;
Theory of Constructed Emotion

Descriptive Appraisal Views

Barrett et al., 2019

Ekman, Papez

Basic Emotion View
(Revised)

Basic Emotion View
(Original); Discrete
Emotion View

Componential Process View

Frijda

Ekkekakis

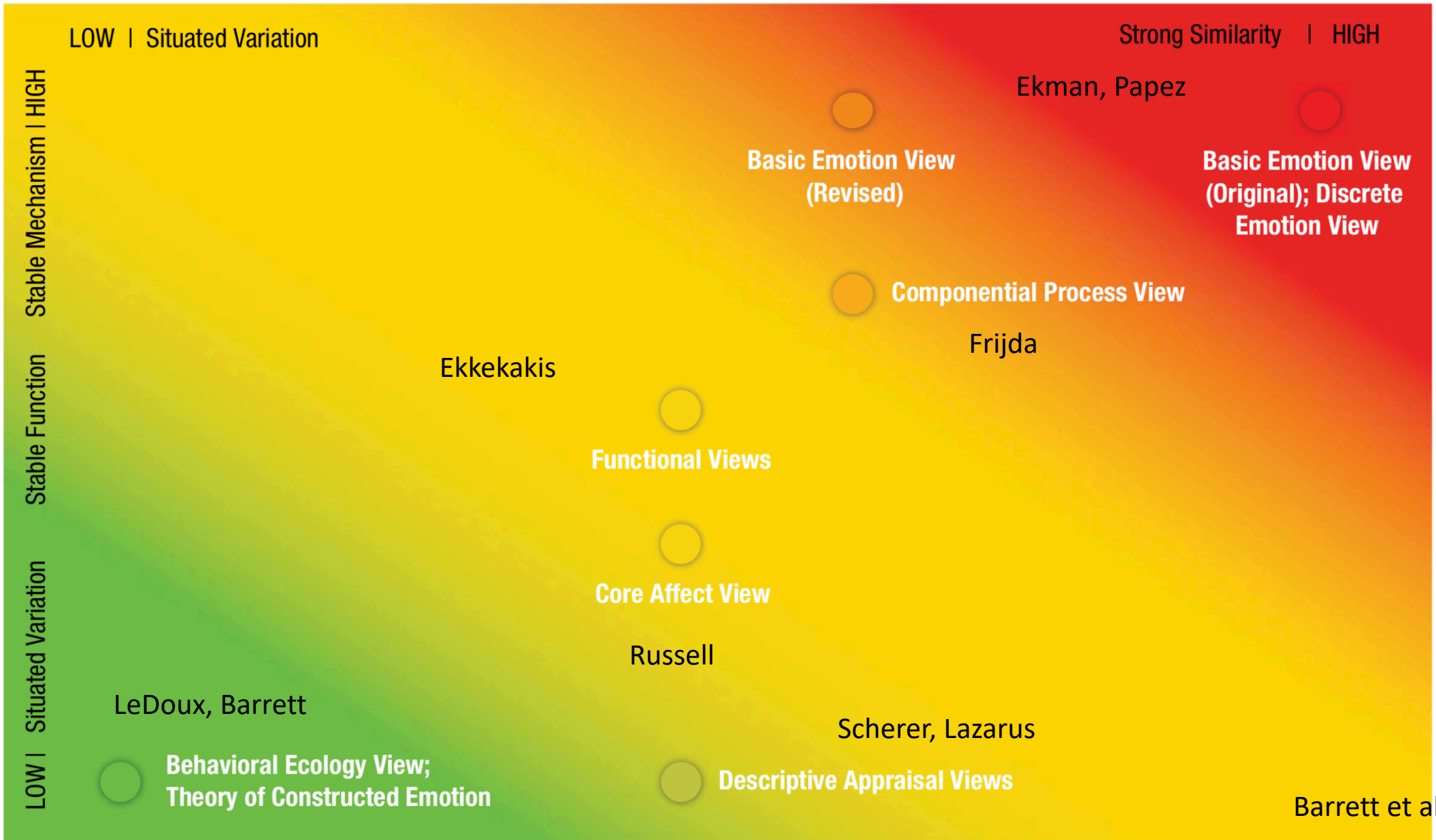
Functional Views

Core Affect View

Russell

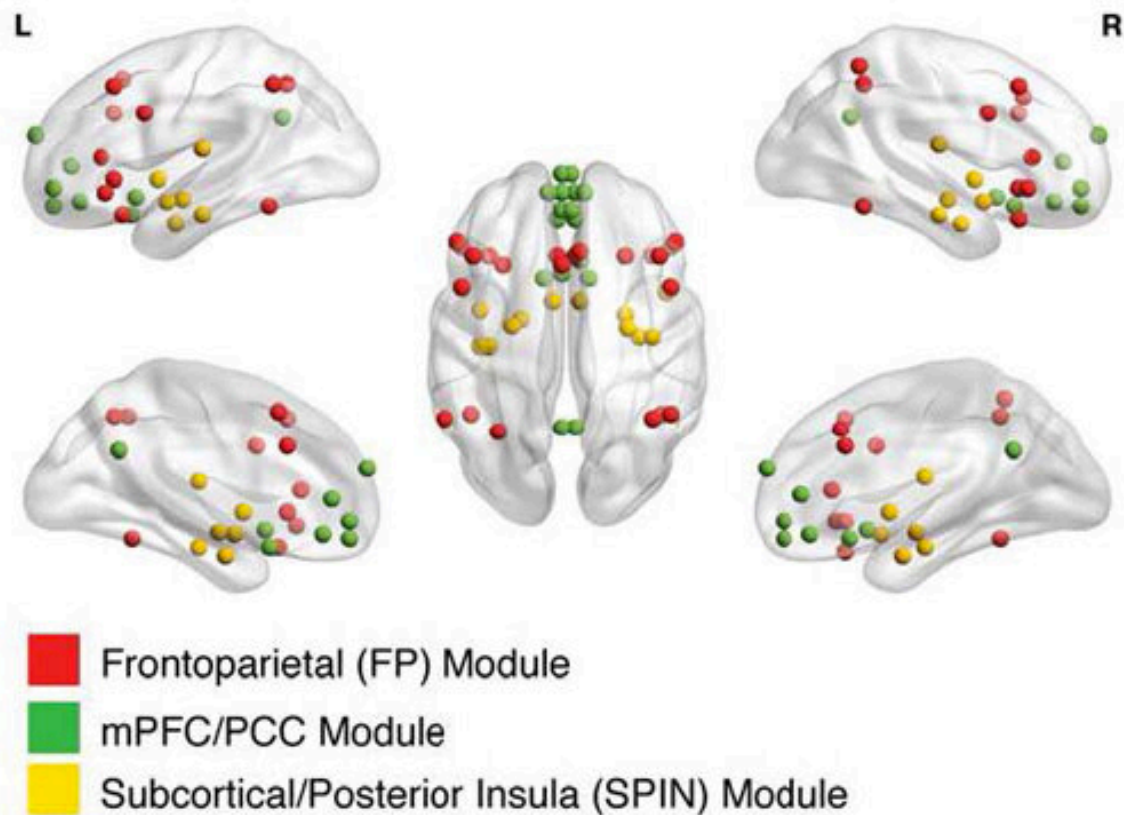
LeDoux, Barrett

Scherer, Lazarus



Anatomiskie un funkcionālie pētījumi

- Smadzeņu anatomiskie un funkcionālie pētījumi norāda uz paralēliem apstrādes procesiem, proti, vienlaicīgiem, savstarpēji saistītiem afekta un kognīcijas procesiem (Pessoa, 2008).
- Afekta un kognīcijas sistēmas nav pat vāji modulāras - emocijas un kognīcija nav atdalītas, jo afekta smadzeņu reģioni piedalās kognīcijā un kognitīvie smadzeņu reģioni piedalās emociju ģenēzē (Pessoa, 2008).
- Trūkst pierādījumu emociju centriem smadzeņu struktūrās, drīzāk dati liek domāt, ka emocionālo procesu laikā aktivizējas vienas un tās pašas smadzeņu struktūras (Lindquist et al., 2012).
- Nav neviena konkrēta neirona, kas specializētos afekta procesu nodrošināšanā.



N=1445

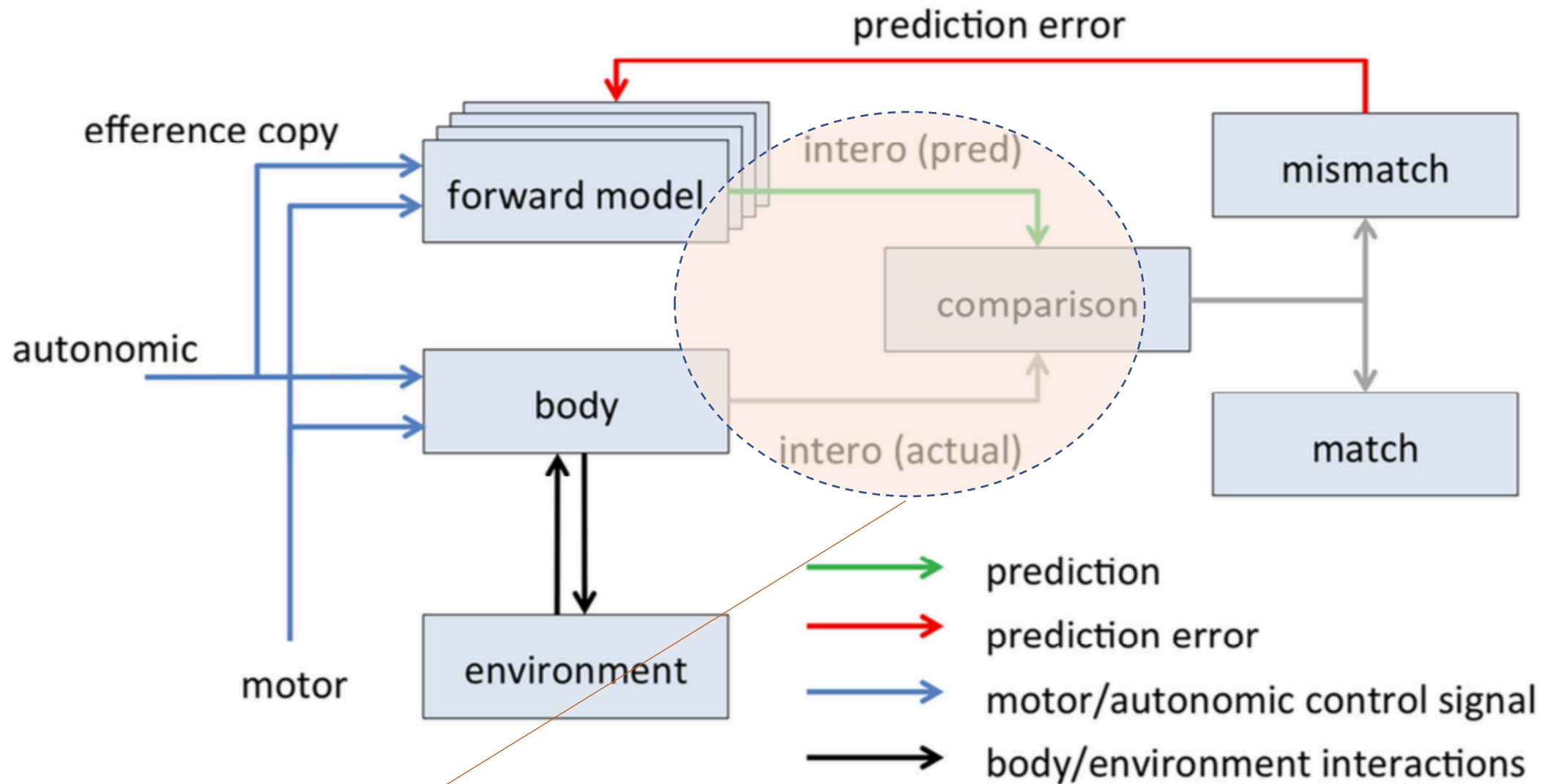
No 8-21 gadu vecumam

Robusti neirālie loki, kas iesaistīti tā kognitīvo, tā emocionālo procesu nodrošināšanā.

Nav pierādījumu “emociju centriem” vai lokalizētiem afektu procesiem.

Interocepcija, alostāze un prognostiskā kodēšana

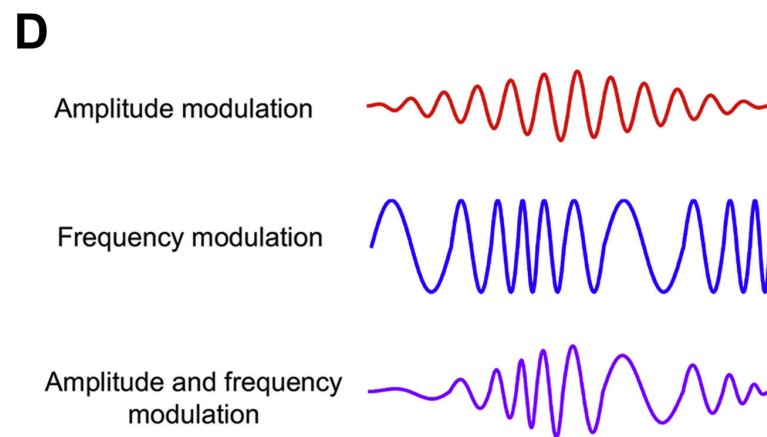
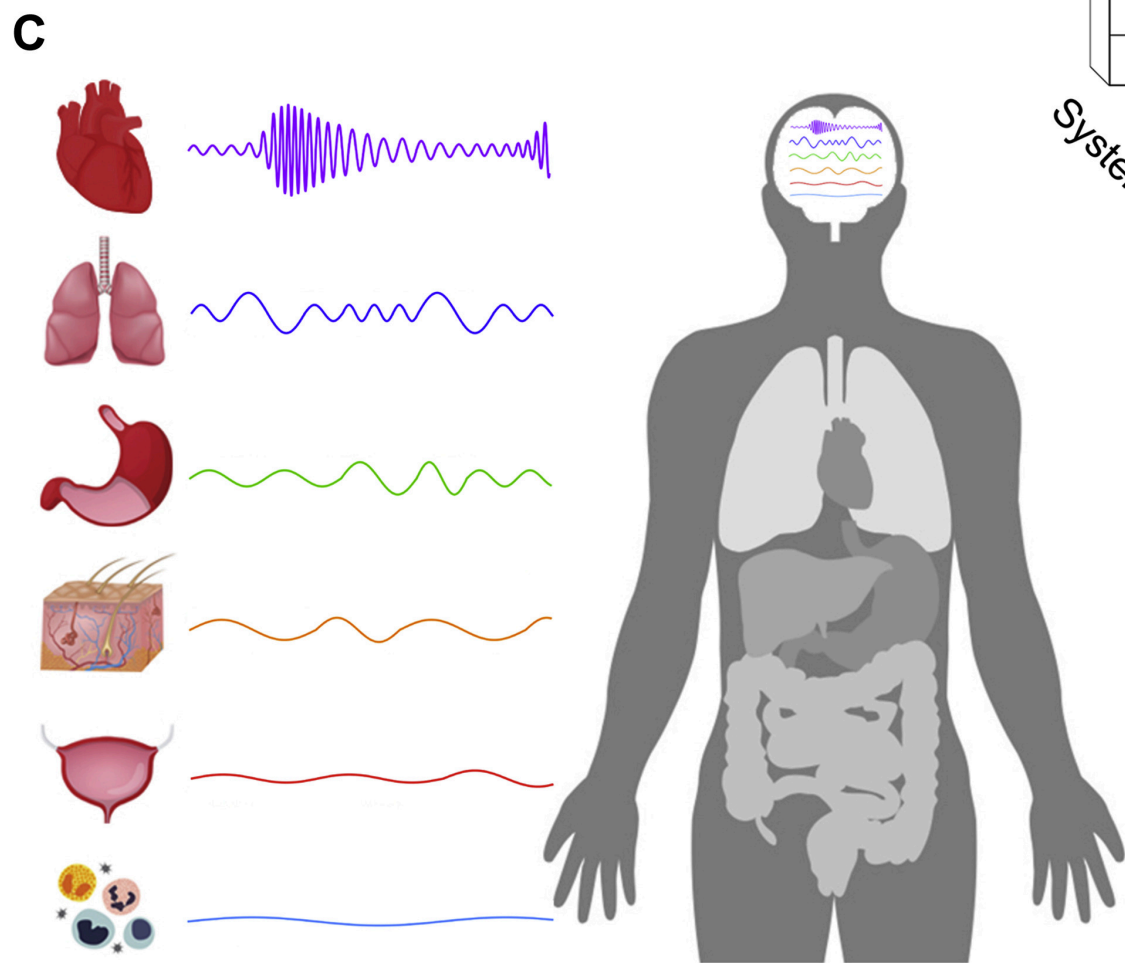
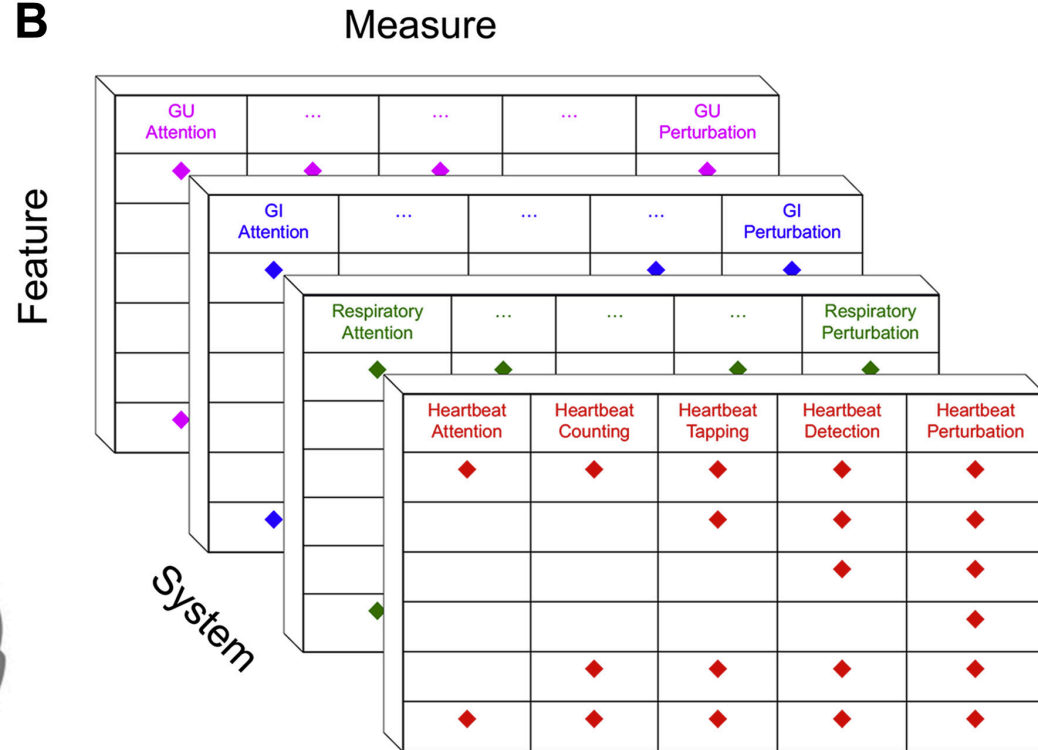
- Smadzeņu informācijas apstrādes arhitektūra nodrošina alostāzi – dinamisku procesu, ar kura palīdzību tiek proaktīvi regulēta kermēja enerģija (Sterling, 2011).
- Enerģijas regulēšanas procesā, prognozējot notiekošo un apstrādājot prognostiskās kļūdas, interocepcija nodrošina sajūtas, kas tiek izjustas kā zemākās afekta dimensijas (Barrett et al., 2016).
- Prognostiskā kodēšana ir teorētiskais ietvars, kas skaidro neirālos mehānismus uztveres, kognīcijas un darbības procesos (Rao and Ballard, 1999; Bubic et al., 2010; Friston, 2010).



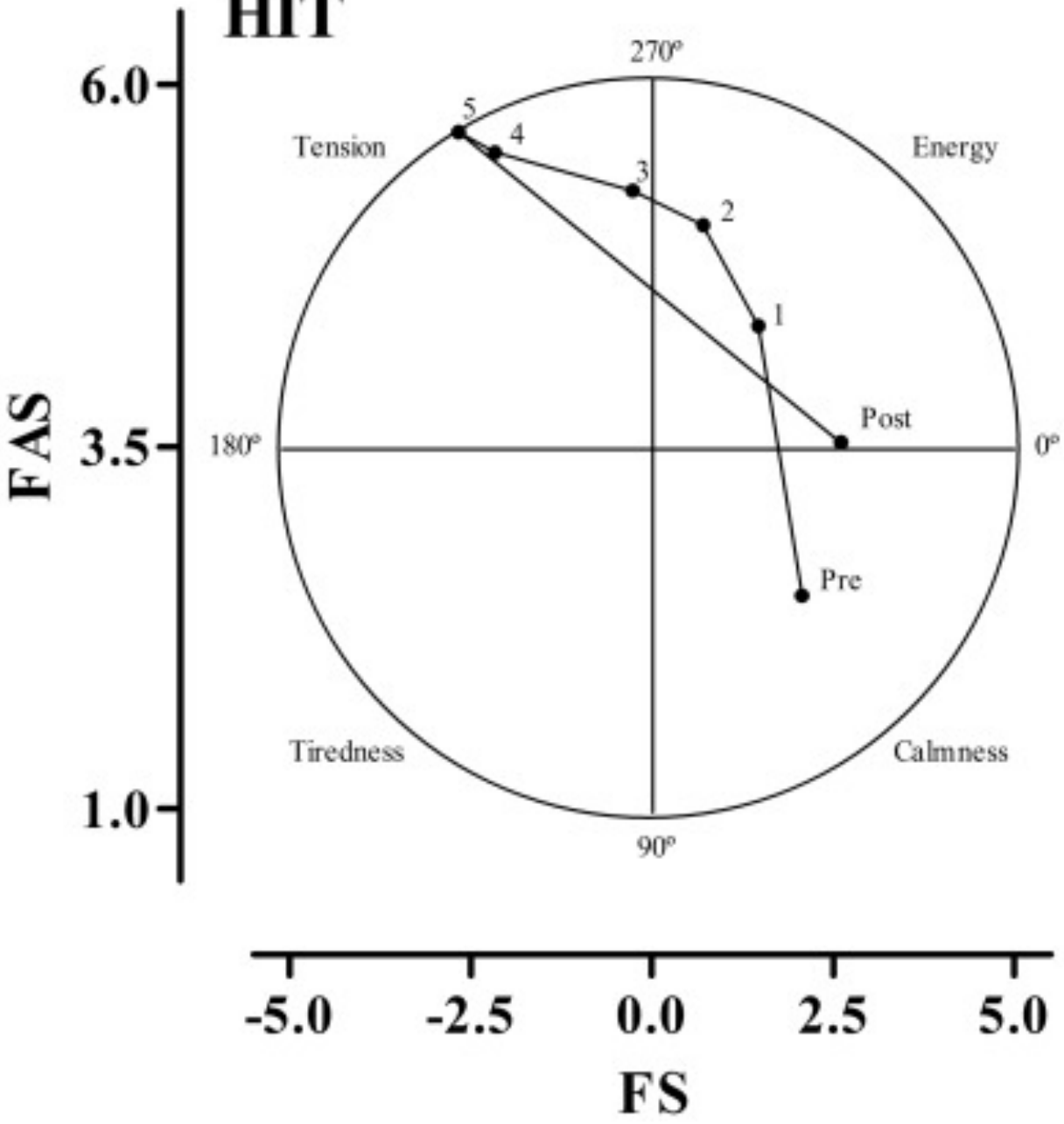
Interocepcija jeb afekts

A

| Feature | Heartbeat Attention | Heartbeat Counting | Heartbeat Tapping | Heartbeat Detection | Heartbeat Perturbation |
|----------------|---------------------|--------------------|-------------------|---------------------|------------------------|
| Attention | ◆ | ◆ | ◆ | ◆ | ◆ |
| Detection | | | ◆ | ◆ | ◆ |
| Discrimination | | | | ◆ | ◆ |
| Intensity | | | | | ◆ |
| Accuracy | | ◆ | ◆ | ◆ | ◆ |
| Self report | ◆ | ◆ | ◆ | ◆ | ◆ |



HIT



Emociju anatomiskais pamatojums

- Trūkst pierādījumu emociju centriem smadzeņu struktūrās; dati liek domāt, ka emocionālo procesu laikā aktivizējas vienas un tās pašas smadzeņu struktūras (Lindquist et al., 2012).



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The brain basis of emotion: A meta-analytic review

[Kristen A. Lindquist](#), [Tor D. Wager](#), [Hedy Kober](#), [Eliza Bliss-Moreau](#), and [Lisa Feldman Barrett](#)

Researchers have wondered how the brain creates emotions since the early days of psychological science. With a surge of studies in affective neuroscience in recent decades, scientists are poised to answer this question. In this article, we present a meta-analytic summary of the human neuroimaging literature on emotion. We compare the locationist approach (i.e., the hypothesis that discrete emotion categories consistently and specifically correspond to distinct brain regions) with the psychological constructionist approach (i.e., the hypothesis that discrete emotion categories are constructed of more general brain networks not specific to those categories) to better understand the brain basis of emotion. We review both locationist and psychological constructionist hypotheses of brain–emotion correspondence and report meta-analytic findings bearing on these hypotheses. Overall, we found little evidence that discrete emotion categories can be consistently and specifically localized to distinct brain regions. Instead, we found evidence that is consistent with a psychological constructionist approach to the mind: a set of interacting brain regions commonly involved in basic psychological operations of both an emotional and non-emotional nature are active during emotion experience and perception across a range of discrete emotion categories.

RESEARCH ARTICLE

A Bayesian Model of Category-Specific Emotional Brain Responses

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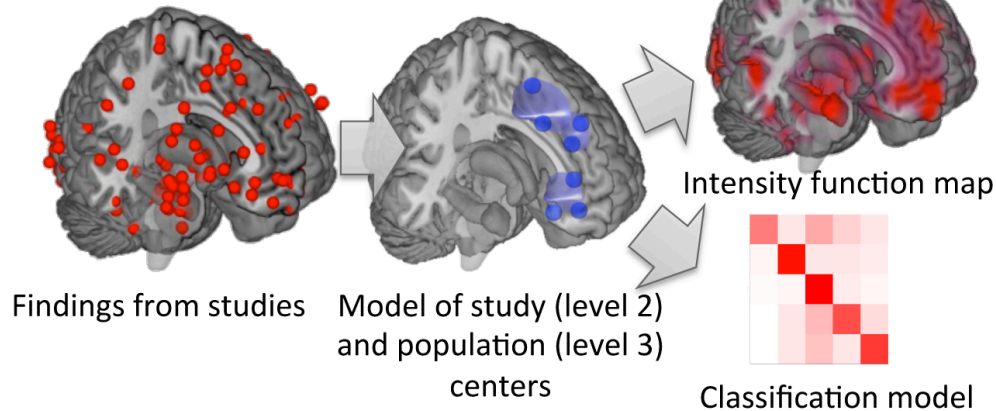
Citation: Wager TD, Kang J, Johnson TD, Nichols TE, Satpute AB, Barrett LF (2015) A Bayesian Model

Abstract

Understanding emotion is critical for a science of healthy and disordered brain function, but the neurophysiological basis of emotional experience is still poorly understood. We ana-

Understanding emotion is critical for a science of healthy and disordered brain function, but the neurophysiological basis of emotional experience is still poorly understood. We analyzed human brain activity patterns from 148 studies of emotion categories (2159 total participants) using a novel hierarchical Bayesian model. The model allowed us to classify which of five categories—fear, anger, disgust, sadness, or happiness—is engaged by a study with 66% accuracy (43-86% across categories). Analyses of the activity patterns encoded in the model revealed that each emotion category is associated with unique, prototypical patterns of activity across multiple brain systems including the cortex, thalamus, amygdala, and other structures. The results indicate that emotion categories are not contained within any one region or system, but are represented as configurations across multiple brain networks. The model provides a precise summary of the prototypical patterns for each emotion category, and demonstrates that a sufficient characterization of emotion categories relies on (a) differential patterns of involvement in neocortical systems that differ between humans and other species, and (b) distinctive patterns of cortical-subcortical interactions. Thus, these findings are incompatible with several contemporary theories of emotion, including those that emphasize emotion-dedicated brain systems and those that propose emotion is localized primarily in subcortical activity. They are consistent with componential and constructionist views, which propose that emotions are differentiated by a combination of perceptual, mnemonic, prospective, and motivational elements. Such brain-based models of emotion provide a foundation for new translational and clinical approaches.

A BAYESIAN SPATIAL POINT PROCESS MODEL



C ESTIMATED INTENSITY MAPS FOR FIVE EMOTION CATEGORIES



B CLASSIFICATION ACCURACY

| True class | Anger | Disgust | Fear | Happy | Sad |
|------------|-------|---------|------|-------|------|
| Anger | 0.43 | 0.07 | 0.28 | 0.15 | 0.08 |
| Disgust | 0.03 | 0.76 | 0.08 | 0.08 | 0.06 |
| Fear | 0.02 | 0.04 | 0.86 | 0.06 | 0.03 |
| Happy | 0.00 | 0.07 | 0.23 | 0.58 | 0.11 |
| Sad | 0.00 | 0.07 | 0.20 | 0.09 | 0.65 |

Classification based on brain

Rezultāti parāda, ka emociju kategorijas nav saistītas ar kādu konkrētu reģionu vai sistēmu, bet ir reprezentētas kā konfigurācijas daudzos galvas smadzeņu tīkļos (Wager et al., 2015).

Emotion Fingerprints or Emotion Populations? A Meta-Analytic Investigation of Autonomic Features of Emotion Categories

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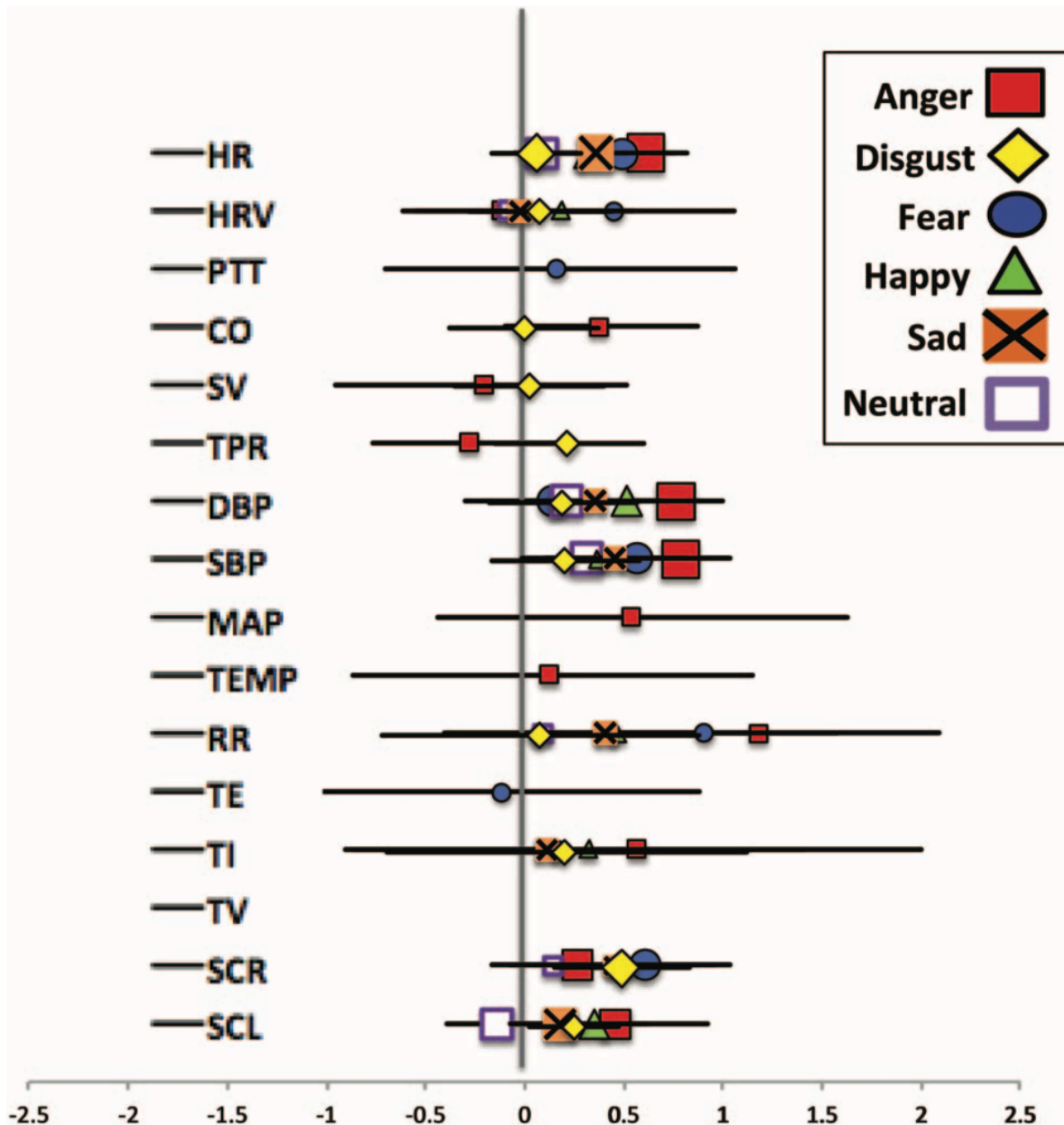
Wim Van den Noortgate
University of Leuven

Paul Condon, Yale Chang, and Jennifer Dy
Northeastern University

Karen S. Quigley
Edith Nourse Rogers Memorial VA Hospital, Bedford,
Massachusetts, and Northeastern University

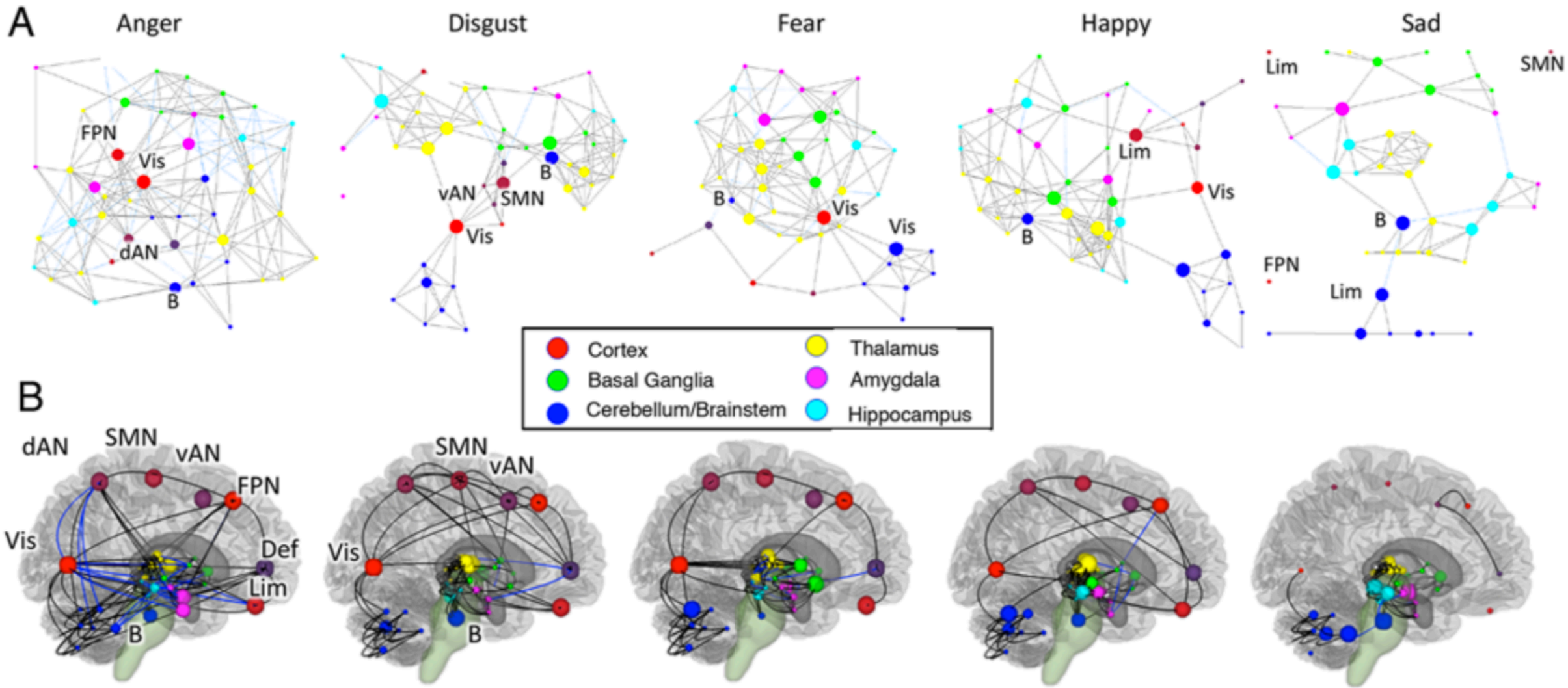
Lisa Feldman Barrett
Northeastern University and Massachusetts General Hospital/
Harvard Medical School, Boston, Massachusetts

The classical view of emotion hypothesizes that certain emotion categories have a specific autonomic nervous system (ANS) “fingerprint” that is distinct from other categories. Substantial ANS variation within a category is presumed to be epiphenomenal. The theory of constructed emotion hypothesizes that an emotion category is a population of context-specific, highly variable instances that need not share an ANS fingerprint. Instead, ANS variation within a category is a meaningful part of the nature of emotion. We present a meta-analysis of 202 studies measuring ANS reactivity during lab-based inductions of emotion in nonclinical samples of adults, using a random effects, multilevel meta-analysis and multivariate pattern classification analysis to test our hypotheses. We found increases in mean effect size for 59.4% of ANS variables across emotion categories, but the pattern of effect sizes did not clearly distinguish 1 emotion category from another. We also observed significant variation within emotion categories; heterogeneity accounted for a moderate to substantial percentage (i.e., $I^2 \geq 30\%$) of variability in 54% of these effect sizes. Experimental moderators epiphenomenal to emotion, such as induction type (e.g., films vs. imagery), did not explain a large portion of the variability. Correction for publication bias reduced estimated effect sizes even further.

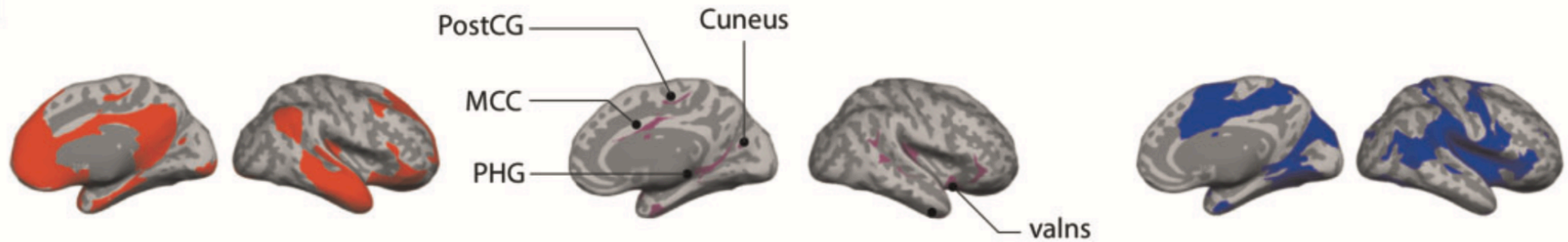


Līdzīgi kā iepriekšējās metaanalīzēs, jāsecina, ka vienas un tās pašas emociju kategorijas ietvaros novērojama liela ANS variācija.

Atsevišķos pētījumos konstatētās atšķirības starp tā sauktajām emociju kategorijām saistāmas ar tendenci publicēt hipotēzi apstiprinošus pētījumus.



A

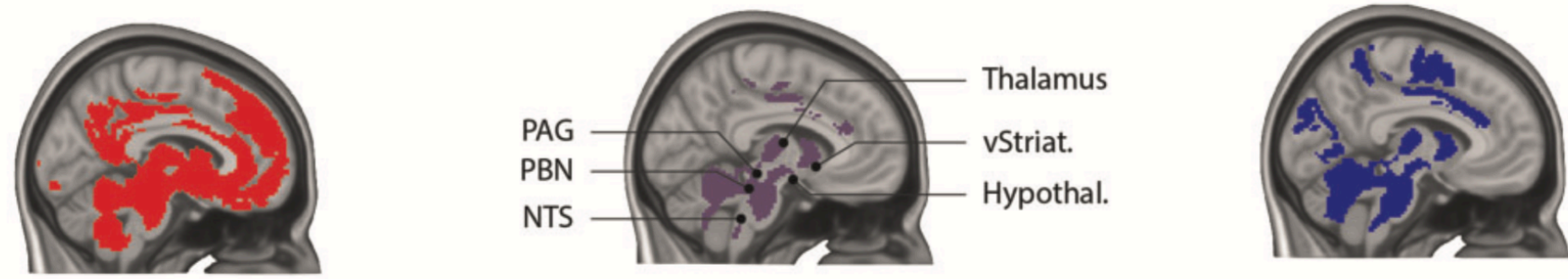


DEFAULT MODE NETWORK

CORTICAL HUBS NETWORK

SALIENCE NETWORK

B



DEFAULT MODE NETWORK

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SALIENCE NETWORK

Emotional Expressions Reconsidered: Challenges to Inferring Emotion From Human Facial Movements

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Aleix M. Martinez⁷, and Seth D. Pollak⁸**

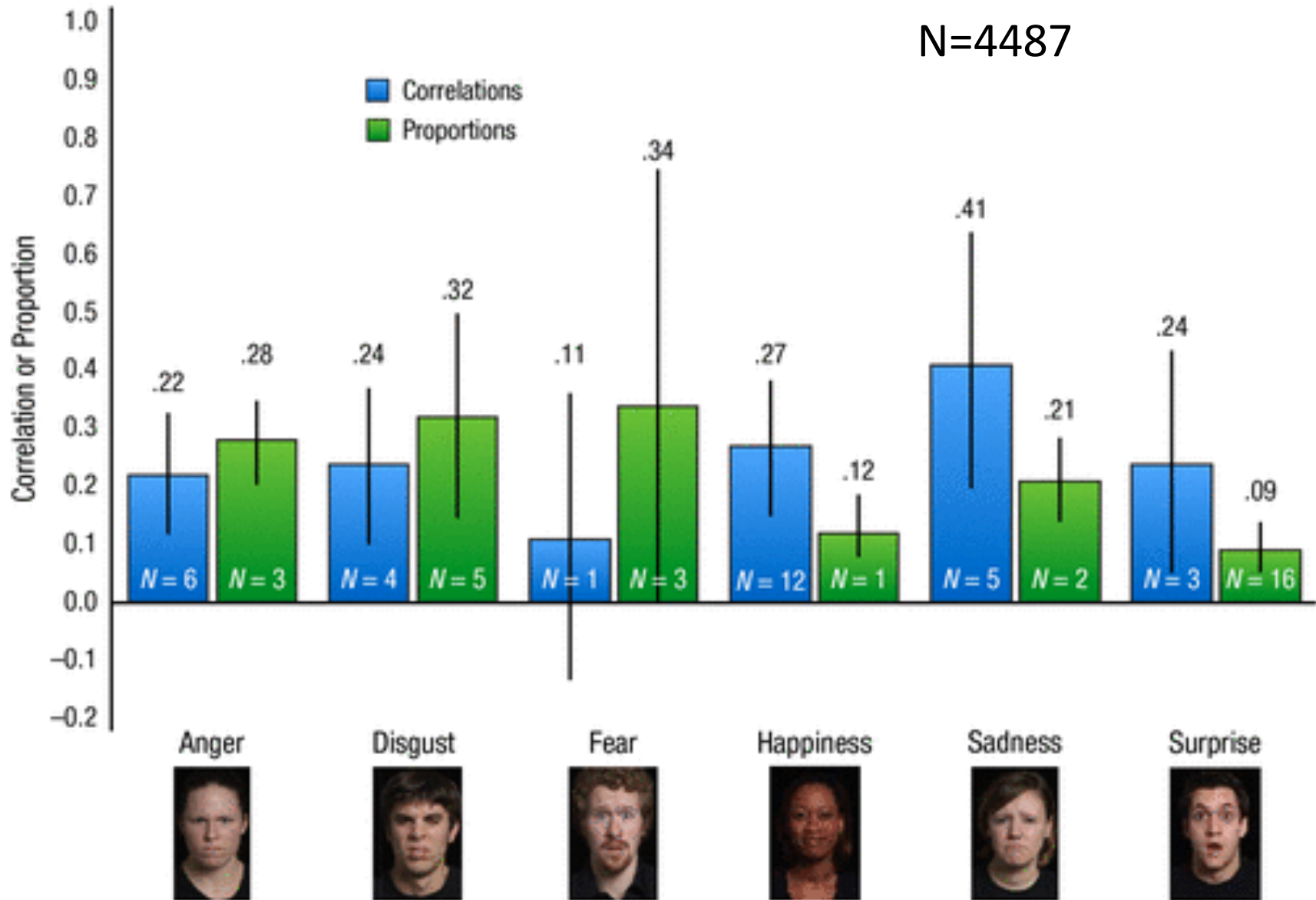
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Abstract

It is commonly assumed that a person's emotional state can be readily inferred from his or her facial movements, typically called *emotional expressions* or *facial expressions*. This assumption influences legal judgments, policy decisions, national security protocols, and educational practices; guides the diagnosis and treatment of psychiatric illness, as well as the development of commercial applications; and pervades everyday social interactions as well as research in other scientific fields such as artificial intelligence, neuroscience, and computer vision. In this article, we survey examples

Abstract

It is commonly assumed that a person's emotional state can be readily inferred from his or her facial movements, typically called *emotional expressions* or *facial expressions*. This assumption influences legal judgments, policy decisions, national security protocols, and educational practices; guides the diagnosis and treatment of psychiatric illness, as well as the development of commercial applications; and pervades everyday social interactions as well as research in other scientific fields such as artificial intelligence, neuroscience, and computer vision. In this article, we survey examples of this widespread assumption, which we refer to as the *common view*, and we then examine the scientific evidence that tests this view, focusing on the six most popular emotion categories used by consumers of emotion research: anger, disgust, fear, happiness, sadness, and surprise. The available scientific evidence suggests that people do sometimes smile when happy, frown when sad, scowl when angry, and so on, as proposed by the common view, more than what would be expected by chance. Yet how people communicate anger, disgust, fear, happiness, sadness, and surprise varies substantially across cultures, situations, and even across people within a single situation. Furthermore, similar configurations of facial movements variably express instances of more than one emotion category. In fact, a given configuration of facial movements, such as a scowl, often communicates something other than an emotional state. Scientists agree that facial movements convey a range of information and are important for social communication, emotional or otherwise. But our review suggests an urgent need for research that examines how people *actually* move their faces to express emotions and other social information in the variety of contexts that make up everyday life, as well as careful study of the mechanisms by which people perceive instances of emotion in one another. We make specific research recommendations that will yield a more valid picture of how people move their faces to express emotions and how they infer emotional meaning from facial movements in situations of everyday life. This research is crucial to provide consumers of emotion research with the translational information they require.



Caurmērā sejas izteiksmes neatbilst vispārpieņemtajam uzskatam par universālajām emocijām.

Sejas izteiksmju variācija ir daudz lielāka un no konteksta atkarīga, kā līdz šim ticis uzskatīts.

Table 3. Reliability and Specificity: A Summary of the Evidence

| Study type | Reliability | Specificity |
|---|-----------------------|-------------|
| Expression production | | |
| Adults, developed, spontaneous, lab | Weak | Unknown |
| Adults, developed, spontaneous, naturalistic | Weak | Unknown |
| Adults, developed, posed | Weak to strong | Unknown |
| Adults, remote, spontaneous | Unknown | Unknown |
| Adults, remote, posed | Weak to strong | Unknown |
| Newborns, infants, toddlers | Unsupported | Unsupported |
| Congenitally blind | Unsupported to weak | Unsupported |
| Emotion perception | | |
| Adults, developed, choice-from-array | Moderate to strong | Unknown |
| Adults, developed, reverse correlation (with choice-from-array) | Moderate | Moderate |
| Adults, developed, free labeling | Weak to moderate | Weak |
| Adults, developed, virtual humans | Unknown | Unknown |
| Adults, remote, choice-from-array (before 2008) | Moderate to strong | Unknown |
| Adults, remote, choice-from-array (after 2008) | Weak to moderate | Unsupported |
| Adults, remote, free labeling (before 2008) | Unsupported to strong | Variable |
| Adults, remote, free labeling (after 2008) | Unsupported | Unsupported |
| Infants, young children | Unsupported | Unsupported |

Note. Criteria were adopted from Haidt and Keltner (1999), who suggest that reliability rates of 70% to 90% are considered strong evidence for universal emotion perception (following Ekman, 1994); presumably, this would also hold for studies of expression production. Weak evidence is in the range of 20% to 40% (Haidt & Keltner, 1999, citing Russell, 1994). By interpolation, reliability between 41% and 69% would be considered moderate evidence. Reliability estimates below 20% are interpreted as findings that clearly do not support the reliability hypothesis. We also adopted these criteria for specificity findings. Developed = studies of participants from the U.S. and other more urban countries; spontaneous = spontaneous facial movements; posed = posed facial configurations; remote = studies of participants from small-scale, remote samples.

WEIRD

Western,
educated, and
from
industrialized,
rich, and
democratic
countries

a



b

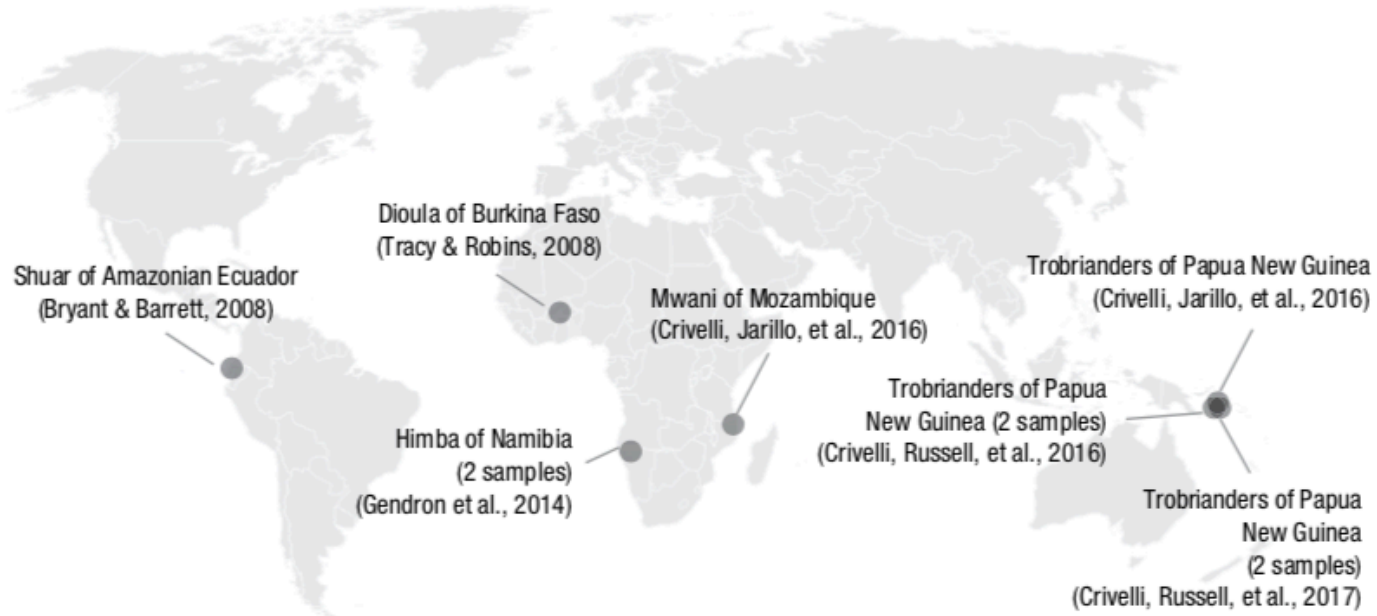


Table 5. Summary of Cross-Cultural Emotion Perception in Small-Scale Societies

| Task | Culture | <i>N</i> | Citation | Level of support |
|---|-----------------------------------|----------------------------------|--|------------------|
| Free labeling | Fore, PNG ^a | 100 | Sorenson (1975), Sample 2 ^b | None |
| | Bahinemo, PNG | 71 | Sorenson (1975), Sample 3 | None |
| | Hadza, Tanzania | 43 | Gendron, Hoemann, et al. (2018), Study 1 | None |
| | Trobrianders, PNG | 32 ^c | Crivelli et al. (2017), Study 1 | None |
| | Sadong, Borneo ^d | 15 | Sorenson (1975), Sample 4 ^e | Strong |
| Cue-to-cue matching | Shuar, Ecuador | 23 | Bryant & Barrett (2008), Study 2 | Weak |
| | Himba, Namibia ^f | 65 | Gendron et al. (2014) | None |
| Choice-from array: matching face and words | Fore, PNG ^a | 32 | Ekman, Sorenson, & Friesen (1969) ^b | None |
| | Mwani, Mozambique | 36 ^{c,g} | Crivelli, Jarillo, Russell, & Fernández-Dols (2016), Study 2 | None |
| | Trobrianders, PNG | 24 ^c | Crivelli et al. (2017), Study 2 | None |
| | Trobrianders, PNG | 68 ^{c,g} | Crivelli, Jarillo, Russell, & Fernández-Dols (2016), Study 1 | None |
| | Trobrianders, PNG | 36 ^c | Crivelli, Russell, et al. (2016), Study 1a | None |
| | Dioula, Burkina Faso ^a | 39 | Tracy & Robins (2008), Study 2 | Weak |
| Sadong, Borneo ^d | 15 | Ekman et al. (1969) ^e | Strong | |
| Choice-from array: matching face and scenario | Hadza, Tanzania | 54 | Gendron, Hoemann, et al. (2018), Study 2 | None |
| | Dani, New Guinea ^a | 34 | Described in Ekman (1972) ^h | Moderate |
| | Fore, PNG ^d | 189, 130 ^g | Sorenson (1975), Sample 1 ⁱ | Moderate |
| | Fore, PNG ^d | 189, 130 ^g | Ekman and Friesen (1971) ⁱ | Strong |

Table 6. Recommendations for Reading Scientific Studies About Emotion

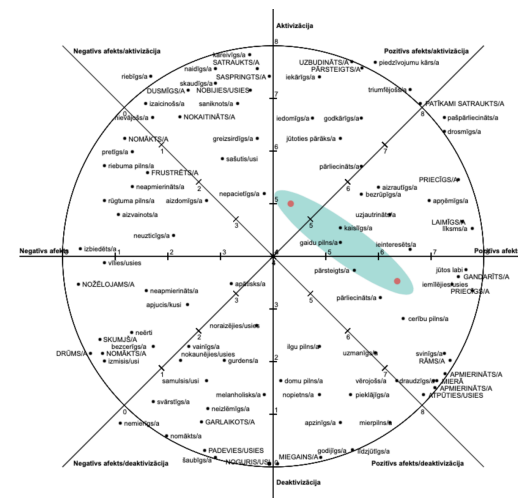
1. Take note of whether an experiment is studying expressive stereotypes or more variable facial movements.
 2. Take note of data on specificity and generalizability; do not focus solely on reliability at above chance levels.
 3. Make a distinction between the data in an experiment (what was measured) and how those data are interpreted.
 4. Translate “emotional expressions” or “emotional displays” into “facial movements.”
 5. Translate “emotion recognition” into “emotion perception” or “emotion inference.”
 6. Translate “accuracy” to “agreement,” “consensus,” or “reliability.”
 7. Give more weight to studies that measure facial movements or study the perception of facial movements in more naturalistic settings.
 8. Take note of studies that measure or manipulate context.
 9. Field studies of people from small-scale, remote cultures are often less well-controlled than studies conducted in the laboratory, but they are invaluable in the information that they provide and should be appreciated.
 10. Remember that emotions are not understood as internal states in all cultures. In some cultures they are understood as situated actions.
 11. Do not skip the Method and Results sections and go directly to the Discussion to learn the results of an experiment. It is important to know what was measured and observed, not just how scientists interpreted their measurements.
-

Līdzi ņemšanai

- Afekta konceptualizācijā pastāv vairāki teorētiskie ietvari, kurus var raksturot kā izteikti esenciālus vai vāji konceptualizētus (dēļ fenomena heterogenitātes)
- Nav gūti pierādījumi afekta fenomenu universalitātei (vāji dati ir WEIRD valstīs), bet drīzāk stereotipiskiem pieņēmumiem.
- Nav gūti pierādījumi universālām sejas izteiksmēm kā emociju “pazīmēm”, bet drīzāk no konteksta, kultūras atkarīgi stereotipiem.
- Emocijas un garastāvoklis ir novērojami ar lielu variāciju kā viena indivīda, tā daudzu vidū un šīs heterogenitātes pamats nav skaidrs.
- Dalījums “racionāla domāšana” un “emocionāla domāšana” ir nosacīts.

Ekspperiments(i)

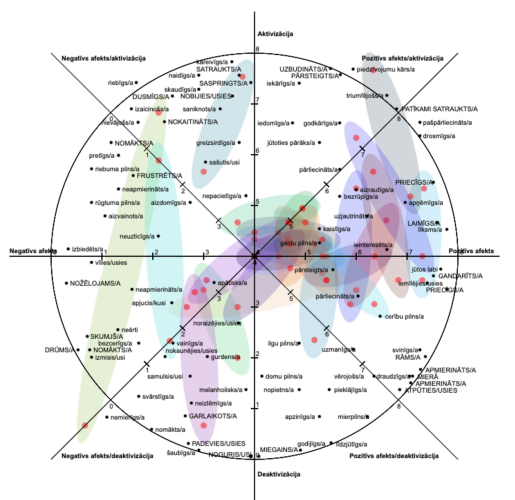
<http://nevienaldziba.lv/>



ANKETA

REZULTĀTI

Swedish Core Affect Scale (SCAS) (Västfjäll, Friman, Gärling, Kleiner, 2002; Zviedru kodola afekta skala (ZKAS), adaptācija latviešu valodā Vanags, Raščevska, 2015)



Novērtējiet, kā Jūs jūtaties šajā brīdī. Pašreizējās sajūtas var aprakstīt ar dažādiem vārdiem. Piemēram, skala "Pesimistisks - Optimistisks" (no 0 - 8) jānovērtē, vai šobrīd jūtaties vairāk pesimistisks/a vai optimistisks/a, izvēloties atbilstošāko punktu uz šīs sajūtu taisnes.

Nav pareizu vai nepareizu atbilžu. Netērējiet laiku atbildes noteikšanai, strādājiet raitā tempā.

1. Novērtējiet, kādā mērā pesimistisks/a vai optimistisks/a šobrīd jūtaties.

Pesimistisks/a Optimistisks/a

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|

2. Novērtējiet, kādā mērā miegains/a vai modrs/a šobrīd jūtaties.

Miegains/a Modrs/a

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|

Jautājumi?

Paldies par uzmanību!

edmunds.vanags@lu.lv



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