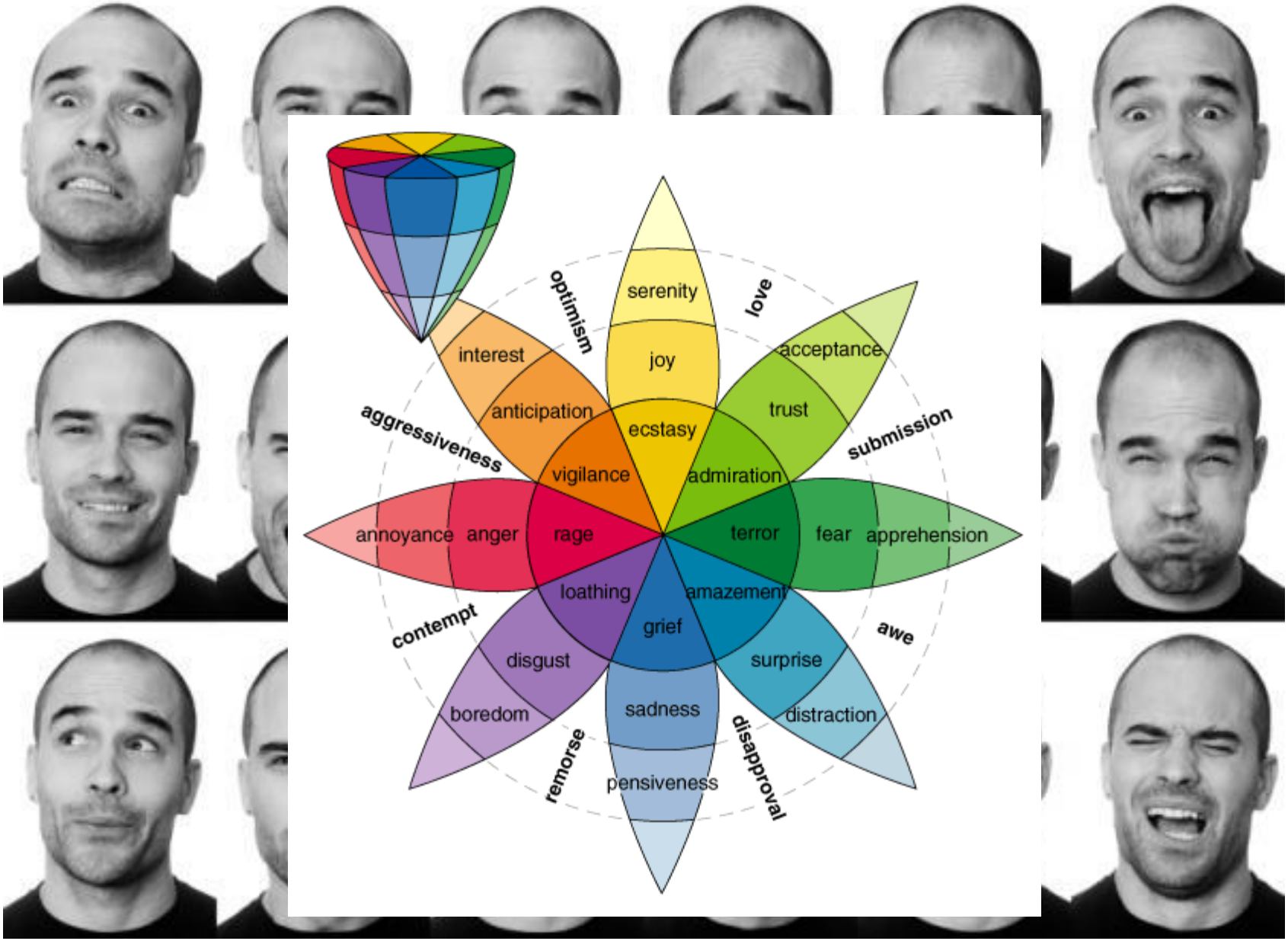
Emotion and Language


optimism
love
submission
awe
disapproval
remorse
contempt
aggressiveness
serenity
joy
ecstasy
interest
anticipation
vigilance
acceptance
trust
admiration
annoyance
anger
rage
terror
fear
apprehension
loathing
amazement
grief
disgust
surprise
boredom
sadness
distraction
pensiveness

Emotion（情绪）

- 情绪是指伴随着认知和意识过程产生的对外界事物态度的体验，是人脑对客观事物与主体需求之间关系的反应，是以个体需要为中介的一种心理活动。
  - 情绪涉及身体的变化，这些变化是情绪的表达形式；
  - 情绪涉及有意识的体验
  - 情绪包含了认知的成分，涉及对外界事物的评价
- 容易和情绪混淆的概念有：
  - **感觉**（feelings）个人对情绪的主观认识，更私人化，因人而异。
  - **心情**（moods）主体所处在的感情状态，比“情绪”延续时间长，感情波动不如“情绪”强烈。
  - **情感**（affect）一个笼统概念，有时包括情绪、感觉和心情，有时可以专指“情绪”。

Emotion（情绪）

- 基本要素
  - 认知评估
  - 身体反应
  - 感受
  - 表达
  - 行动倾向
- 表现
  - 生理表达
  - 外部表达
  - 心里表达

- 笑:大笑、微笑、淡笑、讥笑、傲笑、讪笑、傻笑、嗤笑、嘻笑、奸笑、狂笑、狞笑、憨笑、苦笑、惨笑、嘲笑、冷笑、耻笑、呆笑、痴知、淫笑、揶揄、粲然、嫣然、莞尔、嘿嘿、呵呵、格格、扑哧、哑然。 慈祥的笑：微笑； 悄悄的笑：窃笑、偷笑； 调皮的笑：嬉笑； 开心的笑：欢笑； 难听的笑：狂笑；可怕的笑：嘲笑； 残酷的笑：冷笑； 可恶的笑：淫笑； 阴险的笑：狞笑； 顽强的笑：苦笑； 恶毒的笑：奸笑； 可爱的笑：傻笑 最高兴的笑是-开怀大笑 最没意思的笑是-不笑装笑 最开心的笑是-眉开眼笑 最残酷的笑是-笑里藏刀 最难听的笑是-狂笑 最尴尬的笑是-僵笑 最可笑的笑是-傻笑 最可怕的笑是-冷笑 最难看的笑是-皮笑肉不笑 诚实的: 呵呵 讨好的: 嘻嘻 兴奋的: 嘿嘿 有意味的: 哼哼~~~

- 最优美的笑是自然的笑； 最诚挚的笑是发自内心的笑； 最幸福的笑是甜蜜的笑； 最高兴的笑是眉开眼笑； 最巧妙的笑是会意而笑； 最愉快的笑是又说又笑； 最得意的笑是点头而笑；最害羞的笑是低头含笑； 最动人的笑是含泪而笑； 最幽默的笑是别人笑自己不笑 ； 最调皮的笑是笑了又笑 ； 最热闹的笑是哄堂大笑； 最自豪的笑是哈哈大笑； 最骄傲的笑是轻蔑的笑； 最痴呆的笑是莫名其妙地跟着别人笑； 最顽强的笑是苦笑； 最使人摸不透的笑是假笑； 在奇怪的笑是边想边笑；最复杂的笑是边哭边笑； 最难为情的笑是捂着脸羞答答地笑；最难看的笑是皮笑肉不笑； 最难听的笑是狂笑； 最可怕的笑是嘲笑； 最残酷的笑是冷笑； 最可恶的笑是淫笑； 最阴险的笑是狞笑； 最可悲的笑是哭后大笑； 最恶毒的笑是奸笑.

1. List all the emotions you can think of:

Emotions: ……

- Are there any emotions listed which have identical meanings?
- Does our inability or ability to describe these affect the way we perceive them?
- Are any emotions related directly to our survival?
- Are emotions learned or are they innate?
- Can we classify emotions into specific groups?

- love
- hate
- fear
- lust
- anger
- embarrassment
- shame
- sadness
- epiphany (顿悟）
- jealousy
- frustration, confusion
- amazement, wonder
- appalled（恐惧的）

Which would you consider the 6 basic emotions?

Which 6 are the most prominent within your life?

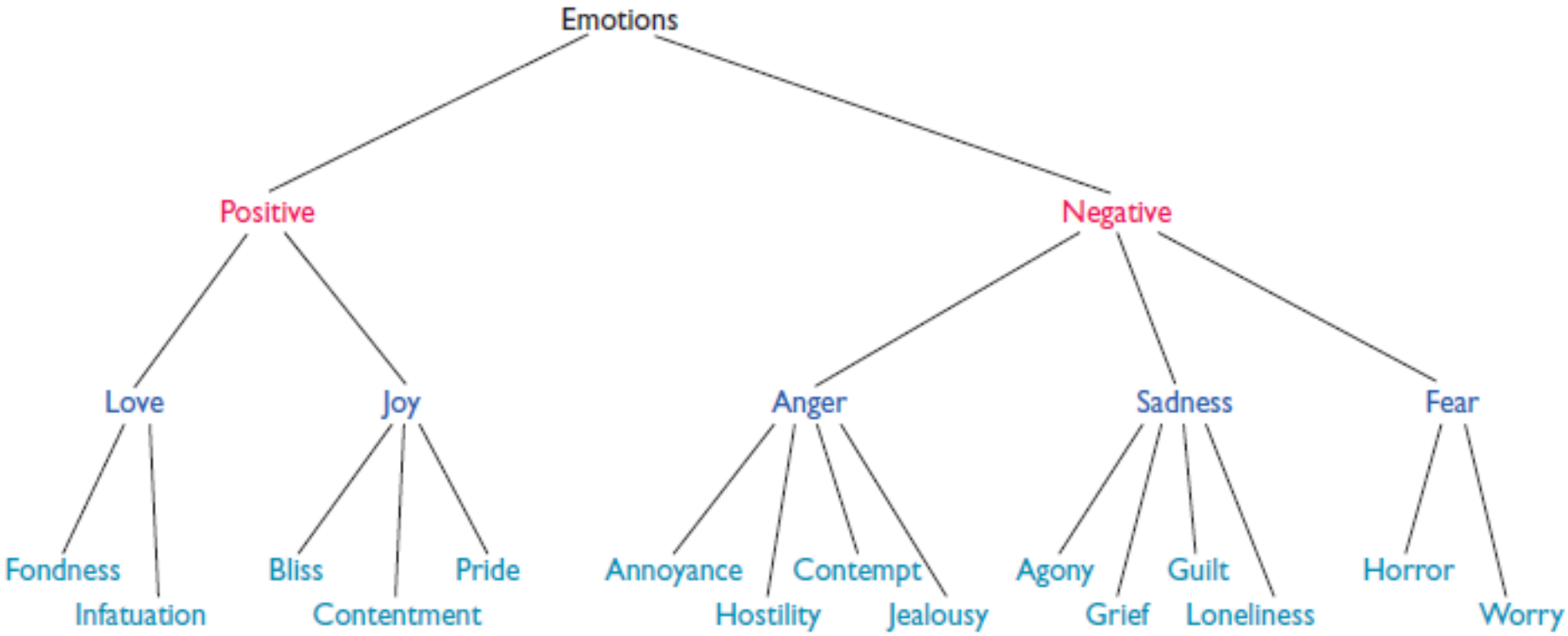


FIGURE 1 One approach to organizing emotions is to use a hierarchy that divides emotions into increasingly narrow subcategories. (Source: Adapted from Fischer, Shaver, & Carnochan, 1990.)

What and Why of Emotions

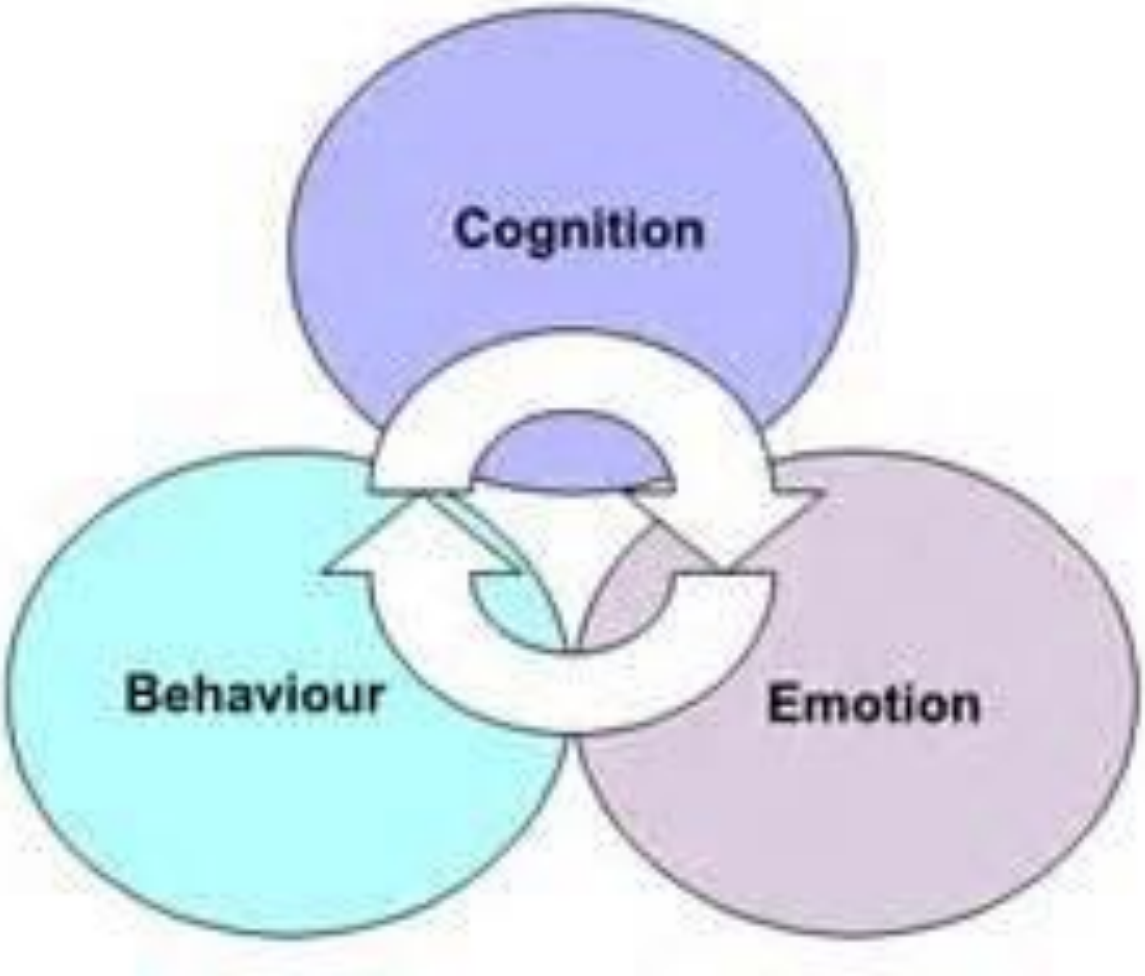
- A subjective sensation experienced as a type of psycho-physiological arousal
- Result from the interaction of
  - perception of environmental stimuli
  - neural & hormonal responses to perceptions (feelings)
  - a cognitive appraisal of the situation arousing the state
  - an outward expression of the state
- Emotional Expression: Outward signs of what a person is feeling
- Emotional Feelings: Private emotional experience

What is the Value of Emotion?

Emotions

- determine personal viability
- prepare us for action
- shape our behavior (emotions are reinforcing)
- regulate social interaction
- facilitate communication nonverbally
- facilitate adult-child relations and thus development
- make life worth living by adding value to experience
- allow us to respond flexibly to our environment (approaching good, avoiding bad)

Emotion and Cognitive Systems



The Components of Emotion (Izard, 1977)

- Subjective experience (Self report)
- Emotional expression
  - Facial expressions
  - Gestures
  - Intonation –"Yes", "真的吗？"
- Physical arousal

Lie Detectors

- Polygraph: Device that records heart rate, blood pressure, respiration, and galvanic skin response (GSR); *lie detector*
- GSR: Measures sweating
- Irrelevant Questions: Neutral, emotional questions in a polygraph test
- Relevant Questions: Questions to which only someone guilty should react by becoming anxious or emotional
- Control Questions: Questions that almost always provoke anxiety in a polygraph (e.g. “Have you ever taken any office supplies?”)

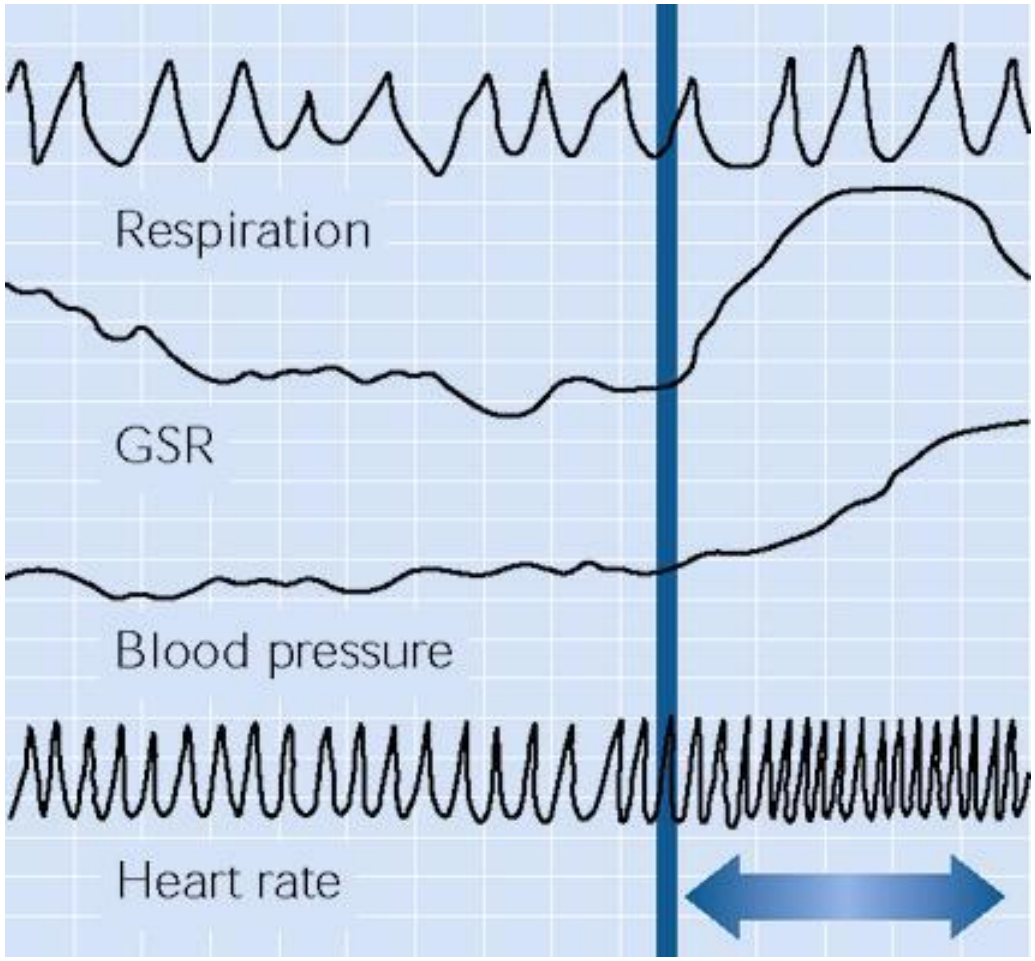


Fig. 12.17 A typical polygraph includes devices for measuring heart rate, blood pressure, respiration, and galvanic skin response. Pens mounted on the top of the machine make a record of bodily responses on a moving strip of paper. *(right)* Changes in the area marked by the arrow indicate emotional arousal. If such responses appear when a person answers a question, he or she may be lying, but other causes of arousal are also possible.

The Dimensions of Emotions

- Positive-increase vs. Negative-decrease
- Active vs. Calm
- Strong vs. Weak
- Nervous vs. Easy

Three Types of Facial Expressions

- Pleasantness-Unpleasantness: Degree to which a person is experiencing pleasure or displeasure
- Attention-Rejection: Degree of attention given to a person or object
- Activation: Degree of arousal a person is experiencing

Fig. 12.18 When shown groups of simplified faces (without labels) the angry and scheming faces "jumped out" at people faster than sad, happy, or neutral faces. An ability to rapidly detect threatening expressions probably helped our ancestors survive (adapted from Tipples, Atkinson & Young, 2002).

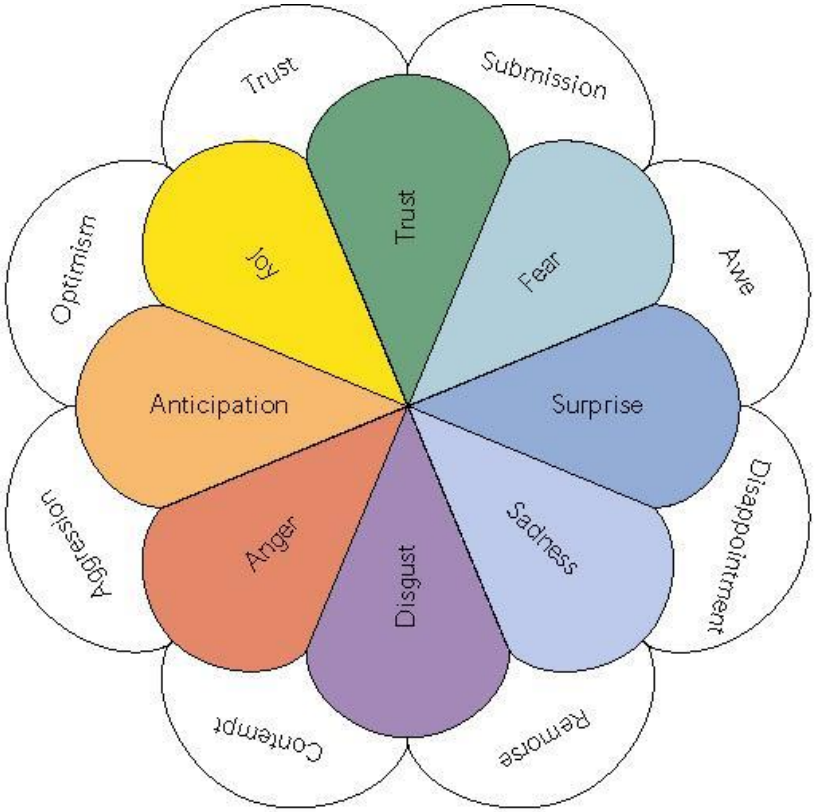
Primary Emotions and Mood

- Eight primary emotions (Plutchik, 2001)
  - Fear
  - Surprise
  - Sadness
  - Disgust

Primary Emotions and Mood *(cont.)*

- Anger
- Anticipation
- Joy
- Trust

- Mood: Low-intensity, long-lasting emotional state



Less intense	Primary emotion	More intense
Interest	Anticipation	Vigilance
Serenity	Joy	Ecstasy
Acceptance	Trust	Admiration
Apprehension	Fear	Terror
Distraction	Surprise	Amazement
Pensiveness	Sadness	Grief
Boredom	Disgust	Loathing
Annoyance	Anger	Rage

Fig. 12.13 Primary and mixed emotions. In Robert Plutchik's model there are eight primary emotions, as listed in the inner areas. Adjacent emotions may combine to give the emotions listed around the perimeter. Mixtures involving more widely separated emotions are also possible. For example, fear plus anticipation produces anxiety. (Adapted from Plutchik, 2001.)

Figure 9.16

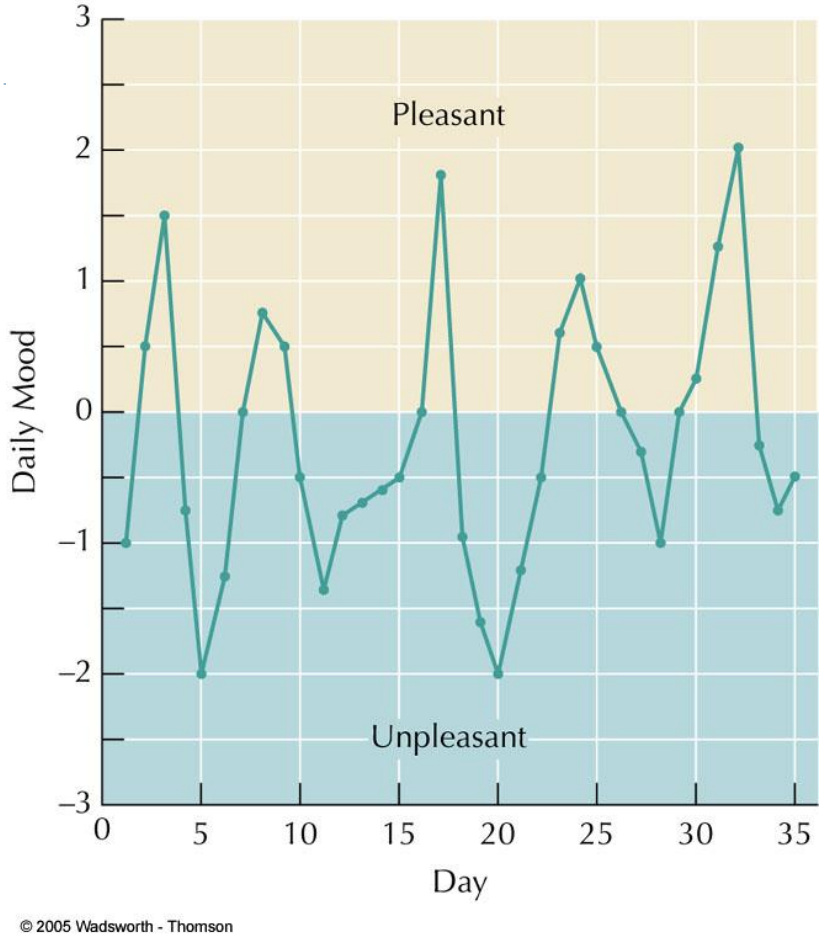
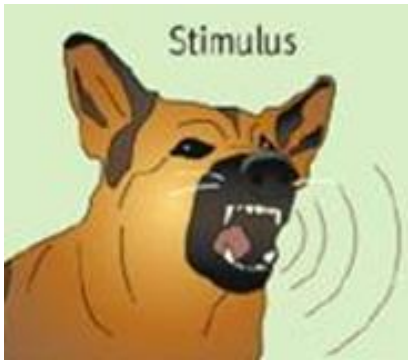


FIGURE 9.16 Folklore holds that people who work or attend school on a weekly schedule experience their lowest moods on "Blue Monday." Actually, moods tend to be generally lower for most weekdays than they are on weekends. The graph shown here plots the average daily moods of a group of college students over a 5-week period. As you can see, many people find that their moods rise and fall on a 7-day cycle. For most students, a low point tends to occur around Monday or Tuesday and a peak on Friday or Saturday.

Theories of Emotion



Theories of Emotion

- James-Lange Theory: Emotional feelings follow bodily arousal and come from awareness of such arousal.
- Cannon-Bard Theory: The thalamus (in brain) causes emotional feelings and bodily arousal to occur at the same time.
- Schachter's Cognitive Theory: Emotions occur when a label is applied to general physical arousal.
- Attribution: Mental process of assigning causes to events; attributing arousal to a certain source.
- Facial Feedback Hypothesis: Sensations from facial expressions and help define what emotion someone feels.

Figure 9.21

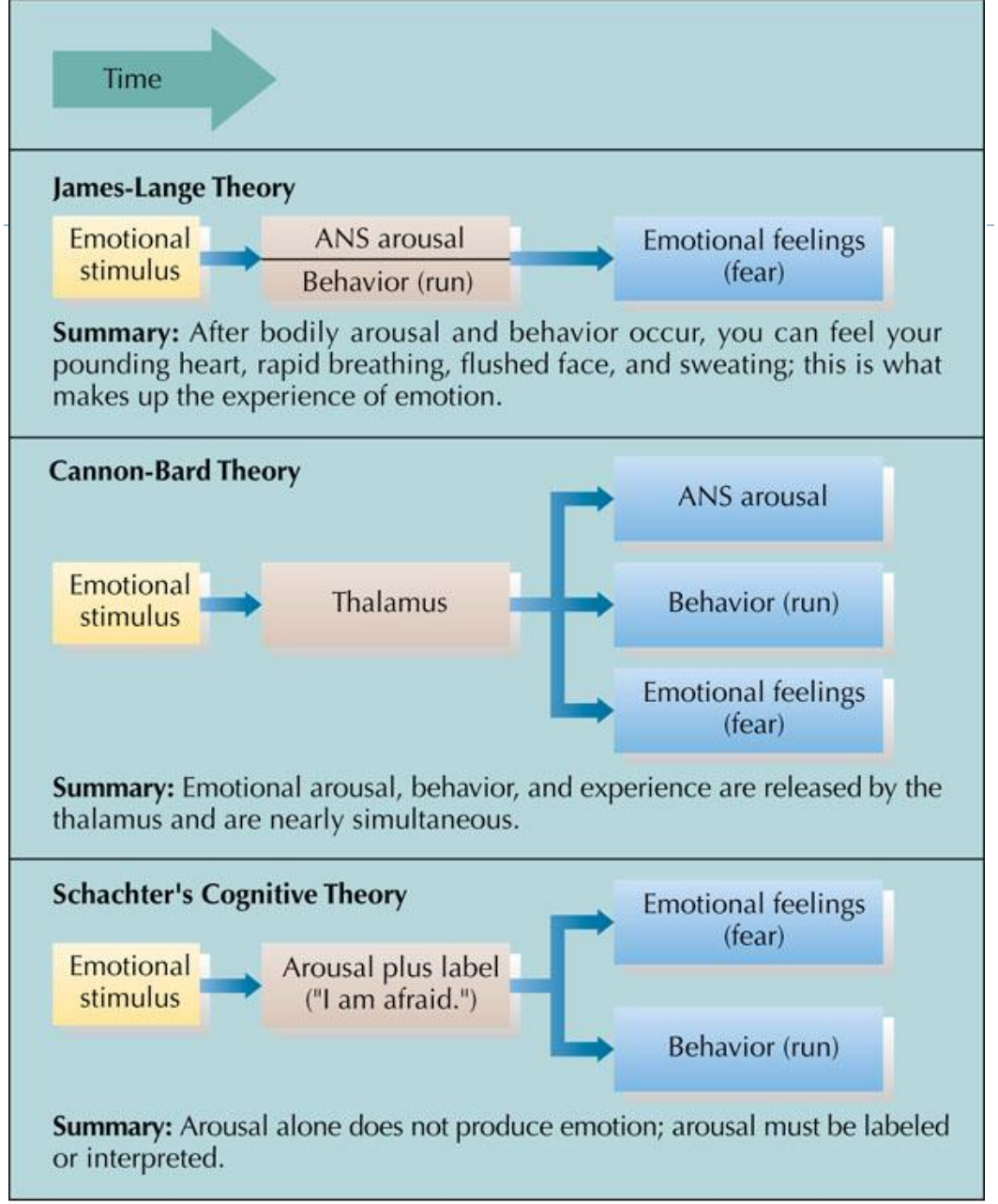


FIGURE 9.21 Theories of emotion.

A Modern View of Emotion

- Emotional Appraisal: Evaluating personal meaning of a stimulus
- Emotional Intelligence: Combination of skills, including empathy, self-control, self-awareness, sensitivity to feelings of others, persistence, and self-motivation

Figure 9.23

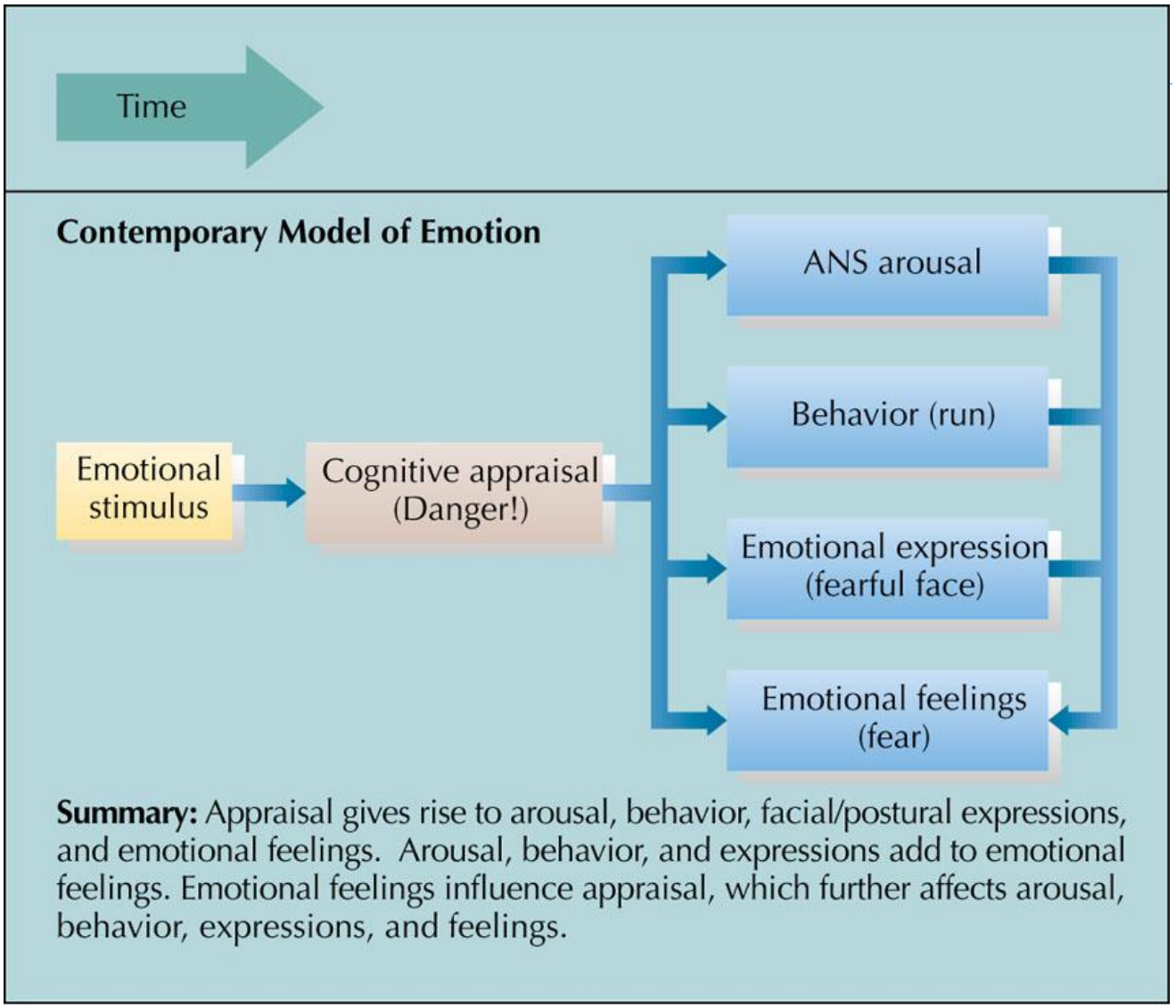
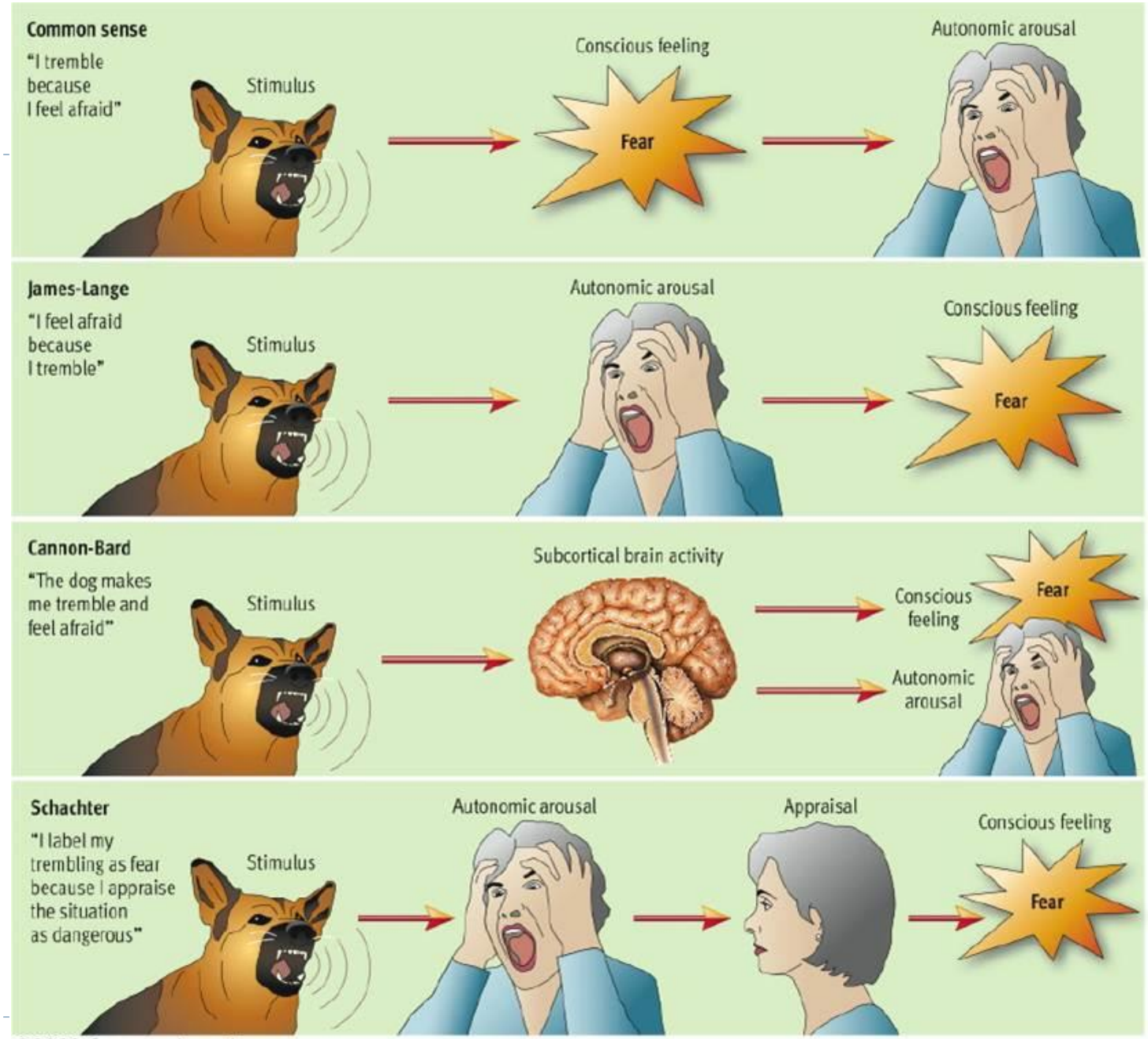
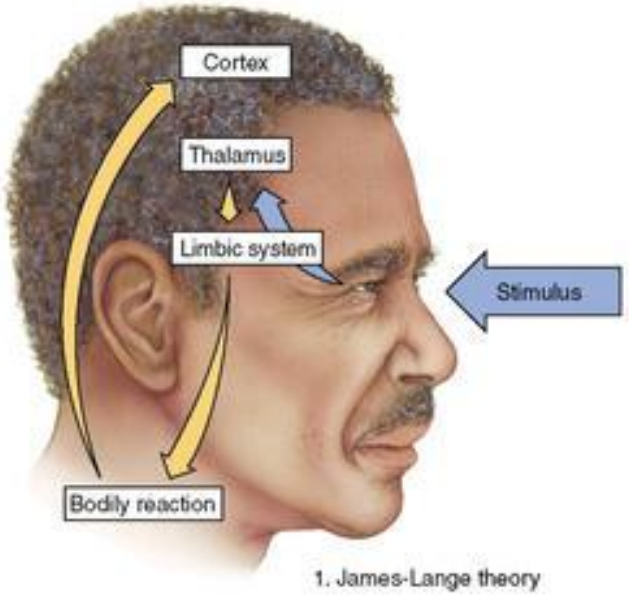
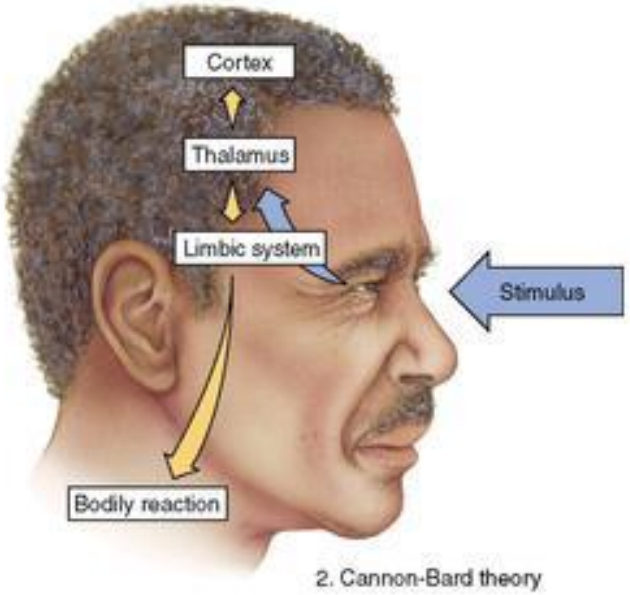


FIGURE 9.23 A contemporary model of emotion.

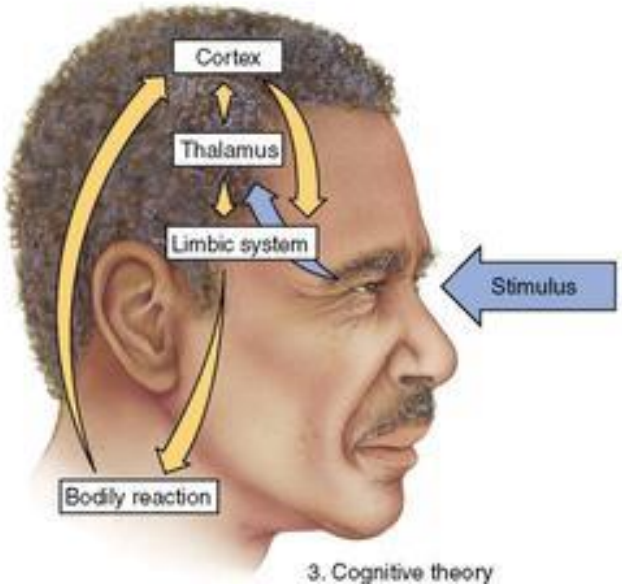




1. James-Lange theory



2. Cannon-Bard theory



3. Cognitive theory

Happiness

- Subjective Well-Being (SWB): When people are satisfied with their lives, have frequent positive emotions, and have relatively few negative emotions
- Are these factors related to happiness?
  - Wealth: No relation
  - Education: Not really
  - Marriage: Not really
  - Religion: Minimally
  - Aging: Happiness does not decline with age.
  - Sex: Men and women do not differ in happiness.
  - Work: No.
  - Personality: If you have a “sunny disposition,” you are more likely to be happy.

Language and Emotion

- Words and thought
- Language and emotion
- Emotionality of L1 and L2

Language and Emotion

- Words and thought
- Language and emotion
- Emotionality of L1 and L2

十年生死兩茫茫不思量
自難忘千裏孤墳無處話
淒涼縱使相逢應不識塵
滿面鬢如霜　夜來幽夢
忽還鄉小軒窗正梳妝相
顧無言惟有淚千行料得
年年腸斷處明月夜短松
岡

蘇軾　江城子乙卯正月二十日夜記夢

jiāng chéng zǐ mì zhōu chū liè

江城子·密州出猎

苏轼

lǎo fū liáo fā shào nián kuáng zuǒ qiān huáng yòu qīng cāng jǐn mào diāo qiú
老夫[1]聊发少年狂，左牵黄，右擎苍，锦帽貂裘，
qiān jì juǎn píng gāng wèi bào qīng chéng suí tài shǒu qín shè hǔ kàn sūn láng
千骑卷平冈。为报倾城随太守，亲射虎，看孙郎。
jiǔ hàn xiōng dǎn shǎng kāi zhāng bìn wēi shuāng yòu hé fáng chí jié yún zhōng
酒酣胸胆尚开张，鬓微霜，又何妨。持节云中，
hé rì qiǎn fèng tóng huí wàn diāo gōng rú mǎn yuè xī běi wàng shè tiān láng
何日遣冯唐？会挽雕弓如满月，西北望，射天狼[2]。

WATCH YOUR THOUGHTS,
FOR THEY BECOME WORDS.

WAT ORDS,
FOR CTIONS.

WAT TIONS,
FOR HABITS.

WAT BITS,
FOR THEY BECOME CHARACTER.

WATCH YOUR CHARACTER,
FOR IT BECOMES YOUR DESTINY.

Margaret Thatcher

Can language shape our thought?

Can words shape our thought?

- Time
- Direction
- Numbers
- Colors
- Gender markers
- …

Cognitive Psychology **43,** 1–22 (2001)
doi:10.1006/cogp.2001.0748, available online at http://www.idealibrary.com on IDEAL®

Does Language Shape Thought?: Mandarin and English Speakers' Conceptions of Time

Lera Boroditsky

Stanford University

Does the language you speak affect how you think about the world? This question is taken up in three experiments. English and Mandarin talk about time differently—English predominantly talks about time as if it were horizontal, while Mandarin also commonly describes time as vertical. This difference between the two languages is reflected in the way their speakers think about time. In one study, Mandarin speakers tended to think about time vertically even when they were thinking for English (Mandarin speakers were faster to confirm that March comes earlier than April if they had just seen a vertical array of objects than if they had just seen a horizontal array, and the reverse was true for English speakers). Another study showed that the extent to which Mandarin–English bilinguals think about time vertically is related to how old they were when they first began to learn English. In another experiment native English speakers were taught to talk about time using vertical spatial terms in a way similar to Mandarin. On a subsequent test, this group of English speakers showed the same bias to think about time vertically as was observed with Mandarin speakers. It is concluded that (1) language is a powerful tool in shaping thought about abstract domains and (2) one's native language plays an important role in shaping habitual thought (e.g., how one tends to think about time) but does not entirely determine one's thinking in the strong Whorfian sense.

lera boroditsky

find me on google scholar, twitter & instagram

Lera Boroditsky is an Associate Professor of Cognitive Science at UCSD and Editor in Chief of Frontiers in Cultural Psychology. She previously served on the faculty at MIT and at Stanford. Her research is on the relationships between mind, world, and language (or how humans get so smart).

She has been named one of 25 Visionaries changing the world by the Utne Reader, and is also a Searle Scholar, a McDonnell scholar, recipient of an NSF Career award, and an APA Distinguished Scientist lecturer. She once used the Indonesian exclusive "we" correctly before breakfast, and was proud of herself about it all day.

Get a quick research overview (WSJ and Scientific American)

Whorf hypothesis (Whorf, 1956)

- Much of our conscious thinking is in the form of language.
- Each language carves up the world in somewhat different ways.

The language we speak must influence the way we think including the way that we perceive the world.

Linguistic determinism

- People can only perceive and categorize the world according to the structures offered by their language (Kousta, Vinson, & Vigliocco, 2008).
- Limitations
  - There are other modes of thought besides language (visual imagery, auditory imagery)
  - People can perceive and categorize beyond the limits of their language.

Linguistic relativity

- The language people speak influences the way they perceive and think about the word (Kersten et al., 2010).
- Evidence
  - The amazing technicolor world: different languages categorize colors differently.

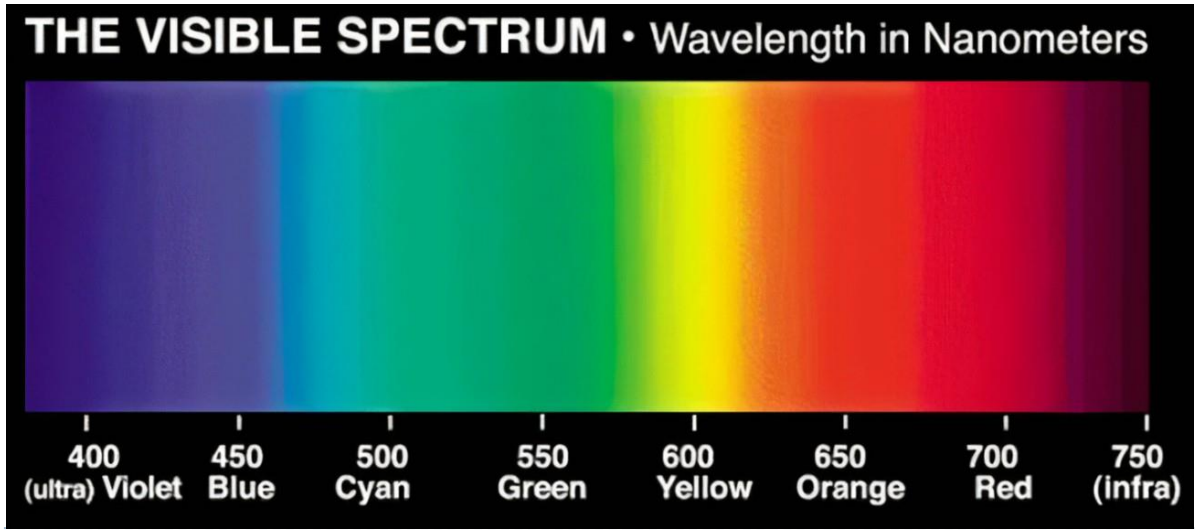


Table 12.1 Order of Color Terms

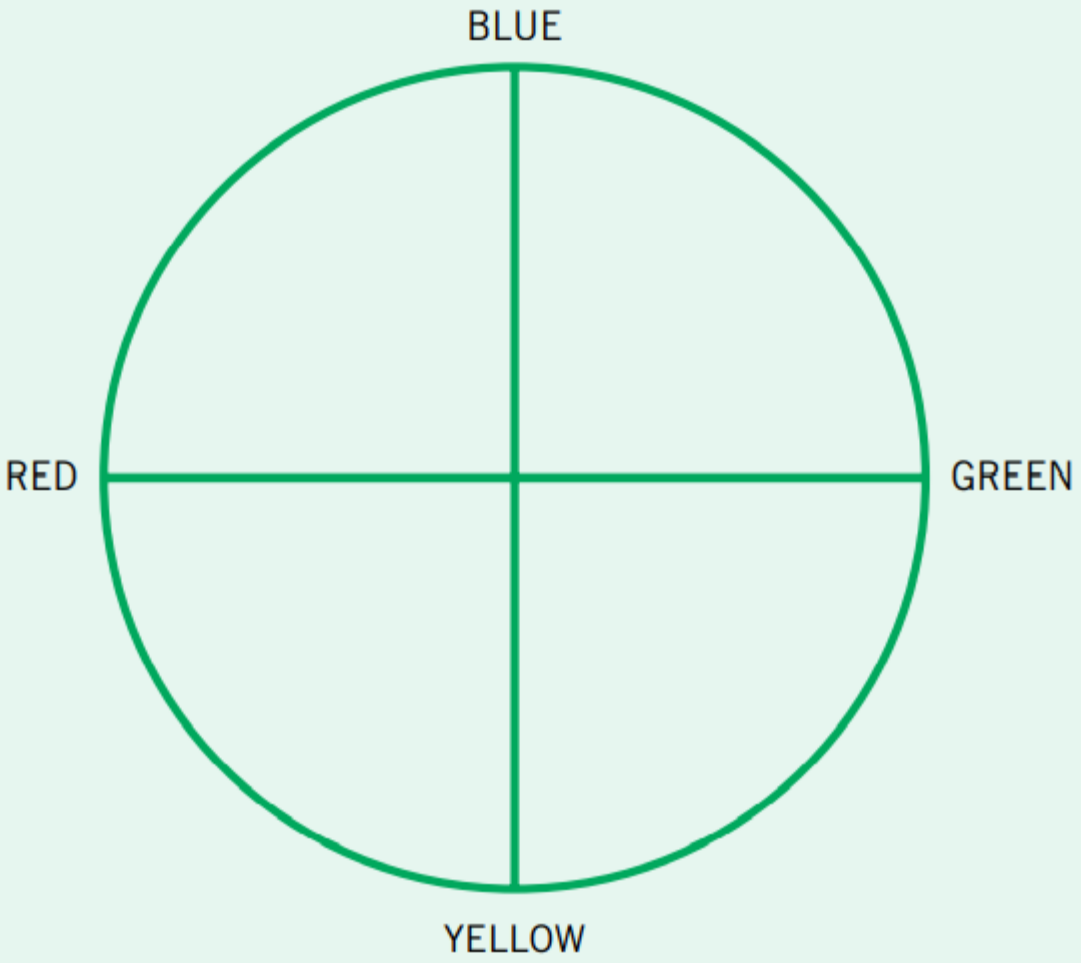
Although languages differ in the number of basic color terms they have, there are consistent patterns of color categorization across languages.

Number	Colors
2	Black *and* White
3	Red
4	Yellow *or* Green
5	Green *or* Yellow
6	Blue
7	Brown
>7	Pink, Purple, Orange, Grey *in no particular order.*

Source: Berlin and Kay (1969).

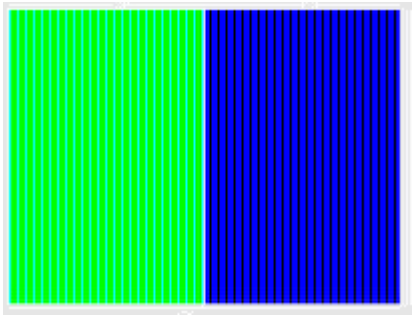
Figure 12.2 Four Focal Colors

The four focal colors come in two opponent pairs of red-green and yellow-blue. We can think of these focal colors as occupying four quadrants of a circle. We can perceive adjacent colors as blending into each other. For example, a blend of yellow and red could be perceived as orange. However, we can't perceive blends of opponent colors. Google "color wheel" to see similar images in full color.



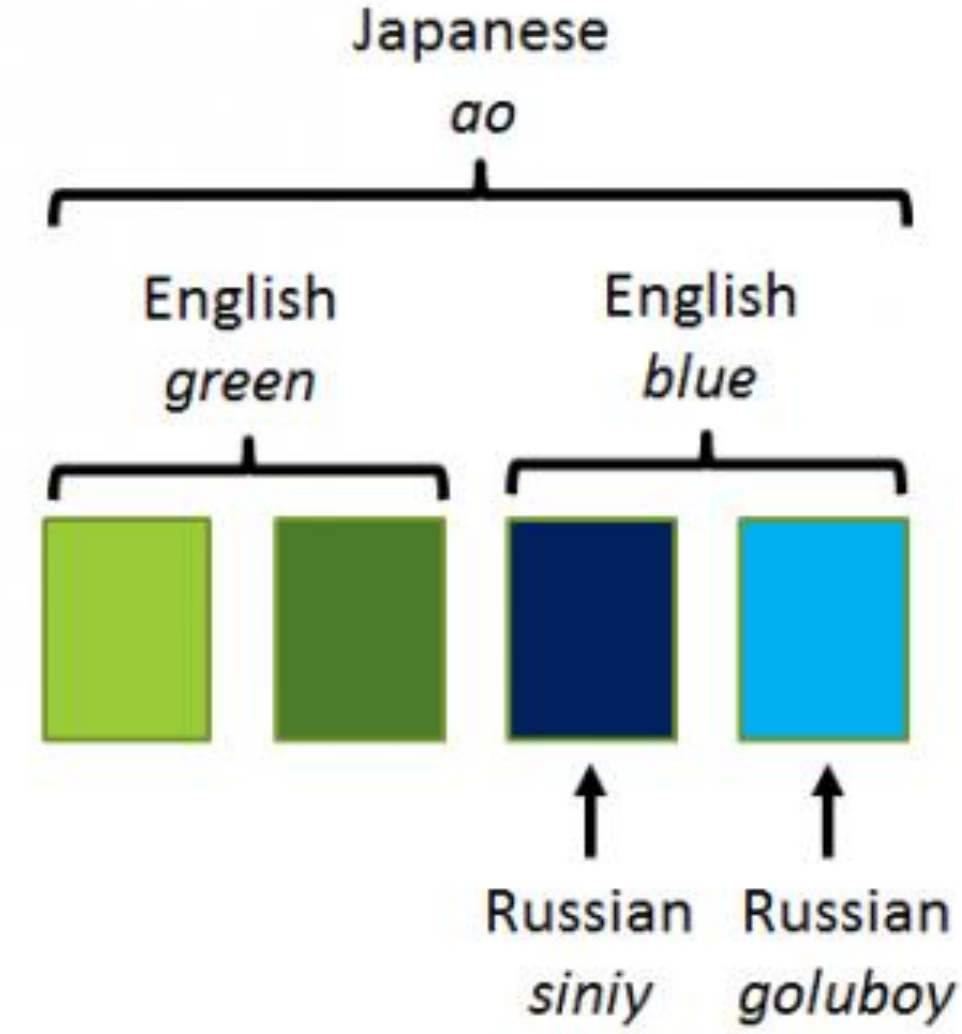
Linguistic relativity

- The language people speak influences the way they perceive and think about the word (Kersten et al., 2010).
- Evidence
  - The amazing technicolor world: different languages categorize colors differently.
  - Fifty shades of grue: blue and green



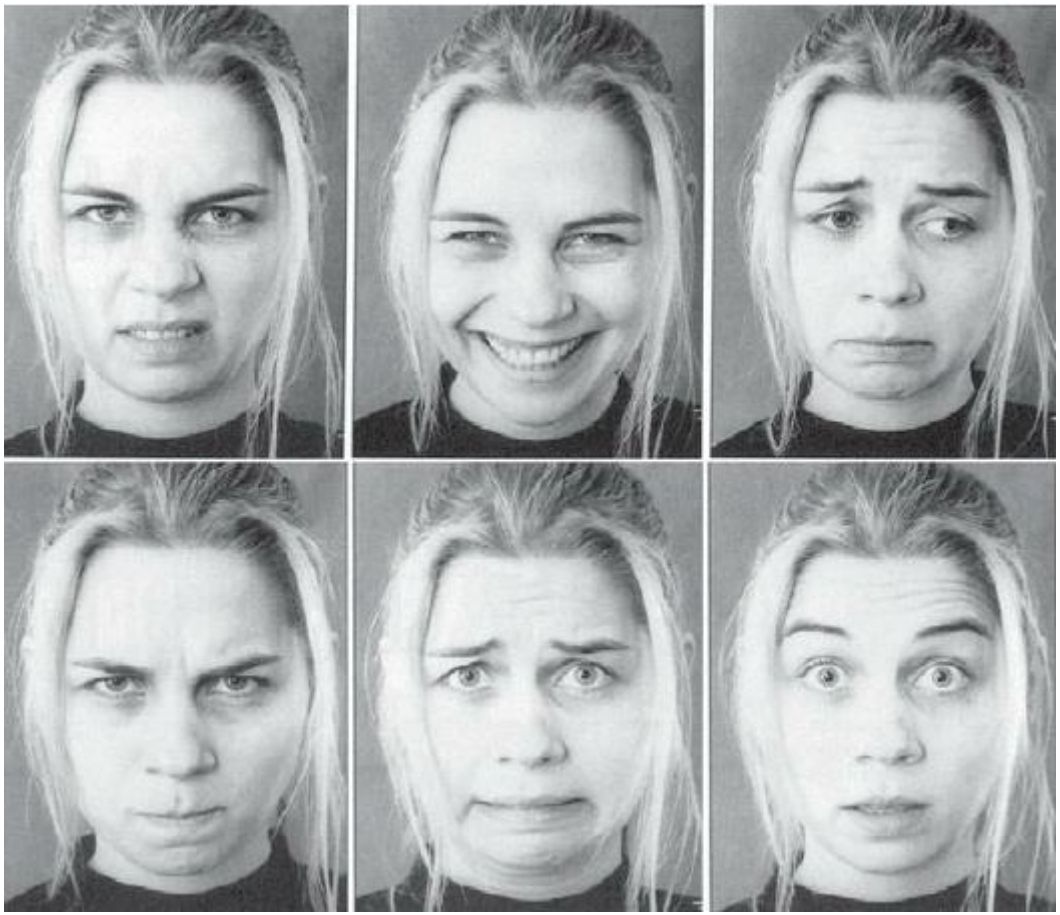
Linguistic

- The lang … e way they perceive … n et al., 2010).
- Evidenc …
  - The am … uages categor …
  - Fifty sh …



Language and the perception of emotion

- Six basic facial expressions in humans



Disgust

Happiness

Sadness

Anger

Fear

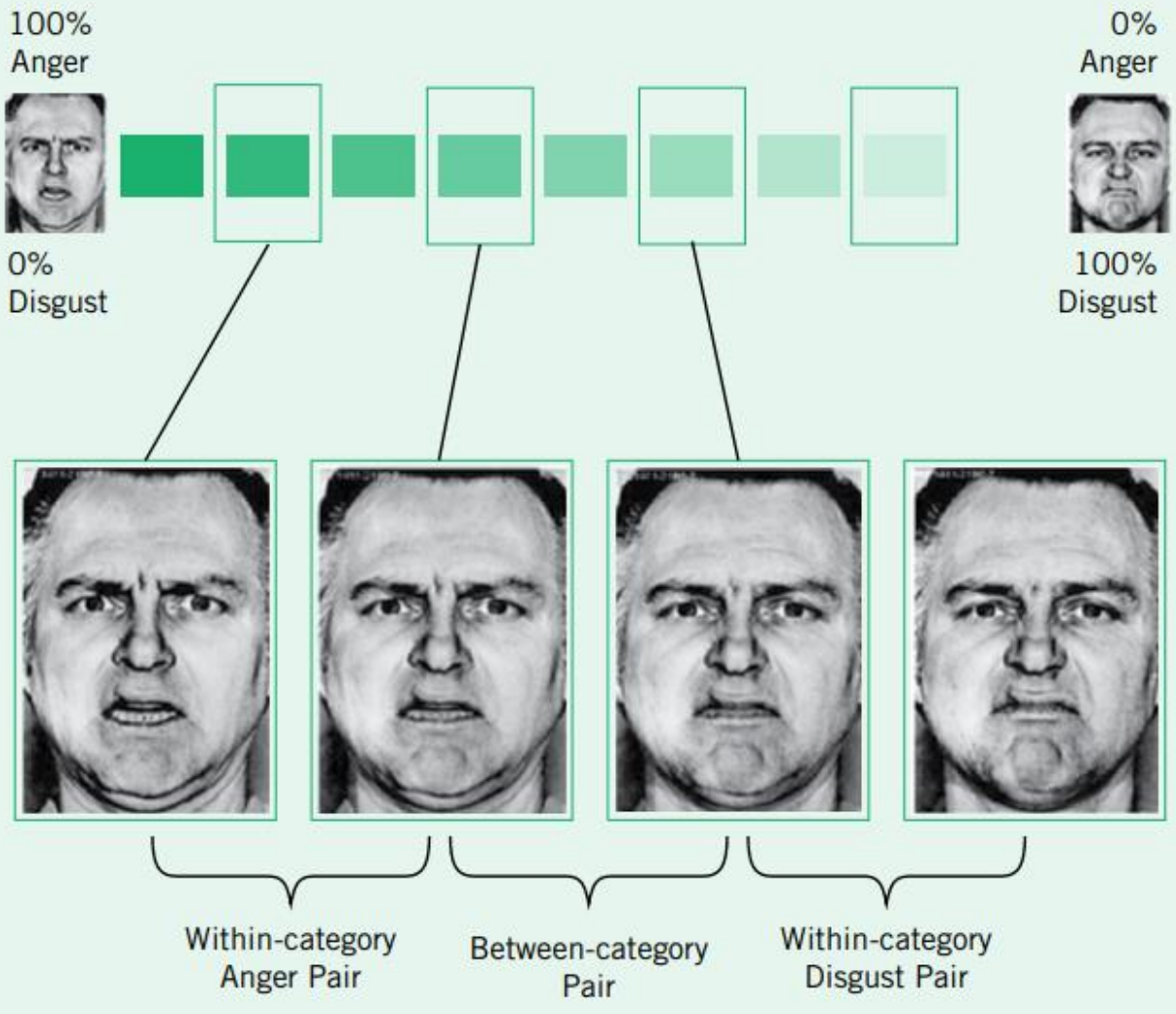
Surprise

- The categorical perception of the emotions is driven by the linguistic labels?

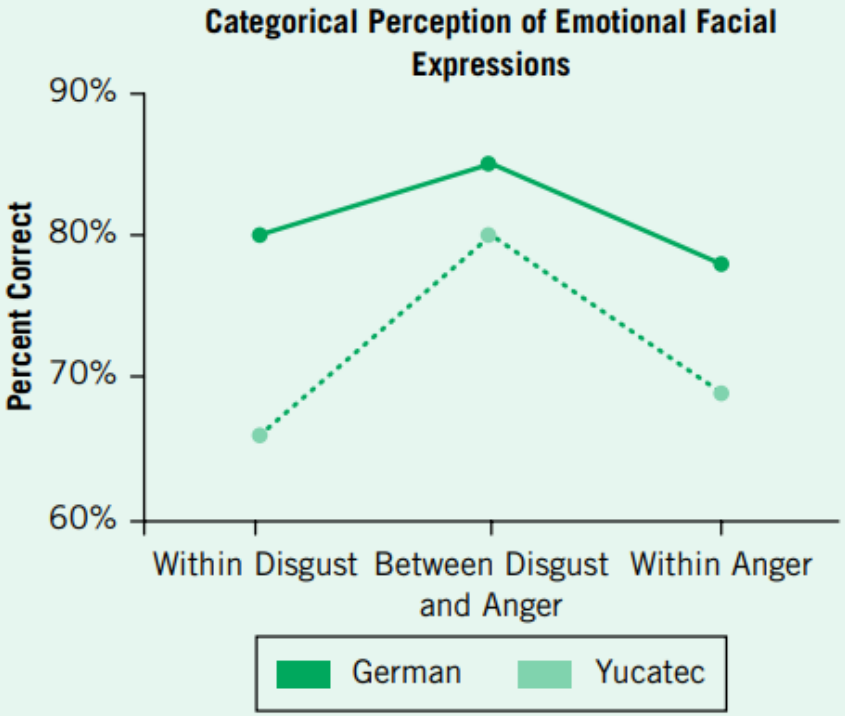
Figure 12.3 Categorical Perception of Emotional Facial Expressions

The German language has separate words for "disgust" and "anger," whereas the Yucatec language uses the same term for both emotions. However, in a delayed match-to-sample task, Yucatec speakers performed similarly to German speakers. Both groups were more accurate when the distractor item came from the other category than when it came from the same category. This result suggests that separate linguistic labels are not necessary for distinguishing emotional facial expressions.

(a) Sample stimuli



(b) Results



Source: Sauter, LeGuen, and Haun (2011).

Methods (Sauter et al., 2011)

- Participants:
- Design:
- Stimuli：
- Procedure (Trial)
- Data collected:

Methods (Sauter et al., 2011)

- Participants: two groups
- Design: two-factor mixed design
- Stimuli: faces
- Procedure (Trial)
- Data collected: ACC and RT

Emotionality of L1 and L2

Observation: Bilingual speakers report that sexual references and swear words evoke less anxiety when uttered in a second language

- Are swear words in L2 like “play money”?
- Is this effect limited to taboo words?
- Which language do you pray in?
- Say “I love you”? Share a confidence?

Hypotheses

L1 is the language of emotional expressiveness.
L2 is the language of emotional distance

- *Consistent:* Code-switching in therapy
- *Inconsistent:* Japanese native speakers frequently enjoy swearing in English.
- *Unclear:* “I’m a different person when I speak Mandarin…”

- What is going on with the bilingual brain and emotion-laden expressions?
- What are the research traditions?

  Autobiographies of bilingual writers

  Laboratory studies of bilingual memory

  Interview data on perceived emotional force

  Psychophysiological monitoring
- What are the implications for classroom learning?

Autobiographies of Bilingual Writers

- *What does it mean to feel like two different people in your two languages?*
- Insights from language-learning narratives of immigrants who became adept writers in their second language:

"River" in Polish was a vital sound, energized with the essence of riverhood, of my rivers, of my being immersed in rivers. "River" in English is cold -- a word without an aura. It has no accumulated associations for me, and it does not give off the radiating haze of connotation.

Eva Hoffman, 1989, *Lost in Translation: A life in a new language*

Studies of Bilingual Memory

- *Methods*

- Cued recall: provide cue word, asked to think of an autobiographical event associated with the cue.
- Memories cued in the first language are earlier on average than memories cued in the second language.
- Cues in the first language tap into first-language/
- first-culture memories. Cues in the second language activate more recent memories.
- Memories are more easily accessed by the language used at the time of the encoding.

Studies of Bilingual Memory

- Free recall: Participants generate memories from a time period (early childhood) or a period which is dominated by one language.
- Ask a question in a specific language (and require response in that language): Bilinguals speak at greater length about embarrassing topics in their second language.

- The language in which a memory is encoded is a stable feature of the memory
  - (Schrauf 2000)

Results of Studies of Bilingual Memory

Immigrants‘ memories for childhood or adolescence spent in the home country are more numerous, detailed, and emotionally charged when described in native language than when discussed in the second language (Schrauf, 2000)

Get Your Intuitions Engaged

- *Why do some bilinguals prefer swearing in their first language?*

- *But some prefer swearing in their second language...*

Interview Data on Perceived Emotional Force

- *Multi-method study:* Internet,classroom survey, face-to-face interview

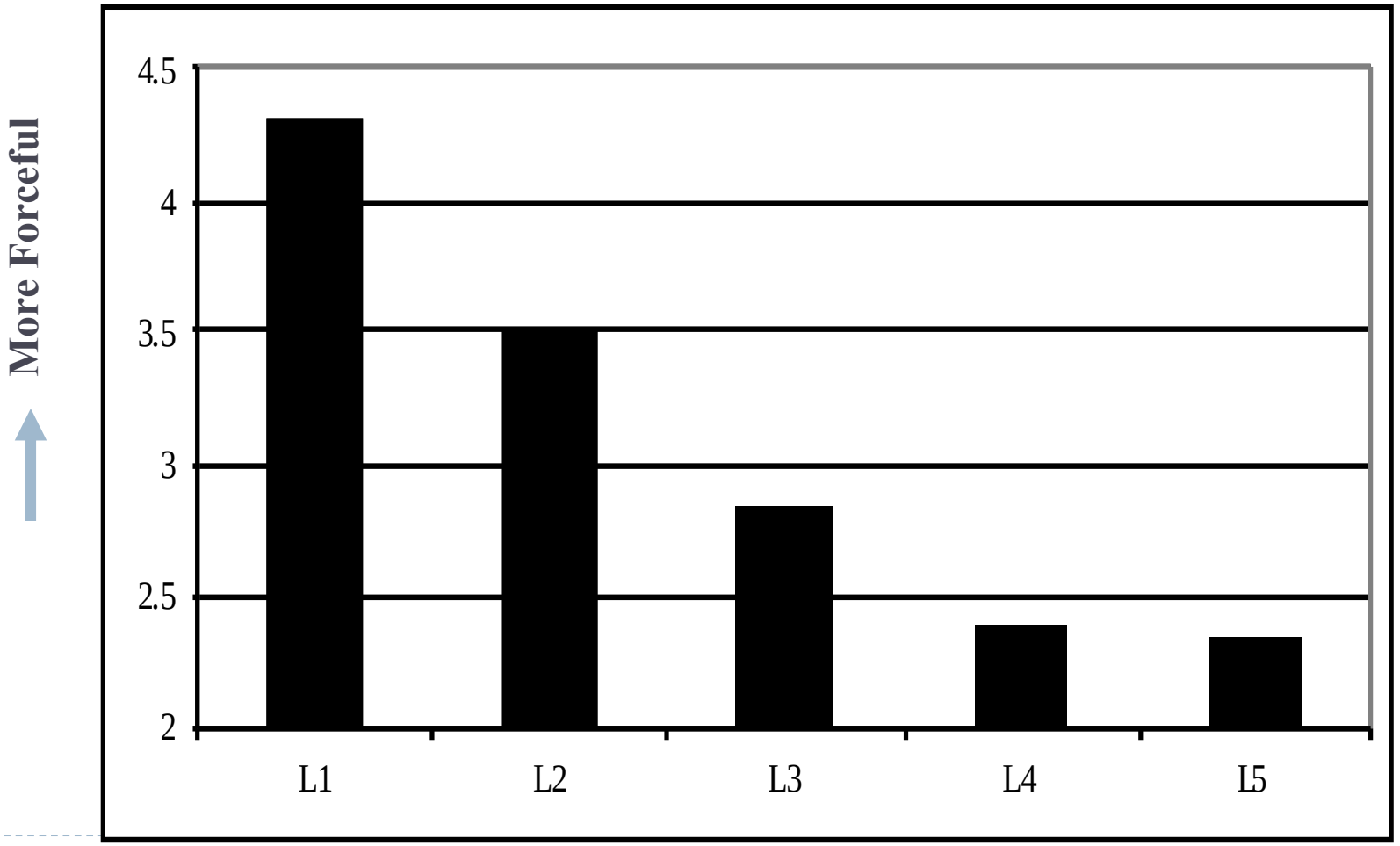
  Bilingual and multilingual respondents answered questions about what the emotional force of hearing and uttering swear words and other emotional language in each of their languages

  1039 respondents (272 trilinguals, 289 quad, and 340 penta)

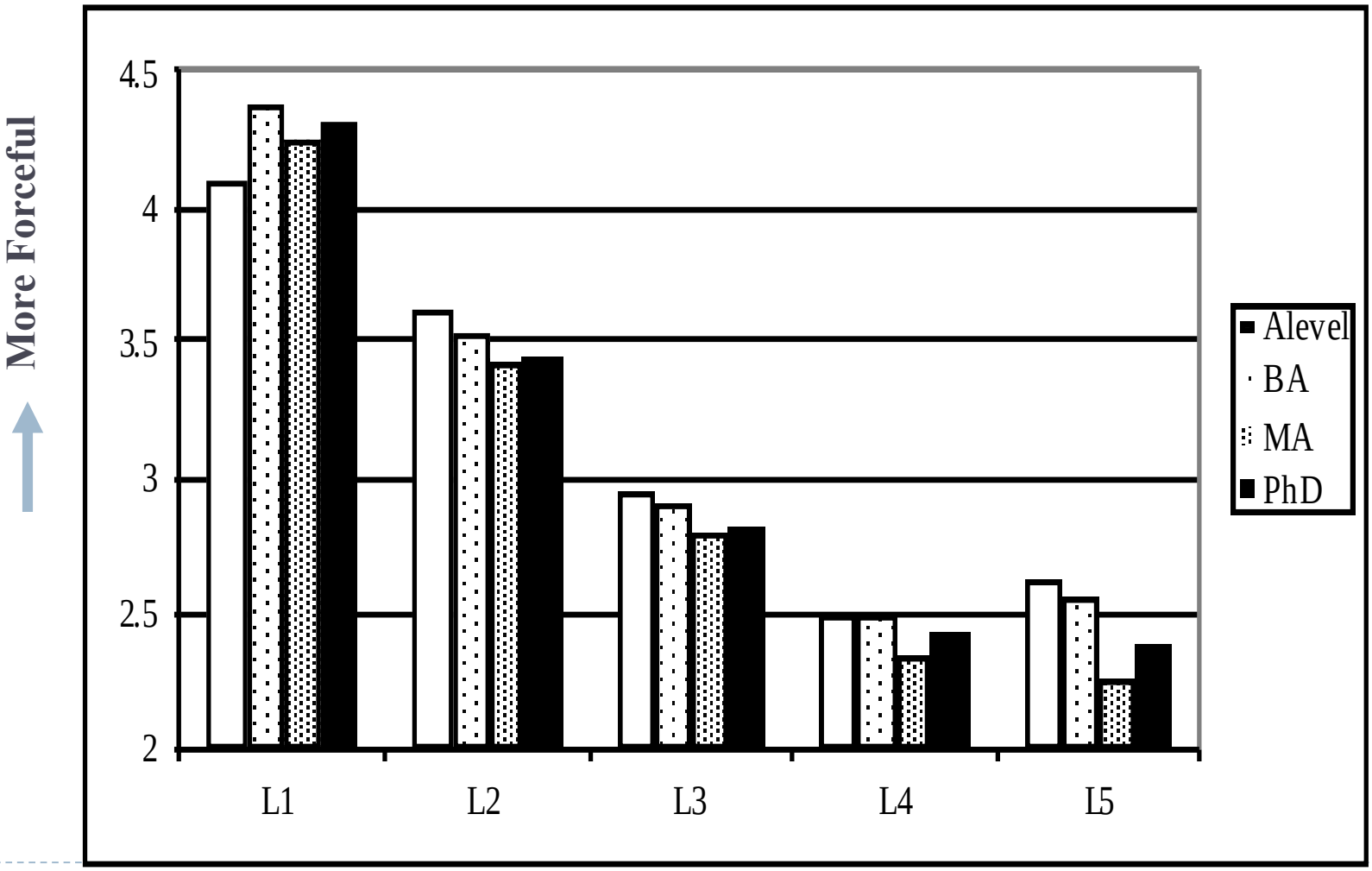
  Collected demographic data: age, gender, education, age and context of language learning

  (Dewaele and Foth, 2003, UK)

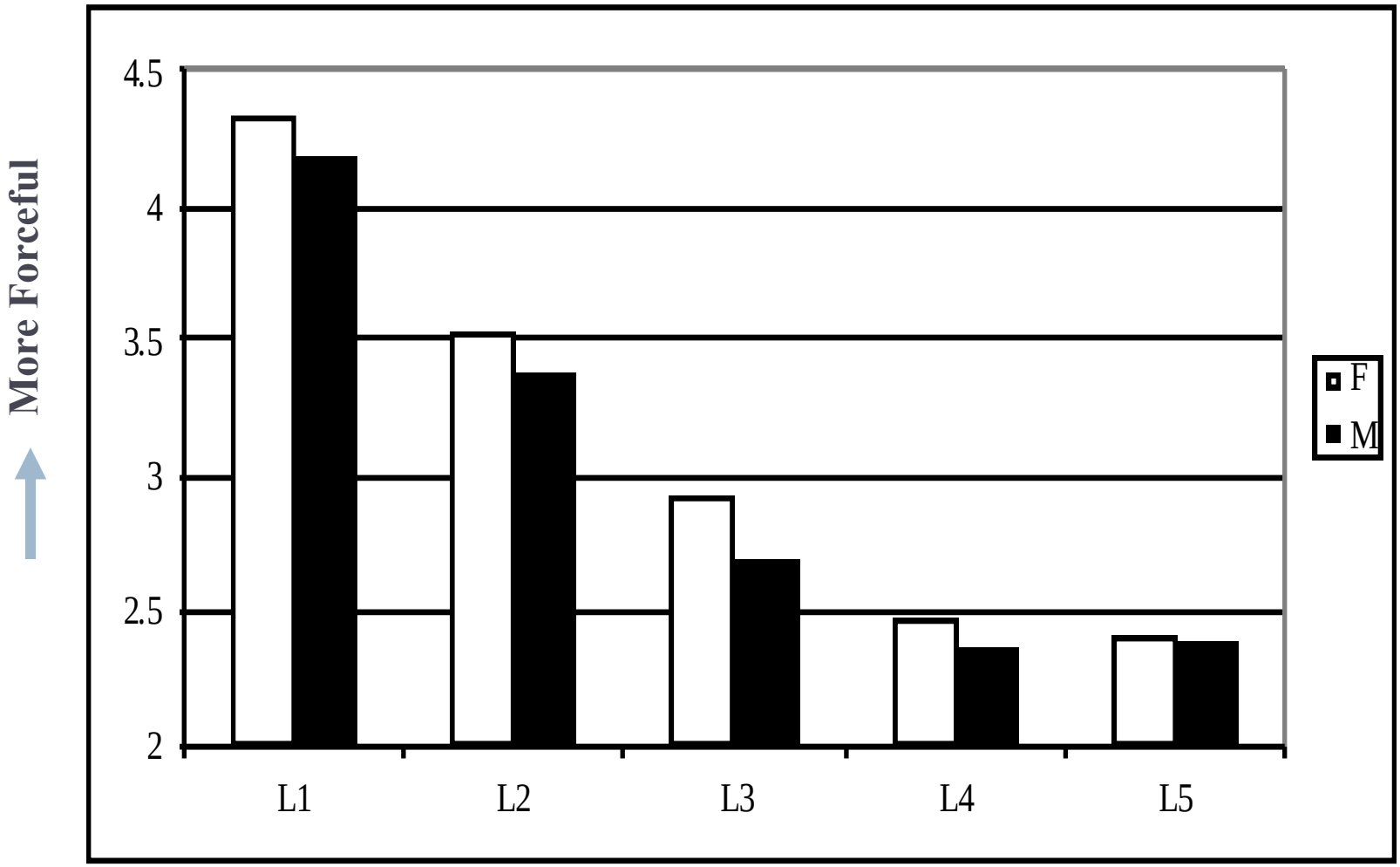
Perceived Force of Swearwords Declines With Each Language Learned



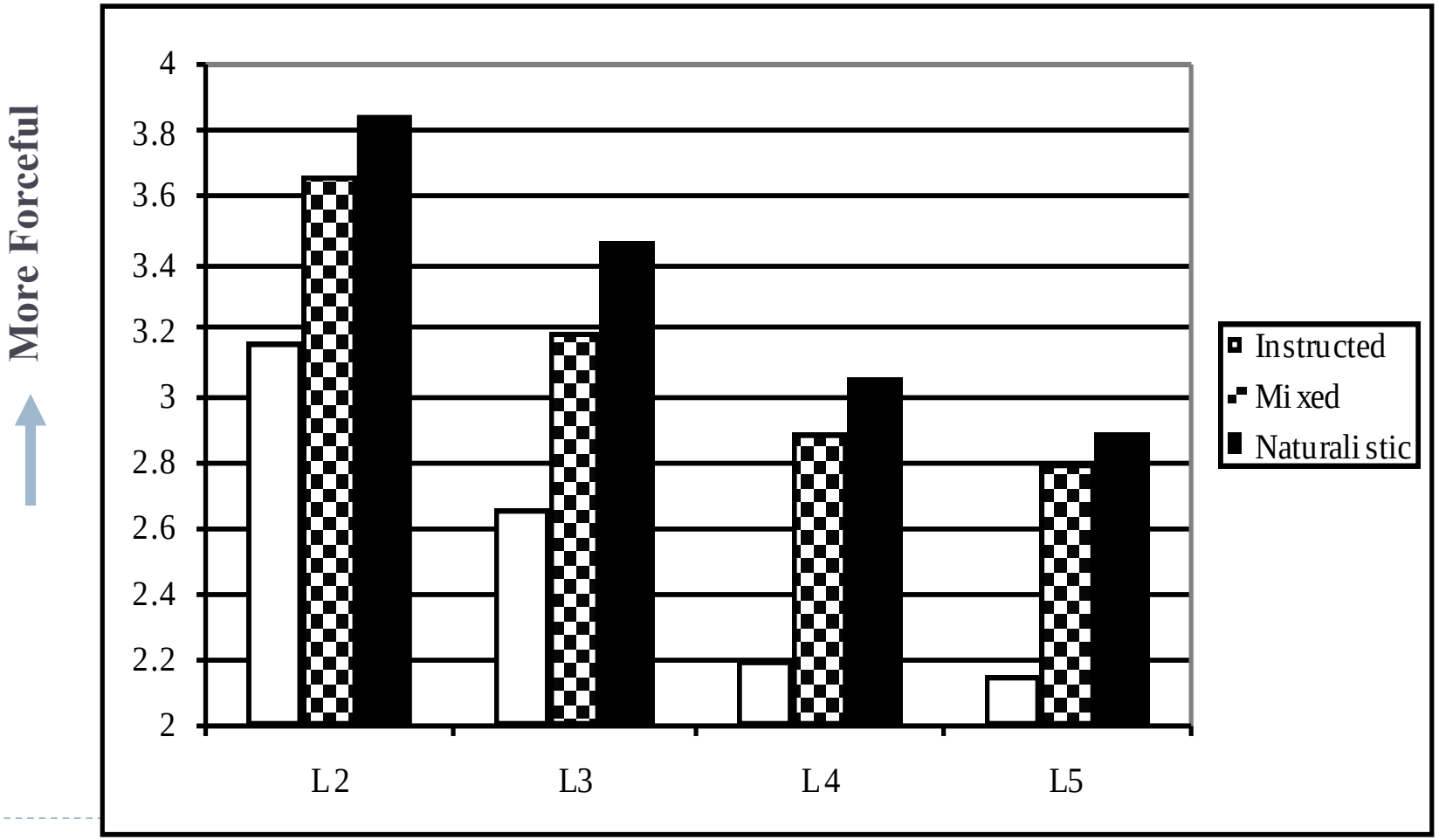
Minimal Effects of Education



Females Rate Swearwords As More Forceful Than Males (except L5)



Perceived Force of Swearwords Greater for Naturalistic Learning Context



What Participants Said...

Estela, Romanian L1, German L2, French L3, English L4, Italian L5

Romanian is more appropriate for hurting and insulting because it carries more weight and I can distinguish more nuances

Maureen, English L1, Italian L2

I prefer to express my anger in Italian because I do not hear the weight of my words so everything comes out quite easily. Which unfortunately means I probably hurt people more than I intend to!

Why Do Some Speakers Prefer Swearing in L1, and some in L2?

Speakers always rate swearwords as having greater emotional force in higher-rank languages.

If the high emotion of a first language is desired, then one prefers to swear in L1.

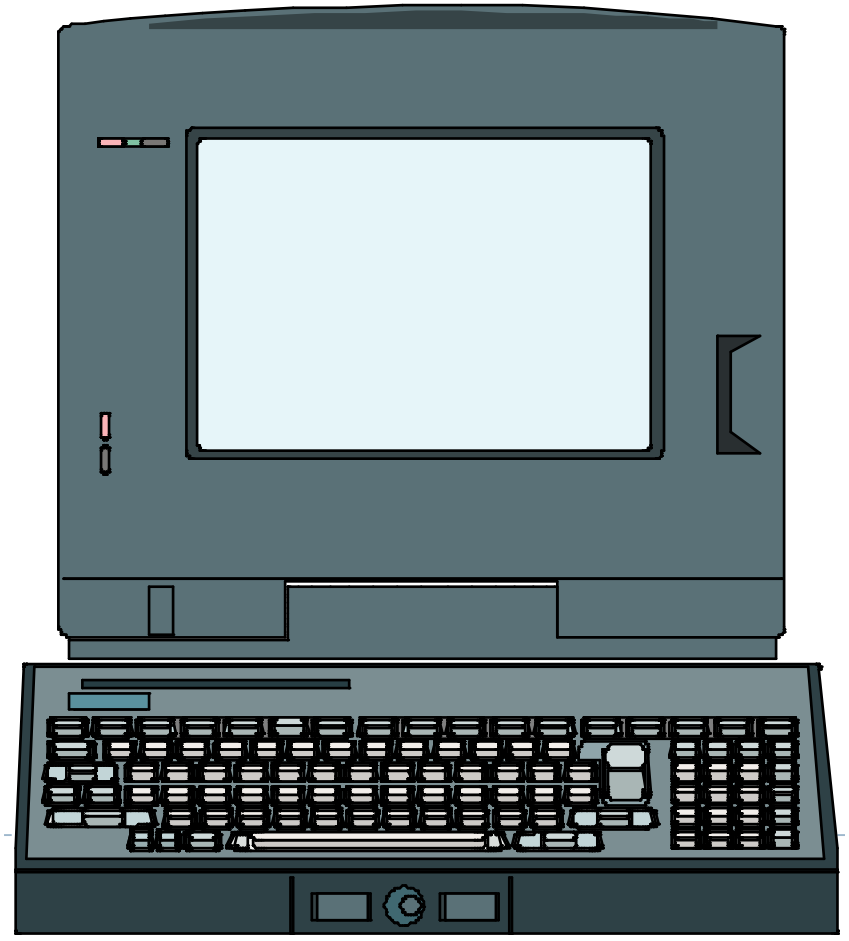
If the arousal is aversive, then one prefers to swear in L2.

Moving Beyond Self-Report...

- Is Skin Conductance Higher for Emotion Words in the Second Language?

öpücük

kiss



The Autonomic Nervous System Engages the Amygdala

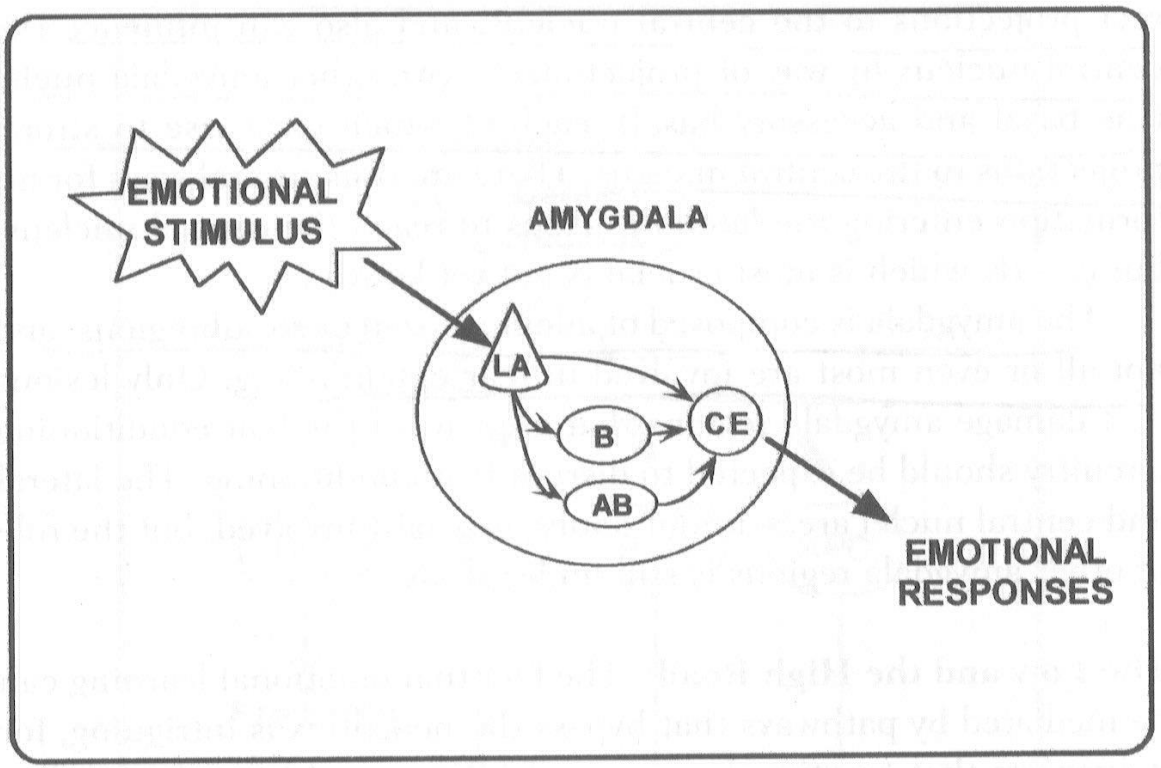


FIGURE 6-12
Organization of Information-Processing Pathways in the Amygdala.

The lateral nucleus (LA) is the gateway into the amygdala. Stimuli from the outside world are transmitted to LA, which then processes the stimuli and distributes the results to other regions of the amygdala, including the basal (B), accessory basal (AB), and central nuclei (CE). The central nucleus is then the main connection with areas that control emotional responses. As shown in figure 6-11, different outputs of the central nucleus regulate the expression of different responses.

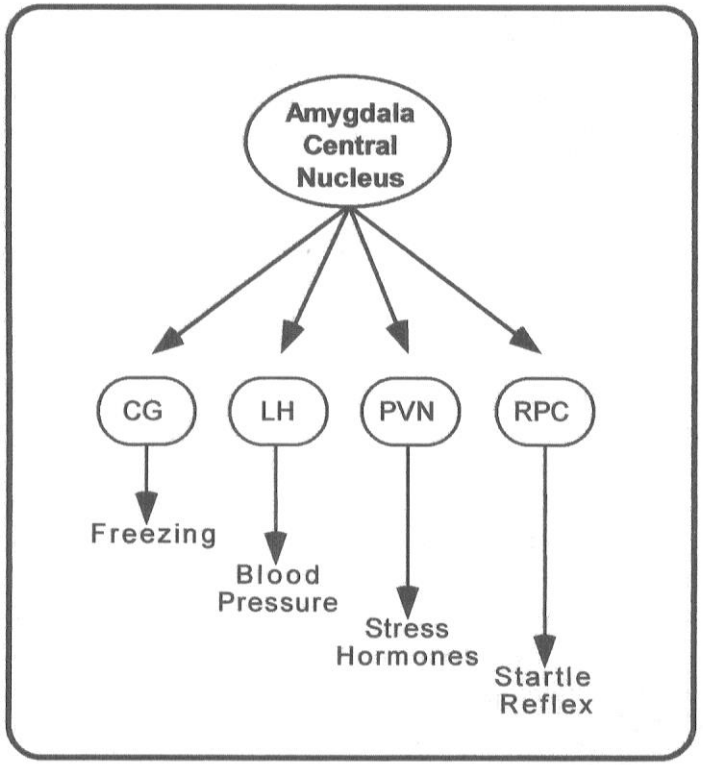


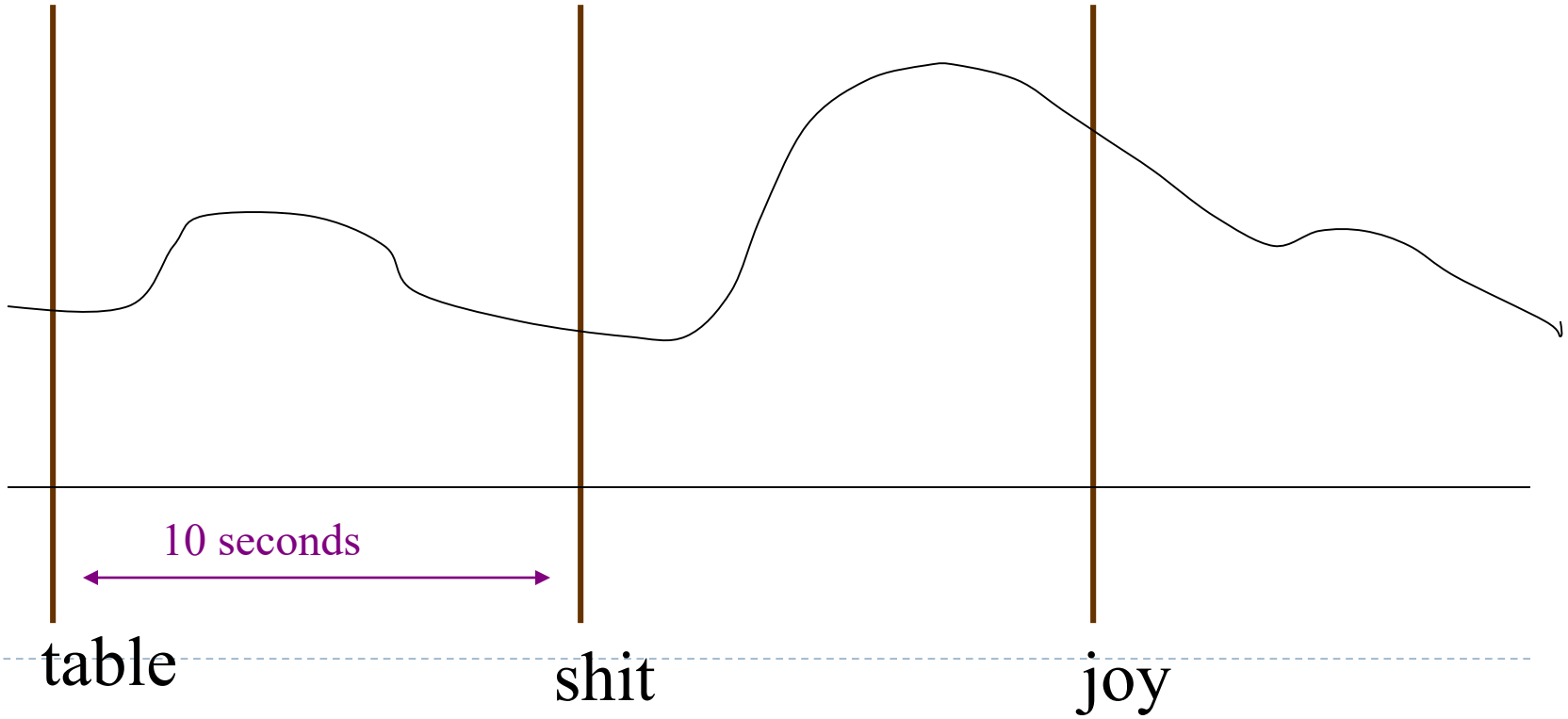
FIGURE 6-11
Different Outputs of the Amygdala Control Different Conditioned Fear Responses.

In the presence of danger or stimuli that warn of danger, behavioral, autonomic, and endocrine responses are expressed, and reflexes are modulated. Each of these responses is controlled by a different set of outputs from the central nucleus of the amygdala. Lesions of the central nucleus block the expression of all these responses, whereas lesions of the output pathways block only individual responses. Selected examples of central amygdala outputs are shown. Abbreviations: CG, central gray; LH, lateral hypothalamus; PVN, paraventricular hypothalamus (which receives inputs from the central amygdala directly and by way of the bed nucleus of the stria terminalis); RPC, reticulopontis caudalis.

Taboo words elicit large skin conductance amplitudes in monolingual speakers. Neuroimaging indicates amygdala involvement (Lebar and Phelps, 1998)

Psychophysiological Monitoring: Skin Conductance Amplitudes

Measures autonomic arousal (apprehension of threat; polygraph)



Stimuli and Procedure

Auditory *or* written on computer screen

Judged words for unpleasantness

Mild to moderate taboo words

breast

asshole

Neutral, negative, positive words

Reprimands

Shame on you!

Go to your room!

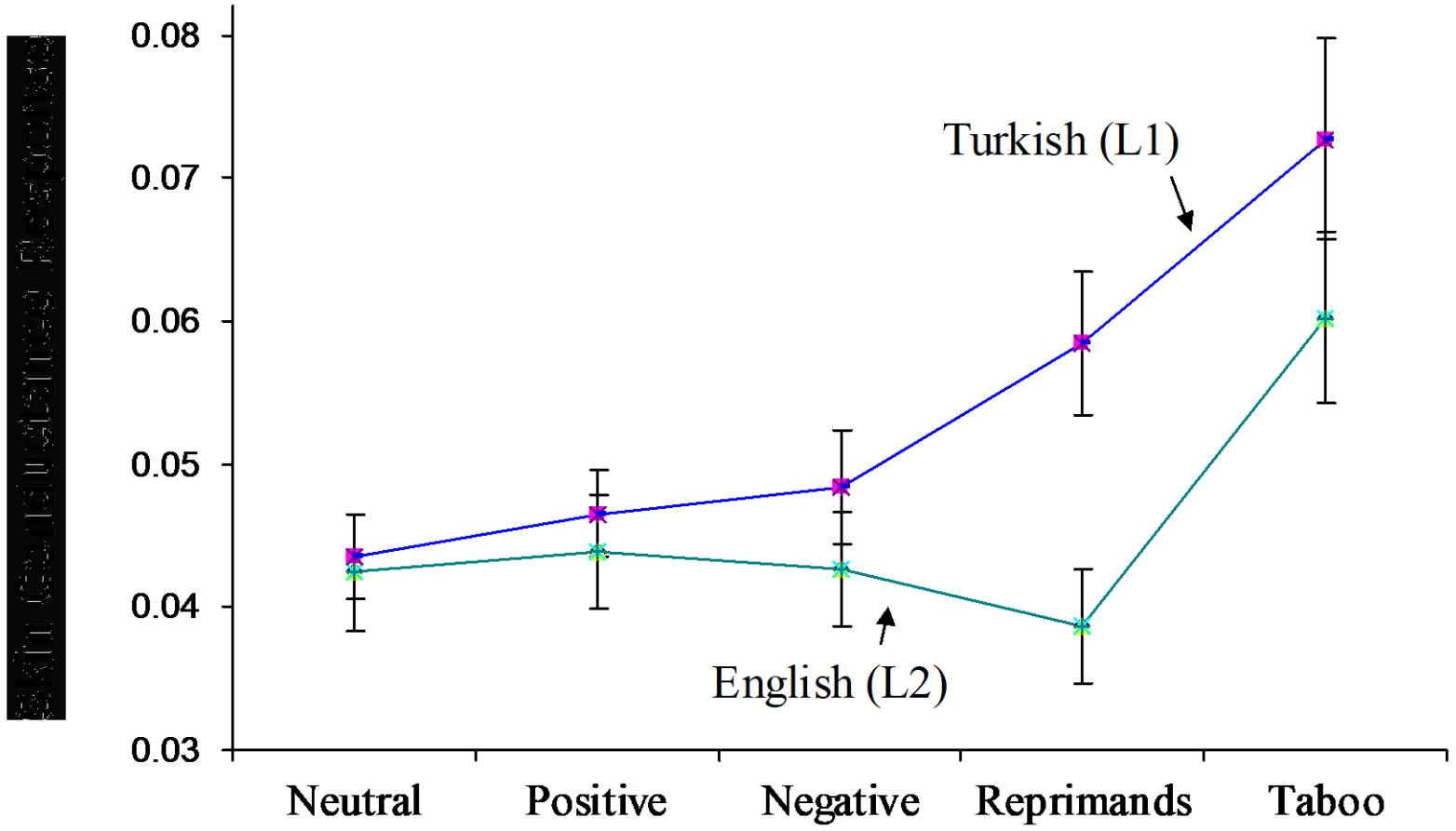
32 Turkish-English bilinguals
Acquired English age 12-25
Arrived in the US after age 17

Demographic Variables (Mean and Range)	
Age	28 (20-47)
Years Education	18 (12-20)
Age of Immersion	16 (12-31)
Age of Arrival in the US	24 (16-31)
Years of residence	4 (1-15)

Fluency Test and Self-Ratings	Mean and Range	
	Turkish	English
Word Fluency Test (total words produced)	37 (17-56)	29 (17-43)
Spoken (Conversation)	5	3.15 (2-4)
Understanding	5	3.35 (2-4)
Reading	5	3.6 (2-4
Writing	5	2.55 (1-4)

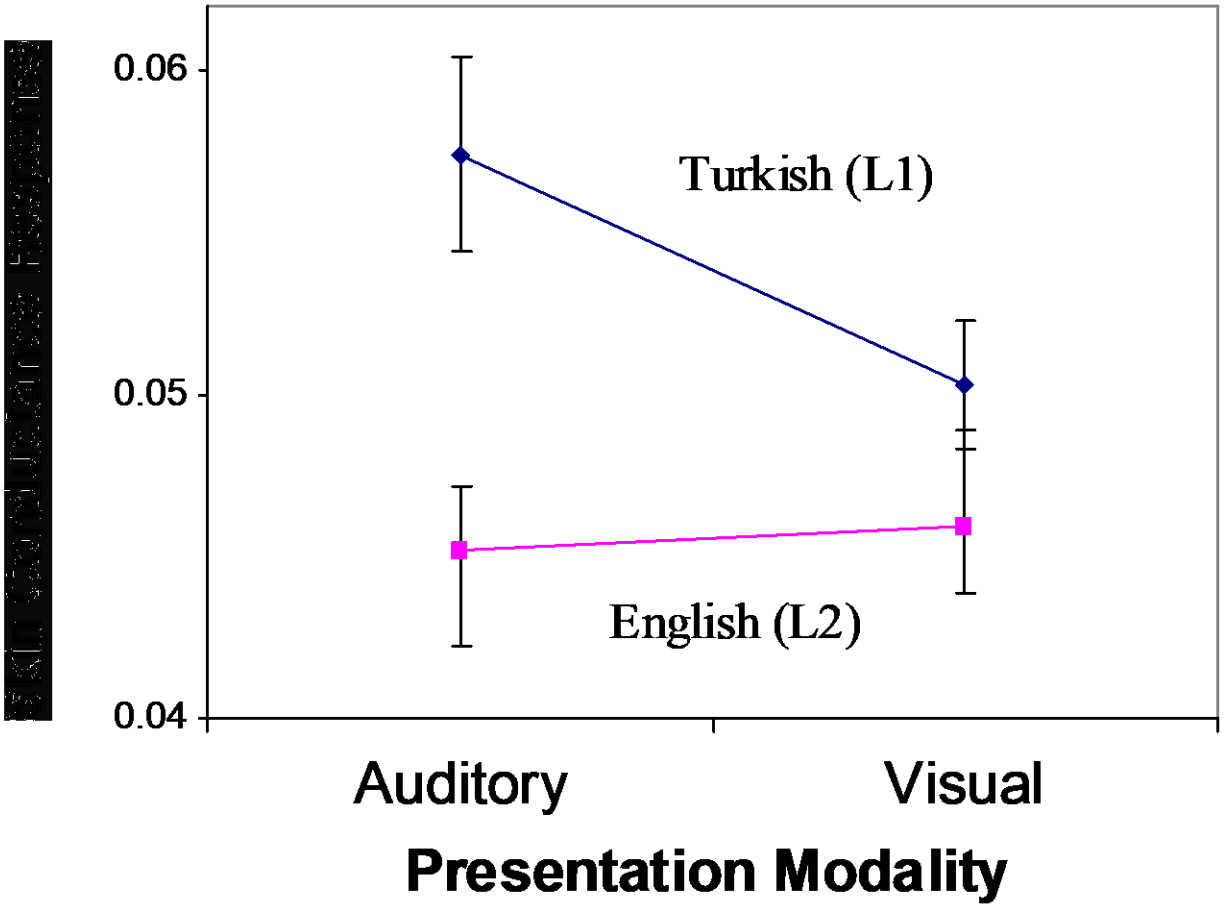
Table notes. Age of immersion indicates enrollment in English-language high school, university or arrival in the U.S. Word fluency test is sum of the words produced to letters F, A and S, 1 minute provided for each letter. Self-ratings on 1-5 scale indicate poor, fair, good, very good, or native-speaker ability.

Reprimands and Taboo Words Elicit Greater Reactivity in a First Language



Harris, Ayçiçegi, Gleason (in press, *Applied Psycholinguistics*)

Auditory Language More Arousing in L1



Why is the first language more emotional?

- Learning a language early promotes heightened emotionality of L1 compared to L2 *because:*
  - Family context of learning
  - First language learning co-evolves with emotional regulation systems
  - L1 has greater connections with subcortical brain structures which mediate arousal (including amygdala-mediated learning)

What Participants Said...

During debriefing, most confirmed that Turkish was more emotional than English

"Words like honey, sweetie … I feel nothing"

One participant stood out.

"No, English is more emotional for me."

This woman's language history was similar to that of other participants (late ESL). But she had married an American man, had three children, and expressed no nostalgia for Turkey.

What About Bilinguals From Birth?

- Compare early and late learners of English from different cultural backgrounds:
- Spanish-English and Mandarin-English Bilinguals
  - Boston University Undergrad and Grad Students
- Roughly three categories
  - Born in the US to immigrant parents
  - Immigrated to the US in middle childhood
  - Moved to Boston to attend college/grad school
- *What can we already predict from age of arrival?*

Emotion and Language Interview

- Which language do you (prefer to) swear in?
- … to express anger? To give an insult?
- … to express a confidence (share a secret)?
- … to express love? To say “I love you”?
- Which language is emotionally richer?
- … more colorful?
- … more precise?
- … more useful?
  - *Not everyone “got” these questions*

Age Arrival US	Self-Reported Proficiency	Electro-dermal	Self-Reported Emotionality
Birth learned L2 at age 5	English Dominant	Idiosyncratic Patterns	Mixed report
Age 8-14	Mixed Dominance	Idiosyncratic Patterns	Mixed report
18+	Spanish or Mandarin Dominant	More reactive to Spanish or Mandarin	Mixed report

Which of Your Two Languages Feels More Emotional?

Spanish First Language

Late Learners of English: "Spanish" (All participants)

Mandarin First Language

Late Learners of English: "Both" "English" "Depends"

Which of Your Two Languages Feels More Emotional?

Spanish First Language

Early Learners of English: "Both equally" "Depends"

Late Learners of English: "Spanish" (Always)

Mandarin First Language

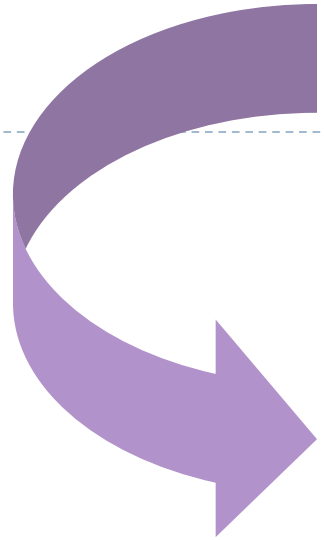
Early Learners of English: "English" "Depends"

Late Learners of English: "Both" "English" "Depends"

A Role for Culture in Emotional Expressiveness?

For at least some Chinese students who immigrated to the US as teens or college students, English is perceived as the language of emotional freedom, the language that *permits* one to be emotional.

BUT: Electrodermal recording reveals that these same speakers have stronger skin conductance responses to Mandarin.



Proficiency in a second language depends on age of acquisition

Does the "emotional feel" of a language also depend on age of acquisition?

Yes, but other factors appear to be very important in "emotional feel"

- Culture
- Proficiency
- Length of immersion

Do you feel like two difference people when you are speaking your two languages?

Spanish Speakers: (mostly) No

Example of "yes": Pablo, 38, 10 yrs residence in US

I am more logical in English. English makes me get to the point. In Spanish, you can circle around the point.

(Why?)
In Argentina, there is a lot of misery. You want to avoid getting to the point…

Does Speaking a Dialect Generate an Emotional Response?

- New research project

  Interview undergraduate and graduate African American Students about Black English

  Assess “African American Consciousness”

- Do you recognize any dialects of English as being specific to African Americans? (all: Yes)
- Do you speak any of these? (all: Yes)
- Do you experience more emotion when speaking a dialect? (mostly: No)
- Do you prefer to share confidences or express emotion when speaking a dialect? (mostly: No)

With Prolonged L2 Exposure, Can Emotional Connotations of L1 Decay?

- We all know about L1 Attrition in childhood. Longitudinal studies of L1 use for permanent residents show little L1 loss in adulthood. However:

  After 15 years of living and teaching in the U.S., German born Suzanne (38 yrs -- age of arrival 23 yrs) says that speaking German feels like wearing mittens.

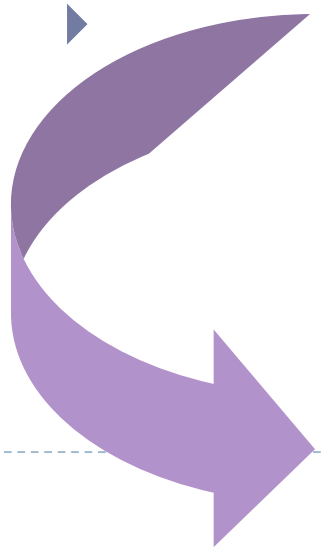
  The discomfort of fumbling around in L1 is (reportedly) due to lack of emotional nuances, not difficulty with basic grammar or vocabulary.

Implications for Classroom Learning

Language is an emotional event as much as a cognitive event.

Learning is enhanced when learners are emotionally involved with their material (Schank & Cleary, 1995; Schumann, 1997)

Learning requires emotional arousal -- release of noradrenaline facilitates long-term potentiation.



Learning may proceed more fully in a native language than in a second language if the native language more successfully engages attention and emotional systems.

Knowledge of Emotion Words in Bilingual Children

- Vano and Pennebaker (1997) used the Bilingual Emotion Vocabulary Test.
  - Cartoon faces depicting emotions
  - Pictures associated with sadness, guilt, anger, happiness, fear
  - Teachers completed the Connors Scale
- Bilingual Hispanic children, 6-11 yrs

Knowledge of Emotion Words in Bilingual Children

- Problems acting out were most common among students with a large disparity in emotion word vocabulary.
- Symptoms of withdrawal, passivity, and daydreaming were seen among students with weak English emotion vocabularies, irrespective of Spanish emotion word knowledge. These effects were independent of general, nonemotion vocabulary abilities.

When Teaching Bilingual Children

- Use emotion-laden examples
- and...

Teach Emotion Words!

When Teaching Bilingual Children

- *Give students an opportunity to use both of their two languages*.

  Explain concepts first in students' native language.

  Place students in small groups with same-language peers.

  Students can review the material first in L1, then discuss in English

Moral dilemmas in L1 and L2