

What's in a heart?

Culture-specific concepts of emotionality and rationality

Susanne Niemeier
(Koblenz)

Marburg, 27.2.09

General aim (1):

To explore the bi-directionality of

- (a) Applied Cognitive Linguistics (i.e., the search for the impact of metaphorical thought)
- (b) Cultural Studies (i.e., the search for the cultural models that may have channelled the metaphorical conceptualizations)

(c) Susanne Niemeier, Feb 09

General aim (2):

To explore

- (a) the ways in which internal body organs are employed in different languages to conceptualize human experiences such as emotions and/or workings of the mind
- (b) the cultural models that account for the observed similarities and differences of the various conceptualizations
- (c) the *head/heart* dichotomy in modern English

Research in progress!

(c) Susanne Niemeier, Feb 09

Structure:

0. Introduction
1. Locating cultural models of emotions and mind on the world map
2. The heart in the English language
3. Analysis of *heart* expressions
4. Analysis of *head* expressions
5. Conclusion

(c) Susanne Niemeier, Feb 09

Introduction

Central question:

How are feeling, thinking and knowing related to internal body organs in different cultures (as they are reflected in different languages)?

(c) Susanne Niemeier, Feb 09

Introduction

- different role of the HEART in different cultures
- synchronic variation and diachronic development
- focus on present-day English
 - in English: seat of emotion, not of reason
 - contradictory to scientific theory
 - nearly complete dichotomy between *head* and *heart*

(c) Susanne Niemeier, Feb 09



Introduction

- the topic of the cognitive search for the conceptualisation of the mind and of body organs is not new (cf. Jahoda 1992, Palmer, Goddard & Lee 2003, Shweder 1991, Shweder & Levine 1984, Wierzbicka 1989)
- what is new: the search for the impact of metaphorical thought (if present) and of cultural models that may have channelled these conceptualisations

(c) Susanne Niemeier, Feb 09



Introduction

Definition of „cultural model“:
 (Cultural models are) presupposed, taken-for-granted models of the world that are widely shared (although not necessarily to the exclusion of other, alternative models) by the members of a society and that play an enormous role in their understanding of the world and their behavior in it
 (Holland/Quinn 1987:4)

(c) Susanne Niemeier, Feb 09



Introduction

Cultural models (1):

- are complex conceptual systems that act as building blocks of a cultural group's cultural cognition
- lend themselves as „templates“ for understanding certain aspects related to human inner and outer experiences
- metaphors can be seen as rooted in cultural models instead of either constituting them (cf. Lakoff & Kövecses 1987) or reflecting them (cf. Quinn 1991)

(c) Susanne Niemeier, Feb 09



Introduction

Cultural models (2):

- metaphors are very often grounded in immediate bodily experience but expand them so as to include the mediating role of cultural models (embodiment plays a lesser role in many Aboriginal cultures which tend to use nonbodily models that are rooted in the Aboriginal world view)
- physiological motivation does not seem to play a major role in conceptualisations of internal body organs, as otherwise we would find many more similarities across languages and cultures

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

3 general types of conceptualization of the mind/emotions, referring to those body organs that play a **central** role in conceptualization – independent of language families:

- **abdominocentrism**: the mind is located in the abdomen region
- **cardiocentrism**: the mind is located in the heart region
- **cerebrocentrism**: the mind is located in the head (more precisely: the brain) region

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Abdominocentrism:

- the predominant approach in Southern Asia, Polynesia and other disparate cultures, including the Basque culture
- feelings are located in the belly, in the liver, in the kidney
- rationality is located in the liver, the ear, the „gogo“
- cultural models of „animistic spirituality“

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Abdominocentrism (2): examples

Malay/Indonesian:

- the liver („hati“) is seen as the seat of emotional and mental activities (cf. Goddard 2008, Siahaan 2008)
- cf. the role of the liver in Greek philosophy as hosting one part of the three-part soul, i.e. „the natural soul“ controlling nutrition (Erickson 1997:4)
- Indonesian: liver divination rituals
- liver as the central organ by which spiritual beings communicate with human beings

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Abdominocentrism (3): examples

Kuuk Thaayorre (an aboriginal Australian language), cf. Gaby 2008:

- the belly is associated with emotions
- Aboriginal worldview in which food has a significant role in determining spiritual and physical health
- the place for food (the belly) is also connected to spiritual and physical health
- the ear is associated with reasoning (oral language)

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Abdominocentrism (4): examples

Vietnamese:

- emotions are located in the belly
- the belly is also the place where all illness symptoms occur, with the kidney as the „grandmaster organ“

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Abdominocentrism (5): examples

Basque

- border-line case
- connects emotions to inner organs (heart, liver, stomach, intestines)
- relies on various cultural models for various emotions:
 - the heart is connected with positive emotions (→ Cartesianism)
 - the liver is connected with negative feelings (→ theory of the four humours)
 - the stomach and the intestines are only marginal concepts
- but: Basque has a „gogo“, i.e. an inner entity for intellectual reasoning processes based on intuition and emotion → an (animistic-) spiritual cosmivision, cf. Ibarretxe Antuñano 2008

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Cardiocentrism:

- the traditional view of China, Korea, Japan
- philosophical and medical cultural models
- holistic, heart-centring conceptualizations with remarkable similarity

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Cardiocentrism (2): examples

China:

- the heart as the ruler of the body, cf. Yu 2008
 - it is the central faculty of cognition
 - it is the physiological centre of the person
 - it is connected to emotions
 - it is (in a cosmic view) the „mirror of the universe“
- cultural models:
 - traditional Chinese medicine
 - yin-yang
 - the five elements (wood, fire, earth, metal, water) in ancient Chinese philosophy

(c) Susanne Niemeier, Feb 09

Locating cultural models of emotions and mind on the world map



Cardiocentrism (3): examples

Korea:

- intellectual and emotional activities are localized in and around the heart, cf. Yoon 2008
- 3 different expressions for *heart*
 - referring to the body organ
 - referring to the body part as well as to the psychological faculties of a person (highly polysemous concept)
 - referring to psychological and mental faculties (can be used as a metonymy and/or metaphor for a person)

(c) Susanne Niemeier, Feb 09

Locating cultural models of emotions and mind on the world map



Cardiocentrism (4): examples

Japan:

- 3 words for *heart* (similar to Korean)
 - a Chinese loan word for the organ itself
 - a highly polysemous native word for the workings of the heart (referring to reason and emotions)
 - an English loan word (*haato*) for emotions connected with the heart, e.g. romantic love
- the increasing use of *haato* is an obvious case of the influence of English in Japan, cf. Occhi 2008 → not present in ancient Japanese
- the brain plays a (minor) role in thought processing, cf. Ikegami 2008

(c) Susanne Niemeier, Feb 09

Locating cultural models of emotions and mind on the world map



Cerebrocentrism (1):

- Greek-based West Asian, European and North African cultures
- prototypical examples: major Indo-European languages
- philosophical, medical, and/or religious models
- dualism between mind and body and thus between head/brain as the seat of intellect and the heart as the seat of emotions
- the head-heart dualism grew out of the earlier interaction between cardiocentrism and cerebrocentrism (ancient Greek philosophy and medicine, cf. Foolen 2008)
- nearly complete dichotomy between head/heart expressions in Modern English, Modern Dutch and Modern German (and other languages)

(c) Susanne Niemeier, Feb 09

Locating cultural models of emotions and mind on the world map



Cerebrocentrism (2):

Controversial question in ancient Greece:

- is the heart or the brain the seat of the soul and the central organ of thought and sensation?
 - Hippocratic writers (5th cent. BC): „heart is a strong muscle with a large hot chamber housing the intelligent ruling principle of the soul“
 - also Aristotle (4th cent. BC): „heart is the chief organ of the body and the center for thought and the appreciation of sensation“
 - Plato: the soul is made up of three parts and the most important part – the rational part – is assigned to the head/brain → minority opinion; also supported by Galen, a medical doctor and anatomist (1st cent. AD)
- (quotations from Erickson 1997; Jager 2001; Clarke & O'Malley 1968)

(c) Susanne Niemeier, Feb 09

Locating cultural models of emotions and mind on the world map



Cerebrocentrism (3):

medieval period:

- cardiocentrism regained primacy (mainly due to Avicenna, a Persian physician and philosopher, 10th-11th cent. AD, cf. Stevens 1997)
- Bible: pre-eminent authority representing the heart-centered orientation of Christianity

after the Middle Ages (16th/17th cent.):

- religious and scientific views began to diverge increasingly
- Catholic Church stuck to cardiocentrism („Sacred Heart“ cult)
- medical scientists (Andreas Vesalius, William Harvey) discovered the heart's function as a blood pump

(c) Susanne Niemeier, Feb 09

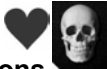
Locating cultural models of emotions and mind on the world map



Cerebrocentrism (4):

- influence of René Descartes in all of Western Europe and beyond (1596-1650): birth of the fully outspoken dualism
- shift from monocentrism/cardiocentrism to dualism linked to the developments in medicine and philosophy (16th and 17th cent.)
- Cartesian dualism: „disembodied rational mind“ (Stevens 1997, Damasio 1994), i.e. mind/brain split and mind/body split (→ emotions located in the heart, reason located in the head)

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Cerebrocentrism (5):

- replacement of *heart* expressions by *head* expressions in Persian, Neo-Aramaic, English and Dutch – and presumably other languages
- the Cartesian model persists until today, although seriously questioned in the 20th century in philosophy by phenomenology and in linguistics by experientialism or embodied realism (Geeraerts 1985 & 1987, Johnson 1987, Lakoff 1987, Lakoff & Johnson 1999)

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Cerebrocentrism (6):

beyond western Europe: influence of competing cultural models

- Neo-Aramaic: ancient Syriac thought on ethnomedicine and Early Christian mythical thought (cf. Wolk 2008)
- Tunisian Arabic: Koran (cf. Maalej 2008)
- Persian: Sufism (cf. Sharifian 2008)

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Cerebrocentrism (7): examples

Neo-Aramaic:

- many correspondences with English
- no complete similarity: *heart* expression (*libbā*) also encompasses the stomach
- traces of the Galenic model (humour theory): liver and spleen largely absent, but differentiation between wet/dry and hot/cold properties has survived
- also: cultural model of morality

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Cerebrocentrism (7): examples

Tunisian Arabic:

- shows Cartesian split, but at the same time influenced by a cultural model based on religious traditions (Koran)
- the Koran teaches a conflated model of body and mind, but this view has progressively yielded to the split between the two concepts (mainly owing to the translations of Greek philosophy into Arabic)

(c) Susanne Niemeier, Feb 09



Locating cultural models of emotions and mind on the world map

Cerebrocentrism (8): examples

Persian:

- correspondence between conceptualisations of *del* („heart“)
 - in spiritual accounts of Sufism
 - Avicenna's version of the theory of the four humours
 - the metaphorical expressions that refer to this internal body organ
- *del* describes more than the heart, it describes the area of the upper chest down to the stomach and also accounts for inner drives (somewhat similar to the Basque *gogo*)
- reason is located in the head/brain

(c) Susanne Niemeier, Feb 09



The heart in the English language

Old English still saw the heart (rather: mood) as connected to mental life, emotions, volition, according to the humoral doctrine (Geeraerts & Gevaert 2008) → cardiocentrism

(c) Susanne Niemeier, Feb 09



The heart in the English language

Old English compounds with mood *and* heart (selection)

<i>bl̥aemod</i>	happy mood/mind	happiness
<i>bl̥aheort</i>	happy-hearted	happiness, kindness, merciful
<i>eferheort</i>	even/equal-hearted	peace, tranquility, concord, harmony
<i>efermodice</i>	even-mood/mind	gentleness, meekness, composure
<i>gramheort</i>	fierce/hostile-hearted	hostility
<i>grammod</i>	fierce-mood/mind	hardheartedness, cruelty, severity
<i>heahheort</i>	high-hearted	pride
<i>heahmod</i>	high-mood/mind	pride, exultation, joy; magnanimity
<i>heardheort</i>	hard-hearted	obstinacy, wrath, sternness, displeasure
<i>heardmod</i>	hard-mood/mind	strength, fortitude, obstinacy

→ the same feelings may be expressed by heart and mood compounds, but there is an asymmetry: 78 *mood* compounds vs. 23 *heart* compounds

→ many *mood* compounds without a *heart* compound counterpart refer to reason (cognition and volition)

(c) Susanne Niemeier, Feb 09



The heart in the English language

Old English *mood* compounds (selection):

Cognition:		
madness, insanity	<i>Δmod</i>	'without mood'
sagacity	<i>gleawmod</i>	'wise/skillful-mood/mind'
sincerity	<i>pancōlmod</i>	'wise-mood/mind'
insincerity, wantonness	<i>meagolmod(nes)</i>	'earnest-mood/mind'
	<i>leasmodnes</i>	'not truthful-mood/mind'
	<i>leahmod(nes)</i>	'light-mood/mind'
Volition:		
obstinacy	<i>heardmod</i>	'hard-mood/mind'
determination, resolution	<i>stearmod</i>	'strong-mood/mind'
	<i>stīpmōd</i>	'strong/fierce-mood/mind'
	<i>stȳrmōd</i>	'stern-mood/mind'
	<i>swiþmod(nes)</i>	'very much-mood/mind'
disinclination to act, listlessness	<i>sleacmodnes</i>	'slack-mood/mind'
	<i>swāmōd</i>	'heavy-mood/mind'

(c) Susanne Niemeier, Feb 09



The heart in the English language

- Old English still saw the heart (rather: mood) as connected to mental life, emotions, volition, according to the humoral doctrine (Geeraerts & Gevaert 2008) → cardiocentrism
- today: nearly complete dichotomy in the English conceptualization of *head* and *heart* → cerebrocentrism
- modern scientific knowledge not yet represented by the language
- main cultural models (with a set of submodels): THE HEART AS THE SEAT OF EMOTION vs. THE HEAD AS THE SEAT OF REASON

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

4 categories of *heart* expressions (increasing degree of generality):

1. *Heart* as a metonymy for A PERSON'S FEELINGS
2. *Heart* as a metonymy for a PERSON AS A WHOLE
3. *Heart* as an OBJECT OF VALUE
4. *Heart* as a CONTAINER

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

1. *Heart* as a metonymy for A PERSON'S FEELINGS
 - „feelings“: emotions, courage, attitudes etc.
 - the heart is the most salient body part in the traditional cultural model of emotions
 - prototypical emotion: romantic love → easily symbolizable, but we also find more negative emotions (*heart of stone* – emotionless attitude; *half-hearted* – lack of courage)
 - the heart is seen as part of a person → metonymy
 - different submodels

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

1. *Heart* as a metonymy for A PERSON'S FEELINGS: submodels
 - A MOVEABLE OBJECT: *set one's heart on sth*
 - CHANGEABLE IN SIZE: *have a big heart*
 - HEART AS A SOLID: *soft heart*, *hardness of heart*
 - HEART AS AN INDICATOR OF TEMPERATURE: *warm-heartedness*, *cold-heartedness*
 - HEART AS AN ANTHROPOMORPHIZED ENTITY: *being one's heart's desire*

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

2. *Heart* as a metonymy for a PERSON AS A WHOLE:
- the heart is seen as referring to the complete person, i.e. not only to their feelings
 - the heart acts as a focalized centre of a larger entity, e.g. in the reference to a person as *sweetheart* or cf. the expressions: *two hearts that beat as one*, *all hearts throb for her*

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

2. *Heart* as a metonymy for a PERSON AS A WHOLE:
- mostly refers to failed love: negative emotions within oneself are described as causing damage to the heart
 - different submodels:
 - the instrument that did the damage: *heart-burning* (NEGATIVE EMOTIONS ARE FIRE)
 - the wounds suffered: *my heart is bleeding*
 - results of the damage: *broken heart*, *aching heart*

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

2. *Heart* as a metonymy for a PERSON AS A WHOLE:
- the perspective has widened
 - metonymies are less basic
 - often double metonymizations (may appear as metaphors)

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

3. *Heart* as an OBJECT OF VALUE:
- the heart in its totality is seen as a treasure chest
 - emotions are involved but not named (CONTAINER FOR CONTENT metonymy)
 - culture-specificity (as „value“ is culture-specific)
 - different submodels

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

3. *Heart* as an OBJECT OF VALUE:
submodels:
- HEART AS A GIFT: *I give you my heart*
 - HEART AS A POSSESSION: *my heart belongs to you*
 - HEART AS A PRIZE: *he won my heart, to lose one's heart*
 - HEART AS BOOTY: *to steal every heart*
 - HEART AS A MANIPULABLE/FRAGILE OBJECT:
 - *broken-hearted*
 - *to put heart into sth, to lose heart, to dishearten sb* (→ courage)
 - *to take sth to heart* (→ resentment)
 - „thinking about sth very deeply“ → reminiscence of Old English cultural model

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

3. *Heart* as an OBJECT OF VALUE:
- an even more generalized level of conceptualization
 - the location for romantic love has to be shared with other feelings (courage, anger, discontent)
 - possibly more awareness (i.e. more approaching the metaphoric pole of the metonymy-metaphor continuum)

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

4. *Heart* as a CONTAINER:

- most general category
- different submodels focusing on various aspects from the outer qualities of the container including its handability via its inner qualities to its internal structure

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

4. *Heart* as a CONTAINER:

submodels:

HEART AS A LID CONTAINER: *to open/close one's heart to sb; sth locked up in one's heart* (→ static view)

HEART AS A MANIPULABLE CONTAINER: *to pour out one's heart to sb* (→ dynamic view)

HEART AS AN OPEN CONTAINER FOR LIQUIDS: *a heart overflowing (with love, joy, gratitude etc.); this filled my heart with joy (etc.)*

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

4. *Heart* as a CONTAINER:

submodels ctd.:

HEART AS A CONTAINER WITH GREAT DEPTH: *from the bottom of one's heart, in one's heart of hearts* (Shakespearian coinage, referring to a container within the container)

HEART AS A STOREHOUSE CONTAINER: *I could not find it in my heart; by heart* (cf. the Old English cultural model → reference to memory)

HEART AS A COMPARTMENTALIZED CONTAINER: *She has a place in every heart*

(c) Susanne Niemeier, Feb 09



Analysis of *heart* expressions

4. *Heart* as a CONTAINER:

- a more universal type of schema, focusing on the contents rather than on the container
- container submodel not unique to the cultural model of the heart (cf. head, chest, womb etc.)
- this category is dependent on the existence of the other categories which provide its metonymic basis, is more „metaphonymically structured“ (cf. Goossens 1995)

(c) Susanne Niemeier, Feb 09



The *head* in the English language

- the head is primarily seen as the locus of rational thought → (culturally shared model)
- basic reference: body part
- frequently: reference to the head's presumed content, i.e. the brain, the mind, human ratio, intelligence
- location of abilities such as perception, spatial imagination, creativity, logic

(c) Susanne Niemeier, Feb 09



The *head* in the English language

- analysis will focus on expressions referring to the mind, to rationality and to intelligence
- although Damasio (1984) argues that mere intellectual reasoning is an impossibility and that human thinking is always supported and strengthened by emotions („I am therefore I think“ → body pre-exists thought), this does not (yet) show in the English language

(c) Susanne Niemeier, Feb 09



Analysis of *head* expressions

3 categories of *head* expressions:

1. *Head* as a LOCUS OF REASONING
2. *Head* as a CONTROL CENTRE
3. *Head* as a CONTAINER

(c) Susanne Niemeier, Feb 09



Analysis of *head* expressions

1. *Head* as LOCUS OF REASONING
 - most specific level of meaning
 - clear metonymic basis:
 - head stands for the brain → first whole-for-part metonymy
 - brain stands for the process of rational thinking that is taking place in it → second whole-for-part metonymy

(c) Susanne Niemeier, Feb 09



Analysis of *head* expressions

1. *Head* as LOCUS OF REASONING

examples:

We need some good heads to solve the problem!

Use your head!

head-hunter (relating to business)

(c) Susanne Niemeier, Feb 09



Analysis of *head* expressions

2. *Head* as CONTROL CENTRE

- more general than the previous category
 - the head is seen as the main site for decision making
 - focus is not on mental processes, but rather on the general processes which we assume to take place in the head and on the necessity of balance in our heads/minds (as a precondition for reasoning)
- cf. Geeraerts (2002): THE HEAD IS THE LOCUS OF ONE'S SELF-CONTROL
- examples are mostly negative (lack/loss of balance) → markedness

(c) Susanne Niemeier, Feb 09



Analysis of *head* expressions

2. *Head* as CONTROL CENTRE

examples:

to have one's head in the clouds/in the sand (→ clear perception becomes impossible)

the success went right to his head (→ off-balance)

my head is spinning (→ unable to think straight)

to keep a clear/cool head (→ necessity to be emotionless and thus keep the balance)

to lose one's head/to be off one's head/headless (→ rational control is completely absent)

(c) Susanne Niemeier, Feb 09



Analysis of *head* expressions

3. *Head* as a CONTAINER

- most general category, more (metonymy-based) metaphors than pure metonymies
- in the other categories, containment is implied as well, but only tacitly assumed
- in this category, it is mentioned explicitly
- expressions focus either on the fullness/emptiness of the head (static) or on the dynamic process of filling/emptying it (more salient)

(c) Susanne Niemeier, Feb 09



Analysis of head expressions

3. Head as a CONTAINER

examples:

my head is exploding (pressure due to cognitive overload)

empty-headed (stupid, no contents in the head)

he has a head like a sieve (state of the container)

Put these weird thoughts out of your head (ego as active party)

Who's put such bizarre ideas into your head? (third party active)

It never entered my head that he might be lying (no agent)

(c) Susanne Niemeier, Feb 09



Analysis of head expressions

only two (possible) exceptions in the corpus:

- *heady* (extremely exciting)
- *headstrong* (obstinate)
- both are no prototypical emotions:
 - in *heady*, something is weakening/eliminating the control center
 - in *headstrong*, the person thinks that their arguments are good enough not to give in – in that way, (distorted) ratio is involved
- thus, in both cases, the notion of „rationality“ is at least marginally present

(c) Susanne Niemeier, Feb 09



Conclusion

- nearly complete division of labour between the *head* and the *heart* in English
- the English language is still governed by a Cartesian cultural model, although science does not agree with it
- language change is very slow

(c) Susanne Niemeier, Feb 09



Conclusion

- whereas the conceptualization of the *heart* has in no meaningful way evolved from that of a mental faculty (emotions) to a mere organ (blood pump), the conceptualization of *head* as „ratio/mind“ has fully found its way into the language
- this may be due to the enormous symbolicity of the heart (deeply rooted in Western tradition) which is absent for the head

(c) Susanne Niemeier, Feb 09



References (1)

- Clarke, E. & C.D. O'Malley, 1968, *The Human Brain and Spinal Cord: A Historical Study Illustrated by Writings from Antiquity to the Twentieth Century*. Berkeley: University of California Press.
- Damasio, A., 1994, *Descartes' Error: Emotion, Reason and the Human Brain*. New York: Avon.
- Erickson, R.A., 1997, *The Language of the Heart, 1600-1750*. Philadelphia: University of Pennsylvania Press.
- Foolen, A., 2008, "The heart as a source of semiosis: The case of Dutch". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 373-394.
- Gaby, A., 2008, "Gut feelings: Locating intellect, emotion and life force in the Thaaayorre body". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 27-44.
- Geeraerts, D., 1965, *Paradigm and Paradox: Explorations into a Paradigmatic Theory of Meaning and its Epistemological Background*. Leuven: Universitaire Pers.
- Geeraerts, D., 1987, "Cognitive linguistics and the history of philosophical epistemology". In B. Rudzka-Ostyn & P. Geiger (eds.), *Conceptualisations and Mental Processing in Language*. Berlin: Mouton de Gruyter, 53-79.
- Geeraerts, D., 2002, "The interaction of metaphor and metonymy in composite expressions". In R. Dirven & R. Pirsings (eds.), *Metaphor and Metonymy in Comparison and Contrast*. Berlin: Mouton de Gruyter, 153-180.
- Geeraerts, D. & C. Gevaert, 2008, "Hearts and (angry) minds in Old English". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 319-348.
- Goddard, C., 2009, "Contrastive semantics and cultural psychology: English heart vs. Malay hati/liver". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 77-104.

(c) Susanne Niemeier, Feb 09



References (2)

- Goossens, L., 1993, "Metaphonymy: The interaction of metaphor and metonymy in figurative expressions for linguistic action". In *By Word of Mouth: Metaphor, Metonymy and Linguistic Action in a Cognitive Perspective*, L. Goossens, P. Pauwels, B. Rudzka-Ostyn, A.-M. Simon-Vandenbergh & J. Vangarys, 175-204. Amsterdam: Benjamins.
- Holland, D. & N. Quinn, 1987, *Cultural Models in Language and Thought*. Cambridge: CUP.
- Ibarrebe Antuñano, I., 2009, "Guts, heart and liver: The conceptualization of internal organs in Basque". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 105-130.
- Ikegami, Y., 2008, "The Heart: What it means to the Japanese speakers". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 171-188.
- Jager, E., 2001, *The Book of the Heart*. Chicago: The University of Chicago Press.
- Jahoda, G., 1992, *Crossroads between Culture and Mind: Continuities and Change in Theories of Human Nature*. New York: Harvester Wheatsheaf.
- Johnson, M., 1987, *The Body in the Mind, The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: The University of Chicago Press.
- Kövecses, Z., 2000, *Metaphor and Emotion: Language, Culture and Body in Human Feeling*. Cambridge: CUP.
- Maslej, Z., 2008, "The heart and cultural embodiment in Tunisian Arabic". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 395-429.
- Niemeier, S., 1997, "To have one's heart in the right place - metaphorical and metonymical evidence for the folk-model of the heart as the site of emotions in English". In *Human Contact through Language and Linguistics*, B. Smieja & M. Tsch (eds.), 87-106. Frankfurt: Lang.

(c) Susanne Niemeier, Feb 09



References (3)

- Niemeier, S., 1998, "Colourless green ideas metonymise furiously". In *Kognitive Lexikologie und Syntax*, F. Ungerer (ed.), 119-146. Rostock: Universität Rostock.
- Niemeier, S., 2000, "Straight from the heart – metonymic and metaphorical explorations". In *Metaphor and Metonymy at the Crossroads. A Cognitive Perspective*, A. Barcelona (ed.), 195-213. Berlin: Mouton de Gruyter.
- Niemeier, S., 2008, "To be in control: kind-hearted and cool-headed. The head-heart dichotomy in English". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 349-372.
- Occhi, D., 2008, "How to have a heart in Japanese". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 189-212.
- Palmer, G., C. Goddard & P. Lee (eds.), 2003, "Talking about thinking across languages". Special Issue of *Cognitive Linguistics* 14-2/3.
- Quinn, N. & D. Holland, 1987, "Culture and cognition". In *Cultural Models in Language and Thought*, D. Holland & N. Quinn (eds.), 3-40. Cambridge: CUP.
- Quinn, N., 1991, "The cultural basis of metaphor". In J.W. Fernandez (ed.), *Beyond Metaphor: The Theory of Tropes in Anthropology*. Stanford: Stanford University Press, 56-93.
- Seltz, J. A., 2000, "The bodily basis of thought". *New Ideas in Psychology: An International Journal of Innovative Theory in Psychology*, 18 (1): 23-40.
- Sharifian, F., 2008, "Conceptualizations of del' heart-stomach' in Persian". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 247-266.
- Sharifian, F., N. Yu, R. Dirven & S. Niemeier (eds.), 2008, *Culture, Body, and Language: Conceptualizations of Internal Body Organs across Cultures and Languages*. Berlin: Mouton de Gruyter.

(c) Susanne Niemeier, Feb 09



References (4)

- Shweder, R.A., 1991, *Thinking Through Cultures*. Cambridge: Harvard University Press.
- Shweder, R.A. & R.A. Levine (eds.), 1984, *Culture Theory: Essays on Mind, Self, and Emotion*. New York: Cambridge University Press.
- Siahaan, P., 2008, "Did he break your heart or your liver? A contrastive study on metaphorical concepts from the source domain ORGAN in English and in Indonesian". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 45-76.
- Stevens, S.M., 1997, "Sacred heart and secular brain". In D. Hillman & C. Mazzio (eds.), *The Body in Parts: Fantasies of Corporeality in Early Modern Europe*. New York: Routledge, 263-282.
- Wierzbicka, A., 1989, "Soul and mind. Linguistic evidence for ethropsychology and cultural history". *American Anthropologist* 91(1): 41-58.
- Wolk, D. P., 2008, "Expressions concerning the heart (Libb'a) in Northeastern Neo-Aramaic in relation to a classical Syriac model of the temperaments". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 267-318.
- Yoon, K.-J., 2008, "The Korean conceptualization of heart: An indigenous perspective". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 213-243.
- Yu, N., 2008, "The Chinese heart as the central faculty of cognition". In F. Sharifian, N. Yu, R. Dirven & S. Niemeier (eds.), 133-170.

(c) Susanne Niemeier, Feb 09

Thank you very much for your attention!



niemeier@uni-koblenz.de

(c) Susanne Niemeier, Feb 09