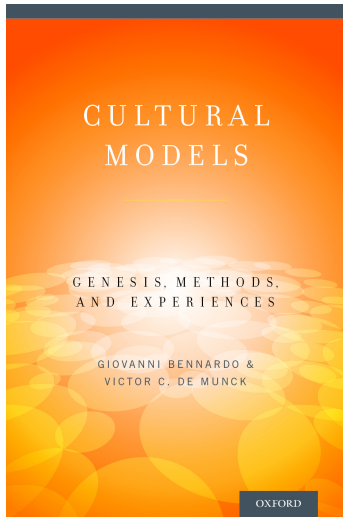Guangzhou, May 5, 2015

A Blended Methodological Approach to Cultural Models
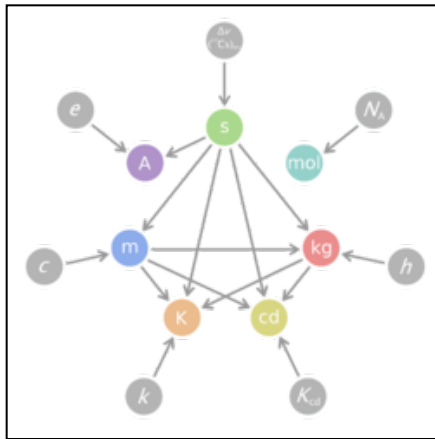
Prof. Giovanni Bennardo

Presidential Research Professor

Northern Illinois University, USA

Cultural Models are
Assemblages of Mental Knowledge
(i.e., Representations of the World)
<u>shared</u> within a community

Cultural Models function as mental lenses used
in <u>*understanding*</u>, in <u>*reasoning*</u>,
in <u>*planning actions*</u>,
and they may <u>*motivate/generate action*</u> as well

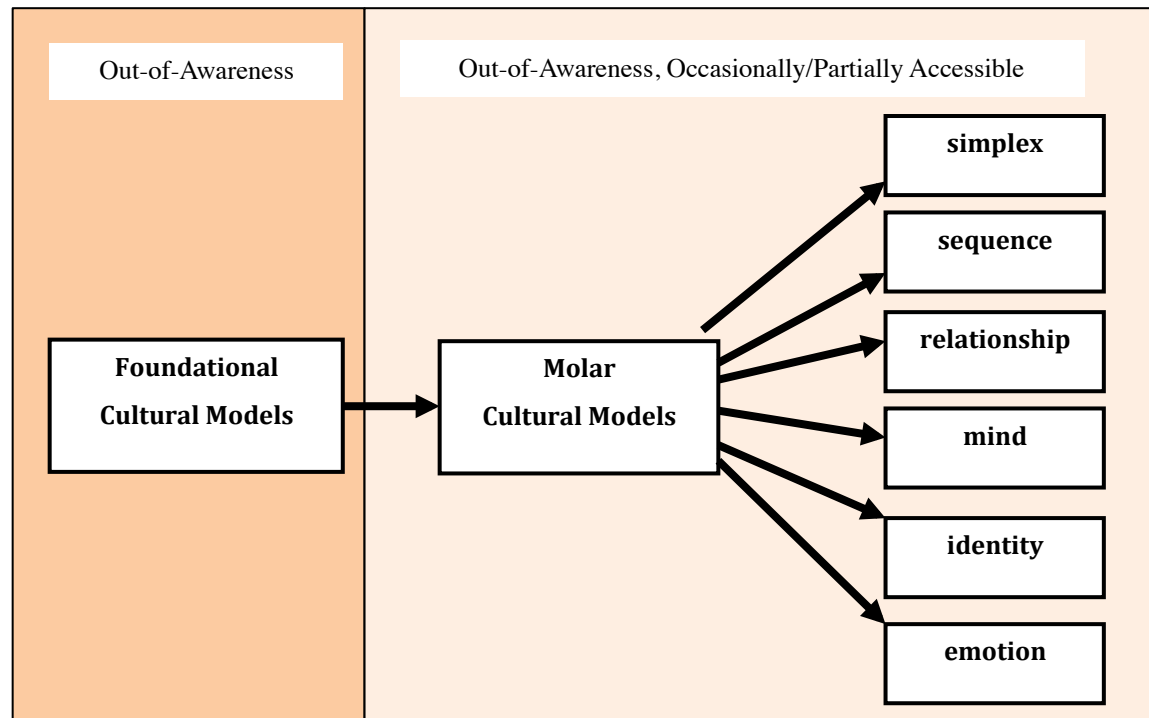Cultural Models are **SYSTEMS**.

That is, they are constituted by:

- **Units** (e.g., concepts, cultural model, etc.) and
- **Relationships** among these units.

Relationships among units can be of different types.

For example:

- **Sequential**

- **Taxonomic** (also Partonomic)

- **Causal**

Foundational and Molar Cultural Models
(Bennardo, 2009; Bennardo and de Munck, 2014:284)

Figure 11.1: Empirical Typology of Cultural Model

A Place for Culture (and Cultural Models) in Mind

I propose a language metaphor to illustrate culture in mind.

Cultural models represent for culture what sentences are for language, they are the fundamental units.

They have a syntactic structure and a phonological structure.

They are first constructed syntactically in the limited number of ontological domains, **foundational cultural models**.
Then, they are further processed and/or utilized phonologically.

At this level, the interaction with other knowledge, e.g., kinship, emotions, identity, hierarchy, values, takes place and foundational cultural models become more **complex cultural models** with emergent properties.

Eventually, performance, e.g., behavior, is generated by using the 'phonological' scenarios (i.e., cultural models) mentally constructed.

FROM Foundational Cultural Models
Originating in Ontological Domains
TO Molar Cultural Models and **TO** Action/Behavior:

Syntax

Phonology

Speech

Knowledge: kinship, folkbiology, color, etc.

Reasoning: time, causality, etc.

Values: good, bad, worthy, etc.

Identity: ego, other-than-ego, group

Emotions: anger, love, etc.

Hierarchy: superior, inferior, equal

Ontology:
SPACE,
time,
quantity,
quality,
possession.

ACTION/
BEHAVIOR

Foundational Cultural
Models Originate HERE

Then, they are Replicated and Fleshed
out HERE as Cultural Models

Research Methodology

What Methodology is Needed to Arrive at the Discovery of Cultural Models in a Community?

In the last 30 years two approaches have been used:

Ethnographic-Linguistic

Ethnographic-Experimental

The Ethnographic-Linguistic Approach

Data Collection:

- Conduct Semi-Structured Interviews (sampling and indirect questions)
- Record/Videotape Interviews
- Transcribe Interviews

Data Analyses:

- Gist   (reduce texts)
- Key Words   (word level)
- Semantic Roles   (within sentence level)
- Metaphor   (within and between sentence level)
- Causality   (discourse level)
- Reasoning   (discourse level)

1. Gist   (reduce text)

Start the analysis of the texts by transforming them into gist propositions and
Use only words/phrases produced by the interviewees.

Example from D'Andrade (2005)

From text of interview:

"Human equality? That's the supposition by some group of idiots that all men are created equal in reality when they're not. Each person is an individual. Each person has God given talents, just like fingerprints. There are no two of us alike. No matter how hard people try to make us alike, we are not alike individually."

The gist is two propositions:

- All people are not created equal because people are created with different talents.
- Some people who suppose that humans are not created with different talents try to make us all alike but they cannot.

2. Key Words (word level)

Conduct a frequency analysis of words occurring in the texts.
And **Choose** those that are 'key' to the domain on focus.
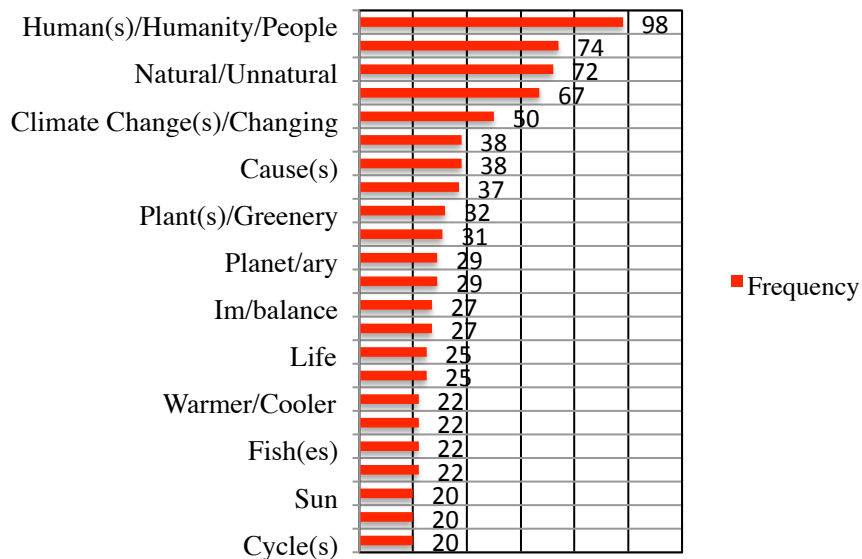
Top Key Words

Key Word	Frequency
Human(s)/Humanity/People	98
	74
Natural/Unnatural	72
	67
Climate Change(s)/Changing	50
	38
Cause(s)	38
	37
Plant(s)/Greenery	32
	31
Planet/ary	29
	29
Im/balance	27
	27
Life	25
	25
Warmer/Cooler	22
	22
Fish(es)	22
	22
Sun	20
	20
Cycle(s)	20

■ Frequency

Figure 3: Frequency of Top 20 'Key Words.'

Top Five Key Words

Key Word	Frequency
Human(s)/Humanity/People	98
Earth	74
Natural/Unnatural	72
Effect/Affect	67
Climate Change(s)/Changing	50

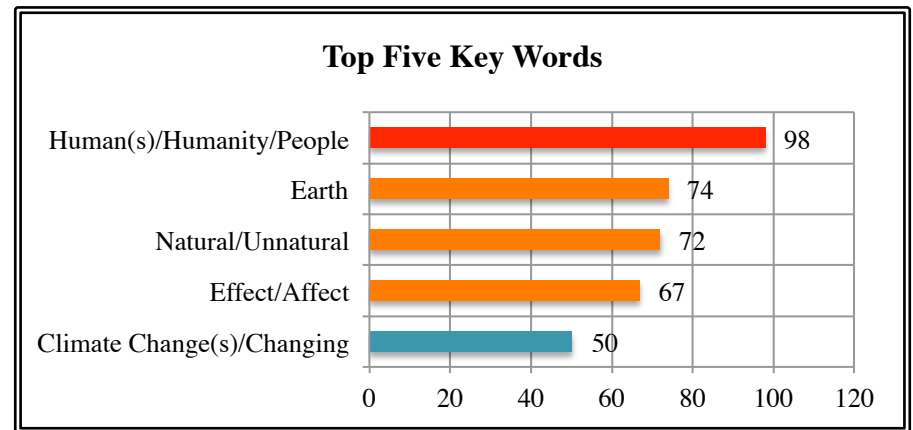Figure 4: Frequency of Top 5 'Key Words.'

3. Semantic Roles (within sentence level)

Check in texts the semantic role (e.g., agent or patient) of key word/s.
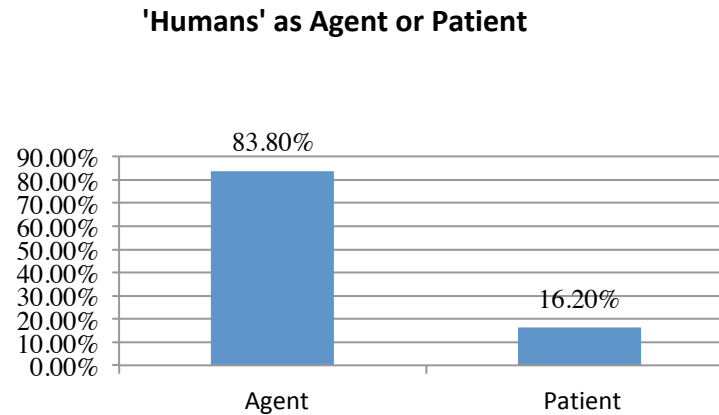
'Humans' as Agent or Patient

Figure 5: Frequency of 'Humans' as Agent or Patient.

4. Metaphor (within and between sentence level)

Table 9.1: Metaphor Frequencies

Type of Text	Length of Texts (words)	%	Metaphors	%	Frequency Index
Personal [2002]	19,599	35.34%	211	32.46%	0.92
Perceived (local) [2004]	4,867	8.78%	74	11.38%	1.30
Perceived (national) [2004]	12,179	21.96%	245	37.69%	1.72
Indirect [2005]	18,812	33.92%	120	18.46%	0.54
Total	55,457	100.00%	650	100.00%	

Types of Metaphor Found

1. social stratification or being up or down
2. a social/abstract group is a person
3. an individual/social group is an entity/substance
4. a social group is a place
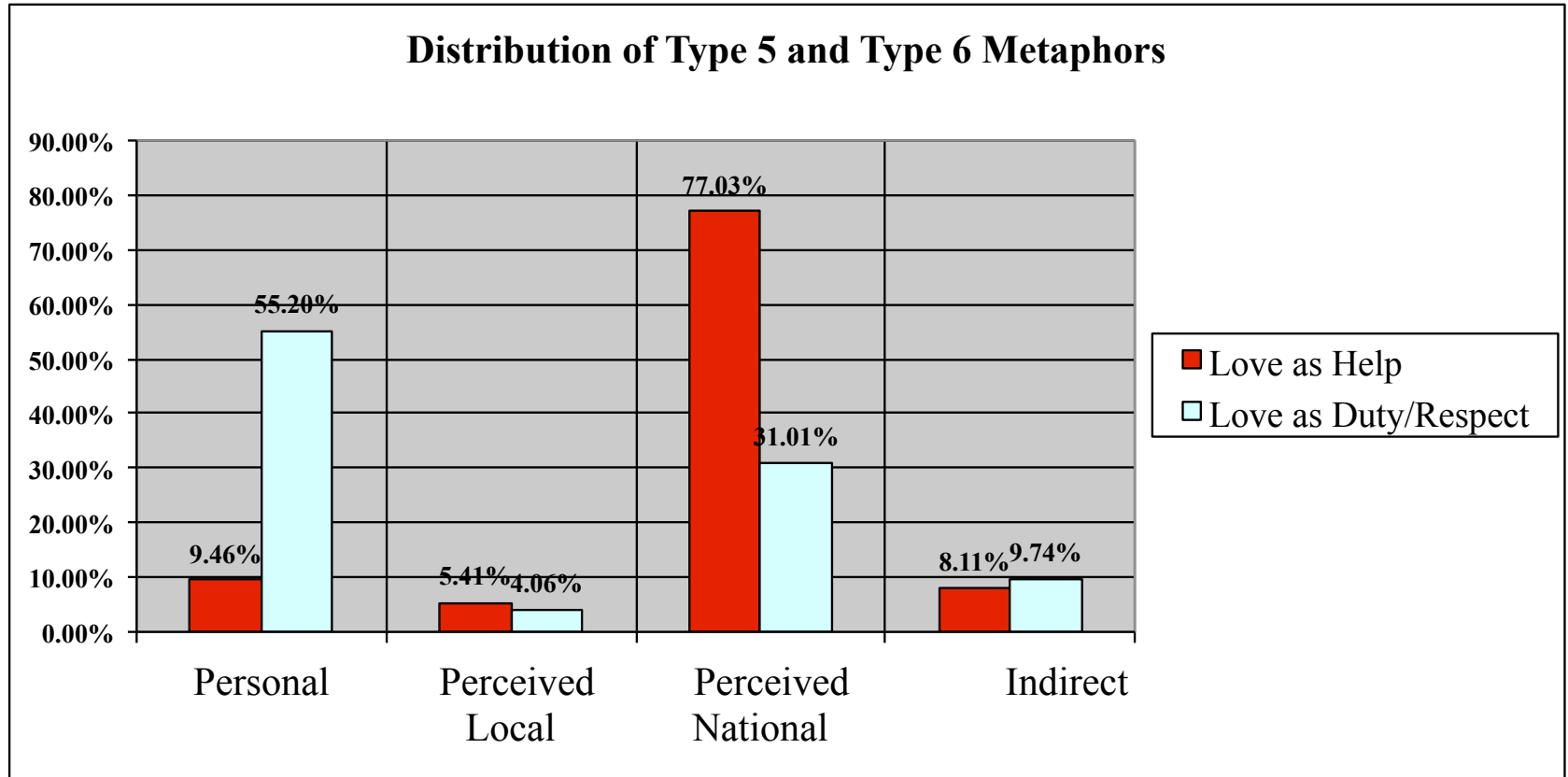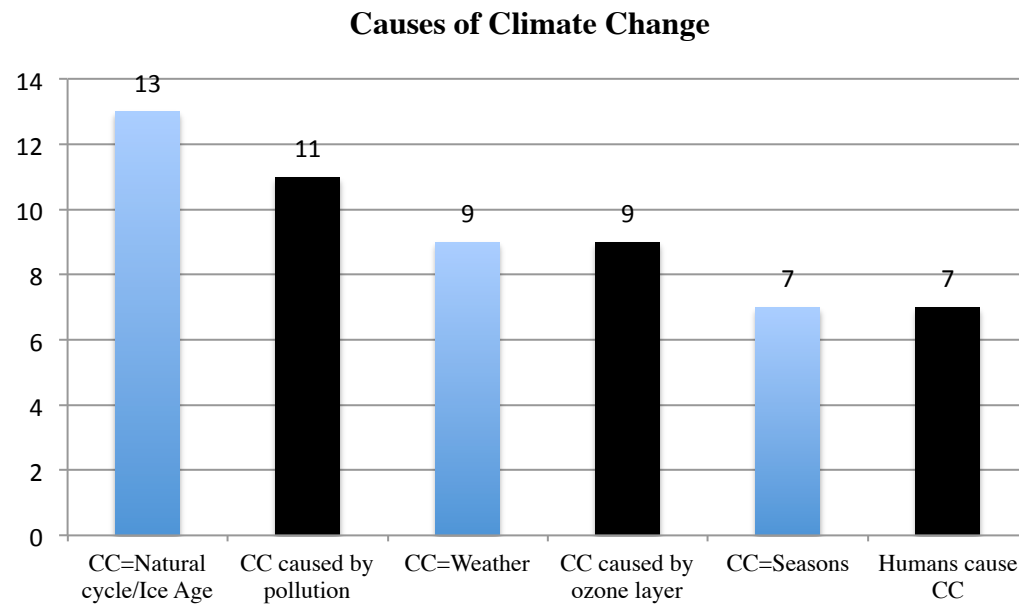5. love is giving respect/doing your duty

Figure 9.9: Frequency of Type 5 (Love) and Type 6 (Duty/Respect) Metaphors

5. Causality (discourse level)

Causes of Climate Change

Figure 6: Causes of Climate Change

6. Reasoning   (discourse level)

Cultural model for Tongans in mentally representing social relationships.

*society is hierarchical, ladder like; individuals are located at different levels of the society's ladder; **'ofa** 'love' links these individuals to make them a whole; **'ofa** is giving, either giving help (up-down) or giving duty/respect (down-up); few higher people (especially one, the king) are in contact with divinity and a physical feature of this property is their bodily shining.*

The model is composed of a 'core' part and a 'periphery' that is not expressed as often. The core is:

*   **'ofa** *is giving, either giving help (up-down) or giving duty/respect (down-up).*

People use this model in their thinking and reasoning about social relationships, either consciously or unconsciously.

The following are 3 examples from the texts in which the model's 'core' explicitly transpires:

7. … **'ofa** 'a e kakai ['ofa 'a e kakai] **faka'apa'apa**, eh ['io] ki he Tu'i [ki he Tu'i] …
"… **love** the people [love the people] **respect**, eh [yes] to the King [to the King] …"
'… the people love [the people love], respect, eh, [yes] the King [the King]…'
[4K, June 7, 2004]

8. …'Ofa lahi 'a e kakai ki he Tu'í ['io] koe'uhí lahi ange **'ofa 'a e Tu'í ki he kakai**, tufa 'a e kelekele ta'e totongi, tukufakaholo pé kelekele he famili 'o a'u ki he ngata'anga 'o mamani, ha'ele pé Tu'i ki muli feinga ha me'a ke mo'ui ai 'a e kakai, ko e kakai 'i Tonga ni nau nofo pé 'i Tonga ni, ko e Tu'í pé 'oku 'alu 'o feinga ['o, 'io hoko atu] ki he ngaahi Pule'anga, ki ha fa'ahinga me'a 'ofa **ke tokoni ki he kakai katoa**, 'o e fonua …
"… people love a lot the King [yes] because **the King loves the people** more, he divides out the land without pay, the family inherit the land till the end of the world, the King goes abroad to get things for the life of the people, the people of Tonga just stay in Tonga, the King goes to try [yes, go on] with many Governments, to get presents **to help all the people,** of the country …
[16S, June 12, 2004]

9. … **'ofa** pé nautolu ki he Tu'i, koe'uhi pé ko e Tu'i ia 'o Tonga, 'ikai lava ke liliu e Tu'í ia, kuo pau pé ia ke nofo hono tu'unga fakaTu'i, ['io] pea ko e Tu'i 'oku **tokoni** pé ia ki he kakai 'o Tonga …
"… they [people] **love** the King, because he is the King of Tonga, you can't change the King, he must stay in his royal place [yes] then the King **helps** the people of Tonga …"
[17M, June 18, 2004]

In the first example, *'ofa* 'love' for the king is explicitly equivalent to *faka'apa'apa* 'respect.' In the other two examples, the *'ofa* 'love' of the king for the people of Tonga is explicitly equivalent to his helping the people and the country.
In the first case, the state of love is equivalent to the act of giving respect in a social down-up direction, from the people to the king.
In the second case, the state of love is equivalent to the act of giving help in a social up-down direction, from the king to the people. What is left implicit in both cases is the hierarchical nature of society.

The Ethnographic-Experimental Approach

Data Collection:

Free-Listing, Triad Tests, Pile Sorting,
Memory Tasks, Drawing Tasks, Rating Tasks,
Questionnaires for Consensus.

Data Analyses:

Frequency, Correlations,
MDS, Hierarchical Clustering,
and Consensus Analysis.

Free Listing, Triad Test, Pile Sorting

- Free Listing: Ask to List as Many Item within a Domain as One Can Remember

- Triad Test: Ask to Judge two Items as More Similar out of Three Presented

- Pile Sorting: Ask to Group Items (one or more times)

Memory Tasks, Drawing Tasks, Rating Tasks

- Memory Tasks: Ask to recall an Event from Memory (e.g., *fono*)

- Drawing Tasks: Ask to Draw Something from Memory (e.g., one's village)

- Rating Tasks: Ask to Rate Items for Importance to Ego or Other (e.g., forest)

Questionnaire for Consensus

Prepare and Administer Questionnaire from Results of Hypothesized Cultural Model.

Data Analyses

Frequency: How many times items occur in a list or a number of lists

Correlations: Frequency of co-occurrence among lists

Multi-Dimensional Scaling:
The data from pile sorting and/or triad tests are tabulated in a proximity matrix (how many times an item was judged similar to another) and then an aggregate matrix is produced. This latter is transformed into a two-dimensional visual representation.

Hierarchical Clustering:
Compiles pile-sort data or similarity judgment data to create clusters at different level of proximity.

Consensus Analysis:

Culture is identified and measured as shared knowledge of a domain. It also allows to find distribution of one or more cultural models in identifiable subgroups.

Frequency (from Free Listing)

List 1: U.S. Free-list of Terms Associated with Romantic Love Sorted by Frequency

Item	Frequency	Resp(%)	Avg. rank
1. Being Together	30	38	4.433
2. Happy	28	35	2.135
3. **Friendship**	21	27	2.617
4. Mutual	16	20	4.250
5. **Care**	10	13	3.375
6. Love	10	13	2.714
7. Sex	10	13	3.143
8. **Comfortable**	9	11	5.333
9. **Connection**	8	10	3.333
10. **Secure**	8	10	3.000
11. **Do Anything**	8	10	2.750
12. Trust	7	9	2.000
13. **Commitment**	7	9	1.200
14. Gifts	6	8	3.500
15. **Content**	5	6	4.000
16. **Equality**	5	6	4.000
17. Respect	5	6	5.500
18. Honest	5	6	3.000
19. **Sacrifice**	4	5	3.000
20. Reciprocity	4	5	6.667
21. Support	4	5	2.000
Total 198			

List 2: Lithuanian Free-list of Romantic Love Terms Sorted by Frequency

Term	Frequency	Percentage	Avg. Rank
1. Being together	40	50.0	4.850
2. **Joy**	16	20.0	3.813
3. **Walk**	14	17.5	3.500
4. **Emotional upsurge**	14	17.5	3.786
5. Happy	13	16.25	5.077
6. **Kiss**	12	15.0	4.083
7. Do things together	9	11.25	4.889
8. **Temporary**	9	11.25	5.111
9. Sex	9	11.25	3.444
10. **Attention**	8	10.00	4.250
11. **Love talk**	8	10.00	5.375
12. **Surprise**	8	10.00	3.400
13. **Passion**	7	8.75	3.286
14. **Cinema**	7	8.75	2.857
15. **Travel**	7	8.75	4.286
16. **Tender**	7	8.75	3.857
17. Attachment	7	8.75	2.714
18. **Holding hands**	7	8.75	3.000
19. Mutual	6	7.50	4.000
20. Trust	6	7.50	1.500
21. **Dream**	6	7.50	7.333
22. **Admire**	6	7.50	3.500
23. Little presents	6	7.50	6.167
24. Honest	5	6.25	5.600
25. **Not pragmatic**	5	6.25	5.800
26. **Candlelight dinner**	5	6.25	2.800
27. **Initial stage of love**	5	6.25	2.800
Total 292			

Multi-Dimensional Scale Analysis of American Terms Associated with Romantic Love

content   complete
Lost vulnerable   attached committed not alone
Helpless sad heart-hurts   protect   secure
                                                      comfortable
                                                      respect

1   **2**

being together
connection

Frustrated   confident

friendship
Angry jealous   free   strong mutual care
warm
equality commitment trust honest
intimacy
Do anything

3   **4**   Sacrifice
sex
Butterflies
Obsessive anxious   Passion elated
overwhelming   Excited undescribable
explosive   giddy

Figure 4.3: MDS of Romantic Love Terms by U.S. Informants.

Good-Bad Horizontal and Low/High Energy Vertical

Consensus Analysis

The Questionnaire

A questionnaire is constructed using the discovered cultural model, e.g., 50 questions
25 statements confirming the model, and 25 statements negating the model.

The statements are then scrambled randomly to ensure that each question is answered in isolation, rather than in relation to the question preceding it. Statements are given, with five levels of agreement: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree.

Survey Sample

A survey sample of X number of people is constructed, based on an equal distribution of:
-Geographic location of residence (Urban, Suburban, or Rural)
-Religion (the presence of, or lack thereof)
-Highest level of education (high school, college, or advanced degree).
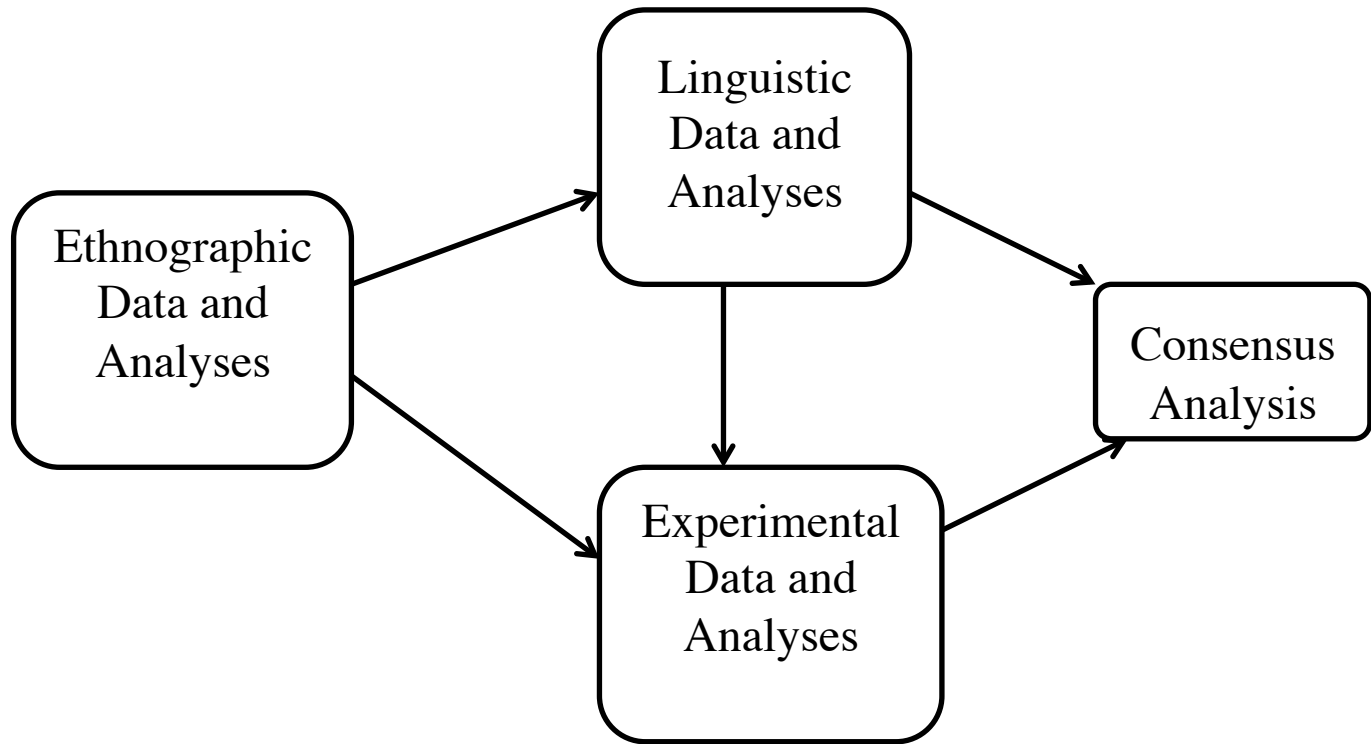-Age (18-80)
-Gender (Male or Female)
-Status (e.g., chief, mayor, etc.)

Questionnaire results are entered into ANTHROPAC and analysis is run

Factor	Eigen Value	Percentage	Cum %	Ratio
1	**24.417**	85.4	85.4	10.604
2	2.303	8.1	93.5	1.233
3	1.868	6.5	100	

A Blended Methodology
in Search of Cultural Models

Figure 11.2: A Methodological Trajectory for Cultural Models.

THANK YOU!