

Cognitive Models and Social Science: Salience, Community, and Conservation

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What are Cognitive Models?

- ❖ **Socially functional adults have:**
 - ❖ Huge vocabularies, minimally 50,000 words
 - ❖ Encyclopedic information retrievable from brain
- ❖ **Characteristics of cognitive information (knowledge)**
 - ❖ Obtained through experience
 - ❖ Experience is environmental
 - ❖ Stored and retrieved on the bases of:
 - ❖ Domains (categories)
 - ❖ Lexical items within the domains
 - ❖ Phonetic characteristics of lexical items
 - ❖ Information can be stored and retrieved rapidly
 - ❖ Information mapped onto language for transmission

Why Does Cognition Have Those Properties?

- ❖ **Impossible for humans to attend to all sensory input**
 - ❖ External environment ‘collapsed’ into categories
 - ❖ Categories tend to have labels, names
 - ❖ Names are proxies for cognitive categories
- ❖ **Names (lexical items)**
 - ❖ Are core mechanisms for storage and retrieval of categorical information
 - ❖ Are ‘tags’ (identifiers) of features of external environment
 - ❖ Are taxa labels for patterned information (models)
 - ❖ Cognitive models are “simplified” versions of world

Utility of Cognitive Models

- ❖ Allow individuals to carry simplified versions of the world in their heads
- ❖ Cognitive models have adaptive value – brain recognition of categories of experience, planning
- ❖ Individuals who share common experiences tend to have similar models (shared models = culture)
- ❖ Individuals who share culture tend to be stable social groups, communities
- ❖ Social aggregates can be defined on basis of shared information systems (culture)

Cognition and Social Groups

- ❖ **Shared information systems**
 - ❖ Facilitate social interaction and social solidarity
 - ❖ Predispose members to perceive the world in specific (channeled) ways
 - ❖ Positive – promotes communication and solidarity
 - ❖ Negative – inhibits adaptation to new information
 - ❖ Overall impact is conservative, but innovation, entrepreneurship possible
- ❖ **Two examples of cognitive models usage**
 - ❖ Georgia shrimpers and niche marketing
 - ❖ Anti-littering campaign in Texas

Georgia Shrimpers and Niche Marketing

- ❖ **Several research projects, 1994-2004**
 - ❖ Documentation of local knowledge systems
 - ❖ Characteristics of fishery
 - ❖ Environmental knowledge
 - ❖ Development of cultural models
- ❖ **A puzzling feature**
 - ❖ Virtually no interest in marketing of shrimp
 - ❖ Shrimp sold to local fish houses and then to “middle men”
 - ❖ Shrimpers’ cultural model – “we catch and sell shrimp, we don’t market them”
 - ❖ Marketing not a part of shrimper cultural identity

Georgia Shrimpers and Niche Marketing

- ❖ Increased volume of imported shrimp in early 1990s led to collapse of market price for shrimp and a crisis among shrimpers
 - ❖ A small group of shrimpers saw the need for innovation, including development of local and niche marketing
 - ❖ Formed a small consortium (GSA) and hired a cultural broker to help with move into marketing



Georgia Shrimpers and Niche Marketing

- ❖ Marketing multi-faceted
 - ❖ Niche markets established in Atlanta, Monterrey (CA)
 - ❖ Arrangements with local supermarkets and restaurants
 - ❖ Advertising – local billboards, newspapers
 - ❖ “New way” of doing business, new cognitive models
 - ❖ Icons built on and to promote salience
 - ❖ Wild-caught, pesticide free, “organic,” turtle-safe shrimp
 - ❖ Healthier, tastes better



Don't Mess with Texas

- ❖ Littering roadways with trash is a major issue
 - ❖ Diminishes attractiveness of roadways
 - ❖ Costly to local/state budgets to remove litter
- ❖ Slogan is a trademark of the Texas DOT
 - ❖ Campaign began in 1986
 - ❖ Targeted 18-35 year old males (worst offenders)
 - ❖ Slogan placed on road signs, bumper stickers, television, radio and in print advertisements
 - ❖ Reduced litter on Texas highways 72% (1986-1990)



Don't Mess with Texas

- ❖ **Slogan adopted as a cultural icon**

- ❖ Reinforces Texas views as

- ❖ Quasi-independent of the US

- ❖ Frontier/cowboy spirit

- ❖ Texas culture

- ❖ Has become part of individual identity



- ❖ **One of the most successful conservation campaigns ever**

- ❖ Awarded a plaque on the Madison Avenue Walk of Fame

- ❖ In the Advertising Hall of Fame

- ❖ **Salience**

- ❖ Converted into deep, hierarchical cultural model

- ❖ Continues to grow – “Don't Mess with Texas” College Scholarships (TXDOT)

Salience and Social Marketing -Chesapeake?

- **Chesapeake**
 - Highly varied and complex
 - Identification of cultural icon likely to be difficult
- **Regional strategy (?)**
 - Identify emblem or icon of cultural pride
 - Ideally related to environment
 - Relatable to conservation, restoration
 - Appeals to valued cultural identities
 - Successful to the extent that cultural identity model is rewarded and expanded