CARRYING MEANING ON REPRESENTATIONAL MEDIA. THE PLACE OF LANGUAGE

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Cradle of Language Conference
Stellenbosch, South Africa

7-10 Nov 2006
Disagreements on the emergence of language… but a rather wide consensus: emergence of our communication system along with other symbolic activities

- **Body ornaments**, ritual burials, rock painting or carving, sea-crossings etc.
  - i) *made possible by a sophisticated communication system*
  - ii) *sharing with it essential semiotic properties & cognitive bases*

A « weak correlation » between language and other symbolic activities

⇒ can we push forward the analysis?
Key ideas

- Language is a vehicle of semiotic transactions among & interacting with others (although it occupies a specific place in human cognition)

- Basic features of meaning carriers matter, but also how they are experienced & conceptualized
Overview

1. Distributed cognition and representational media (RM) (the toolbox)

2. The case of identity markers & the notion of semiotic balance (general theoretical proposals)

3. The birth of photography (a fruitful (?) analogy)

4. Language as a RM: authenticity, myth & immediacy (the target issues)
Overview

1. Distributed cognition and representational media (RM)
Which frame to understand patterns of exchange of information?

- **Distributed cognition**
  - A paradigm in cog. science, pioneered by **E. Hutchins** in the 90’s
  - Main idea: cognition both *inside* and *outside* people’s head
    - Cognition takes place where representations are stored or transformed
    - Cognitive systems not restricted to individuals’ minds; may encompass external devices as well, or gather several interacting individuals and/or devices (Hutchins, 1995)

- **Appealing**
  - To highlight the relevance of interactions and the mediation played by artefacts, other individuals, elements of the environment etc.
  - When it comes to prehistory
Representational medium (RM)

- RM: mediates representations - « conveys meaning » - between the components of the cognitive system

- Internal RM may be considered…

- But external RM also of interest
  - foundations of external semiotic transactions
  - *representations* in a general acceptance (not restricted to the mind)

- External RM characterized by various properties
  - physical properties: (sensory) modality, time properties, vulnerability to disruption, availability of resources etc.
Overview

1. Distributed cognition and representational media (RM)

2. The case of identity markers & the notion of semiotic balance
Thinking in terms of RM provides an interesting framework to archaeology and paleoanthropology…

The case of *early markers of social identity*  
*(a central aspect of human lives)*
The dual expression of social identity

- Who is she/he?
- Who am I?

✓ Various contexts
A multi-faceted issue

- Various dimensions
  - states of mind (a)
  - gender (b), age (adult status & initiation rites according to gender) (c)
  - situation in the group (possible hierarchies, families, kinship systems) (d)
  - situation with respect to other groups (e)
  - “situation after death”

- Various time scales
  - fast changing
  - slowly changing
  - static
  - reversible vs. irreversible

- Various relevance & requirements of expression
  - anecdotal vs. central aspects of identity
  - need of overt / covert expression vs. less constrained situations
A range of markers of social identity

- **Non-linguistic ways**
  - **Body alterations**: tattoos / scarifications
  - **Body ornaments**: clothes, body paintings (makeup…), beads, necklaces, …
  - **Tools**: style & standardization, symbolic engravings
  - **Location in the spatial structure of the group**: organization of the living place, location of burials
  - **Role in group activities**: role played during tool manufacture, hunting or gathering activities etc.

- **Pre-linguistic features of speech & linguistic features of oral communication**
  - from voice (not yet language) to grammatical markers of identity
  - conscious (e.g. taboo words) or unconscious (Comrie, 1981; Labov, 1972)
Competition between RM

- Several RM usually available to convey the same meaning / various aspects of a complex situations
  - competition to perform semiotic transactions

- Better adequacy to representations congruent with their specific properties
  - e.g. scarifications & tattoos better suited to irreversible features of one’s social identity
A semiotic balance

- At any given time, meanings to be conveyed are distributed on the available range of RM (with possible redundancy)

- A dynamical balance
  - subject to historicity, non-linear effects / phase transition etc.

  - What happens if (a) new RM enters an already established “extended” cognitive system?
Early material cues of markers of social ID

- Likely body use of colorants
- Perforated marine gastropod shells used as beads
  - Skuhl (Is.) & Oued Djebbana (Alg.) – 100,000 to 135,000 ky BP (Vanhaeren et al., 2006)
- Marine shell beads bearing human-made perforations and traces of use
  - Blombos Cave (S. Afr.) - ~75 ky BP (Henshilwood et al., 2005)

How did RM compete to express social identities?
Ornaments as a new RM

- Stiner & Kuhn (2001, 2005)

- Why choose ornaments as a symbolic medium of communication?

- Pigments: information conveyed
  - a) of short-term value only, b) no consequence beyond original face-to-face interaction
  - limited in content: mainly display (increase visual impact of the involved individuals)

- Ornaments
  - convey information among individuals/groups distant in time and space
  - collectable, transferable
  - reflects a demographic and social transition during the UP/LSA

<table>
<thead>
<tr>
<th>Colorants</th>
<th>Ornaments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unconstrained</td>
<td>Standardized</td>
</tr>
<tr>
<td>Fugitive</td>
<td>Durable</td>
</tr>
<tr>
<td>No easily-assessed quantity</td>
<td>Countable</td>
</tr>
<tr>
<td></td>
<td>Show differential levels of investment</td>
</tr>
<tr>
<td>Not easily transferred</td>
<td>Transferable with maintenance of physical and visual integrity</td>
</tr>
</tbody>
</table>
Language as a new RM

- **Emergence & development of language:**
  - With successive evolutions of our *semiotic capacity*, intentional signs (including symbols) *gradually* “projected” into human lives, cultures and communication systems
  - Language & other RM interacting and developing to convey various types of messages

- **How / to which extent was language used?**
  - To express social identity
  - To “negotiate” in various human activities
Suggestion: “concrete” properties of the RM are one thing in competitive situations, but... more “elaborated/conceptual” properties also to consider =

the *experience* individuals have of a RM

Not so easy to investigate...

⇒ Look for (formal/surface) analogies
Overview

1. Distributed cognition and representational media (RM)

2. The case of identity markers & the notion of semiotic balance

3. The birth of photography
A very brief introduction to the development of photography

- Development of photography since the 2nd half of the 19th c.

- Some relevant questions raised in the history of photography:
  - Does photography belong to Fine Arts?
  - How did it evolve with time, technical development or social contexts?
  - How did it influence other fine arts such as painting?

- To answer these questions: investigate the properties of photography as a RM + how we experience it

Alfred Stieglitz’s Flatiron Building (NYC, 1903)
Properties of the RM & consequences

- The dual nature of photography (Frizot, 1987)
  - a technical nature: roughly, autonomy of a mechanical image, preventing the involvement of the operator
  - a pictorial nature: captures the world in an exact and therefore “objective” way (a rather extreme position…)

- Predicted or real “consequences”:
  - the ambiguous relation of photography to Truth (/Nature/Reality) and Beauty
  - photography will “push” other Fine Arts towards more quality by confronting them to truth (Wey, 1851)
  - messages that will be better carried by photography: “revealing the world to large audiences” (social photography and photographic reporting)
The notion of immediacy

- Bolter & Gruisin (1999)’s studies on remediation with modern media

- “(transparent) immediacy”: attempt to erase or conceal the process of remediation by making the medium invisible

- Photography salient given its immediacy
  - compared to painting or texts
  - this is a human experience of proximity to a real event
  - however, predominant use of B&W… (light)
Evolution of the RM and its associated representations

- Various trends in the history of photography
  - pictorialism (~1890-1910) in reaction to initial conceptions about the autonomy of photography & to enter Art
  - Later: reporting vs. more aesthetic approaches
    - what is photography, what is painting (e.g. A. Warhol, Klein)?
    - reducing photography to its conceptual dimension: highlight the objective neutrality of the photographic process; photography is a mean, art is elsewhere (e.g. land art)

→ Complex evolution of the representations carried by the RM, influenced by *people’s evolving conceptions about it*
Truth & authenticity

- Initial technical improvements in photography:
  ✓ produce a conform representation of reality + grant the durability of the process
  → make possible the access to pictures for large audiences

- Technical reproducibility of pictures (Benjamin, 1936)
  ✓ is the picture of a masterpiece a masterpiece?
    → truth vs. authenticity

  ✓ reproduction deviates from the value granted by the unicity of the masterpiece, its “hic and nunc” / aura / authenticity

  ✓ human value of unicity based on rituality & integration to tradition
Overview

1. Distributed cognition and representational media (RM)

2. Semiotic balance & features of RM

3. The birth of photography

4. Language as a RM: authenticity, myth & immediacy
Which place for language? (1)

- Remediation & immediacy are not only features of modern media

- The *practical* dimension (gesture, skill, ritualized behavior) as well as the *mythical* one (narration, fictitious entities) as the *basic constraints of any semiotic transaction* (Lassègue et al., 2006)
Which place for language? (2)

- Analogies between emergence of language and photography

- Both exhibit an internal tension
  - technical & pictorial natures of photography
  - social and communicative functions of language

- Authenticity and lie
  - cheap reproducibility of pictures and speech → poor authenticity
  - however, some pictures & discourses undergo a strong process of mythification
  - … with a possibility of such myths to be fake
  - … but being “made true” by creating stories, myths
    - C. Eastwood’s “Flag of our fathers”

- relevance of context, and **cost** of lie
  - cooperation and free riders in evolutionary theory
Language as a medium to carry social identity?

- Narration suited to:
  - fast changing dimensions of personal identity
  - covert aspects of identity
  - large scale complex social identities, which can be condensed with narration etc.

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<tr>
<th></th>
<th>Body alterations</th>
<th>Body painting</th>
<th>Beads, ornaments</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment</td>
<td>Expensive</td>
<td>Rather cheap</td>
<td>Expensive</td>
<td>Very cheap</td>
</tr>
<tr>
<td>Cost of lie</td>
<td>High</td>
<td>Low</td>
<td>Not so low</td>
<td>Very low</td>
</tr>
<tr>
<td>Transferable information?</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes ++</td>
</tr>
<tr>
<td>Overt/covert</td>
<td>Overt</td>
<td>Overt</td>
<td>Overt/Covert</td>
<td>Overt/Covert</td>
</tr>
<tr>
<td>Ritualization</td>
<td>High</td>
<td>High</td>
<td>Medium?</td>
<td>Primarily poor</td>
</tr>
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</table>
Co-evolving & interacting RM

- Relevance of immediacy
  - stories less “immediate” than visual displays?
    - what information may undergo a loss of immediacy through narration?
    - a relative primacy & saliency of language due to the nature of central cognitive processes (≈ Fodor’s language of thought hypothesis)?
    - images very often supplemented and structured with verbal communication (Barthes, 1964)

- What can be more easily believed to be authentic?
  - More “immediate” experiences?
  - Not primary linguistic transactions, but later mythified ones?

- Co-evolution
  - once some elements have become embedded in the history of the group through stories, reflects on other semiotic transaction
Mechanisms for cultural evolution during prehistory

- Incremental building of language = new “linguistic devices” to convey information
  - evolving in parallel to other RM
  - may trigger new cultural manifestations and/or inhibit others

- The filter of preserved material culture & the archaeological record
  - address “now you see it, now you don’t” issue

- A possible causal chain

  Gradual development of language, but poor authenticity & cheapness of lie…
  - pressure on other RM with greater authenticity & investment
  - enhanced visibility of these markers
Summary

- Need of a framework to elaborate on the complexity of the origins of language and modern cognition
  - with *semiotic* & *cognitive* considerations
  - emphasizing the “human experience” of our ancestors
  - questions of time scales of cultural evolution

- Not only “correlations” between symbolic activities, but *interactions*
  - *Have consequences on their own*

- Further research: finer grain study with respect to the cues in the known record
Thank you for your attention

😊

Comments and suggestions very welcome!

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Some references


