

The Evolution of Vestimentary Signs

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Abstract: The paper is a corpus-based research on the evolution of vestimentary signs. Vestimentary signs mark an intermediary position between natural signs of the human or animal body and artificial signs like linguistic grammars. Natural signs of the body may be visual like body size or volume which may signal strength and wealth. They can also be acoustic like deep frequencies of the voice related to the length of the larynx and thus to size of the body. Even in animals these signal are manipulated, thus male bears stand up, peacocks deploy their feathers and make rivals or females believe that they are big and strong. Deers and wolfs lower their larynx and makes rivals believe that they are big and strong. This seems to be the base line from which artificial, voluntarily shaped signs evolve.

Key words: Semiotics, culture, cognition, vestimentary signs.

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Introduction: The first origins:

Vestimentary signs mark an intermediary position between natural signs of the human or animal body and artificial signs like linguistic grammars. Natural signs of the body may be visual like body size or volume which may signal strength and wealth. They can also be acoustic like deep frequencies of the voice related to the length of the larynx and thus to size of the body. Even in animals these signals are manipulated, thus male bears stand up, peacocks deploy their feathers and make rivals or females believe that they are big and strong. Deers and wolfs lower their larynx and makes rivals believe that they are big and strong. This seems to be the base line from which artificial, voluntarily shaped signs evolve. We must therefore ask: What is the baseline for vestimentary meanings and codes? How are they different from natural bodily signals?

The proper answer depends on the answer to another question: When and why did a pre-human species lose or abandon the fur, we typically find in other hominids? Partially we can observe such a loss in apes, insofar as their face and backs may be more or less hairless and specialized for sign behavior. Again we notice a kind of Darwinian continuum. Other animals (e.g. octopus)

can change the color and shape of their body. We may call all these changes of bodily appearance instinctive, but this opens another controversy, which I want to avoid here. As soon as cultural traditions and not inborn features or behaviors control a type of communicative behavior, we may call it *semiotic* (in a large sense including some nonhuman types of behavior).

There seem to be two alternative answers to the question why pre-humans lost fur:

1. The pre-human species lost fur due to climatic changes and the adaptation to it (via selection). Thus the climate of the savannah, exposure to the sun, upright locomotion, long range running and a correspondent change in blood flow and energetic equilibrium have been put forward in favor of such an explanation.
2. The pre-human species used clothing for camouflage or for ritual roles (of ancestral animals or ancestors). Via sexual selection such behaviors and appearances (e.g. nakedness) became dominant and excluded the further propagation of individuals with fur.¹

¹ There is still the phenomenon of fur showing up in humans and actually even very few body hairs are razed by females and males. In males even razed heads are fashionable. This points to a very stable selective pressure on body hair

At a later stage, i.e. after the migration out-of-Africa (60.000B.P.) and the penetration into northern regions (after 40.000 BP) this kind of selection became anti-functional and had to be corrected by the wider use of clothes (sexual selection can be mildly anti-functional).

These two answers make a big difference. In the case of answer (1) clothing would have functionally compensated the loss of fur as soon as the climatic conditions changed. Social variation in vestimentary codes would just be a consequence of climatic variation. Such a general hypothesis was already put forward by Condillac (1746). Under the second hypothesis the loss of fur and its antithesis clothing are socially motivated. They have both social (cultural) meaning and the meaning changes (independently from climate). An argument in favor of this hypothesis is that in Patagonia the original population was naked in spite of a cold climate.² The human body can adapt to climate without the use of clothes; on the contrary the use of clothes may eliminate the capacity for natural climatic adaptation. In tropical climates we still find clothes for ritual usage, although every day activity may be performed without clothes. I will therefore assume in the following that the loss of fur and the initial use of clothes had semiotic functions at the very beginning. It was compatible with ecological pressures (climate) and could be used for climatic adaptation. Climatic adaptation would therefore be a spandrel effect of semiotic innovation.

The proper description of the evolution of vestimentary meanings has to consider several parallel evolutions:

1. The evolution of body painting. As rubbed ochre is documented as soon as 800.000 BP, we may assume that bodies (and objects with cultural value) were painted in red, yellow or brown in very early periods, surely when our species appeared (200.-400.000 BP). Cf. Barham (2002).



Figure 1: Ochre used ca. 400.000y BP

2. The evolution of hair-dressing. Female sculptures in the Upper Palaeolithic clearly show fashions of hair dressing in females (cf. the Venus of Willendorf).

(excluding female hair on the head which is loaded with erotic attributions).

² Needles made of bone are found in the Solutrean period. As needles have often perforations for the insertion of a string, the technique of drilling had to be available. Cf. the different shapes of needles in the Magdalenian (ca. 16.0000 BP) in Jelinek (1992: 205).



Figure 2: Venus of Willendorf/Vienna

3. The evolution of amulets made of perforated shells probably suspended on a string (very early findings in South Africa).



Figure 3: Perforated shells from Üçağızlı I cave, 30.000BP, Turkey and beads from the Jordan valley 11.000-10.000 BP

4. A fourth domain of visual manipulation concerns the body shape itself, i.e. manipulations of the skin, the face, the shape of the head, neck, toes, fingers, front teeth etc.



Figure 4: Venus of Lespugue with exaggerated body shape and eventually cloth

In modern societies we find all these subfields and they are even part of a rapidly expanding industry (cosmetics, hair fashions, jewellery, and cosmetic chirurgic art). These facts point to an evolutionary constant: With the rise of our species all these relevant subfields of body-based sign behavior had been established; i.e. they belong to the stable biologically grounded and socially unfolded heritage of mankind. This does not exclude that under specific circumstances very simple or even primitive systems of bodily sign communication (based on nakedness and natural beauty) may exist (parallel to myth, language, technology and other symbolic forms). The potential for all these sign systems is nevertheless present.

We can compare this feature to very simple languages, which have a minimal lexicon of colors or numbers and a minimal syntax. If exposed to other semiotic systems, humans in these cultures can easily learn the new systems

and show the same complicated patterns as other societies.

In the following section I shall summarize central facts about the cultural evolution of vestimentary systems.

Prehistoric and historic clothing codes:

In Paleolithic cave paintings and rock engravings humans are rarely represented. If they are, we find them often as human-animal hybrids. This can either mean that they took the shape of animals using their hides in a shamanic ritual or that they used it as camouflage to approach these animals in order to have them in the reach of their spears or stone-axes. Very early female statuettes (ca. 30.000 y. BP) show linear arrays in the area of the hips and abdomen which could be clothes made of grass or other plant materials (cf. Fabre, 1966: 106). In the Magdalenian period representations of clothes appear in Cogul, Spain (cf. Reallexikon: 382). One may infer that the *Homo sapiens* species which penetrated into Europe used clothes at least in ritual contexts or for camouflage.

As other findings show hair-dressing (e.g. the Venus of Willendorf) and the use of attire one may infer a rich system of ritual body decorations and probably also in every day usage. In the northern regions and during the ice-age the technique of cloth manufacturing must have been further developed to adapt to the harsh climatic conditions. A good index of such a cultural evolution is the massive use of perforated needles made of bones which fits also the Levallois technique of small stone artifacts in the late Paleolithic.³



Figure 5: Levallois technique of stone artifacts and bone needles

The full repertoire of Alpine clothing is shown for the bronze-age “ice-man” found on the frontier of Austria and Italy. He was perfectly equipped for long range excursion in an alpine context.

³ Adam Smith the father of libertarian economy saw the luxury of clothes as an important, positive factor in the evolution of contemporary economies (based on garment industries).



Figure 6: Possible Neanderthal clothing and reconstruction of the ice man “Ötzi”, who lived some 5300 y ago

The technique of cloth manufacturing evolved further parallel to other cultural techniques like house building, agriculture, breeding of animals, weapons etc. Major steps were:

- clothes of linen (since 300 BC). The technique basically developed for

basketry could be expanded to weaving. Cf. Barber, 1991: Chapter one).

- clothes of wool (goats, sheep and other animals) (since 2800 BC).
- shoes made of leather (since 1500 BC).
- plaited gowns (first in Susa, Persia; later adopted by Greeks; 550-500 BC).
- introduction of shirts by Gallic tribes (ca. 450 BC).
- use of trousers in Persia (400 BC).

All these technologies allowed for the evolution of styles characteristic for certain populations and regions and they opened the way for vestimentary luxury and with it for economic and social distinctions. In comparison with the evolution of language (cf. Wildgen, 2004) we can say that the lexicon of vestimentary forms increased and a syntax of combinatory styles emerged. The meanings of clothes became more diverse, more and more socialized and had to be controlled by social institutions.

The basic types of functional meanings may have been the following (cf. Ross, 2008: 12):

- Political allegiance or its converse,
- Indication of rank, social status,
- Symbol of moral behaviour or religious creed.

The third function may have emerged with gender marked by clothes and theologies based on sexual propriety, male dominance and female subservience. Thus Middle Assyrian laws prescribed a veil for married women but none for female slaves and harlots (15th to 13th century BC). Oriental religions may have inherited these prescriptions

Although we do not find explicit clothing codes as we find grammars (in antiquity), negative regulations are common; i.e. written codes specify what

is not allowed for whom. Such laws became ubiquitous in Europe between 1300 and 1700 possibly due to the social promotion of town citizen and merchants (as opposed to the traditional aristocracy in decline). Similar evolutions took place in Japan (1600 to 1800). In Holland, one of the commercial centres of Europe, such laws were not accepted, but a luxury tax on clothes limited the vestimentary manifestation of wealth.¹⁴

Vestimentary semiotics. What is it about?

Semiotics, the theory of signs is in a strict sense about non-natural signs, i.e. signs which have meaning beyond individuals (their bodies), situations and actual needs. signs should have a kind of super-individual existence, although this does not imply the existence of a super-organism (cf. Sapir, 1917). If we take natural bodily signs/signals as one extreme of a scale and totally disembodies technical signals as the other, we get the linear array shown in Figure 7.

N at ur al bo di ly si gn s	embodied signs						dise mb odie d tech nica l sign als
	bo	vest	vi	m	sp	wr	
	dy	ime	s	u	ok	itt	
	po	ntar	u	si	en	en	
	st	y	al	c	lan	lan	
	ur	sign	si		gu	gu	
	es	s	g		ag	ag	
			n		e	e	

Figure 7: Degrees of embodiment of signs/signals and the putative position of vestimentary signs

In the beginning, body art and hair style modify the body for social communication. Clothes emerge in ritual contexts, where persons assume the roles

(of spirits, ancestors, clan-animals) and cover their own identity.

In denser and higher organized societies (in the Neolithic period) clothes as media of social communication become omnipresent and an industry of cloth manufacturing develops (along with other industries). This makes an intricate system of vestimentary signs based on materials, colors, and shapes appear. If more clothes are combined, a kind of “syntax” of clothes emerges.

If we compare the vestimentary signs with language (cf. the next section) we notice that the artificial and commercial shaping of clothes and the fashions which follow this production and merchandizing is much less characteristic for language. Linguistic (spoken) signs are not permanent, speakers are naturally endued to produce them perfectly and no industry or commerce is necessary. It is only with written language that language becomes the basis of a symbolic market (cf. the sociology of Bourdieu, 2009). Thus the industrialization and commercialization of vestimentary signs precedes the linguistic market. If clothes are nearer to other commercial goods, they are nevertheless more personal, individual insofar as they are still linked with body parts covered or uncovered by clothes. Together with the shape and motion patterns of the body (even if this is hidden), with hair-style, other ornaments and mimics they make up a whole which is exposed to the viewer for rather long periods. If the person has a specific style of clothing this perception may be permanent over longer periods and part of his/her social image. Spoken language is mostly instantaneous insofar as the form of an utterance (not the content) is forgotten very quickly. Rhetoric techniques and writing are able to overcome this restriction and thus to broaden the social effect of language dramatically.

¹⁴ CF. for a broad discussion on meta-representation: Wildgen and van Heusden (2009)

The “syntax” of vestimentary signs is not linear (in the sense de Saussure states that language is basically linear). In the instantaneous view of another person it may be two-dimensional with an asymmetry (front-back). The bearer of the cloth has only a partial view of his clothes (while he is not looking into a mirror), but he can perceive it with other senses (tactile, weight-perception, rigidity, temperature, sound while moving etc.).

The syntax of vestimentary clothes depends on the topology of the human body, its merology (part-whole-relations). This bodily structure is inherited by the clothes which cover/uncover specific body-parts. As clothes hide/cover, increase/underline body parts they have sexual meanings, if the corresponding body parts do. If we again compare vestimentary codes with language, we may notice that in language rhetoric strategies, mainly elocution is shaping the linguistic appearance of the speaker to an audience (its voice, gesture, mimics). Those features of clothing designed to impress, influence an audience may therefore be called *rhetorical* and I will describe this rhetoric with reference to Roland Barthes’ classical book on fashion “*Système de la mode*”.

The rhetoric of vestimentary codes:

If we take rhetorical figures rather than rules of grammar as points of comparison between vestimentary codes and language, we notice that the figures of repetition: anaphor, chain, reinforcement, rhythms may be found in both fields. If clothes have a reference to body-parts, one may apply the figures of metonymy, paraphrase, emphasis, metaphor, paradox, irony, and hyperbola.

As we have shown in earlier parts, clothes have a strong extra-linguistic reference to: gender, profession, age and to many subclasses of social rank,

prestige and function. Insofar clothes bear a double reference:

- Reference to the body covered/uncovered by clothes.
- Reference to assumed/intended features of the person who bears the clothes.

In spite of these dramatic differences between vestimentary codes and linguistic ones, the classical treatise on the “systems of fashion” by Roland Barthes (1967/1983) assumes more or less that the vestimentary code is a linguistic code. This seems to contradict all the facts we have been able to assemble in the last sections.

Barthes’ analysis start from French fashion journals, the texts which describe clothes in these journals and as a background the photos of mannequins in these journals. The “” is the code of fashion-talk in these journals. Is this analysis relevant? If yes, why?

Barthes view of language must be understood in the context of French structuralism (the “*École sémiotique de Paris*” of Greimas) and post-structuralism (Derrida and followers) which takes its basic ideas from Saussure and Hjelmslev (cf. Wildgen, 2010 for an overview). The strictly synchronic system of language is closed on itself, totally arbitrary (non-motivated) and it is ideally represented only in written language (cf. Derrida’s “*Grammatologie*”). In Saussure’s tradition language (“*langue*”) is basically understood as a lexicon (“*trésor de la langue*”), organized by logical relations like: opposition, negation, conjunction and disjunction, equivalence and implication. The basic operation is the classification of words into types like: noun, verb, adjective, adverb, preposition, conjunction and the building of higher architectures like phrases and sentences. The system is most easily accessible in Barthes’ index of labels. There we find 60 categories of clothes

from: *accessoire*, *pli*, *to*, *veste*. They involve parts of clothes such as: *ceinture*, *chaussure*, *jupe*, *manteau* but also features like: *doublure*, *ligne*, *ornement*. Some labels refer to body parts: *côte*, *dos*, *épaules*, *hanches*. Two major (syntactic) functions organize the lexicon of sixty labels:

Objet (O): *chandail*, *sweater*,
chapeau (ibidem: 71)

Support (S): *col*, *encolure*, *calotte*
(ibidem)

Variants (V): Thirty terms mostly
adjectives like: *fermé*, *horizontale*,
bombée make up this function.

Complex phrases describing a piece of clothes in the fashion journal may be decomposed hierarchically using the types O, S, V (by chance they resemble the linguistic terms: object, subject, verb). The specific grammar enabled by these classifications and their syntax may be called the grammar of a vestimentary code.

The reference of such terms (its meaning for Barthes) is again defined in relation to the world appearing in fashion journals. There are two types of reference:

1. The world as it appears in fashion photos. One may distinguish the Being (*être*) and the Doing (*faire*) visible on the photos. Further questions are: Who (is wearing the clothes)? Where are the clothes shown: on a beach, in a restaurant, in the opera)? Actions are mostly linked to a life of luxury. Implicit semantic fields are: female (unmarked)-male, young (looking) - not young. In fashion journals the bodies of the mannequins tend to be standardized (slim, long legged, blond), although new faces are asked for in order to avoid a total depersonalization.
2. The (actual) fashion is a major reference. The clothes are in-fashion (shown) or out-of-fashion (not shown). The viewer must identify

what is in-fashion and try to assume this qualification for him/herself.



Figure 8: Fashion show in Paris and a classical model of luxury

This summary of some ideas in Barthes' study shows that beyond the community of cloth-users there exists a meta-discourse of fashion represented by fashion journals or other media (TV-shows etc.). It tends to codify the lexicon of fashion talk and the discourse on fashion in the customers and is directed by the rhetorical strategies of fashion producers. We may call it a meta-representation of vestimentary codes although via the contents of this discourse the actual meaning of clothes in the market is shaped or influenced, i.e. the vestimentary code can in parts be tributary to the meta-vestimentary code.ⁱⁱ In this perspective Barthes's analyses does also seize the vestimentary code of a sub-population (in France, in the sixties) which in its perception and interpretation of clothes is controlled by fashion-media.

Some trends in the cultural evolution of vestimentary codes:

The general evolutionary lines which I was able to show in the last sections of my paper may be summarized as follows:

- The basic function of covering/uncovering the human body presupposed the loss of fur and was probably driven by sexual evolution and coherent with demands of a new ecology. Clothes may have appeared as camouflage or as ritual transformation of bodily appearances and the assumption of either identities (spirits, ancestors etc.). As deception is the basic motive, a theory of mind was presupposed.
- Paleolithic techniques allowed for the effective conservation and reassembling of hides and led to a simple “composition” scheme, a first syntax.
- In the Neolithic period the breeding of animals (geese, sheep) and the sowing of plants (flax) enabled a sophisticated production of clothes, mainly in urban contexts (first towns 10.000 BP).
- In early bronze age very coherent and effective assemblies of clothes were found in the case of the “ice-man”. This perfection made such clothes valuable and they surely had an economic and social prestige (together with other ornaments, artifacts and weapons on the body of a person).
- The hierarchically organized, centralized empires in Egypt, Mesopotamia, India and China (later in Mexico) led to very rich and socially differentiated codes of clothing and to laws prohibiting certain vestimentary codes to specific groups (e. g. women).
- The writing about clothes and the professional language of its industries led to a meta-language of clothes and fashions, which influenced at least a socially leading

sub-population (e. g. the readers of fashion journals). Actually the media (TV, cinema, internet tend to do the same job on a larger, almost global scale. Via second hand clothes the clothing code of the industrial centers is diffused over the non-industrialized world and regional codes are lost or replaced (amalgamated).

Further important meaning-dimensions of vestimentary codes refer to neighboring cultural facts and motions:

- The ideals of beauty and happiness in a society; they are also subject to cultural change and may co-evolve with vestimentary codes.
- The rhythm of fashion changes is not only controlled by the fashion industry, it also reacts to political and economic crises or social revolutions/reforms/crises.
- An important role is played by written religions insofar as they implicitly conserve vestimentary codes and laws valid hundreds and thousands of year ago and thus are in conflict with historical changes (their reflex in vestimentary codes) and the ideal transported by the fashion media. This dimension reveals a basic dependence on sexual selection which we assumed already as driving force in the loss of fur.

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