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Grammaticalization within Pictorial Art? Searching for Diachronic Principles of Change in Picture and Language

Abstract

»How a history of pictures – the natural counterpart of image science – could look like, is an open question.« (BOEHM 2001: v, translation S.Z.)

Based on theoretical and methodological considerations regarding the interrelationship between picture and language with respect to their diachronic development, the article deals with the question whether and to what extent the process of grammaticalization as a general principle of language change can be likened to the development of narrative pictures. Against this background, it is argued with respect to a broader perspective of image science that a level of comparison for picture and language can be found within a functional-relational semiotic account.

»Wie eine Geschichte der Bilder – das natürliche Pendant einer Bildwissenschaft – aussehen könnte, ist eine offene Frage.« (BOEHM 2001: v)

Vor dem Hintergrund theoretischer wie methodologischer Überlegungen in Bezug auf das gegenseitige Verhältnis zwischen Sprache und Bild diskutiert der Artikel die Frage, ob und inwieweit sich der Prozess der Grammatikalisierung als ein grundlegendes Prinzip sprachlichen Wandels auf die Entwicklung narrativer Bilder übertragen lässt. Aus der allgemeinen Perspektive der Bildwissenschaft wird dafür argumentiert, dass es sowohl in diachroner wie syn-

chroner Hinsicht vielversprechend erscheint, eine Vergleichsebene von Bildund Sprachsystem funktional aus grundlegenden semiotischen Prozessen abzuleiten.

1. In principio erat ...

There is—as for example stated in Sachs-Hombach/Schirra (2010)—a strong tradition to characterize man as the animal who talks. Within this tradition, the anthropological feature of human beings is thus seen in language. Linguists, in particular, hold this logocentric view and claim that it is language which distinguishes man from other animals and provides the structure for other symbolic systems. In this respect, all other sign systems are thus considered incomplete (cf. for example SHAUMYAN 2006: 1)¹.

I demonstrate that natural languages are the only complete sign systems, with a structure that ensures an efficient signifying function. In comparison with natural languages all other sign systems are severely limited in one way or another. (SHAUMYAN 2006: 8)

As is well known, the logocentric view is changing since the proclamation of the »pictorial« (MITCHELL 1992), »iconic« (BOEHM 1994), »imagic« (FELLLMANN 1991) and »visualistic« (SACHS-HOMBACH 2003) turn(s). But already before, Jonas (1961) had claimed in his famous essay *Homo pictor und die Differentia des Menschen* that the competence of picture should be seen as a fundamental prerequisite for semiotic competence and, therefore, as a unique anthropological feature. Subsequently, several studies (cf. LEROI-GOURHAN 1980; HÖGER 1999; STÖCKL 2004; WUKETITS 2009 and others) have indicated that there should be supposed rather a mutual linkage between picture and language than a unilateral interference:

Wir sollten also von einer gegenseitigen logischen Abhängigkeit von Sprach- und Bildfähigkeit ausgehen – beide gehören zum gleichen Begriffsfeld und können prinzipiell nur wechselseitig bestimmt werden. (SACHS-HOMBACH/SCHIRRA 2009: 23)

We should therefore assume a mutual logical dependency between the competence of language and picture – they both belong to the same conceptual field and can, in principle, only be defined in a reciprocal way. (SACHS-HOMBACH/SCHIRRA 2009: 23, translation S.Z.)

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¹ According to Shaumyans (2006) framework of Semiotic Linguistics, language is—as a »form of thought« (SHAUMYAN 2006: 1)—seen as a »bond between thought and sound« (SHAUMYAN 2006: xxi), and, by this means, as a connecting link between thought and reality«. While the assumption of such kind of homology is not mainstream in contemporary linguistic theories (cf. the detailed analysis with regard to the relationship language—thought—reality« in LEISS 2009), the logocentric view generally is not questioned (cf. STÖCKL 2004: 64).

2. Methodological Considerations: What to Compare at AII?

While there is a certain agreement on a mutual interdependency between picture and language, the manner of their interrelationship remains, however, vague. It is, therefore, unclear how such a hazy interdependency could be grasped in a theoretical and methodological way. The most basic question in this respect is in what extent and on which level it is possible at all to compare picture and language. Within semiotic accounts which proceed from the assumption that visual and verbal signs are generally based on the same semiotic processes, it is, in this respect, often aimed at finding a visual grammar, i.e. a finite set of signs and rules which is able to generate an infinite set of combinations. From an implicitly logocentric perspective, efforts have been ongoing to discover functional correspondences for linguistic entities like phonemes and morphemes. Such approaches have been rightly criticized for neglecting the specific characteristics of pictures (cf. e.g. KULENKAMPF 2005: 189ff.; SCHOLZ 2004: 114; STÖCKL 2004: 69).

Furthermore, it has been questioned whether there are elementary punits in visual art anyway (cf. SHAUMYAN 2004: 10; SCHOLZ 2004: 114). This question is crucial as the existence of a finite set of signs is considered the basic prerequisite for its status as a semiotic system—and therefore as a prerequisite for a comparison with language at all:

Dass es sich bei Bildern um Zeichenkonfigurationen handelt, dürfte kaum noch umstritten sein, [...] ob und inwieweit aber die Zeichen ein System bilden und von einem Kode in Analogie zu einer natürlichen Sprache gesprochen werden kann, ist die zentrale Frage der Bildsemiotik. (STÖCKL 2004: 64f.)

The fact that pictures are configurations of signs is unlikely to be disputed any longer, [...] however, it is a crucial question of semiotics of picture whether and to what extent the signs constitute a system and can be considered a code in analogy to natural languages. (STÖCKL 2004: 64f., translation S.Z.)

While these objections do not eliminate semiotic accounts aimed at the study of pictures in general (with respect to a legitimation of a semiotic account for image science cf. e.g. SACHS-HOMBACH 2001), they indicate, after all, the necessity of some consequential modifications with regard to a comparison of picture and language:

As it has become clear, simple equations of visual and verbal units seem to be insufficient as they neglect the *specifica differentia* of pictures. To deal with the problematic interrelationship between language and picture it is thus required to look out for a more general level of comparison. In this respect, it seems promising to focus on universal semiotic principles underlying all sign-oriented processes. Thus, my aim in the following is to shift perspective from the search of analogical entities to the functional processes triggering the semiotic development, which means in other words: from a nominalistic to a relational point of view.

A general level of comparison seems to be as well a necessary precondition with regard to the question of possible parallels concerning the diachronic development of picture and language. Against the background of the theoretical and methodological problems mentioned so far, it does not seem to be surprising that the relationship between picture and language from a diachronic perspective is so far still a rather neglected area and represents a general research gap, cf. Boehm (2001: v):

Wie eine Geschichte der Bilder – das natürliche Pendant einer Bildwissenschaft – aussehen könnte, ist eine offene Frage. (BOEHM 2001: v)

How a history of pictures – the natural counterpart of image science – could look like, is an open question. (BOEHM 2001: v, translation S.Z.)

Closing this gap will be up to future research. Thus, the following considerations can only be aimed at initiating the methodological debate. For this purpose, the process of grammaticalization as a general principle of language change is contrasted with the development of visual arts against the background of a functional-semiotic account. In doing so, a logocentric point of view seems inevitable at first. Still, the exemplary comparison is intended to be first of all a methodological auxiliary bridge which could lead to further more fine-grained adjustments in order to reciprocally calibrate the foundations of the theoretical implementation of both semiotic systems².

3. Grammaticalization in Language and Picture

3.1 The Evolution of Grammar

Taking principles of language change as a starting point for the comparison of the diachronic development of language and picture, it seems natural at first to have a look on studies of language evolution. While there is, fueled by advances in neurobiological and cognitive sciences, a growing interest in this topic, Bickerton (2007) in his careful aguided through the research area still dubs the field a minefield [...] strewn with explosive charges of little-known factd (BICKERTON 2007: 522) as a pretty well every issue remains highly controversiald (BICKERTON 2007: 524). However, within this achaotic state of the fieldd (BICKERTON 2007: 522), there seems to be kind of a common sense in two respects: On the one hand, there is agreement that we have to suggest an earlier preliminary stage of approto-languaged, even though this stage of development is conceptualized differently by different authors. On the other hand, it

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² Additionally, the methodical conditions are even complicated by the fact that picture and language are supposed to be in a strong interrelationship with a factor of sculture, which methodologically cannot be grasped in a simple way. Though tackling this problematic issue is far beyond the aim of my study, it seems noteworthy that a functional level of comparison is the prerequisite for diachronic as well as typological studies. In this respect, the shift of perspective as described above could possibly be capable—in the long run—to set the basis for isolating semiotic principles of change from socio-cultural lines of development within an interdisciplinary account.

is hardly questioned that within this protolanguage the lexicon precedes grammatical structure (cf. e.g. GIVÓN 2002: 32; WILDGEN 2004: 107), and that it is restricted to the here-and-now of the communicative situation (cf. ARBIB 2005; BICKERTON 2010: 70). The emergence of grammar and—linked with that—the detachment of the restriction to the here-and-now of the communicative situation seems thus to constitute a general principle of language change.

This is also indicated by the fact that the evolution of grammar can be observed in the historical data: Cross-linguistic studies have shown that grammatical structures develop along universal pathways from lexical into grammatical items. A simple example for this transition is the development of prepositions (cf. e.g. HOPPER/TRAUGOTT 2003: 6): A lexical unit like *back* with the meaning preverse side of the bodyc can come to stand for a spatial relationship in *at the back of* and be reanalyzed as a preposition in *three miles back*. This preposition with spatial meaning can even become proper grammaticals in gaining a temporal semantics, cf. fig. 1:

three years back	>	three miles back	>	back
preposition		preposition		free lexical item
TIME		SPACE		BODY PART
target concept				source concept
				

Fig. 1: Process of grammaticalization: Example of back

As comparable developments are documented all over the world in different languages, the pathways of grammaticalization are considered to be unidirectional: The development is supposed to proceed always from lexicon to grammar while examples for the reverse direction are not attested. In general, the process of grammaticalization can thus be described as a process of adding grammatical meaning to a lexical item, as »l'attribution du caractère

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³ Despite recent ongoing debates on possible cases of adegrammaticalization, the principle of unidirectionality as an axiomatic premise is not questioned within the mainstream of grammaticalization theory (cf. HEINE 2001).

grammatical à un mot jadis autonome« as Meillet (1912: 131) has put it in his definition of the term which is still valid today. Within this process, the prior lexemes lose their lexical meaning while new grammatical features are gained. On an abstract level, the process of grammaticalization therefore consists in two stages: First, the reduction of lexical features (semantic bleachings) and, secondly, the constitution of grammatical meaning.

3.2 Grammaticalization in Pictorial Art?

Are there similar processes within the development of pictures which can be likened to the process of grammaticalization? Considering the process of grammaticalization relevant for all semiotic systems, Wildgen (2004) in his study on *The Evolution of Human Language* discusses three representations of a deer in its change within the Palaeolithic Age in this respect, cf. fig. 2:

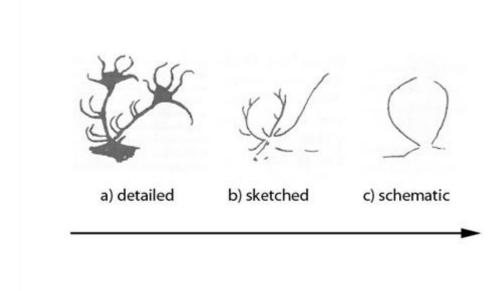


Fig. 2: Three representations of a deer (cf. ROTHERT 1957, depicted in WILDGEN 2004: 66)

According to Wildgen (2004), the series from Late Aurignacian to Middle Magdalenian can be taken as a development from a >detailed< via a >sketched
to a >schematic

picture which he likens to grammaticalization:

[This development] exemplifies a basic gradient of semiotic systems called agrammaticalization in linguistics. A sign has a rich referential meaning (a realistic imaginistic content) at the beginning. Then it loses this content and is reduced to a functional schema in the context of a larger complex of meanings. (WILDGEN 2004: 66)

At first, such an equation appears admissible as the reduction of the imaginistic content seems to correspond to the reduction of semantic features of lexical items in grammaticalization: The details depicted in represen-

tation 2a) aget lost during the process of schematization⁴. However, as seen before, with respect to the process of grammaticalization, assemntic bleaching is just one part of the story: Besides the reduction of lexical features, there is assumed a unidirectional development from concrete to a grammatical, more abstract meaning. But what does amore abstract actually mean? Or, in other words: What is the distinction between lexicon and grammar?

3.3 The Functional Difference Between Lexicon and Grammar

In order to illustrate the difference between lexicon and grammar, Leiss (2009: 279ff.) refers to Peirce's distinction between sindexical vs. siconic signs. and htype vs. htoken, respectively—in her terminology: between honcepto and percepts. Percepts, in this respect, are individual mental images, which consist in potentially infinite perceptible semantic features while concepts are abstract classes (cf. LEISS 2009: 279). This distinction is crucial as lexical words are not kind of labels which do refer directly to things in the world: This means, appellative names like the word pencil do not name a perceptor but a >concept, i.e. a lexical entry consisting in a finite set of semantic features which are intersubjectively rather stable. The function of the lexicon therefore lies in transforming percepts into concepts by reducing the possibly infinite semantic characteristics to a solid set of semantic features. Within this process of abstraction, only part of the features are selected as relevant so that—to quote an example of Eco (1977: 169)—within the lexical entry of the appellative name pencil the length and the color of a certain item are neglected, as well as the fact whether it is sharpened or not. Appellative names, in this respect, are results of a process of categorization and refer to classes, not to individual objects (cf. CHANDLER 2007: 60 f.; LEISS 2009: 280). It seems noteworthy here that, as the process of categorization is considered based on the perception of reality, the relationship between percept and oconcept is an iconic one-which modifies to a certain extent the oradical concept« of arbitrariness (CHANDLER 2007: 25).

The distinction between percept and concept by Leiss (2009) corresponds in several aspects to the distinction between type (i.e. the general concept) vs. token (i.e. the concrete instance of its type) which was made by Peirce (1931-58: 4537) but has been, in succession, interpreted in different ways. Without going into a deeper discussion on the problematic definition of those terms (cf. HUTTON 1992 and DAVIS 2003 for a thorough discussion with regard to linguistic theory), it can be stated as commonly agreed that tokens—whether objects or events—are concrete particulars having a unique

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⁴ The question whether the >detailed< picture in 2a) should indeed be described as >realistic<—as the quotation by Wildgen (2004) implies—cannot be discussed within this paper. It is, however, noteworthy that the considerations in this paper conform to the assumption that both visual and verbal signs are not simple mimetic mappings of the real world and, therefore, »not simply a consequence of some predefined structure in the world« (CHANDLER 2007: 24).

spatio-temporal location while otypes are abstract concepts which are not located in the real world (cf. WETZEL 2011).

As appellative names refer to concepts which do not have a certain time or place in the world, we are thus within the lexicon restricted to talking about classes and the here-and-now of the given context. In order to be able to talk about concrete particular objects that are not situated in the current communicative situation, grammatical units are required—with the words of Durst-Andersen (2009): »it [i.e. the repertoire of nominal lexemes] cannot by itself refer, but must have a vehicle, a grammar« (DURST-ANDERSEN 2009: 37).

The function of grammar in this respect can be seen in transforming a stype into a stoken by localizing it in space and time. This sindexicalization is—like the process of conceptualization—not linked to the real space and time but achieved by the selection of grammatical perspectives which allow to represent mental pictures from different perspectives (LEISS 2009: 64). In this respect, within complex verbal signs as sentences, both iconic as well as indexical properties are intertwined—as already Peirce was aware that sany single sign may display some combination of iconic, indexical and symbolic characteristics (cf. WETZEL 2011). In sum, the functional distinction of lexical and grammatical meaning can thus be taken as a distinction between conceptualization and indexicalization:

Fassen wir die Leistungen von lexikalischer und grammatischer Semantik zusammen, so wird klar, dass die Funktion von lexikalischer Semantik die Verendlichung der Welt durch Klassenbildung ist, während die Funktion der grammatischen Semantik in der Wiederherstellung der Referenz besteht, die durch die Verendlichung der Welt durch Klassenbildung zunächst aufgehoben worden ist. (LEISS 2009: 282)

If we summarize the capacities of lexical and grammatical semantics, it becomes clear that the function of lexical semantics lies in the process of making the world finite via classification, whereas the function of grammatical semantics is constituted in the reestablishment of reference which is at first overriden by the process of classification. (LEISS 2009: 282, translation S.Z.)

Against this background, the difference between lexicon and grammar corresponds to the double process of semiosis: While lexical units group instances into classes, i.e. >tokens
into >types
grammatical units provide the prerequisites to transform >types
into >tokens
Lexical and grammatical items function in this respect complementarily as the lexicon provides a selection of semantic features (i.e. conceptualization/semiosis I) while grammar offers a selection of perspective (indexicalization/semiosis II). This double process of semiosis is reflected in different terminologies as within the distinction >paradigmatic
vs. >syntagmatic
by Roman Jakobson, >Symbolfeld
and >Zeigfeld

by Karl Bühler and >episodic
vs. >semantic memory
by Endel Tulving (cf.
LEISS 2009: 54). Although there is no unitary theory of semiosis, this »Principle of Duality of Categorization« (SHAUMYAN 2006: 265), i.e. the split in concrete instances and abstract concepts, has been considered the basis of categorization in several approaches (cf. e.g. CHANDLER 2007; HEUSDEN 1999: 634; SHAUMYAN 2006: 265).

3.4 Conceptualization and Indexicalization in Pictorial Art

So far, it has thus become apparent that communicating about particular, individualized objects⁵ which are located in space and time, is performed by complex verbal signs which combine iconic and indexical properties. Looking back on the series of deer representations depicted in Wildgen (2004), the transition of a more detailed to a schematic form can be described as a reduction of semantic features, the stage in fig. 2c) being the result of a process of conceptualization. However, even this pabstracte representation does not represent a particular deer at a certain time in a certain place but a concept or type of this kind of animal. This conceptual character seems also to be typical for other examples of early art. Wildgen (2004) states with regard to the venus statuettes from the paleolithic age, that the sculpture does »not primarily represent existing entities«, but »rather symbolizes a rule for how to shape and transform existing entities« (WILDGEN 2004: 65; cf. also LEROI-GOURHAN 1980: 462f.). Similar observations are made by Giuliani (2003) who deals with the historical development of pictures in Greek ancient art. He states that early pictures from the Geometric period (900 BC to 700 BC) are not referring to individual objects situated in space and time but rather show the world as we know it:

Geometrische Vasenbilder geben kognitives Allgemeingut wieder. Sie zeigen die Welt, wie sie ist, oder besser, wie man sie sehen will oder zu kennen glaubt. (GIULIANI 2003: 77)

Geometric vase painting represents common knowledge: It shows the world in the way as it is, or more accurately: as one wants to see it or thinks to know it. (GIULIANI 2003: 77, translation S.Z.)

This is illustrated by an example of the bowman motif represented on an attic skyphos (cf. fig. 3): According to Giuliani (2003: 67f.), the bowman depicted here does not show an individual bowman but an example of a prototypical bowman, a bowman in principle. The bow in his hand as well as the dynamics of his action, are insofar not situational but attributive features. The picture represents not a particular scene but what can be happening in every place at every time (GIULIANI 2003: 160).

The character of such figurative depictions has also been described as »Ur-Genre« (proto-genre«) (cf. HÖLSCHER 1978; NAGEL 2010). While the prefix »Ur-«/proto-« is encompassing a diachronic aspect as the proto-genre« is seen as standing at the origin of figurative art, it is also being refered to the origin of pictures from a theoretical point of view: In such respect, Jonas (1961) claims a general affinity between pictures and genericity:

Ein Bild des Pinus sylvestris in einem botanischen Werk ist eine Darstellung nicht dieses oder jenes individuellen Fichtenbaumes, sondern jedes beliebigen Exemplars dieser bestimmten Spezies. Die Antilope der Buschmannzeichnungen ist jede Antilope, die erin-

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⁵ In philosophical terms, »sortal objects«: »In philosophy, individualized objects are called objects falling under sortal concepts, or shortly: sortal objects« (SACHS-HOMBACH/SCHIRRA 2010: 9).

nert, erwartet, als Þeine Antilope ansprechbar ist, die Figuren der Jäger sind jede jagende Buschmanngruppe in Vergangenheit, Gegenwart oder Zukunft. Die Repräsentation, da sie durch Form geschieht, ist wesentlich allgemein. Im Bilde wird Allgemeinheit sinnfällig, eingeschaltet zwischen die Individualität des Bilddinges und die der abgebildeten Dinge. (JONAS 1961: 167f.)

A picture of Pinus sylvestris depicted in a botanical textbook is a representation not of this or that individual pine tree but of any optional instance of this certain species. The antelope of bushman paintings is any antelope which is remembered, expected, adressable as and antelope, the figures of hunters are any hunting bushman group in the past, present and future. The representation in its formal character is essentially general. Within a picture, generality becomes manifest, inserted between the individuality of the pictorial instance and their depicted instances of the real world. (JONAS 1961: 167f., translation S.Z.)



Fig. 3: Attic skyphos, about 770 B.C.; Eleusis, Archeological Museum, Inv. 741 (GIULIANI 2003: 68)

This is also in line with the position of Sachs-Hombach (2001) who claims that pictures are first of all general terms, the immediate referents of pictures being not spatio-temporal entities but concepts (SACHS-HOMBACH 2001: 66). In this sense, the content of a picture corresponds to a predicate expression as blooks like this. Against the previous background, one could state more precisely: to an expression like bis conceptualized in this ways.

The first pictures in figurative art seem thus to reflect a process of conceptualization, i.e. the process of semiosis I. But can there also be evinced a process of indexicalization? According to Giuliani (2003), the representation of particular individualized figures is, historically, a later development, and linked with the interaction of the characters represented within a common context:

Das (i.e. der generische Charakter der Bilder) ändert sich in dem Augenblick, wo Figuren ihren stereotypen Charakter aufgeben, zu situativen Variablen werden und in Wechselwirkung zueinander treten. Figuren, die aufeinander reagieren, haben eo ipso einen gemeinsamen Ort und eine gemeinsame Zeit. (GIULIANI 2003: 161)

This (i.e. the generic character of pictures) changes at the exact moment when figures are losing their stereotypical features by becoming situative variables which interact with each other. Figures interacting with each other have in common eo ipso one place and one time. (GIULIANI 2003: 161, translation S.Z.)

In the terminology of Giuliani (2003), the existence of a common context and the interaction of the depicted characters represent a transition of purely idescriptive to inarrative pictures. Slightly modifying the definition by Lessing, inarrative here is defined as a representation of protagonists acting as subjects who affect the course of events, the latter being confined by a thrilling moment at the beginning and an end (cf. GIULIANI 2003: 35). All these characteristics apply to the depiction on a proto-attic amphora (fig. 4), discussed in this respect by Giuliani (2003: 96ff.): Here, by means of using an unconventional weapon and the striking size of the man attacked, it is clear that not an ordinary but a particular scene is represented. Against the background of knowledge about the Homeric epics, the depiction of the wine cup in the hand of the big figure gives a further hint for identifying the presented characters: It is Odysseus with his men blinding the one-eyed Polyphemus who was cunningly made drunk and asleep before by a cup of wine.



Fig. 4:
Odysseus blinding Polyphemus; proto-attic amphora, about 670 B.C.; Eleusis, Archeological Museum (GIULIANI 2003: 99)

The unconventionality of the specific interaction thus allows to name the represented figures and to localize them in a specific narrative context. The localization within a certain context is thereby generally seen as a relevant characteristic of narratives: Although there is no common agreement on the defin-

ing features of narrativity, in most narratological approaches the localization of specific events within a certain context is considered crucial. In language, the establishment of a »past world« is achieved by using distance markers as e.g. definite past tense forms (cf. ZEMAN 2010: 91ff.) and deictic adverbials, as, for instance, the most common opening in fairytales: *Once upon a time*. With respect to pictures, the process of building a context of a distant world seems to consist on the definiteness of nameable characters and specific events of interaction which pre-vent the observer from interpreting the picture as a representation of an ordinary general scene.

While the precise process of context-building in visual signs is request for further research, it seems clear in this respect that conceptualization and indexicalization within pictures are notably not restricted to iconic features: A conventional attribute—as the white color used to foreground the status of the main protagonist Odysseus in fig. 4—is arbitrary as it does not map any feature of the depicted objects mimetically but gains its semantics via the opposition in relation to the men depicted in black. In this respect, pictures—like language, though in different proportions—are characterized by an intertwinement of indexical and iconic properties.

4. Conclusions: The Common Features of Picture and Language

The starting question whether the diachronic principle of grammaticalization could also be detected in the development of pictures has thus led to the following conclusions: In the first instance, it has been shown that the diachronic development both of grammar and figurative pictures can be described as the succession of conceptualization and indexicalization and, therefore, as the chronology of the double process of semiosis. In this respect, it has been considered crucial that neither appellative names nor the first generic pictures should be described as plabels which name of things in the world but are results of a process of conceptualization. This seems—from a diachronic as well as a theoretical point of view—to be the basis for the process of indexicalization which has also been considered crucial for picture and language.

This is not a trivial observation as it provides, from a methodological point of view, the precondition for comparing language and picture with relation to functional features as a *tertium comparationis*: Instead of aiming at finding equivalent formal counterparts of linguistic units within pictures—which means neglecting the *specifica differentia* of pictures—it seems more promising to look for functional equivalents. In this respect, the general process of semiosis seems to be reflected in both language and picture and thus provides a level of comparison from which the specific processes within picture and language should be possible to be deducted. This does not only affect general methodological questions of image science but also brings us back to the question by Boehm (2001: v) about a »history of picture«.

With regard to this question, it has also been shown that narratives seem to display a methodological interface for the comparative study of language and picture as they reflect the crucial semiotic distinction between oconceptualization and indexicalization—in narratological terms: between showing and stelling. Linked with that, it has also been drawn attention to the significance of the process of »context-building« (i.e. the focusing on a certain context outside the present communicative situation, cf. FAUCONNIER 1985) which is considered central for the general ability of dealing with individualized objects (cf. SACHS-HOMBACH/SCHIRRA 2010: 11). In this respect, the relationship between stypes and stokens seems to be in the middle of interest as it converges all aspects addressed in this paper. In unison with Chandler (2007), who claims this distinction as the foundational basis of categorization in general, one could thus ask whether the comparison of language and picture on a functional level deducted from general semiotic processes would allow to open up a methodological window on the relationship between language, picture and cognition.

After all, it is becoming clear that more efforts will be needed in order to disentangle the complex relationship of language and picture with regard to the semiotic distinction of https://vs.htokencand-intertwined with that-hindexcandhiconc, respectively. Nevertheless, it appears to be obvious that an interdisciplinary account proves to be the most promising tool for gaining insights into the synchronic as well as diachronic processes of visual and verbal categorization.

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