Style: A new semiotic view on an old problem

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Style is one of the few terms of cultural analysis that can be fruitfully used in completely different cultural areas: Style theories have been developed for texts (most often literary texts), for art, architecture, music, conversation, thinking, and problem-solving. Less attention was rewarded on styles of athletes, of artisans, of playing a game, and of unremarkable daily activities such as walking or driving.

With the help of semiotics, it is possible to look at styles in a different way: namely, to describe them as a type of sign process with certain properties. In his doctoral thesis, the author proposes a model which describes the stylistic sign process in a general way, thus delimitating stylistic signs from other signs.

The model consists of two main parts, corresponding to two sign processes that interact when a style is produced or when it is received: (1) Style is created when choice on the basis of a schema takes place and when regularities in this choice appear. These regularities can be formulated as feature rules. The first sign process describes the inscription of these rules (by a style producer) into a realisation of a schema, and the readout (by a style receiver) out of the realisation. (2) On the basis of the stylistic features used in the first sign process, a stylistic interpretation can be created by the style receiver and also envisaged and taken into account by the style producer. Both processes interact in creating stylistic information.

1.   Introduction

A general theory of style, encompassing all areas where the term "style" is used in natural language, was developed in the author's doctoral thesis. It is based on a model of the stylistic sign process, in which information is inscribed into and read out of realisations, which are based on schemata. The model is based on a semiotic framework in the structuralist tradition, supplemented by formal logics and an undogmatic formalism inspired by modern computer science.

The model has two main parts. In the first, the notion of *stylistic feature* is made explicit by defining it as a rule of choice between different variations given for the execution of a schema. All stylistic information is encoded in realisations (a house; a painting; an action like walking or driving) in the form of rules of choice which were applied in their formation, and can be read out by comparison with the set of other possible choices.

The second part describes stylistic interpretation. Styles are interesting for us because they carry lots of information about the style producer: personality, influences, experiences, social background, and hints on mental content like knowledge, opinions, world-view, likes and dislikes … But how do we get all this information out of stylistic features? To solve this problem, a model of stylistic interpretation has to be integrated. In addition to logical

inferences, emotional and aesthetic effects play an important role in the interpretation of styles.

The proposed theory of style is not meant to substitute specialised style theories. It can serve as a general description of the phenomenon and as basis for finer-grained domain-specific theories.

2. A general theory of style

2.1 Approach

Up to now, theories of style were usually area-specific.[1] With the help of semiotics, however, style can be described on an abstract level, namely as a specific type of sign with certain properties. If the stylistic sign process is thus described in a general way, styles in different areas of culture, communication and behavior are seen to have basic similarities, and a general theory of style can be developed.[2]

Common to all stylistic sign processes is the fact that information is created in a process of choice. It is essential that this information is in fact created in the choice process; thus, if the options the choice is made from are themselves signs, additional information is created that should not be confused with the content that is independent of style. E.g. if someone uses a language to tell a story, the information which can be gained through attention to the style (e.g. about his language skills, his experience with storytelling, and his social background) is not to be confused with the content of the story told.

The options whose choice leads to style can belong to three different areas: variations of behaviors, of artefacts and of texts. When choice is described on the basis of variation, the space of all variants, which will be called *possibility space*, has to be taken into account.

Variation presupposes fixed conditions delimiting a limited amount of options to be chosen from. We thus need a structure that organizes the possibility space. We therefore assume a set of *schemata* that structure the possibility space. According to our division above, we assume behavior schemata, artefact schemata and text schemata. By definition, a schema underdetermines its realisations: it allows different ways of realizing it. Schema can be divided in *schema places* characterizing parts of the schema. Thus, in driving a car we can distinguish between different parts of the schema as for example 'starting', 'turning left', 'turning right' and 'overtaking'.

With the help of schemata, *option classes* are formed.[3] Schema, schema-place and additional conditions define the conditions for inclusion in the option class. In our car-driving example, a certain option class might be specified by the schema 'car drive', the schema-place 'turning left' and the additional conditions 'rain; darkness'. Schema-places in their turn are also specified by conditions that elements have to fulfill to belong to them. Thus, inside an option class there are all elements of the possibility space which fulfill the schema-place-conditions of a certain schema-place (belonging to a certain schema) and, in many cases, certain additional conditions.

A concrete behavior, artefact or text is called *realisation*.[4] We assume that realisations are created on the basis of schemata. Realisations, in their turn, can be divided in *realisation-places*, to each of which can be assigned a schema-place. In our example, a concrete car-drive is a realisation of the schema 'car drive'. It can be divided in realisation-places, corresponding

to the schema-places 'starting', 'turning left', 'turning right', 'overtaking', etc. in a certain configuration:

> car drive: <starting, driving along a street, turning left, overtaking, stopping before a red light, starting, driving along a street, …>

2.2   The execution of a schema

The crucial process for the emergence of style is the transition from option classes to a realisation. This process can only be examined precisely in the context of other choice processes which, together, constitute the *execution of a schema*. This includes the different processes whereby a concrete behavior, artefact or text is generated. It consists of four steps:

Step 1: a schema is chosen, on the basis of which a realisation is created;

Step 2: a configuration of option classes is determined;

Step 3: a style is applied (inscription of the stylistic feature rules in the realisation);

Step 4: the realisation is completed.

These four steps describe not so much a chronological course of events as a logical delimitation of different processes happening at the same time.

2.3   Two sign processes

As we saw, we usually speak of style when choice on the basis of a schema becomes a sign for something else. But styles exist in very different areas, can be simple or complex, can be intentional or unintentional … For these different processes, we need a general description for our theory. As a basis for such a description, we use a general format of choice, the *feature rule*.

Feature rules have the function to describe stylistic choice processes in a general way on a basic level. Thus, they have two dimensions:

1. They serve a function in the developed model by creating a level of analysis common to all style processes, thus enabling us to describe style on a general level. Above this level, style phenomena show many variations and function in very different ways. On this higher level, style cannot be described in the same general way as on the level of feature rules. For that reason, they will be treated separately as *first sign process*. In the *second sign process* (also called *stylistic interpretation*), we describe all those processes in which meanings are drawn from the set of feature rules used in the first sign process (combined with background knowledge). The separation drawn between first and second sign process has mainly an analytical function: Both sign processes take place together and are closely interwoven.

2. The feature rules examined in the first sign process correspond roughly to the *stylistic features* talked about in daily language use and also in many former style theories. If in relation to elements found in certain realisation places an assertion is made by the style receiver regarding the properties the element was chosen for, traditionally this is expressed by saying simply that he/she regards those properties in those realisation places as *stylistic feature* of the realisation. Thus, in a Richard Meier building, the walls being white might be regarded as a stylistic feature, but also certain exterior walls showing curves, balcony railings often looking like ship railings, etc.

The old example of round vs. pointed arch delimitating Romanic from Gothic architecture is, by now, an over-cited and somewhat infamous case of stylistic features, but it still holds true. In our car-driving example, the risky execution of a certain type of manoeuvre (e.g. overtaking) would be a stylistic feature, as would be a secure execution. In both cases, more things happen than meet the eye:

(i) First, a certain type of realisation place of a concrete realisation (e.g. a building; a car drive) is chosen, e.g. the upper end of window openings; situations in which overtaking is possible).

(ii) Those properties of the element which are thought to be stylistically relevant are given ('round form' vs. 'pointed form'; 'risky'). By regarding them as stylistic features it is implied that these were the properties for which the element in question was chosen.

(iii) It is implied for the style in question that at the places given in (i) with a certain probability an element with the properties given in (ii) is to be found.

This makes it plausible to describe stylistic features as result of the application of stylistic feature rules. The realisation places defined in (i) are those the feature rules are applied to; the properties given in (ii) are the properties demanded by the feature rule; and (iii) justifies the assumption of a rule (applied with a certain probability).

2.4   Feature rules

In the last section, the necessity for assuming feature rules was explained. They can be described by four variables. Corresponding to steps (i) to (iii) in the last section, we can formulate three of them:

1. The *conditions of application* specify which realisation places a feature rule is applied to.

2. The *necessary properties* specify the properties the element to be chosen for that realisation place should have.

3. The *probability of application* specifies the probability that, if the conditions of application are met for a realisation place, an element with the necessary properties is chosen.

Often, a style will consist of more than one feature rule. Let's take an example: The style of architect Richard Meier is notable for its shining white exterior surfaces. That these are often covered with tiles, however, should be described separately in a second feature rule, because the two features don't always appear together. As further features of this style, cubic and cylindric forms, the combination of round surfaces with ribbon glazing, and asymmetric combinations of volumes could be mentioned. Only in their interaction, these features create the characteristic impression of Richard Meier's style.

If usually there are different feature rules, we have to specify an order of application for them. This is important because the application of a certain feature rule on an option class will often reduce it so strongly that other feature rules can no longer be applied. (The reduced option class, we should remember, only includes the elements with the necessary properties.) Thus, we need a fourth variable:

4. The *prioritisation* gives the order in which the feature rules are to be applied to the option classes.

2.5   The first sign process

The first sign process consists of inscription and readout of feature rules. In the transition from option classes to a realisation, style can be generated. The inscription consists in a simple application of the feature rules (cf. section 2.2, step 3): In those realisation-places specified in the conditions of application, reduced option classes are formed which contain only elements with the necessary properties. Out of these, in a last step of non-stylistic choice one element is chosen (cf. section 2.2, step 4).

When a style is read out of a realisation, in a first step, option classes are formed on the basis of the realisation: The style receiver has to imagine other options which could have been chosen when the realisation was made. In the next step, the option classes, together with the realization, act as *sign vehicle* of the first sign process: From them, a set of feature rules is constructed which seems to describe, as closely as possible, the regularities found in the realization; this set is the *sign content* in the first sign process. Inscription and readout are complicated processes and cannot be fully described here; they are modeled in detail in Siefkes (in print).

Figure 1 shows a simplified representation of the first sign process:
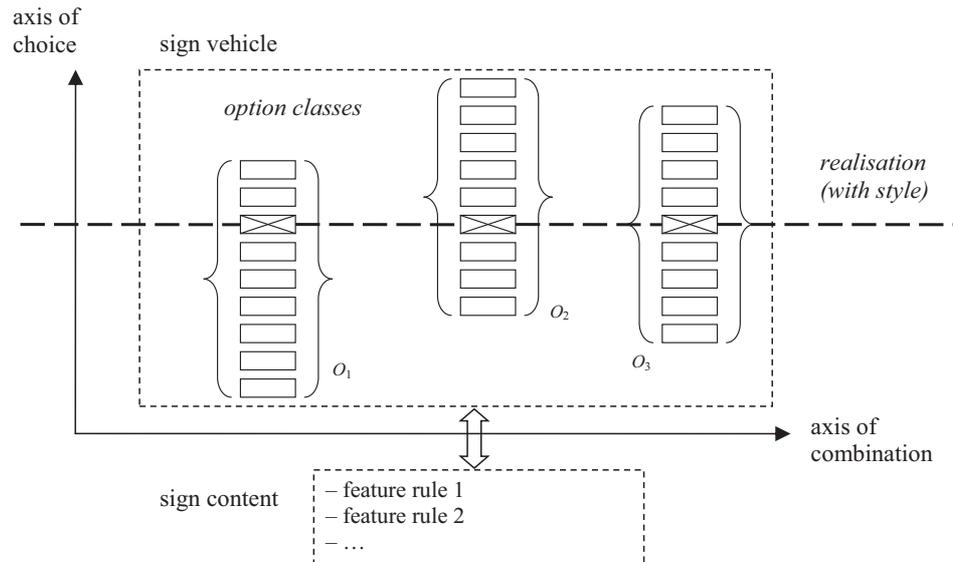
Fig. 1: The first sign process.

Option classes are represented by brackets that contain a number of elements represented by rectangles. The realisation is given as bold dotted horizontal line. The elements of the option classes chosen for the realisation are marked by a cross. The figure is oriented by a coordinate system whose two axes designate the main principles at work in the creation of a behavior, artefact or text: choice (out of a number of options for a given realisation place) and combination (of the elements chosen to form a realisation).

Not accidentally, the figure resembles closely one used in structuralism to depict processes of text production (cf. Posner 1972). In that representation, however, the elements in the

option classes are signs (usually words), whereas here we talk about variants of schema execution. Since under certain conditions we can still have signs in the option classes (e.g. when talking about text styles), the figure given here can be seen as generalisation of the structuralist figure. To make this distinction clear, the traditional terms *paradigm* and *syntagm* (for entities consisting of signs) are replaced by the terms *option class* and *realisation*, respectively. These are meant to be generalisations of the structuralist terms.

2.6   The second sign process

2.6.1 Connections between feature rules

As we have mentioned, the model of style divides the stylistic process in two sign processes. The first sign process models inscription and readout of feature rules. Very simple styles may consist of only one feature rule. Most styles, however, are much more complicated. Most of the time, different rules have to be assumed to describe a style adequately. Often these feature rules will be connected in one way or another. If there is no connection, the style will be seen as arbitrary conglomeration of feature rules. A style is interesting when there seem to be connections between its different features which, however, are not obvious and therefore prompt consideration and reflection.

Thus, at least for interesting styles we can postulate that there are connections between the different feature rules they comprise. For the closer examination of a style, therefore, all connections between the feature rules are potentially relevant; we cannot limit ourselves to certain types of connections (e.g. similarity, opposition).

We have seen that the entities inscribed and read out in the first sign process correspond roughly to what has traditionally been called stylistic features. In the same way, the second style process corresponds to the notion of *stylistic interpretation*: It serves to get all kind of additional meanings, emotions and aesthetic effects out of the stylistic features.

2.6.2 Variation in the second sign process

In the first sign process the set of feature rules was read out of the realisation. In the second sign process, the focus is much wider: Everything is considered which can be created out of this set of feature rules: additional meanings, emotions, aesthetic and other effects. Thus, the set of feature rules is for the second sign process the *sign vehicle*, and everything which can be generated on its basis is the *sign content*. Sometimes, even single feature rules can be used to create further meanings. The most important source for the second sign process, however, are connections between the different feature rules of the style.

The second style process is much more diversified than the first. It shows variation along different dimensions:

(1) the complexity of the sign content, which usually consists of different elements;
(2) the number of feature rules which take part in the creation of the sign content;
(3) the types of connections between the feature rules used for creation of the sign content;
(4) the types of elements of the sign content (meanings; emotions; aesthetic effects);
(5) the ways in which sign content is created;
(6) the areas about which sign content is created.

Notes to the different dimensions of variation:

(1) Out of the set of feature rules that are read out in the first sign process different elements of sign content can be created. Combined, these elements of sign content form the result of a stylistic interpretation. Usually, the stylistic interpretation could continue practically endless and is therefore just stopped when the style receiver is satisfied with the result of the stylistic interpretation, i.e. with the generated sign content.

(2) An element of the sign content can be generated out of one, two or more feature rules. A single feature rule might be interpreted metaphorically or as an index for its cause. For different feature rules, there exist lots of possibilities for the creation of sign content.

(3) The relations between feature rules can be of different types:
–   Similarity, opposition, or other relations of the necessary properties.
–   Relations between the relations of necessary properties and relations (taken from background knowledge) between areas of application (e.g. if two areas of application thought to be opposed, as cellar and entrance hall in a house, are designed as similar or as opposed; or if two areas of application thought to be similar, as two normal floors in a scyscraper, are designed as similar or as opposed).
–   Often, connections are created only indirectly via the created sign content. Thus, a historical artistic school can be connected through features not otherwise connected. If we find two such features in two different feature rules, we can only find the connection via the common sign content, the artistic school in question. These connections, nonetheless, are relevant, because they point to the same source of the features, namely the fact that the realisation belongs to the artistic school. If, furthermore, the features each for itself are not conclusive proof for the realisation originating from that artistic school, only the connection between the two rules can be said to be an index for that relation.

(4) The elements of sign content generated in the second sign process can be different entities. While in the first sign process we always arrived at a set of feature rules which formed the sign content, in the second sign process elements of sign content can belong to different categories: (a) meanings; (b) emotional reactions; and (c) aesthetic effects.

Meanings are elements of sign content which can, at least in principle, be expressed as logical propositions or sentences of a natural language. In examining and interpreting styles, often only meanings are considered; this is also the case in the example considered in the next section. But styles can also convey emotions or generate direct (non-propositional) aesthetic reactions. These two types of elements of sign content are less well understood; however, the process of stylistic interpretation should not be reduced to the creation of meanings (this might rightly be criticized as a logocentric view). Rather, the whole variety of created elements of sign content should be taken seriously.

(5) The processes subsumed here under *generation* of sign content are quite different. They vary from the automatic perception of relations (e.g. similarity or opposition of the necessary properties of different feature rules) over processes of logical deduction, induction or abduction to highly speculative processes of interpretation and subjective emotional reactions. Often a certain knowledge is necessary for the processes in question, which may be based on experience or special training (e.g. in experiencing aesthetic effects of art).

(6) Examples for areas the sign content can belong to (sp = style producer):
–   Social and cultural background of the sp;
–   education of the sp in the production of the realisation type in question (e.g. literary, artistic, architectural, scientific or artisanal realisations) in a certain tradition or school or from a certain teacher;
–   opinions and positions of the sp regarding the social function and the optimal design of the produced realisation type (e.g. artefact);
–   general opinions and world view of the sp;
–   personality and character traits of the sp (e.g. temperament);
–   formative aspects of the former life of the sp (e.g. periods under certain influences);
–   traumatic experiences, psychological problems, bodily sicknesses of the sp;
–   membership of the sp in a certain group or category of people (e.g. a subculture, a religion, a caste, a life style).

This incomplete list of areas makes it clear why the sign process we call *style* is important to us: From styles, we can derive information about very different areas of human life and very different points regarding the style producer, many of which are potentially interesting to us. This is true for information a style producer wants to convey (e.g. aesthetic impressions) as well as for that he or she doesn't intent to transmit (e.g. character deficits visible from an insecure or aggressive driving style).

For the most part, we cannot 'switch off' styles, we just have them, and we transmit lots of information with them everyone able to read stylistic signs can use. It is disadvantageous not to be conscious of this fact and control one's own styles as far as possible. The readiness to pay attention to other's styles is just as important, since we cannot afford to miss information about our surroundings and styles are an important source of such information.

The aspects (1) to (6), taken together, show the great spectrum of variation in the second sign process. Furthermore, they have, with the probable exception of (4), the character of free variables: It is up to the creativity of the sign producer and receiver to invent new possibilities of creating meanings, emotional reactions and aesthetic effects in the second sign process.

2.6.3 Example for a stylistic interpretation

We give a small part of a possible stylistic interpretation of Richard Meier's architectural style based only on two feature rules (B_1, B_2). These two features can be clearly distinguished in his building 'The Atheneum' (fig. 2).

Elements of sign contents (M) are created and used as basis for further steps of the interpretation; they are specified in parentheses as to their type (p: proposition/meaning; w: aesthetic effect). Elements of background knowledge (H) are introduced as necessary; it is assumed that they can be freely added when necessary for the process of interpretation. The arrow ($\rightarrow$) designates the process of creation of a new element of sign content; thus, it can stand for a

Fig. 2: Richard Meier: *The Atheneum*, New Harmony, IN, USA (1975–1979). © Mary Ann Sullivan, Bluffton University.

number of different operations and is specified in brackets as to its type (e.g. [Op: deduction]).

B_1: *U*: 'some windows'; *V*: 'ribbon glazing'

B_2: *U*: 'walls with ribbon glazing'; *V*: 'curved walls'

H_1 (*p*): 'Ribbon glazing is a characteristic innovation of modernism.'

H_2 (*p*): 'Organic rounded forms are characteristic for postmodernism.'

B_1 and B_2 and H_1 and $H_2 \rightarrow M_1$ [Op: insertion, transposition]

M_1 (*p*): 'Ribbon glazing, a characteristic element of modernism, is built into curved walls, a characteristic element of postmodernism.'

H_3 (*p*): 'Richard Meier's work is created in the time of postmodernism, therefore it could be postmodernist.'

M_1 and $H_3 \rightarrow M_2$ [Op: abduction]

M_2 (*p*): 'postmodernist adaptation of elements of modernism and use in a postmodern fashion'

$M_2 \rightarrow M_3$ [Op: comparison with hash table for effects]

M_3 (*w*): 'ribbon glazing seems to be wilfully cut out of the wall; it is not made clear how this works statically; very thin columns (in opposition to thick columns elsewhere)'

H_4 (*p*): 'intended effects of ribbon glazing in modernism: …; clear and rational structuring of the wall; functional design of building; …'

M_3 and $H_4 \rightarrow M_4$ [Op: semantic comparison]

M_4: 'The postmodern effects resulting here from the use of ribbon glazing are contrary to the intended modern effects.'

M_2 and $M_4 \rightarrow M_5$ [Op: deduction, transposition after semantic criteria]

M_5 (*p*): 'Postmodernism here uses a modern element with effects contrary to its intended effects in modernism.'

H_5 (*p*): 'Postmodernism embraces the irrational, playful, functionless and rejects the clear, rational and functional.'

M_5 and $H_5 \rightarrow M_6$ [Op: induction; a causal relation is constructed]

M_6: 'That the effects of the ribbon glazing in this building are contrary to its usual modern effects results from the different world-view and aesthetic intention of postmodernism.'

This interesting result has been derived from only two feature rules. By including further feature rules and background knowledge, we could expand the interpretation.

3.   Conclusion

The presentation of a general style theory given here was intended as a very simplified preview of my doctoral thesis, where the development is given step by step. The model of the stylistic sign process is given there in a formalized version, which helps to understand the functioning of these complicated processes.

Style has traditionally been studied in the humanities (literary studies, science of art, etc.). Theories in the humanities making claims to a general description of a whole subject matter have in the last decades been subjected to harsh criticism, especially those trying to formalize processes in their respective fields: they were often deemed to be too rigid and inflexible to be of much use. This has lead to what could be called a 'theoretical backlash': theoretic approaches have gone out of fashion, empirical work has prevailed and new ambitious theories have seldom been attempted. The theory presented here shows that, with semiotics as methodology, it is possible to look at phenomena on a general level, instead of being content with area-specific descriptions (e.g. style in literature; style in art; life style …). Semiotics gives us a general way of looking at cultural processes in which information is transmitted, by treating them as sign processes. Thereby, it makes general theories like the one presented here as a first outline possible.

Furthermore, the criticism leveled at semiotic and other theories, especially formalized ones, for rigidity and empty formalism can be met today: The advances in logic and computer science make it possible to form models sufficiently complex to avoid those mistakes. By including sufficiently many variables – especially free variables where creativity can invent new ways of fulfilling the specified task –, openness and flexibility can be modeled. Theories of this type can do justice to phenomena in the humanities – phenomena like style – which cannot be pressed in a simple model, by taking their open and flexible character seriously.

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Notes

1   Examples include Riffaterre 1973, Enkvist 1973, Anderegg 1977, Bialostocki 1981, Nischik 1999, Plett 2000 and Semino et al. 2002.
2   This was done in my doctoral thesis; cf. Siefkes (in print). The summary on the theory given here is a simplification of the description of the stylistic sign process developed there, concentrating on key terms. Cf. also Siefkes 2009, where the theory is discussed with focus on the distinction between Zeichenmaterie (sign material) and Zeichenträger (sign vehicle).
3   The concept *option class* is used as a generalisation of the structuralist concept *paradigm*. Paradigms are option classes containing signs as elements. Cf. for a short introduction to the Saussurian dichotomy *syntagm – paradigm* Albrecht 2000: 50ff.
4   The concept *realisation* is used as a generalisation of the structuralist concept *syntagm*. Syntagms are realisations created on the basis of sign systems.

Biographical note:

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