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Synaesthesiae within the Scope of a Phenomenology of Perception

Characters of atmospheres

In this article, the question of synesthesia is regarded in the context of aesthetics, i. e. Aisthetik which is conceived as a general theory of perception. For such a phenomenological theory of perception *atmospheres* are the first facts of perception. In the following, synesthesia are to be determined as *characters* of atmospheres.

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In the tradition of the theory of perception synesthesia are treated in exactly the opposite way, namely in view of their individual sensory components, thereby presupposing their number and diversity. We decidedly represent a different view, i. e. we move in from perception in general, from the integrative phenomena, and then only gradually and analytically uncover the variety of senses and their specific phenomena. Initially we must assure ourselves of the following: We have to base our exploration on such experiences in which atmospheres as such – possibly in their purest form – are a given.

We defined the characters of atmospheres as their ›being something‹, the characteristic way in which they affect us. They are only experienced in their entirety by those who fully engage with them, on the other hand however are only perceived in ingressive or contrastive dependencies, i.e. when one only just encounters an atmosphere or when that what one appears to experience stands in contrast to the mood that one has. Mention can be made of some everyday and comprehensible ingressive situations to remind you that there are situations in which you initially only perceive a general atmospheric impression, and then only gradually explore details: objects, colors, shapes, sounds, relationships of all kinds. It thus concerns such situations of perception in which one is, as seamlessly as possible, confronted with a new ›total‹. We are quite accustomed to such situations through artificial perceptual settings, namely scene changes in the theater or by the cutting technique in film. In this case, however, film is not really suitable as an example, because the audience is usually immediately confronted with pictures of the same clarity and detail after the cut as before. The characteristic vagueness and temporary disorientation that is characteristic of the ingressive experience of atmospheres, could, of course, also

be mimicked in the film. In theater this change of scene is usually introduced by gradually turning up the light. For everyday perceptual experiences we can think about the following situations: one enters an unknown house and immediately feels the ›petty-bourgeois atmosphere‹ or ›the fustiness of an old apartment‹. Or one walks into a church, perhaps off the road or from a sunlit square and is enveloped by a ›holy twilight‹ or a ›timeless silence‹ or a ›cool crypt air‹. I will relate some suitable examples from nature experience. After a long hike over wooded mountains one suddenly steps out of the forest and ›a serene meadow valley‹ unfolds below. Or one is out for a drive, stops at a resting place, perhaps marked on the map as a vantage point, one takes a few steps to the edge of a cliff and below ›the vastness of the sea‹ opens up. Corresponding experience is also known from communicative situations. One enters a meeting – perhaps somewhat late – and immediately senses ›the tense atmosphere‹. Or one joins an ongoing negotiation and is captured ›by the seriousness of the matter‹. Finally, a few examples that are relevant to architecture and interior design. For example, one enters a ›beautiful bright room‹, or a restaurant of ›cool practicality‹ while another may exude a ›cozy atmosphere‹. Finally, it can occur that one enters a church or perhaps even only approaches a building and is positively ›uplifted‹. Other rooms can be perceived as ›restless‹ or ›depressing‹.

These are a wealth of examples. For all of them, the core issue is that first overall atmospheric impression. The manner in which we articulate this impression or even give ourselves an account of it, is, however, thoroughly diverse, so diverse that it almost forces a classification of characters. Particularly striking are those characters which play a role in interior decoration, in advertising, in design. I mentioned coziness and the petty-bourgeois atmosphere as examples, others are: an atmosphere of wealth, of elegance, of power. Here one obviously has to do with social characters. It is very important to take note of this, so as not to give the impression that atmospheres are something transcendent or beyond history or something that specifically belongs to the sphere of nature. Those who work with stage sets will know this very well. There is the atmosphere of the 1920s, the atmosphere of a boudoir, a barracks-like atmosphere or also the atmosphere of elegance, of petty-bourgeoisie, of decorum, of wealth, of poverty, etc. Such atmospheres have a quite conventional character, or at least it is to be suspected that they are generated by conventional objects. How would it otherwise be possible to produce the appropriate atmosphere on stage with only a few props. It is necessary to clearly distinguish between these *social* characters and such characters as warmth, brightness, coldness. It is these that I want to call synesthesia. Atmospheres, whose characters are synesthesia, are found in great numbers: for example, a rough atmosphere, a fiery atmosphere, a dense atmosphere. In what sense one speaks of warm, bright, cold, fiery, rough and dense in this regard, is still to be clarified. In view of our examples up to now, we can at this stage determine that these two classes of social characters and synesthesia do not yet exhaust

the spectrum of possible characters of atmospheres. Another group is comprised of those which should perhaps in the strictest sense be identified as ›moods‹. There are those in particular, which have been designated as scenic characters by the theorists of the English garden: cheerful, severe, gently melancholic, heroic, etc. Of course, *all* atmospheres are quasi-objective moods and their characters are therefore often designated by the names of the moods that can be evoked by the atmosphere. Where this happens expressly, we wish to also call these characters moods. – We had mentioned the communicative characters as a further group: i. e. those that characterize communicative situations, such as tense, quiet, hostile, etc. Finally, the last group we mentioned are those that are experienced as an impression of motion, such as oppressive, uplifting, far, moving, etc. Thus, we have five groups of atmospheric characters: social characters, synesthesia, moods, communicative characters and impressions of motion. In individual cases, the assignment to a group will be difficult and the groups may overlap. Furthermore, it is quite undecided whether five groups are sufficient. A systematic consideration for such a classification does not yet exist.

Synesthesia are thus a specific set of atmospheric characters – one amongst others. This group is distinguished by the fact that the characters concerned are usually referred to in terms that are also titles of sensory qualities.

This fact points us directly to the problem of synesthesia. Because, it is of course valid to suggest that expressions such as ›warm‹ and ›cold‹ are primarily attributable to the sense of touch, similarly expressions such as ›rough‹ and ›soft‹ and expressions such as ›light‹ and ›dark‹ to the sense of sight. It would then boil down to the conclusion that their use in other sensory areas – bright colors, warm colors – or in characterizing atmospheres in general is metaphorical. In contrast, we must stick to the priority and especially to the independence of atmospheric perception.

The independence of atmospheric perception must of course be secured phenomenologically – we did this by referring to the ingressive experience. But there are indeed two facts that help defending the autonomy of the atmospheric experience. One of them is the fact, that some of these expressions – contrary to their current use in language – did not originate from a specific sense or at least not from the sense predominant today. For example, in the Etymological Dictionary of the German Language Friedrich Kluge writes about the word ›hell‹ (bright): »In Middle High German the meaning relating to sound is still predominant, Old High German does not yet know the meaning relating to the visible (gleaming)«[1]. The word ›süß‹ (sweet, cute, fresh, dulcet) was reportedly not assigned to any special sense originally, but rather designated that which was pleasurable in general[2]. The other fact is a conclusion derived from the field of psychology. In his handbook article for the term »intermodal qualities (synesthesia)«[3] Heinz Werner forms the term »inter-sensory properties«[4]. Whether this concep-

1 Kluge 1969: 302.

2 Op. cit.: 766.

3 Werner 1966: 299.

4 Ibid.

tion is useful is doubtful from our point of view, because the term is indeed based on the assumption that the senses are separate areas. Werner however believes that he is able establish empirically that properties such as »intensity, brightness, density, roughness, and many others, often difficult to describe [...] characters« occur in all sensory areas. Thus: A color may be hell (bright), a tone can be hell (bright), a voice, maybe even the taste of a wine. Also: a sound can be rough, a voice, a surface, perhaps a whiskey. We take these findings as evidence for the independence of atmospheric perceptions, and would say that *atmospheres* are primarily light, rough, bright, warm, etc. – From this the assertion will follow, that one calls sounds, colors, voices, etc. rough, bright, warm, insofar as they contribute to creating of a rough, bright, warm atmosphere. To give weight to this theory, we have however to deal with the traditional theories of synesthesia first.

What are synesthesia?

There are two traditional approaches to synesthesia, or as they are also called, intermodal qualities. The first is linguistic. This concerns the fact that expressions used to characterize facts of a sensory domain often seem to originally belong to another sensory modality. Take as an example the range of tones. Here we talk of high and low tones, of light and heavy tones, of light and dark tones, of dull and sharp tones. Expressions such as high and low now seem to describe an experience of space, light and heavy an experience of weights, light and dark a visible experience, sharp and dull rather an experience of touch. Corresponding sample groups can be reiterated for further sensory areas. Of colors it is said that they are warm and cold, of odors that they are sweet or sharp, of taste qualities that they are fiery or mellow. Such talk is usually referred to as metaphorical – but this implies the problematic assumption that there would be a *proper* use of these expressions, which is located in one and only one sensory area.

The second traditional approach to synesthesia concerns the feelings or ideas. The most well known phenomenon is »audition coloré« or colored hearing: There are people who have color sensations when listening to music. This phenomenon has been studied empirically in many ways, and based on this, related phenomena which connect other sensory areas were explored or induced. In this way shapes were for example categorized according to light or heavy, letters or rather sounds of the alphabet were associated with colors and the like. My aim is not to illustrate this empirical research, but rather the theories by which the phenomena mentioned were sought to be explained.

According to the report by Werner the phenomenon of synesthesia was only discussed scientifically by the ophthalmologist John Thomas Woolhouse at the beginning of the 18th century. The *theories* are however based

on an age old idea, namely that of the unity of the senses, as formulated by Aristotle in his treatise *De Anima*. Aristotle studied the possibility of comparing or distinguishing data from different sensory areas. He found that, in order to do this, it would be necessary for them to constitute a unit in any sense. Since they are on the other hand differentiated dimensionally, he conceived of their unity in analogy to a coordinate system, where the main axes intersect at *one* point. This model of the unity of the senses was later connected with Aristotle's doctrine of the ›common sense‹. This relates the fact that there is data that is relayed by all the senses. For Aristotle, these are mainly mathematical facts, i.e. size, unit, number and the like. Aristotle himself however, did not render the common sense to a further sense alongside the other five senses, but rather meant the said common of the five senses. We have already learned that the psychologist Heinz Werner introduced his »inter-sensory properties« in continuation of this Aristotelian theory of common sense. In general, however, one has understood the Aristotelian doctrine of common sense, as mentioned before, as the assertion of another sense, somehow connecting the five senses.

In this line of thought, the first theory of synesthesia was constructed. Thus Wilhelm Wundt named our feelings the sense in which the others find their unit. His thesis is »that certain disparate sensory qualities evoke corresponding feelings, so that, in consequence of the very close bond between our feelings and our sensations, our senses are themselves perceived as related.«[5]

5 Wundt 1900: 512.

The unity of the senses thus does not exist in a relationship between them, but therein that they all affect our feelings and may produce the same or related effects. The so-called metaphorical idioms such as a ›warm tone‹ or a ›clear voice‹ (›helle Stimme‹) would then be mediated by these emotional effects. Similarly, Michael Hauskeller recently endeavored to interpret the phenomenon of synesthesia through the fact that the different sensory data could have the same emotional significance.[6]

6 Hauskeller 1995.

The continuity hypothesis and the association hypothesis are to be distinguished from this approach. According to the continuity hypothesis synesthetic phenomena would arise, because corresponding sensory data usually occurs together. For example the red of fire. Thus, the pairs would be attributed to each other, even when the respective other is in fact missing, such as ›fieriness‹ to red. The association hypothesis is quite similar to this view, only, the couple relationship of sensory data of different sensory areas is founded more on the object than on the subject. Accordingly, one piece of sensory data would be associated with another if they were connected during a crucial biographical situation. Both hypotheses are outdated today, according to Werner's article from the psychology handbook. The continuity hypothesis is refuted by the fact that phenomena of synesthesia can not be generated by frequent pairwise prescription of sensory data from different areas. The association hypothesis is refuted by the observation

that synesthetic phenomena are more frequent in childhood and youth, declining with age. If they were generated by biographical experiences, they would rather increase with the progress of life.

Werner himself, whose work probably represents the most advanced status of current psychological theories regarding our question, comes close to Wundt's concept again – but with a modification that can be described as rooted in culture and history or as psychogenic. He assumes or deems to determine that an increasing differentiation of sensory perception, with the aim of an objectification of this knowledge, takes place in the course of cultural development and, accordingly, in the psychogenic development of the individual man I quote a typical statement:

»It is interesting that it is possible [...] to uncover layers in civilized man, that predate the experiences genetically and that, as original modes of experience, are partially buried in the ›rational‹ personality type. In this layer, the stimuli of the environment do not enter our consciousness as factual perceptions, but as expressive sensations that satisfy the whole being. In this layer, it is true, that sounds and colors are rather sensed than perceived«. [7]

7 Werner 1966: 297.

This is a view that is very much to our liking, because it does not, as is common in psychology, require a variety of sensory areas, of which the heterogeneous qualities would then have to be connected in some way. It further accommodates us in that it adopts alternative methods of perception, which are theoretically even available to the so-called rational personality type or civilized man. On the other hand, read as a cultural-historical theory, it is of course highly problematic because it assumes the old European scheme of a higher development of man to European civilization, and in this context to the rational type of person. With Werner, however, it remains unclear what sensation and expression of experience is supposed to be, as opposed to perception. In this he already tends in a direction that is conductive for the phenomenology of perception, namely to relate synesthesia to bodily experiences: »It is very likely that the synesthetic experience of unity, which can be triggered in our visceral sensations by different stimuli, relies on the muscle tone of the body (Tonusvorgängen)«.[8]

8 Werner 1966: 298.

Werner's work is immediately followed by the philosophical theory of the synesthetic characters of Hermann Schmitz. Opposite Werner Schmitz is in the favorable position that he can base his views of synesthesia on an already elaborated theory of human corporeality. Therefore he does not speak of »muscle tone of the body (Tonusvorgängen)« but of bodily sensation. He demonstrates that what are commonly called synesthesia, are basically characters of bodily sensation. It is of crucial importance to him, that the synesthetic characters can also be felt in their own right, i. e. can be felt without external sensory perceptions. He for example points out that the heaviness, which can be attributed to a sound as synesthetic cha-

racter, can also be sensed in ones own body – for instance in tiredness or dizziness.[9] Schmitz states that emotions such as sadness or anger can have synesthetic qualities in common with sense qualities and explains it, by referring to the fact that our feelings have an influence on our physical economy, i.e. on our muscle tone, as Werner would say, and can thus be experienced bodily.

9 Schmitz 1968: 62.

Synesthetic characters are thus, according to Schmitz, specific experiences, namely characters of bodily sensation. Schmitz therefore avoids the term »synesthesia«: the focus should not lie therein, that a quality that is attributed to one sensory area, such as brightness in the optical field, now also figuratively describes a phenomenon of a different sensory range, for instance in the audible field. For Schmitz it is crucial that the so-called synesthesia materialize through sensory perception that reaches down to the area of bodily sensation. Thereby, the Aristotelian punctual unity now seems to extend to a sensus communis. Is bodily sensation an additional sense to the other five senses? Following the philosophical tradition, one is tempted to speak of an inner sense. But the inner sense was conceived as being reflexive, for instance by Kant: through the inner sense the mind becomes aware of its own condition. But this is not what we mean in this context. Neither are the changes in (muscle) tone that Werner speaks of, nor are the bodily sensations described by Hermann Schmitz reflexive. Both, Werner like Schmitz, avoid speaking of an additional sense in this context. For Werner the changes in (muscle) tone are side effects of perception, but not perception itself. Schmitz on the other hand, declares the experiencing of synesthetic characters to be the actual and basic perception. Because, according to him, perception is basically physical (bodily) communication. That is however, a radical thesis. In contrast to his other intentions, this leads Schmitz to a kind of projection theory. The occurrence of synesthesia in the different sensory domains is called »mirroring«[10] or »radiation«[11] respectively. The synesthetic characters which therefore actually belong to bodily sensation are »invested« in the external sense data, according to Schmitz. Thus we have roughly returned to the approach we chose initially. What separates us from Schmitz, is the thesis of projection. Although our experience of atmospheres is modified by our mental state, i.e. eventually also by our bodily sensation, we still, for the sake of synesthesia, hold on the idea that they are experienced *representationally*. They are characters of the primary objects of perception, namely of atmospheres. They are neither projections of our bodily sensations nor are they metaphors that transport certain characteristics from one sensory area to another or from all sensory areas into the field of atmospheres. Therefore it is all the more important for us to explain the relationship between synesthetic characters, of atmospheres to the different sensory qualities. This will be done by means of the thesis on *generating* atmospheres and the possible reciprocal *substitution* of the generators. But before that, we must still consider another author, Goethe, who plays an important historical role in the treatment of these phenomena.

10 Op. cit.: 63.

11 Schmitz 1968: 52.

The sensuous and moral effect of color with Goethe

The sixth part in Goethe's Theory of Color is about the »sensuous and moral effect of color.« After this heading, one might think that for Goethe there is firstly the color on its own and then also its effect. Upon closer inspection this is, however, not the case. The principal part of his color theory, the so-called didactic, already does not make use of the concept of causality, in contrast to Newton's theory of color. For Newton, there is firstly the light and its physical properties, and then effects of color sensations were assigned to the light, its specifications and mixtures. He tries to summarize these conditions in a first approach by means of a kind of psycho-physics. In contrast, Goethe from the outset understands color as a sensuous phenomenon that presents itself to the eye – and he then merely asks about the prerequisites for the appearance of color phenomena. Regarding the so-called sensuous and moral effect, it is not a question of taking the colors as a stimulus and then studying their effect on the mind, but rather its ›effect‹ is their actuality itself: the reality of colors is their presence in the sense of the eye. This, Goethe writes, »connects directly to that which is moral«.[12] The term ›moral‹ in this context may seem strange to the modern reader. But Goethe is not so much concerned with morality, but rather with attitude, attitude to life, with ethos. Goethe uses the expression »sittliche Wirkung« (»moral/ethical effect«) to suggest that the sensory presence of color engages in our attitude towards life. How this happens, it is not just a fact of natural history. Rather, Goethe is quite aware that socialization, culture and even convention play a role. This is evident especially in the culturally diverse ›choice‹ of mourning colors. In the following, an extensive citation as an example of what Goethe said about the sensuous and moral effect of blue:

12 Goethe 1810: § 758.

»§ 778. As yellow always carries a light along, so you can say that blue always carries along something dark.«

»§ 779. This color has a strange, almost indescribable effect on the eye. As a color it is energy; only, it stands on the negative side and in its purest form it exhibits an attractive nothingness. There is something contradictory of excitement and tranquillity in looking to it.«

»§ 780. As we see the high sky, the distant mountains in blue, thus a blue surface also seems to recede before us.«

»§ 781. As we like to pursue a pleasant object which flees before us, we like to look at blue, not because it urges us, but because it draws us in.«

»§ 782. Blue instills a feeling of coldness, in the same way it reminds us of shade. How it is derived from black, is known to us.«

»§ 783. Rooms that are papered purely in blue appear vast to a certain extent, but actually empty and cold.«

»§ 784. Blue glass dips the objects in a sad light.«

»§ 785. It is not disagreeable when the blue participates of the positive to some extent. Sea-green is a rather dulcet color.«

I will now highlight the essence relevant to our context: Goethe's remark, that blue as a color is »energy«, is very strange. Does Goethe want to distinguish blue over the other colors, or are not all colors energies? What is certain, is that Goethe experiences colors as sensuous beings that have the ability to stir people, to fascinate them. With blue this energy is by no means something approaching the person, but rather something fleeing. In § 780 Goethe attributes blue with a particular form of mobility as an aesthetic character. Further he then mentions the well-known coldness, furthermore the feeling of emptiness and sadness. In light of these conclusions it is important to remember that Goethe here speaks of blue as a virtually total color. He recommends in § 763, in order to study this effect, to either linger in a monochromatic room or to look at the world through an appropriately colored glass. »You then identify yourself with the colour; it takes eye and mind in unison.« The other well-known effects of blue are mentioned later, with the catchwords of the harmonic, the characteristic and the characterless combinations. We now have to pose the questions: What does blue have to do with the sensation of cold, what with the sense of emptiness? To what extent does blue contain a suggestion of motion, and what about blue saddens us? Goethe seems to want to give an explanation for these traits of blue, by citing the genetic derivation of the color blue (§ 782): blue always carries along something dark (§ 778). According to Goethe, blue originates in the dark or in black on condition of its cheerlessness. This explanation, however, could only be relevant for distinguishing the synesthetic characters of blue from those of other colors, not for the idea that blue or other colors even produce such characters.

Even if this question can not be sufficiently answered with the help of Goethe, we were able to make important progress by regarding his theory of the sensuous and moral effect of color. Goethe definitely also considered colors to be designations that can be given to objects. Entire rooms can be papered in blue. For our perception, however, their reality or energy is crucial, as Goethe says, what has been called »actual fact«, by Josef Albers: Through their atmospheric radiation colors produce certain characters, which Goethe, in the cited example, designates as dark, cold, empty and a tendency to flee.

These characters called ›sensuous and moral effects of color‹ are, to our understanding, characters of atmospheres that are classified according to the initially introduced groups. Some, not all, are synesthetic characters,

some – designated by Goethe as moral effect – are social characters, some are suggestions of motion. If one now does not, like Goethe, proceed from the generators , namely the colors, but from the experience of their effects, namely the atmospheric characters, like we do, one encounters the question of whether one and the same character can not be alternately produced by qualities of different sensory areas. This brings us to the theory of substitution.

The thesis of the substitutability of sensory qualities in the production of atmospheric characters

When Goethe mentions that »blue instills a feeling of coldness« (§ 782), it is immediately clear that this feeling of coldness can be generated in a room by completely different means, other than the blue hue of the room. The room can for example have a very low room temperature, it can, however, just as well be tiled in white, but it can also – and this is the effect of many hospital rooms – radiate coldness due to the installed equipment and the businesslike demeanor of the staff. In designating such examples one should take note that ›coldness‹ is not mentioned as a specific sensory quality, but as a synesthetic character or, rather, as a character of a certain atmosphere. The examples also show that the distinction, in this case of synesthetic and communicative characters, can not be kept up strictly. The coldness of a rationalized communicative situation, as prevails in the operating room, is to be designated as a communicative character of atmosphere, while coldness without this moment of communication would be considered a synesthetic character. Coldness, warmth, darkness and lightness, narrowness and width are therefore not primarily taken in their meaning with which they can designate objects, but as atmospheric characters. Then we can assert that these characters can be generated by different representational properties or, as the case may be, sensory data. In generating a character of coldness blue can be replaced by smooth repellent surfaces, or, as mentioned before, by rationalized manners or maybe also by a certain glaring lighting with a limited frequency range. The craft of the stage designer, the decorator, the interior designer, generally those who work in aesthetic professions, consists of them being able to recognize this connection and the mutual substitutability of generators and consequently employ them. This concludes our exploration of the phenomenon of synesthesia. They are neither based on a special sense, that is either superior or subordinate to the other senses, nor are they based on structural links between the individual sensory data, which would be expressed metaphorically or produced by metaphors. Synesthesia are characters of atmospheres. Their relation to sensory-specific data is that these are mutually substitutable generators of atmospheres.

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