Chapter 9
Aesthetic Judgement I: Concept

The need for a consistent interpretation of the *term* mathematical beauty has been the leitmotif driving the discussion in this book. Now, aesthetic *terms* and aesthetic *judgements* are very closely related topics. In this and the following chapter, I advance notions of aesthetic terms and judgements that shall enable us to give a sophisticated depiction of aesthetic terms in mathematics, and to complete a consistent interpretation of mathematical beauty.

As in most topics in aesthetics, there are different theories about the nature of aesthetic terms; some of them even contradicting each other. We shall survey some of those theories in order to gain insights that shall be used to devise our own inconsistency-free approach.

9.1 On Aesthetic Terms

Aesthetic descriptions are different from mundane, so to speak, non-aesthetic descriptions: things like musical pieces, paintings, narrations or sculptures move us in a special way, but it is often difficult to describe those things in a manner that does the way they move us justice. The same piece of music can be mundanely described as being *six minutes and thirty seconds long*, or it can be described as being *melancholic*. The second way of describing it is an *aesthetic description*. The nature of such descriptions is closely connected with the nature of the predicates involved in them, that is, with the nature of *aesthetic terms*. The complex nature of aesthetic terms can be illustrated by surveying the approaches of Frank Sibley, Isabel Hungerland, Peter Kivy, Rafael DeClercq and Nick Zangwill.

9.1.1 Sibley

Frank Sibley's seminal work *Aesthetic Concepts* [82] was very influential in twentieth Century aesthetics. Sibley's main tenet is that aesthetic terms are not

rule-governed in the sense that we cannot establish definitions, conditions or rules that determine the presence of aesthetic properties—being *delicate*, for instance—in terms of non-aesthetic properties—being thin or curved, for instance. Sibley starts by identifying two groups of descriptions that can be given about works of art: on the one hand, descriptions that can be given by "anyone with normal eyes, ears, and intelligence" [82, p. 421]. For example, that "a novel has a great number of characters and deals with life in a manufacturing town" or "that a painting uses pale colours, predominantly blues and greens, and has kneeling figures in the foreground" [82, p. 421]. On the other hand, there are descriptions that require "the exercise of taste, perceptiveness, or sensitivity, of aesthetic discrimination or appreciation" [82, p. 421]. One may say, for example, "that a poem is tightly-knit or deeply moving" or "that a picture lacks balance" [82, p. 421].

Sibley's view on aesthetic terms is as follows: "when a word or expression is such that taste or perceptiveness is required in order to apply it, I shall call it an aesthetic term or expression [. . .]" [82, p. 421]. According to Sibley, the application of aesthetic terms is governed by "taste". Now, he also offers a further insight; there is a link between aesthetic terms and metaphors:

> Clearly, when we employ words as aesthetic terms we are often making and using metaphors, pressing into service words which do not primarily function in this manner. Certainly also, many words have come to be aesthetic terms by some kind of metaphorical transference. This is so with those like 'dynamic', 'melancholy', 'balanced', 'tightly-knit' which, except in artistic and critical writings, are not normally aesthetic terms [82, p. 422].

Sibley adds some important qualifications: the most commonly used aesthetic terms—such as 'lovely', 'pretty', 'beautiful', 'dainty', 'graceful', 'elegant'—are not metaphorically used since their primary or only use is as aesthetic terms. Furthermore, the aesthetic terms that seem to be metaphorical are not completely metaphorical:

> [. . .] expressions like "dynamic," "balanced," and so forth have come by a metaphorical shift to be aesthetic terms, their employment in criticism can scarcely be said to be more than quasi-metaphorical. Having entered the language of art description and criticism as metaphors they are now standard vocabulary in that language [82, pp. 422–423].

Sibley argues that the language utilized in art criticism must be interpreted from its own particular standpoint, the standpoint of "making aesthetic observations" [82, p. 422]. From that standpoint the usage of aesthetic terms is not a metaphor. By realizing that such terms are aesthetic terms and not metaphors the descriptions offered by a critic should be interpreted as directing our attention to the feature of an object that is aesthetically relevant. Sibley sees the art critic as a guiding person; as someone capable of focusing our sensitivity on the key features of artworks so that aesthetic qualities become apparent to us. The recurrent exposition to correct applications of aesthetic terms improves our own ability to apply those terms. The final result is that what at first seemed metaphorical becomes the natural expression of aesthetic sensitivity. Despite the fact that there are no rules linking aesthetic terms with non-aesthetic terms, with effort, patience, exemplification, repetition, and trial and error we can come to master the use of aesthetic terms.

I must point out that although Sibley claims that the usage of aesthetic terms involves aesthetic sensitivity, the way he describes how we refine their use resembles the learning of much more mundane skills. Learning a language, a craft, or a sporting skill, for example, is also achieved by means of exemplification, correction, repetition and so forth. The approach to be developed here avoids postulating the existence of a special "aesthetic" skill, resorting only to mundane skills like the use of language.

9.1.2   Hungerland

The need for an special faculty of aesthetic taste or sensitivity is also avoided by Isabel Hungerland's account [35]. Hungerland focuses on the conditions of application of aesthetic terms. She argues that aesthetic terms are part of a distinctive class of terms that clearly differs from non-aesthetic terms in a crucial aspect:

Non-aesthetic terms, such as 'strong', can always be meaningfully used in sentences of the following two types: (1) 'John is strong' and (2) 'John looks strong but he is not'. In contrast, aesthetic terms, such as 'elegant', *cannot* be meaningfully used in type (2) sentences. For example, there is little or no difference in using the term 'elegant' in either way: 'John is elegant' or 'John looks elegant'. But sentences like 'John looks elegant but he is not' do not even make sense [35, pp. 50–52].

According to Hungerland, for any non-aesthetic term N there is a difference between *really being N* and *just looking N* [35, pp. 52–54]. Something may look N but not really be N. In contrast, there is no *really is/only looks* distinction (*is/looks* distinction, hereafter) for aesthetic terms. This is so, Hungerland argues, because aesthetic terms are devised to talk about how things may look to the observer under normal circumstances; that is, the application criteria for aesthetic terms depend entirely on the internal, or subjective, experience of the person who uses them [35, pp. 63–65]. In contrast, in the application of a non-aesthetic term like 'strong' there are several external or objective criteria that can be used to correct its application. For example, let us imagine that we have just stated that John was strong—perhaps he appeared strong to us. Imagine that afterwards, someone tells us that John is very ill, or we find out ourselves that John is actually a weak person. We should, after the corroboration of the weakness of John, correct our initial statement to the new statement 'John is not really strong', or 'John looks strong, but he is not'. In principle, there is nothing that prevents us from correcting from 'John is strong' to 'John looks strong but he is not.' This correction is possible because the application of the term 'strong' is governed by objective criteria. The correct use of both sentences that include the term strong—'John is strong' and 'John looks strong but he is not'—depends on external, objective criteria. In contrast, there are no external or objective criteria for correcting the application of aesthetic terms. If John looks elegant to us, and we say that John is elegant, no external criteria can induce us to say that John looks elegant but he is not. This last sentence does not

even make sense. In summary, aesthetic terms are characterized by the fact that the distinction *is/looks* does not apply to them, since the correct application of aesthetic terms is not governed by objective criteria.

9.1.3 Kivy

Unlike Sibley and Hungerland, Peter Kivy [38] is sceptical about the existence of a distinct class of aesthetic terms. He argues that there is no definite list of aesthetic terms, but rather, in the appropriate context, any ordinary term can be applied as an aesthetic term:

> [I]t is probably true that any of the term's I have called 'non- aesthetic' can, in the appropriate context, be 'aesthetic' terms. Thus, for example, I am sure we can imagine 'heavy' being used not to refer to the weight of Michelangelo's David, but to some 'aesthetic' property of a work of art [38, p. 198].

Rather than a distinction between aesthetic and non-aesthetic terms, there is a contextual function that aesthetic terms perform and that makes aesthetic terms aesthetic.

> [W]e cannot distinguish aesthetic terms from other terms simply by enumeration. We cannot make a list of aesthetic terms because aesthetic terms are not a distinct subgroup of the terms in ordinary language; rather, they are terms in ordinary language which at times and in certain contexts we call 'aesthetic' [38, p. 198].

Kivy recognizes, however, that certain terms—such as 'beautiful' or 'elegant'—are "always and only aesthetic terms" [38, p. 198]. Kivy argues that what characterizes the contextual function of aesthetic terms is their appearing in *terminal* descriptions, that is, statements that lead to no further conclusion, action or change in attitude.

> Aesthetic terms, then, are those that, characteristically, occur in descriptions which seem to be ends rather than beginnings. They are not, as many seem to think, terms that we can supply no logically compelling criteria for applying. But they are terms that do not provide the reasons for anything else [38, p. 211].

I label Kivy's approach the *terminal approach* to aesthetic terms, and the property he points out the property of *terminality*. For Kivy, the key characteristic of aesthetic terms lies on the type of role the terms play in terminal descriptions: non-aesthetic terms, when used in a description, serve as a "prelude to something else: the premise of an argument or a call to action" [38, p. 210]. Kivy clarifies terminality by stressing the contrast between moral and aesthetic terms:

> [T]he fact that aesthetic descriptions are "terminal," that they lead nowhere, distinguishes them sharply from moral descriptions, which often are preludes to action. To conclude that a course of action is right is to provide some reason for pursuing that course of action in the future. To conclude that a man is greedy is to provide some reason for future actions, or attitudes towards that man. To conclude that a novel is "unified," a painting "garish," a poem "sentimental," a symphonic movement "sad," however, provides no reason for anything except continued contemplation, or an end to it [38, p. 211].

In short, Kivy characterizes aesthetic terms in terms of terminality, that is, in terms of their role in descriptions which, unlike moral or objective descriptions, have no further consequence.

9.1.4   De Clercq

We have mentioned Rafael De Clercq's ideas [17] when discussing non-literal interpretations of mathematical beauty. Like Sibley, De Clercq gives metaphor an important role in characterizing aesthetic terms. He argues that "aesthetic terms cannot be turned into metaphors" [17, p. 27]. It makes no sense to say that something is beautiful, elegant, harmonious or sublime "metaphorically speaking". The reason for this metaphoric resilience is, De Clercq argues, that aesthetic terms are universally applicable, in the sense that they can be applied to any domain without incurring in a category mistake.

> Aesthetic terms do not have a particular area of application associated with them. There is not a particular kind of object to which they are to be applied. As a result, it is not possible to commit something like a 'category mistake' with respect to such terms. By contrast, terms for animal species such as 'elephant' and 'crocodile' can be applied only within the animal kingdom: to apply them outside this area is to commit a 'category mistake' [17, pp. 27–28].

De Clercq, however, points out two significant nuances in his account: some aesthetic terms, 'balanced', for instance, are already metaphors; and some others, 'garish', for instance, are not universally applicable. De Clercq argues that his characterization still applies in the case of already metaphorical terms, since those terms cannot be turned into metaphors. There is no such thing, he argues, as a second order metaphor. As for not universally applicable aesthetic terms, he suggests we should regard them as "semi-aesthetic" terms [17, pp. 28–29].

9.1.5   Zangwill

Nick Zangwill's approach [101] deals with aesthetic terms in music, nonetheless his ideas are illuminating. Zangwill argues that experiences of aesthetic properties of music are ineffable, just like the experience of pain or the smell of coffee. Such experiences cannot be described in a literal manner [101, p. 5]. He defends what he calls the Essential Metaphor Thesis, which is

> the thesis that, beyond very simple terms, the aesthetic properties of music cannot be literally described; they must be described metaphorically (or by other nonliteral devices). It contrasts with the Aesthetic Metaphor Thesis, which is the weaker thesis that we generally do describe music in metaphorical terms. The Essential Metaphor Thesis is that we must do so, in anything other than a superficial description of it [101, p. 1].

Zangwill claims that interesting descriptions of music—such as describing a piece of music as sad or melancholic—necessarily utilize metaphors. Only very simple descriptions—such as describing a piece of music as beautiful—are literal [101, p. 2]. Zangwill argues that his thesis explains the prevalence of metaphor in descriptions of music. Now, the Essential Metaphor Thesis certainly exemplifies how topics like the role of metaphor in aesthetic descriptions is approached in different ways by different authors: Sibley recognizes that metaphor and aesthetic terms are closely linked. For De Clercq aesthetic terms cannot be metaphorical, and the cases that seem to be metaphorical are only semi-aesthetic. For Zangwill, metaphor is necessary for interesting aesthetic descriptions (at least in music).

9.2 A New Model of Aesthetic Terms

We now have a wide variety of views on aesthetic terms. They are characterized by Sibley in terms of aesthetic sensitivity, by Hungerland in terms of the *is/looks* distinction, by Kivy in terms of terminality, and by De Clercq in terms of metaphor resilience. Unfortunately, there are clear incompatibilities among them. For Sibley and Hungerland there is a distinction between aesthetic and non-aesthetic terms. For Kivy there is no such a distinction, but rather a contextual role that aesthetic terms play. For Sibley and Zangwill, metaphor and aesthetic terms are closely linked, but for De Clercq, aesthetic terms characteristically resist metaphor. All this seems to pose a problem rather than offer us a viable approach for our purposes here. I believe that the best way of looking at these conflicting approaches is as providing different perspectives on a complex subject, and as providing us with the opportunity of piecing together a more sophisticated picture of it.

Subjectivity is one of the main tenets of modern aesthetics ever since Kant. It should be no surprise that subjectivity figures prominently in Sibley's and Hungerland's views. The subjective use of aesthetic terms can be utilized as point of departure for our new depiction of aesthetic terms. Hungerland, in particular, gives subjectivity a key role by characterizing aesthetic terms in terms of the non-objective conditions that govern their application. The experience a person undergoes is always subjective and, thus, very likely involved in our application of aesthetic terms. Aesthetic experience is thus an element that must be considered in shaping our view on aesthetic terms. Hungerland's conditions of application can be seen as connected with the subjective responses involved in aesthetic experience. In this sense, the inner affective states of an individual undergoing an aesthetic experience determine whether or not the use of a predicate as an aesthetic term is correct.

Now, the application of aesthetic terms may be characteristically subjective, but there is more to it. Kivy points out that there is no fixed list of aesthetic terms; everyday mundane terms such as 'balanced' or 'unified' can be used as aesthetic terms in descriptions like "The Prelude in B-flat minor from Book I of Bach's Well-tempered Clavier is unified" [38, p. 197], or "Beethoven's fifth symphony is a unified work." Thus, in addition to determining whether a term is correctly

applied or not, we need to determine *what* term to apply. For example, Euler's identity is regarded as very beautiful by the Mathematical Intelligencer's readers, but as unremarkable or insipid by Le Lionnais. There is no *objective* conflict here since applying the terms 'beautiful' or 'insipid' depends on the *subjective* states of the *Intelligencer*'s readers or Le Lionnais, respectively. However, the choice among the different terms 'beautiful', 'unremarkable' or 'insipid' clearly seems to involve something else. In this regard, Sibley, De Clercq and Zangwill have pointed out that in using everyday terms in an aesthetic way, metaphor seems to play a significant role. This is an interesting avenue to explore. We can gain an important insight on metaphor by surveying Nelson Goodman's theory of metaphor. We shall see that choosing what term to apply depends not only on whether the term is associated with a certain subjective state, but also on the term's connections with other terms.

9.2.1   Metaphor

Nelson Goodman [30] claims that, in metaphor, a term—or label, as Goodman calls them—does not work in isolation; rather, it works as a member of a family of terms: "a label functions not in isolation but as belonging to a family" [30, p. 71]. Goodman calls these families of terms *schemata*. Schemata are sets of terms that became interrelated by means of context and habit. Schemata are linked to a specific domain—or realm, as Goodman calls them—of referents; the referential domains consist of all the things that each term in the schema denotes. The schema $\{blue, red, green, \ldots\}$, for example, is the schema of terms for colours. Its referential domain consists of all coloured—blue, red, green, and so forth—things.

We have metaphorical reference when we use a term to refer to something that does not belong to the domain normally associated with the term's schema. For example, the family of terms 'red', 'blue', 'green', etc., is appropriate to describe the domain of colours. 'Red' refers to the colour red (red objects) and 'blue' refers to the colour blue (blue objects). A metaphor consists in using a term in the colour schema to refer to any colourless things. We can apply the term 'blue' to refer to sadness, and 'red' to refer to anger, 'yellow' to envy, and so forth. Goodman himself gives the example of calling a painting sad, which he claims is metaphorical because 'sad' is a predicate that normally refers to individuals in certain emotional states, not to inanimate objects.

In Goodman's approach—and this is very important for us, metaphors *reorganize* the new domain in which the metaphorical term is applied. For example, the use of 'sad' in the domain of paintings reorganizes the domain of paintings in a way such that the schema of emotional terms

$$\{sad, cheerful, angry, \ldots\}$$

forces the structure of its original domain of emotions onto the new domain of paintings. Thus, calling a particular painting sad entails that, in principle, other

paintings can be called cheerful, if the relations between 'sad' and 'cheerful' people are also held between sad and cheerful paintings. In general, the metaphor reorganizes the new domain of application by forcing the structure of the schema's original domain onto the alien domain to which the term is applied. In a sense, metaphors change the perspective with which we perceive the new domain. Because of this reorganization, the use of a metaphorical term depends not so much on the meaning of the isolated term, but rather on the *relations* it holds to their closely related terms.

9.2.2 Metaphorical Terms and Aesthetic Terms

We have identified two important aspects of aesthetic terms: first, their application is governed by subjective matters; associating them to subjective states explain why conflicting descriptions are possible, since they do not entail objective conflicts. Second, the use of non-aesthetic terms in aesthetic descriptions seem to be closely related to metaphor, and, from the foregoing discussion of metaphor, it is reasonable to assume that in using such aesthetic terms their connections with a family of terms is as relevant as its connection with subjective states. The simultaneous connection among subjective states, individual terms, and those terms' families shall be the backbone of the theory of aesthetic terms proposed here, as we shall soon see.

   Now, although Kivy recognizes that there is a class of terms that are "always and only" aesthetic terms, he also draws our attention to the fact that non-aesthetic terms are regularly used to make aesthetic descriptions. We just learned that applying certain term to an alien domain results in a metaphor. This fact explains why some aesthetic terms clearly appear to be metaphorical, as recognized to different extents by Sibley, De Clercq and Zangwill. But there is a difference between metaphorical and aesthetic usages of a term. Sibley argues that using aesthetic terms involve the faculty of sensitivity or taste. De Clercq argues that it involves metaphor-resilience. And Zangwill explains the use of metaphor as the necessary result of the ineffability of aesthetic experience. Zangwill's insight is significant here. To interpret the usage of aesthetic terms as a merely metaphorical usage disregards the fact that the application of aesthetic terms is grounded on subjective matters. I believe that the connection between aesthetic experience, aesthetic terms and metaphor should be exploited to refine our view on aesthetic terms. I propose to interpret the usage of aesthetic terms as similar to metaphorical usage in some aspects, but with the additional characteristic that this usage *also serves to capture or express subjective states*.

   The aesthetic application of non-aesthetic mundane terms like 'balanced', 'unified' or 'sad' should certainly be interpreted as metaphorical. In these cases, the term does not work in isolation but as a member of family of terms—*schema*, hereafter. Their application thus entails that the structures of their schemata's domains are forced onto the new domain of objects of appreciation, the domain of paintings,

for instance. In other words, the aesthetic application of non-aesthetic terms results in a reorganization of the domain of objects of appreciation, in a change in our perspective; a change in the way in which we see the domain of, say, paintings. As in metaphor, this change of perspective helps to place on the foreground certain features of our subjective experience of the objects of attention, which allows us to communicate those features even if our experience is ineffable by literal means. For example, the term 'balanced' literally refers to the *even distribution of mass*, but in the metaphor 'a balanced picture', the term 'balanced' places on the foreground the notion of *even distribution of something*, thus directing our attention to the even distribution of, say, shapes or colours in the "balanced" picture.

The additional characteristic of aesthetic terms, that distinguishes them from metaphorical terms, is that they are connected with our subjective affective responses. The usage of an aesthetic term, in addition to bringing about a metaphor-like change of perspective, depends on the existence of a connection between affective responses and families of terms which allows the expression of subjective states. We qualify an object of aesthetic appreciation as beautiful or ugly, or as balanced or unbalanced, not only to communicate some quality of the object, but also to express our response to that object. Since, in the most general case, an aesthetic term does not work alone but as a member of a schema, of a family of terms, the expressing of subjective states is possible only if different affective responses are associated with different terms. In this respect, our discussion of aesthetic experience shall be very useful.

9.2.3   Experience and Response Spaces

When we discussed aesthetic experience, the relevant states of a person were characterized by a content—intentional object plus mental activities—and an associated affective response. Since the content involves a set of the properties of the observed object, the content is closely connected with the concrete properties of the objects. But the affective response is clearly subjective. This subjective side, the affective responses, is the most obvious candidate to be connected with the application of aesthetic terms.

Recall that pleasure-relations were introduced to model the relation between content and affective responses in aesthetic experiences. Pleasure-relations are sets of ordered pairs in which the first coordinate in the pair is a set of properties and mental activities, and the second coordinate is an affective response—a composed affective response, in the general case. The responses in a pleasure-relation are subjective affective states in an individual, and the set of all responses in the pleasure-relation comprises all the possible subjective states in which an individual can be. That set thus constitutes the space of responses a person can experience; I shall refer to the set of all pleasure-relation responses for the experience of an object as the *response space* of that object.

Individual responses in a response space can be utilized to determine whether the use of an aesthetic term is correct. Thus, response spaces can be used to establish a connection between pleasure-relations and *families* of terms, and, from the foregoing discussion, this connection can be used to express subjective states. If we map the elements in a response space into the elements in a certain schema in a way such that to each possible response in our response space corresponds a term in our schema, then the use of different terms in aesthetic descriptions of an object can be seen as expressing different responses to the object. Which specific term of a schema we deploy to describe the object depends on what response the object elicits in us. For example, we know that there are several ways in which different people describe Euler's identity—as beautiful, unremarkable, insipid, etc. There is no objective conflict in that, since different people simply express *different subjective responses* to Euler's identity by utilizing *different terms*. This illustrates that a family of terms is better suited to express the multiple possibilities of response in any aesthetic experience than an isolated term. A family of terms, being associated with the structure of its referential domain, also offers a structure which can reorganize the domain of objects of appreciation, in a manner similar to metaphor. This reorganization helps to focus the attention on features relevant to the appreciation of the described object. It thus makes sense to model the usage of aesthetic terms as involving the simultaneous occurrence of the expression of subjective states, and a change of perspective—by means of a metaphor-like reorganization of the domain of objects of appreciation—which allows the communication of the qualities responsible for that subjective state. This is the key characteristic of my conception of aesthetic terms below.

9.2.4   A New Model of Aesthetic Terms

I interpret the use of a term as an *aesthetic* term in descriptions of an object as involving two simultaneous occurrences: first, the carrying out, mostly unconsciously, of a mapping from our response-space for the described object into the term's schema, to allow expression of subjective states. Second, the carrying out of a change of perspective resulting from the application of the term's schema to the domain of the described object, which allows the communication of some of the qualities of the object responsible for our subjective state by means of placing some qualities on the attention's foreground.

This view of aesthetic terms can be summarized in two characteristic conditions that the application of an aesthetic term must comply simultaneously, which I label the *Expressive Mapping* Condition and the *Communicative Reorganization* Condition.

(1) Expressive Mapping Condition: for an object of appreciation that can elicit any of the possible affective response in the response space R, a term A in the schema S can be said to be used to express our subjective state if and only if there is an appropriate mapping from R into S.

(2) Communicative Reorganization Condition: a term A in the schema S applied
    to refer to an object in an *alien* domain D of objects of appreciation can be
    said to be communicatively reorganizing if and only if by applying A to D the
    inner perspective of a person changes in a way such that he perceives that the
    domain structure associated to S is forced onto D—or S reorganizes D—and
    this reorganization highlights (communicates) a property of the object relevant
    in inducing in a person an affective response of the response space R.

To apply a term in an aesthetic description requires the simultaneous existence of
an expressive mapping and a communicative reorganization (we shall see examples
in the next section). If we denote an expressive mapping from R into S as $R \mapsto$
S and a communicative reorganization as $S \approx D$, the above model of aesthetic
terms tells us that the aesthetic use of a term requiring the simultaneous existence
of $R \mapsto S$ and $S \approx D$. For the sake of brevity we can merge these expressions as:
$R \mapsto S \approx D$. The model can be simplified to:
A is applied as an aesthetic term if and only if

$$\exists S, R, D(T \in S \wedge R \mapsto S \approx D)$$

I shall refer to this approach as the *RSD model of aesthetic terms*. I must
emphasize that the RSD model is not a two stage model, since both conditions—
mapping and reorganization—must be complied simultaneously. The choice of an
aesthetic term to be applied in a description is carried out by taking into account that
the term's schema must provide both an expressive mapping and a communicative
domain reorganization at the same time, and not by first establishing a mapping
and then carrying out a domain-reorganization or vice versa. Choosing an adequate
aesthetic term is thus a sort of balancing act in which we try to comply with two
simultaneous conditions using the same family of terms. In general, this balancing
act is not simple and, more importantly, is not arbitrary, as we shall see below.

9.2.5   Genuine Aesthetic Terms

Although the application of an aesthetic term is subjective, it is nonetheless
constrained by the existence of appropriate expressive mappings and communicative
reorganizations. There are mappings that do not express our response space in
an adequate way, and there are reorganizations that do not capture the qualities
responsible for our subjective states. Thus, the use of aesthetic terms is not arbitrary.
As a matter of fact, there are several possibilities for the use of a mundane
term permitted by the RSD model; for example literal usage (no mapping nor
reorganization), metaphorical usage (no mapping, but reorganization), genuine
aesthetic usage (adequate mapping and reorganization), and what we may call
"counterfeit" aesthetic usage (inadequate mapping or reorganization).

Affective responses are connected with whether an aesthetic term is applied correctly. The fact that the existence of complex space responses—like performative and adaptive space responses—matches the existence of multiple terms in a schema constrains the possible choices of terms (or, rather, schemata) we can make. Our term choice must allow the mapping from our subjective states into the term's schema. From our discussion of aesthetic experience we know that affective responses admit composed responses and that there is a range of possibilities for those composed responses. In the example of Euler's identity, the existence of different possible responses accounts for the fact that there exists also a collection of terms—'beautiful', 'unremarkable', 'insipid', etc.—we may employ to evaluate Euler's identity. But *which* term one uses in an aesthetic description depend not only on one's subjective state, but also on how one deals with the collections of possible responses and terms. The use of a particular term depends on the way one maps subjective responses into families of terms. The mapping must appropriately assign particular terms to particular responses. In some cases, it is simple to assign a term to a specific response. For example, recall that in a basic pleasure relation we only have two possible responses—pleasure and displeasure; the basic response space has only those two possibilities. The assignments beauty/pleasure and ugliness/displeasure seem to be rather natural with this basic space response. However, problems quickly emerge for the more complicated performative and adaptive pleasure-relations, since their response space are more complicated. We can have up to 16 possible responses for a single type of experience. Matters get even worse if we remember that within those possible responses there are responses that are similar to each other: the responses we labelled "confusing". This poses the question of what all the non-obviously assignable responses mean in terms of choosing terms. In this respect, illustrations of genuine and counterfeit aesthetic terms shall be illuminating.

Terms such as 'balanced' or 'unified' in their everyday use refer to mundane things like mechanical or other physical properties. They usually refer to things in the physical domain. But in using those terms to make aesthetic descriptions the terms are being applied to an alien domain. In such circumstances the application of the terms follows Goodman's metaphor principles. This means that a domain reorganization is carried out in the domain of objects of appreciation—paintings or musical works, for instance—so that that domain resembles the physical domains of mechanically balanced or physically unified things. Moreover, the application of a non-aesthetic term in an aesthetic way implies that the *whole* schema to which the term belongs is applicable to the new domain of objects of appreciation. Now, this reorganization amounts only to a *metaphorical* use of the term. For an *aesthetic* use of the term we also require an expressive mapping. Here is where complex response spaces and confusing responses play a role.

The different responses in a response space are closely related to each other. The different terms in a schema are also closely related to each other. If we assign a term to a particular response in a response space, the remaining elements in the response space constitute a family of responses to which the remaining unassigned terms in the family of terms can be assigned. Unassigned responses are like "empty slots" to which terms can be eventually mapped. In general, the existence of multiple

responses makes explicit the fact that in order to correctly use an aesthetic predicate we need to map collections of terms, rather than just isolated terms.

Thus, if we intend a *correct* aesthetic usage of a term A in describing an object O, assigning A to a specific element in a response space—a particular response, a particular combination among the possibilities of responses—of O is accompanied, in principle, by a mapping between A's schema—the family of labels to which A belongs—and the collection of the possible affective responses in the pleasure-relation associated with O.

Now, the mapping of pleasure-relation responses onto a schema is constrained by the structure of the schema's original domain, since this original structure reorganizes the new domain of objects—domains of paintings, musical pieces, mathematical items, etc.—in specific ways. This is why the application of an aesthetic term, although grounded on subjective matters, is not arbitrary, but rather it is constrained by how suitable is the term's schema to provide a reorganization of the domain of objects of attention, and a mapping between the schema and the response space. The way in which these reorganizations and mappings are carried out determines much of the quality with which an aesthetic term works.

For example, the term 'balanced' has everyday mundane applications governed by objective conditions, but in occurrences like "Did you observe the exquisite balance in all his pictures?" [82, p. 438], the application of the term is aesthetic. The aesthetic application of 'balanced' does not depend on the mundane conditions of application of the term 'balanced', but rather on the relations the term holds to the schema {*balanced*, *unbalanced*} which allow an adequate response space mapping, and on how well the domain structure associated to this schema reorganizes the domain of pictures.

In other words, the affective response a person experiences is the non-cognitive evaluation that grounds an aesthetic judgement, but how well these experiences are expressed by a certain schema, {*balanced*, *unbalanced*}, for instance, depends on the relations the schema holds to the possible responses a person might experience. In this example, the schema {*balanced*, *unbalanced*} provides terms that represent opposite polar extremes in the semantic spectrum of the family of terms. In general, the response space for an object includes opposite affective polar extremes in the form of the responses of pleasure and displeasure, or full-pleasure and full-displeasure in response spaces with composed responses. If we map positive affective extremes into positive semantic extremes and negative affective extremes into negative semantic extremes, we have a way to express our subjective states in a manner that is coherent with the way we usually deal with our affective states—we see pleasure as positive and displeasure as negative—and with the schema—'balanced' is seen as positive and 'unbalanced' as negative. If, for example, the experience of the picture is of a basic type, we can assign 'balanced' to pleasure and 'unbalanced' to displeasure. Now, although a mapping from positive affective extremes to negative semantic extremes, and vice versa, is in principle possible, such inverted mapping is rather confusing. An *expressive* mapping intends to express our subjective state, and since and inverted mapping goes against the way we usually deal with affective and semantic extremes, an inverted mapping hinders the

expression of our inner subjective states. The best choice is thus to associate the term 'balanced' to a positive affective extreme and 'unbalanced' to a negative one. This mapping associates subjective states and terms in a natural way given the structures of the response space and the schema, allowing a coherent expression of subjective states. Now, when the term 'balanced' is applied in an aesthetic description of a picture, it also occurs that the domain of pictures is reorganized by forcing the domain structure associated with the schema {*balanced, unbalanced*} onto the domain of pictures. The original domain of the schema {*balanced, unbalanced*} is the domain of objects with certain mechanical characteristic—with or without the property of having its mass distributed regularly around its centre of gravity, for instance. The term 'balanced' can be applied in its mundane sense to refer to a picture p, as in 'p is balanced', meaning that the mass of the picture is regularly distributed. But the interesting usage of this term is not when it refers to a mechanical feature, but when it refers to an aesthetic feature. In referring to an aesthetic feature, the term is applied to an alien domain, the domain of pictures as objects of attention and not as objects with mass. In that case, in a manner similar to a metaphor, a partition into balanced and unbalanced pictures is forced onto the domain. The aesthetic usage of the term 'balanced' results thus in the reorganization of the domain of paintings in such a fashion that it resembles the domain of mechanically balanced and unbalanced objects, placing the "balanced" property on the foreground of our attention, and it also results, simultaneously, in the response space for the picture being mapped into the schema {*balanced, unbalanced*}, allowing a coherent expression of our subjective state. Since this schema allows appropriate mappings and reorganizations, this instance of application of the term 'balanced' is genuinely aesthetic.

Now, there are usages of terms that are similar to aesthetic usage but are not genuinely aesthetic; usages of "counterfeit" aesthetic terms, as we have labelled them. In those cases, there is either no adequate mapping or reorganization. The use of colour terms to describe music can serve as an illustration. We can certainly apply colour terms to describe music, for example, by calling a certain musical piece "blue". As we know, that act implies applying the schema {*red, blue, green, . . .*} to the domain of musical pieces and thus that the domain of musical works undergoes a reorganization to fit in the structure of the colour schema. This reorganization is rather arbitrary but, according to Goodman, there is nothing wrong with that, since the adequacy of a schema depends on context and habit [30, p. 71]. Most domain reorganizations in metaphor are to some extent arbitrary. The usage of colour terms up to this point amounts to mere metaphor, and its arbitrariness is not an issue. But if we want to apply the term as a genuine aesthetic term, then, in addition to a metaphor-like reorganization, we need to map our response space into the colour schema in such a way that it allows us to coherently express our subjective states. In contrast to the reorganization, the mapping is never completely arbitrary, since response spaces always have at least a pair of opposite affective poles—full-pleasure and full-displeasure responses. The schema {*red, blue, green, . . .*} has very few points of reference to allow us to identify obvious semantic opposite polar extremes to be associated with the affective extremes. In these circumstances, any

mapping into the colour schema is more or less arbitrary, since any mapping of affective responses into colour labels is as good (or as bad) as any other. There is no way to tell that one mapping is better than another. For example, how can we decide whether red or orange or yellow should be assigned to a positive affective response? The usual way in which we deal with the terms red, orange and yellow does not seem to offer hints as to how to relate, in a non-arbitrary manner,[1] the connections among those terms with the structure of our affective responses, which does possess affective opposite poles. Although a mapping is possible, the arbitrariness of such a mapping hinders the expression of subjective states, and it makes the colour schema a poor choice to coherently express our subjective state. This makes clear that the mere existence of mappings and reorganization is not sufficient for a genuine use of aesthetic terms. The mapping and reorganization must be adequate to carry out a coherent expression of our subjective states and, like in metaphor, an effective communication of the characteristics of the described object. If we stress the relevance of the adequacy of the mappings and reorganizations, the RSD model can be employed to characterize genuine aesthetic terms and differentiate them from non-aesthetic terms as well as counterfeit aesthetic terms.

9.2.6   Definitions of Aesthetic Term, Description and Judgement

After the foregoing discussion, characterizing the notions of aesthetic terms, description and judgments is simple. Consider the following definitions.

Definition: Aesthetic Term

A term A in a schema S that refers to an object O in the domain D is an aesthetic term if and only if (1) there is a response space R for O; and, (2) there is a reorganization of D in terms of the structure of S such that it allows communicating a feature of O; and, (3) R can be mapped into S in a manner that allows the coherent expression of the affective responses in R.

Definition: Aesthetic Description

An aesthetic description is a sentence of the type 'O is A', where O is an object being qualified and A is an aesthetic term as defined above.

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[1]Of course there exists the convention of labelling sadness blue, anger red, envy yellow, and so forth. But that *convention* is completely arbitrary in respect of response spaces.

Definition: Aesthetic Judgement

An aesthetic judgement consists in an aesthetic description that expresses the subjective state of an individual resulting from the evaluations involved in his aesthetic experience.[2]

Now, in the aesthetic as process theory endorsed here, even more important than characterizing aesthetic terms and judgements is to understand their function (or functions) in aesthetic-processes. Those functions are discussed in the following chapter. But before that, it is important to address the issue of "always and only" aesthetic terms.

9.2.7 Always and Only Aesthetic Terms; The Spectrum of Aesthetic Terms

The above discussion has focused on aesthetic terms that seem to involve a sort of metaphorical mechanism, but the characterization advanced there is valid in general. As Kivy pointed out, some aesthetic terms (beautiful, ugly, elegant, lovely, etc.) seem to work always and only as aesthetic terms, and, as De Clercq pointed out, they even seem to be resilient to metaphor. By contrast, some other aesthetic terms (the interesting ones, according to Zangwill) have mundane applications (balanced, unified, sad, etc.) and acquire their aesthetic character through their use in aesthetic descriptions. This issue also prompts the question of whether there exists a clear distinction between aesthetic and non-aesthetic terms. Let us address these issues with the RSD model.

Regarding the aesthetic/nonaesthetic terms distinction, Sibley and Hungerland assume its existence, Kivy is rather sceptical about it, and De Clercq even postulates a category of semi-aesthetic terms. Now, in the RSD model, there is no fixed list of terms that comply with the definitions formulated above. Rather, a wide range of natural language terms is suitable to be used aesthetically, depending on the context. The aesthetic use of mundane terms such as 'balanced' or 'heavy' is closely related to their metaphorical use. Now, metaphorical terms are not restricted to any particular collection of terms, since metaphors are to some extent arbitrary.

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[2]This definition of aesthetic judgement seems to entail that we cannot have false aesthetic judgements. I believe that the role of a genuine aesthetic judgement is to encourage the clarification or elucidation of subjective states (we shall discuss this in the next chapter). In this sense, there is no way to adequately characterize a false aesthetic judgement other than as a mistakenly applied aesthetic term, or, as in the case of counterfeit aesthetic terms, as terms that do not really clarify subjective states—the example of colours illustrated this, since a non-coherent mappings hinders expression.

The RSD model inherits this feature; aesthetic terms are not restricted to any particular collection of terms. This explains Kivy's view that there is no fixed list of aesthetic terms.

The RSD model exploits the metaphor-like characteristics of aesthetic terms. According to the RSD model, aesthetic terms reorganize the domain of objects of appreciation in the same fashion as metaphors. But the model can explain both the metaphor-like and "always and only" aesthetic terms. Always and only aesthetic terms like 'beautiful' or 'elegant' comply with the RSD model in an interesting way. As pointed out by De Clercq, they are literally applicable in every domain. In a sense, any domain is the original domain of the schema consisting of terms like beautiful, ugly or elegant. Thus, in the case of the schema of always and only aesthetic terms, a communicative reorganization of the domain is always trivially available. The strongest RSD-model condition at work in these cases is the existence of a coherent expressive mapping. Coherent mappings are also trivially available, since the literal meanings of always and only aesthetic terms usually involve references to affective reactions. For example, one of the senses in the entry in The Macmillan Dictionary defines 'beautiful' as "very pleasant". This provides obvious points of reference to map a response space into a schema like $\{beautiful, ugly, \ldots\}$. Furthermore, unlike the mappings involved in mundane metaphor-like aesthetic terms, such mappings are completely independent of the domain of application, since a communicative reorganization is always available. Terms like 'beautiful' or 'elegant' are thus characterized by the fact that their correct application as aesthetic terms does not depend on the domain of application. Since the only element in determining the correct application of these terms is the existence of an appropriate mapping, we can say that these terms are characterized by the fact that the adequacy of their mappings is *domain invariant*. In this way, we can consistently explain both the feature of metaphoric resilience of some aesthetic terms, as pointed out by De Clercq, and the existence of aesthetic terms that seem to be metaphoric, as pointed out by Sibley, or even necessarily metaphoric as argued by Zangwill. The RSD model does not need ad hoc hypotheses like the existence of a semi-aesthetic class of terms. We only need to argue that metaphor-resilient always and only aesthetic terms are a limiting case of aesthetic terms: terms for which the adequacy of their mappings is domain invariant. The extension of the set of terms in this limiting case include the terms 'beautiful', 'lovely', 'pretty', 'elegant', 'ugly', 'horrible', and all other "metaphor-resilient" aesthetic terms. In general, the RSD model allows for a rich spectrum of cases, not only the limiting "always and only aesthetic" cases, depending on how well any given schema is able to cover domains and facilitate mappings. Now, it is possible to exemplify the set domain invariant limiting cases, as we did above, by listing some of "always and only" aesthetic terms, but it is hard to do such a listing with non-domain-invariant terms, since their functioning as aesthetic terms depend on how they are applied in a context. Examples of non-domain-invariant aesthetic terms are 'balanced', 'tightly-knit', or 'unified', but in order to see that they are genuine aesthetic terms we need to know the context in

which they are applied. This is evident in the fact that other non-domain-invariant terms like 'red' or 'blue' are much harder to interpret as aesthetic terms.[3]

Thus, although the RSD model does not entail the existence of a clear-cut distinction between aesthetic and non-aesthetic terms, it allows the existence of limiting cases exhibiting domain invariance. Metaphoric resilience and universal applicability are features of terms with domain-invariant mappings. Those features are special cases of compliance permitted by the RSD model, although they are not intrinsic characteristics of all aesthetic terms. In this way, both the acceptance and rejection of the aesthetic/nonaesthetic terms distinction are both justified to some extent: there is no principled division into two classes of aesthetic and non-aesthetic terms; as pointed out by Kivy. But the existence of a limiting "always and only" class of domain invariant aesthetic terms is allowed by the RSD model, which to some extent explains why Sibley or Hungerland embrace the aesthetic/nonaesthetic distinction.

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[3]As we have seen, colour terms can acquire the conventional emotional meaning blue-sad, red-anger, and so forth. So, it is possible that they may acquire a conventional aesthetic meaning, but that only stresses the fact that, as aesthetic terms, they are highly context dependent.