CHAPTER VIII

TWO BASIC SENSES OF RESEMBLANCE

SO far, attention has been directed mainly to one sense of resemblance; namely, that in which a resemblance is any qualitative identity distributed in at least two cases of itself. Presumably, it is fairly clear that, in this sense of the term, there can be no degrees of resemblance. Thus, the only form of comparison so far taken into account is that of the comparison of two or more cases of a qualitative identity. Accurate statements of any such comparison could properly describe no more than the cases of qualitative identity compared. But to compare C_1 (abcd) with C_2 (cdef) in respect of the qualitative identities c and d is to do no more than that: it is not to find C_1 and C_2 more, or less, resembling.

More than that, in consistency with a logic of contradictories (and that presumably would be on any non-Hegelian logic), there may be no *degrees* of identity. Hence there may be no *degrees* of resemblance. That is not to deny that *substantial* identity may be a matter of degree. For as we shall see below in some detail, three oranges may be more or less alike in respect of the characteristics they have in common. But the *qualitative identity* of any one of the characteristics that are resembling or the same in the three oranges may not be a matter of degree. For, consistently with a logic of contradictories, A is A not to this or that degree; A is A. Thus, to say that A is to any degree identical with anything other than A would be to contradict the absolute self identity of A.

Yet sensible statements are made about degrees of resemblance and degrees of difference. This fact would be quite inexplicable on the assumption that the sense of "resemblance" in which that term designates any qualitative

identity distributed in at least two cases of itself is exhaustive. Any such assumption would be a mistake. There is another, and radically different basic sense of "resemblance"; a sense which designates degrees of resemblance without self-contradiction. We may now turn to a consideration of resemblance in this sense of the term.

At the outset, let us consider that to compare two substances in respect of any qualities and relations they may have in common is not to be mistaken for the comparison of diverse relations or qualities themselves in point of degrees of resemblance. Two etchings drawn from the same plate may be compared as resembling each other more than either one resembles a certain postage stamp. In any such comparison of individuals or substances as more or less resembling, the phrase "more resembling" means that the two etchings from the same plate evince more resemblances —*more* repeated qualitative identities—than obtain between either one of the etchings and a certain postage stamp. Needless to say, the meaning of "less resembling" in any such comparison of individuals is the converse of this.

Now consider: a comparison of two substances in respect of the characteristics they have in common is a comparison of those two individuals as evincing more characteristics repeated in each other than are repeated in those two individuals and a certain other individual. Two butterflies, for example, may resemble each other in the neural structure of their wings in more respects than they resemble a moth. Thus we may understand that to compare I_1 as resembling I_2 more than either one resembles I_3, is to compare I_1 and I_2 as evincing more respects repeated in I_1 and I_2 than are repeated in either I_1 and I_3, or in I_2 and I_3.

This is to say that in comparing S_1 and S_2 with S_3, a comparison is made between those individuals.

We have noticed that, consistently with a logic of contradictories, there can be no degrees of self-identity, and so no degrees of exact resemblance that might be a middle term between any two self-identical beings. This is not to say that *substantial* identity may not be a matter of degree.

Clearly, two apples may be more or less alike in point of the characteristics which may be repeated in their respective appearances.

Nevertheless, the *qualitative* identity of any one of those repeated characteristics cannot be a matter of degree. For, on any logic for which A is A (and that, presumably, would be on any non-Hegelian logic), these self-identical beings are self-identical absolutely: they are intrinsically what they are. Thus, to say that A is partially, or to any degree, identical with anything other than A, would be to contradict the absolute self-identity of A. For A is not partially A, on the one hand, and to a degree Y, on the other: A is intrinsically and completely A, where A designates any being, characteristic, quality or relation whatever.

And yet we do make sensible statements about degrees of resemblance and degrees of difference. That fact would be rather difficult to account for on the assumption that the definition of resemblance in terms of any qualitative identity distributed in at least two cases of itself must be adequate also to degrees of resemblance.

That this could not be so is fairly plain. A qualitative identity is self-identical absolutely, not to any degree whatever. For that reason alone, the definition in question could not cover *degrees* of resemblance.

Therefore, either that definition, or that assumption, is mistaken (or either or both are irrelevant). Whether or not the definition in question is apposite is a question of fact, to be decided by anyone who applies it in his own thoughts, imaginings, or sense perceptions; or, in a word, in his experience. However, this question of fact ought not to be prejudiced by the specious difficulty that has been raised. For that fair-seeming difficulty has force only so long as it is assumed that our one definition of resemblance as a qualitative identity repeated in at least two cases of itself is also a definition of *degrees* of resemblance. We have seen that this assumption is groundless. What has to be found, then, is a view of *degrees* of resemblance that is compatible with our primary definition of resemblance.

Let us notice, at the outset, that comparing individuals or substances, as more or less resembling in point of their several qualities and relations is not the same as comparing different qualities or relations in point of degrees of resemblance. Thus two coins of the same issue and denomination may be compared as having more in common with each other than with some other coin of a different issue and denomination. In this (and any other) comparison of individuals as more or less resembling, "more resembling" means that *numerically* more resemblances are repeated in the two coins of the same issue and denomination than are repeated in either (or both) of those individuals, and in a coin of some other issue.

The meaning of "less resembling" in statements about individuals or substances thus compared is the converse of this. Any pair of twins might have in common with each other more enumerable characteristics than either (or both) of them would have in common with their closest friend. And statements to that effect about those twins and their friend would have a referent in the enumerable (because noticed) characteristics that would be repeated in the respective twins.

Yet, to compare individuals in point of the *number* of characters which are repeated in them is not to compare single qualities as more or less resembling. A comparison of two butterflies as being the same in the nerve structure of their wings, and as being the same in the structure of their clubbed antennæ, is a comparison of the two insects in point of those two characteristics repeated in them: it is not a comparison of the nerve-structure of a wing with the structure of a clubbed antennæ. Thus, in the comparison of substances S_1 and S_2 with S_3, we are comparing these substances in point of the number of the characteristics repeated in them. But in the comparison of single qualities, such as an orange and a yellow, we are not comparing individuals or substances in point of the number of qualities repeated in them: rather, we are comparing the single qualities themselves.

Before going on to this latter form of comparison, however, it may be well to notice that, while comparing substances and complexes of qualities at the same time we can speak of "more or less" in resemblance without contradicting ourselves. Thus, of two members of the same class, we may say that they have more respects in common with each other than they have in common with a member of some other class. For, in this context, "more like" or "more resembling" would mean "more" in the sense of a larger number of noticed resemblances in the one case than in the other. In this there is nothing that is in conflict with the absolute self-identity of the respective resemblances, which, to a large number, characterize the members of the one class, and those few resemblances that characterize both the members of that same class and members of some other one. For those resemblances are stated as the basis of a comparison of the substances that they characterize: the respective resemblances themselves are not compared.

Thus, when a substance S_1 is said to resemble S_2 more than S_2 resembles S_3, this will be true on the basis of a number of resemblances or qualitative identities found in S_1 and S_2 that is superior to the number of resemblances found in S_1 and in S_3. In any such context, wherein substances are compared in respect of self-identical resemblances common to them, the phrase "more resembling", or an equivalent phrase, will refer to the set of resemblances whose number, in the case of S_1 and S_2, is superior to the number of resemblances that are found in S_1 and S_2.

Likewise, where a quality Q is said to resemble another quality L more than Q resembles quality J, and where Q, L and J are respectively complexes of discriminated qualities, we may compare those complexes on a discriminated basis closely analogous to that on which several substances may be compared as more or less resembling.

Let Q consist of qualities c, d, e, f, g; and let L consist of b, d, e, x, g. Let J consist of a, n, o, p, g. Then the complex Q, and the complex L will have three qualities, or

relations, d, e, g in common. As a consequence, the respective complexes Q and L will have in common three qualities, or relations, d, e, g in common; while at the same time they will have in common with J only the one quality, g. The statement, "Q resembles L more than it resembles J", will have as its referent a discriminated matter of fact; namely, the qualities which complex Q has in common with complex L, as well as the single quality that Q and L have in common with the complex J.

It has been pointed out above that this form of comparison does not take account of the comparison of degrees of quality. Thus, the fact of such comparison remains to be considered. It is sometimes held that comparisons of single qualities as resembling each other more or less are comparisons of them in point of degrees of some resemblance of other. Thus, a certain hue will be said to be more like red than yellow, because it is red to a degree higher than the degree to which it is yellow. Yet, on a logic of contradictories, a quality may not be itself more or less. For A is A absolutely, not to this or that degree. When we are comparing either substances or complexes of qualities, we may speak of a superior number of common qualities as a superior degree of resemblance. But to refer to any shade of orange as either being or resembling any shade of red to any degree would be to forget that (on a logic of absolute identity) any shade of orange is intrinsically itself; it would be to overlook the absolute self-identity of that or any other hue.

The referent of "more resembling", in propositions which state comparisons of substances or of complexes will be the repeated qualities compared in point of superior and inferior number. But in statements which express comparisons of diverse qualities as resembling each other more or less—as orange may be said to resemble red more than blue—the case is quite different. For in this case neither *repeated* qualities nor relations are in question. Therefore, no comparison of repeated qualities could be the referent

of a statement of a comparison of different single qualities. What, then, can be that referent?

Let us again take the example of hues. It is frequently said that no hue is definable. And there is a sense in which this is true. But to infer from this that there is no sense whatever in which a hue can be defined would be to infer too much. A hue can be defined in the sense that a statement can be formulated which identifies that hue and no other one.

Hues which are close to each other on the colour circle are sometimes called *analogous* hues. That seems a good name for them. For it may remind us that orange is to yellow and red, as red is to orange and purple, and so on. Thus, the statement, "orange stands between yellow and red in the order of analogous hues," identifies any orange hue. And it identifies no other hue. For it is of the nature of an orange hue that it is to yellow and red, as red is to orange and purple. And it is the case *only* of an orange hue that this is true. All hues that are to yellow and red, as red is to orange and purple, are orange hues. To say that orange is not to yellow and red as red is to orange and purple is to say that an orange hue is not an orange hue.

Any hue may be defined, or identified by a statement of its position in the order of analogous hues. With this in mind, we may proceed to ask what is meant by the statement that this order is intrinsic. First of all, let us consider a point that is so simple that it may seem laughably simple-minded. This point is that (say) a green hue is between yellow and blue because it is a green hue. The logic of the "because" here is apagogic. To say that a green is not between yellow and blue, in the analogous order of hues, is to say that a green is not a green. This is true, *mutatis mutandis*, of any hue in that order. The reason why blue is to purple and green as orange is to yellow and red is that blue is blue.

Consider, next, that the blueness of a blue is intrinsic to it. In other words, the existence of a blue requires an efficient cause, but the being of a blue is its formal cause.

Any blue is what it is. And so with any quality. The reason for this is apagogic. To say that a blue is not what it is, is to say that a blue is not blue.

Now when we consider these two points together, we find that they bring out what is meant by the statement that the order of hues is instrinsic to them. We have noticed that any hue will stand where it stands because it is that hue. This is to say that nothing extrinsic to (say) an orange hue is requisite for an understanding of why it is that orange stands between yellow and red. It is of the nature of orange that this should be so. Likewise, it is of the nature of any hue that it should stand where it stands in the order of hues. In no case is anything extrinsic to the hues themselves involved. Red, orange, yellow, green, blue and purple *are* in that order because they *are* respectively purple, blue, green, yellow, orange and red.

This, then, is what is meant to say that the order of hues is intrinsic to them. That order is in and of those hues. It is in and of them because it exhaustively consists of them, and of nothing extrinsic to them. They are in that order, and in no other one, because they are the hues that they are. And any hue is what it is for the best reason possible; the reason, namely, that it may not be otherwise than it is.

It may be well to point out the difference between an intrinsic order and arrangement. It is fairly plain that there is nothing strictly ineluctable about any arrangement of hues. Let us take a set of coloured papers and spread them out haphazard fashion. The orange paper, we shall assume, is farthest away from the red in space. Yet it is true that an orange hue *qua* an orange hue is nearer red than blue. Arrangements of hues may be arbitrary: they are never strictly ineluctable. For we can always choose to disregard this or that rule of composition, or any dictate of taste. But before the intrinsic order of hues, our position is quite ineluctable. We have no choice in the matter. Wherever and whenever there may be an orange hue it is true of it that it is to yellow and red as blue is to green and purple in the order of hues.

The referent of statements expressing "degrees of resemblance" may now be pointed out. The statement, "orange resembles red more than purple", means that orange is nearer red than purple in the intrinsic order of hues. In any such context as this one, where single qualities are compared as more or less resembling, "more resembling" and "less resembling" will refer to the distance between the hues compared. That distance exhaustively consists of the hues which lie between the hues that are in question. Thus there are more hues between blue and red than there are between yellow and red. And, in this sense, blue is further from red than yellow. Or, conversely, yellow is nearer red than blue in the analogous order of the hues. Thus, "yellow resembles red more than blue," means what is meant by, "yellow is nearer red than blue", in the analogous and intrinsic order of hues. And in this, there is nothing incompatible with the absolute identity of a yellow hue.

Thus we find that there are two radically distinct senses of "degrees of resemblance". Two individuals, A and B, resemble each other more than they resemble a third individual C when there are more qualities repeated in A and B than in either of them and in C. And A and B resemble each other less than one of them resembles C when there are fewer qualities repeated in A and B than are repeated in one of them and C. This holds also of complexes of qualities.

But single qualities or relations are more or less resembling as they are nearer to, or further from a selected quality in their intrinsic order. Thus comparable positions in an order will be the referents of statements about degrees of resemblance in the qualities thus ordered. Taken and used in this sense "degrees of resemblance" refers not at all to a relation of comparison; so used, that phrase is not the name of a qualitative identity that requires at least two cases of itself for its illustration. For, in the present sense, "degrees of resemblance" is the name not of a quality of any sort, but of an order. It is this intrinsic order which affords a referent for "degrees of resemblance" in point of the intrinsic positions of the items thus ordered; items which

may be compared not in themselves alone, but as nearer to or further from one another in that order.

The difference between these two modes of comparison is that the one might be dyadic, whereas the other is at least triadic. Thus Spqr and Saqb may be compared in point of q_1 and q_2; and that comparison is dyadic. But we cannot properly say merely that "orange is nearer red." Orange is nearer red than (say) blue. And this sentence is the statement of a triadic comparison. This is not to forget that "orange is next to red", is the statement of a dyadic relation. It is only to remember that such sentences are not statements of comparison. Any comparison of two qualities A and B as being more or less like a third quality C will require the third term of the comparison.

It has been pointed out above that we may compare perceived things in resepct of qualities and relations which are found repeated in those perceived things. More often than not, however, it would seem that our comparisons are made in point of diverse qualities and relations that are more or less similar, but not in point of identities repeated in the perceived things compared.

The fact that two paintings exhibit no common characteristics by which they could be compared means that they cannot be compared in point of qualities and relations *repeated* in them, not that they are comparable in no respects whatever. They may be such that they can be compared as being nearer to each other in repect of (say) the luminosity of their hues than to another painting.

Thus, for example, *Saint Luke Painting the Virgin*, by The Master of the Precious Blood, is an oil painting.[1] Yet, in point of luminosity it is nearer a Flemish painting in egg-tempera than a painting done in oils by the transparent method. Again, ogive arches in their incipience are nearer Gothic arches of the thirteenth century than is any Roman arch. Such examples could be multiplied, but that is not required by our purpose in this connection, which is simply

[1] George L. Stout, *A Study of the Method in a Flemish Painting.* Technical Studies, Vol. I, No. 4, pp. 181–206.

to point out one of the two ways in which comparisons can be made.

Thus, any constituents of various aesthetic situations may be compared in point of their comparable positions in their respective orders. Not simply hues in colour tables, but various hues in several Titians may, in their intrinsic order, exist in the critic's memory and imagination; as may the geometrical forms in compositions by Raphael.

Yet *why*—for *what* reason—would our critic discover that those examples are in one order, rather than another? Sometimes, when we ask for the reason why such and such is the case, we are asking about the premises, or the ground from which the matter in question might be inferred. Again, sometimes we are asking about the cause of a thing, when we ask about the reason for it. It is presumably plain that no reason can be given for the respective positions of items in an order that is constituted by and therefore intrinsic to those items, in either of the two senses of "reason" which have been mentioned. There is nothing extrinsic to a set of intrinsically ordered items from which their intrinsic order could be inferred, or in which it might be grounded. For, in being intrinsic to them, the order is in and of the items thus ordered. By the same token, there is no cause of the logical order in any case, and so no reason for it in that sense.

This is not to say, however, that no reason can be given in any sense of the term for the way in which certain items are ordered. A reason for this can be found and pointed out. Our critics would find red, orange green and blue to be intrinsically ordered in the order named *because* it is of the nature or character of orange to be nearer red than blue. He would find green to be nearer yellow and blue than red and purple (and so on) *because* it is of the character of green to be nearer yellow than red. The nature of the reason for the difference between one order, and another, consists of the respective characters of the items thus ordered. It is because they are what they are that the items in question are ordered in this or that order.

The "ground" of any intrinsic order lies in the respective items thus ordered. They constitute the order itself. This means that the ground consists of the items themselves. Red, orange, yellow, green, blue, and purple are thus *ordered* because they *are* red, orange, yellow, green, blue, and purple. Thus, to say that any order of items so ordered is an intrinsic order, means what is meant by saying that the order in question is in and of the respective characters of those items. And each item is what it is intrinsically, or in its own logical right. The logical order of those items is intrinsic because, in *being* what they are, those items could not be in any other order.

The several hues, green, purple, yellow, blue, orange, and red, as thus named, are listed in an order that is arbitrary. They might be listed at will in other orders. Their intrinsic order, however, is that in which (say) green is next to yellow and to blue. Yet the logic of this statement lies in the logical order of hues. And the reality of that order is strictly identical with the hues that constitute that order of hues.

The reason in question is a tautology. Certain items are in this logical order, rather than that one, for the reason that those items are what they are. The validity of a tautology is demonstrable by apagogic reasoning. For the contradictory of a tautology contradicts itself. To say that an orange hue might not be nearer red than blue is to say that an orange hue might not be orange.

It may be well to remind ourselves at this juncture that although some tautologies are verbal, it does not follow from this that all tautologies are verbiage. It would seem that some thoughts are tautological in nature. The content of the predicate term in thought repeats the content of the subject term in thought. Such is the case (I submit) in the tautology, to be is to be determinate. That tautology is the thought that to be is to be distinct from something else; i.e., to be determinate.

This is not to say with reference to hues (or any other quality or relation) that what hue a man will perceive when

he looks at a tangerine is demonstrable by apagogic or any form of *a priori* reasoning. Presumably most of us are aware of an orange hue when we look at a tangerine. But if the fruit were green in colour (as it would be in its infancy) the point would remain unaltered. For this green would be nearer yellow and blue than red or orange. To say that this might not be the case is to say that this green might not be green. But from the tautology that any item will stand where it stands in an intrinsic order because that item is what it is, nothing in particular may be inferred. The truism that shades of orange and green stand where they stand in the order of hues because they are shades of orange and green in no sense implies that where one man sees orange, another man may not see green. Thus, for one man's powers of discrimination a drawing might be what is sometimes called a wash drawing, while, for another's powers the drawing would be a mixed form and line drawing. Yet the perceived wash drawing would be nearer other wash drawings than line drawings. And the perceived mixed form and line drawings would be nearer other mixed form and line drawings than full colour-value drawings. This would be true because of the perceived character of the wash drawing, in the one case, and that of the perceived mixed line and form drawing, in the other case.

That is to say at least two things. First, that what a man will be aware of in this situation or in that is something that is not demonstrable before the experience itself. For example, where most men will see red and green, a man who is colour-blind will see shades of grey. Yet, it remains true that red is to violet as violet is to blue; that green is to yellow as yellow is to orange. And the darker shades of grey are to middle dark as that shade is to light grey. Second, that the *arrangement* in which intrinsically ordered qualities *exist* is independent of the intrinsic order in which those qualities are. Various hues may be placed in any arrangement we like. Yet, it remains true that, in the intrinsic order of hues, green is to blue as blue is to violet.

Thus we may notice that, whereas the existence and arrangement of qualities and relations is contingent, their intrinsic order is necessary. Where and when a red may exist, and what may be the hues surrounding it, are contingent matters. The order in which hues are to one another is not contingent, but intrinsic. Any one arrangement of any hues might have been any other arrangement of them. The intrinsic order of hues may not be otherwise than it is. To say that red might not be to violet as violet is to blue is to say that red might not be red.

At the risk of labouring the obvious, it may be well to enlarge upon the difference between a contingent arrangement of items, and an intrinsic order of items. The ways in which items are arranged depends on the ways in which the causes of their existence are controlled. If you are painting an Annunciation in egg-tempera, and wish to be consistent with medieval tradition, you will work out your composition so that the colour of the Virgin's robe is in blue. Let us assume that the pigment you use is azurite. An inquisitive and contentious friend asks, "But why do you make the Virgin's robe blue? Purple is much the more regal colour". Your properly grounded answer is scouted. "Why, not long ago I saw an Annunciation in which the Virgin's robe was rather greenish, and another where Her robe was almost black." In reply to this, you explain that azurite is not a stable pigment.[1] Cases in which it has gone far off the original blue are not rare. This explanation might carry one on to remark that the causes of stability, or lack of it in the composition of any pigment are among the causes of what is present in one's perceptions of a painting in which that pigment has been used. The arrangement of the perceived hues in a painting is contingent upon the ways in which the causes of those perceived hues are controlled. This fact about the arangement of hues in a painting, or in anything else, has no bearing on the intrinsic order of hues. It matters not at all where a

[1] The preferred blue of the Middle Ages was genuine ultramarine. It is a stable pigment; but for economic reasons it was not as widely used as azurite.

blue may be situated in a painting, or in the petals of a flower; a blue hue is to a green hue as a green is to a yellow.

This order is intrinsic to blue, green and yellow. It is intrinsic to them, for the reason that it is in and of them. This is to say that, in no case is anything extrinsic to the hues themselves involved in the constitution of their order. For that order is exhausted by the hues which constitute it. Red, orange, yellow, green, blue, and purple *are* in that order because they respectively *are* red, orange, yellow, green, blue and purple. That order is in and of those hues in the exact sense that it consists of them, and of nothing extrinsic to them. They are in that order, and in no other order, such as that of pitches, for example, because they are the hues that they are. This cannot be said about any *arrangement* of hues. There is no reason (the contradictory of which would be self-contradictory) why any *arrangement* of hues should not have been different. But to say that blue might not be to green as green is to yellow is to say that blue might not be blue.

In short, the difference in question may be stated in this way. Statements about any arrangement in which hues exist are not demonstrable by apagogic reasoning. For there is no contradiction in the statement that any arrangement of hues might have been different.

But there are statements about the intrinsic order of hues that are demonstrable by apagogic reasoning. For the contradictory of any such statements is self-contradictory. The contradictory of "blue is to green as green is to yellow" is, "some cases of blue are not to green as green is to yellow". This contradictory is self-contradictory; and it is self-contradictory because it means that some cases of blue are not blue.

The items which constitute any one intrinsic order are not strictly comparable with the items which constitute any other order. The order of pitches does not exhibit a one to one correspondence with that of hues. Nevertheless, the order of pitches is no less intrinsic to the items of which that order consists than is that of hues. Just as it is of the nature of any hue to be nearer this hue than that one in the

order of hues, so it is of the nature of any pitch to be nearer this pitch than that one in the intrinsic order of pitches. But it is not of the nature of any pitch to be nearer blue than orange. And it is not of the nature of any hue to be nearer an A flat than middle C.

It may be well to remind ourselves that the foregoing statements neither say nor imply that the physical basis of colour is not comparable with that of sound. Such matters are not in question in this connection. We are concerned solely with *perceived* hues and *perceived* pitches. They are not comparable because no pitch is in the order of hues, and no hue is in the order of pitches.

To be sure, the hearing of a pitch does not disclose that it is not in the order of hues. So much as that is not simply detected in the mere experience of a pitch heard. But after we have tried to think of middle C as being between a yellow and a green, we find that middle C is not in the order of hues.

There are those who may object that in point of fact we do compare colours and sounds. We say that patterns of hues are blatant, and we say the same thing about some popular music. Needless to say, we do make such statements; but it is more than doubtful that the felt character of a hue is (and is called) loud in the same sense that sounds are said to be loud. The same word is indeed used with reference to items that are in different orders. That is a fact about a way in which that word is used. But the fact that "blatant" is used in one sentence with reference to hues, and in another with reference to sound does not mean that "blatant" is used in both of those sentences in the same sense. A blatant sound really is loud, as a warm temperature is warm. To take it that a combination of hues that is obtrusive is like a sound because those hues are called "blatant" would be like taking it that a red is like a warm temperature because red is a "warm" colour. As the warmest red will have no effect on any thermometer, so the most blatant patterns will have no effect on a sounding-board.

It has been pointed out above that the term "resemblance" is equivocal. In what is one of two primary senses,

"resemblance" is used to mean qualities that are not the same; such as yellow and a blue. They are not the same, and yet they are similar, or resembling. When the term resemblance is used in this sense, "resemblance" means what is meant by "degrees of resemblance". Thus a blue is more like a violet than an orange hue; and a yellow is more like an orange hue than a blue.

We noticed above that these two senses of "resemblance" are radically different. They are so because a comparison in point of resemblance in the first sense can be dyadic; whereas a comparison in point of a resemblance in the second sense cannot be made with less than three terms.

Thus, for example, we can say that the hue of this three-cent stamp resembles the hue of that one, and this comparison in point of a qualitative identity (viz., a hue) that is repeated in two cases of itself is dyadic. To be sure, any such comparison might be made with nine or ten terms, each one of which would be that same qualitative identity; or it might be fifty terms; for the number of terms in any such comparison is limited mainly by a man's powers of attention and memory.

From the fact that a comparison in point of a qualitative identity (such as that of the hue of three (or fifty) five-cent stamps) can be dyadic, it does not follow that comparisons in point of degrees of resemblance can be dyadic. The statement, "green is more like blue", is incomplete. Green is more like blue, in that green resembles blue more than it resembles (say) orange. To be sure, we can (as, on occasion, we do) speak elliptically of such comparisons. Nevertheless, while we do indeed make these elliptical statements, at the same time, we posit the third term of the comparison. Thus, you might reply to a man who made the remark, "Purple is more like green than red", by saying, "but, surely, purple is more like red"; and, the meaning of the phrase, "than green", would be posited by you and understood by your auditor.

Thus, whereas comparisons in point of a qualitative identity that is repeated in at least two cases of itself, may

comprise no more than *two* terms of comparison, such is not the case in the second kind of comparison which we have considered. A comparison of that kind is not concerned with a resemblance that consists of cases of a qualitative identity. When we find that orange is more like red than blue, we are not finding a qualitative identity repeated in two or more cases of itself. Rather, we are finding and then comparing *diverse* qualities as being more or less like one another. A comparison of *diverse* qualities cannot be dyadic. An orange hue is not merely more like a red hue; it is more like a red than a blue.

An orange hue resembles a blue in that both of these are in the intrinsic order of hues. In that intrinsic order, an orange hue is nearer a red than a blue, in the sense that there are fewer hues between that orange hue and that red hue than there are between that shade of orange and any shade of blue. The degree of difference between an orange and a red *consists of* the hues that are between those two colours in the intrinsic order of hues. Those intermediate hues constitute the several "degrees" of difference between that orange hue and this or that shade of red. For the same reason, the hues that are between that shade of orange and any ultramarine are the constituents of the difference between that ultramarine and that shade of orange.

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Thus, we may point it out again that any "intrinsic" order consists of the diverse items which constitute that order. In the order of hues, any hue is between two hues that are different from it. Thus it is true to say that any hue is next to a different hue in the intrinsic order of hues. To say that a certain hue is next to another hue in their intrinsic order is not to compare the one hue with the other. For example, the statement that ultramarine ash is nearer genuine ultramarine is a statement about the position of ultramarine ash in the order of hues; it is not a comparison of that blue with ultramarine. But, to say that ultramarine ash is more like genuine ultramarine than azurite, is to compare that hue with two other blues.

The *statement* of any such comparison may be dyadic, to be sure; but any such *act* of comparison may not be less than tryadic in its terms. A painter who was trying to get a certain yellow in egg-tempera might remark, "The yellow I want is near orpiment". In the circumstances, that remark could be taken in two ways. It could be taken as referring only to two hues—orpiment, and the other shade of yellow that is in question. Or, it could be taken as referring to three hues of which only two are named, while the third is posited.

Taken in the first of these two senses, the remark in question might give one to understand that the yellow sought after was one of high, though delicate luminosity.

This information would indicate in that particular connection the narrow range of yellows within which our painter wishes to work at the moment. But from this indication of the position of X (i.e., the shade of yellow sought after) in the order of hues, it could hardly be inferred that X is *nearer* orpiment than (say) chrome yellow. For a third yellow is not named by the remark in question. No more is it an assumed referent of that remark, *in the first one* of our two ways of taking that statement.

Nevertheless, in the second of those two senses, the third yellow is indeed assumed to be a referent of that statement. That remark is now understood to mean that the yellow our painter is looking for is nearer orpiment than (say) any modern yellow. Thus, a statement which, taken literally, mentions two hues, and indicates a range of yellows, still may be taken as an elliptical statement, and understood as comparing three yellow hues with one another. By virtue of the assumption of a third term that remains suppressed, the remarks, "The yellow I want is *near* orpiment", is taken to mean what is meant by "The yellow I want is *nearer* orpiment *than* any modern yellow." The second one of these two remarks states a comparison of three diverse hues as being more or less similar. The first of them merely indicates a range of hues that ends in orpiment.

It would seem to be evident that the difference between the two primary senses of "resemblance" which have been under consideration in this chapter is a radical difference. Yet it is not difficult to confuse these two senses of "resemblance." One reason (and, perhaps, the main reason) why this is so is that where resemblances that are qualitative identities are in question, the substances to which these characteristics belong are often compared as being more or less resembling. We noticed above that, given three substances, S^1, a^1, b^1, c^1, d^1, and e^1, S^2, a^2, b^2, c^2, q, and r, and S^3, a^3, b^3, s, t, u, we find that S^1 and S^2 resemble each other more than they resemble S^3. For the number of characteristics repeated in S^1 and S^2 is superior to the number of characteristics that are repeated in S^3 and S^1.

Hence, whenever substances which resemble each other in respect of qualitative identities are in comparison, they are comparable as more or less resembling. This is to say that S^1 resembles S^2 more than it resembles S^3 whenever more characteristics are repeated in S^1 and S^2 than are repeated in those substances and in S^3. In any such comparison of substances the terms of the comparison will consist of resemblances in the sense in which "resemblance" is used to refer to a qualitative identity that is repeated in at least two cases of itself.

Thus, in point of the nature of its terms, any such comparison is at one with simple comparisons of two or more cases of the same quality or relation. Yet the nature of a comparison of substances in respect of qualitative identities, (whether or not of qualities or relations), is not exhausted by the nature of its terms. For it is a comparison of those substances as more or less resembling. S^1 is not merely more like S^2; it is more like S^2 and S^3. Hence, like a comparison of the *diverse* constituents of an order as being nearer to or further from one another in that order, a comparison of substances in respect of qualitative identities will be at least triadic.

If we now refer back to our discussion of the comparison of complexes of characteristics as being more or less resembling in point of a superior, or an inferior number of resemblances repeated in them, we shall notice that, so far, three senses of the term "resemblance" have been distinguished in the course of this chapter. Two of these three senses are primary; and those two senses we have noticed, are radically different from each other. The third sense is a secondary sense of the term "resemblance".

This is to say that when "resemblance" is used with reference to a qualitative identity that is repeated in at least two cases of itself, "resemblance" is then used in one of its two primary senses. The other primary sense is that which develops when "resemblance" is used with reference to the diverse constituents of an order of analogous items of any sort. The term "resemblance" is then used to mean what

is meant by "degrees of resemblance," or "more or less similar." The diverse characteristics thus compared resemble each other more or less as they are nearer to or further from each other in their instrinsic order. And the *degrees* by which those charateristics differ from each other are the respective items which stand between those items in their analogous order. Thus the *degrees* by which red-orange differs from orange-yellow *consist* of all the shades of orange that stand between those two hues. This is the second of the two primary senses of "resemblance."

The third sense of "resemblance" is called secondary because it is like any resemblance in the *first sense*, in that it consists of qualitative identities, and also because it is like any resemblance in the *second sense*, in that it cannot be less than triadic. It is, perhaps, for the reason that we often make comparisons in and through this secondary sense of "resemblance", that we find it easy to confuse the two primary senses of that equivocal term. More often than not, however, we do not so much confuse the two primary senses as we mistake this secondary sense for the second one of the two primary senses of "resemblance."

It is not difficult to make this mistake. Substances or individuals that resemble one another in this secondary sense of the term "resemblance," resemble each other more or less in point of the superior and inferior number of resemblances repeated in them. Thus, in this secondary sense, substances or individuals may resemble one another more or less. And, as we have noticed above, comparisons of substances or individuals as more or less resembling may not be less than triadic.

Now diverse characteristics in a single order resemble each other more or less. And any comparison of diverse constituents of an order must be at least triadic in number. It is thus rather easy to assume that "resemblance" in this secondary sense of the term means what is meant by "resemblance" when we say, for example, that "yellow resembles red".

Yet it is not difficult to see that this could not be the case.

The resemblances in respect of which S^1 resembles S^2 more than S^1 resembles S^3 are qualitative identities; and S^1 is more like S^2 than S^3 because more qualitative identities are *repeated* in S^1 and S^2 than are repeated in S^1 and S^3. But in the case of the diverse constituents of a single order, there is no question of repeated qualitative identities. Yellow resembles red more than purple, in that there are fewer hues between yellow and red than there are between yellow and purple in the intrinsic order of hues. Thus, as things exhibit a larger or a smaller number of qualitative identities repeated in them, they are more or less resembling. Such is not at all the case where the diverse constituents of an order are in question. They are more or less resembling as they are nearer to, or further from each other in the order they constitute.

It may be well to indicate briefly the character of another secondary sense of "resemblance". In this other secondary sense of that term, substances resemble each other more or less; and they are more or less resembling in point of superior numbers of the characteristics which they present. But *not* in point of a superior or inferior number of repeated characteritics.

Let us take three substances. S^1 presents stripes of scarlet, brick red, pale orange, yellow, and saffron. S^2 exhibits a pattern of red, salmon pink, yellow, and cobalt blue. S^3 presents bars of Prussian blue, sea green, light grey, and white. Thus we have thirteen hues which characterize three substances. Now no one of these hues is a characteristic of more than one of these three substances. In other words, no one of these hues is repeated in any two of these substances. Yet, a man who was at all practised in the comparison of diverse hues would find that S^1 resembles S^2 more than S^1 resembles S^3.

He would not find it so because S^1 and S^2 exhibit resemblances to a number that is superior to the number of resemblances repeated in S^3, S^2, and S^1. For no one of these hues is a characteristic of any two of those substances. Consequently, no one of these hues is repeated in those

substances. Thus, where substances are resembling in the way that is under consideration, they are not resembling in point of repeated characteristics. Yet one would find that S^1 resembles S^2 more than it resembles S^3.

In order that we may grasp the sense in which this is so, we must notice that four of the hues that characterize S^1 are nearer three of the hues that characterize S^2 than any one of those four is to any one of the hues which characterize S^3. Thus, to find that two substances resemble each other more than they resemble a third individual substance, where none of the resemblances in question is a repeated characteristic, is to find two substances or individuals such that more characteristics of the first are *nearer* those of the second than those of the third.

A resemblance, in the secondary sense of the term that we considered in the first place, consists of superior and inferior numbers of *repeated* characteristics. A resemblance in the other secondary sense consists of superior and inferior numbers of *single* but *analogous* characteristics.

Thus, for example, the scarlet of S^1 is to the red of S^2 as the red of S^2 is to the brick red of S^1. And the scarlet, the brick red, the pale orange, yellow, and the saffron of S^1 are nearer the red, the salmon pink, and the yellow of S^2 than the hues of S^1 are to the hues of S^3.

The two primary senses of "resemblance" are, we have noticed, radically different. This means that they do not differ by a difference; they are diverse. The two secondary senses have one conspicuous feature in common. For in both of these secondary senses of the term "resemblance" it is a matter of more or less resemblance in point of superior and inferior numbers of characteristics. Nevertheless, these two senses also are radically different. For in the one sense, the constituents of a resemblance are *repeated* characteristics, whereas in the other sense the constituents of a resemblance are *analogous*, not repeated characteristics.