Chapter 4
Inside Culture's Sorting Plant

> "When I saw the light of day and then the midwife, I was stunned. I'd never seen this woman before in my life."
> *Attributed to Karl Valentin*

It happens all the time: one doesn't know exactly how to classify a thing, a behaviour, a person. When shopping, one comes across unfamiliar things. Is that textile part of an authentic traditional costume or a new retro designer piece? Or, one finds things that are familiar in and of themselves, but which are somehow not exactly the way one knows them: is it a corkscrew or a decorative toy for adults? The uncertainty is disturbing, and one draws on other sources of information: the merchandise on display next to it, the overall impression of the shop – luxury boutique or junk shop (too bad if one is surfing the web). Or when observing others: are they taking a lunch break or are they just hanging around? Or, is the guy in the biker outfit at the bar a real rocker or a businessman on a day off? Some uncertainty remains. One can't clearly assign the thing, the behaviour, the person to a style or a group, even when considering all available information. The consumer has to cope with that uncertainty, because only then can they make sense of what others want to tell them by their choices from the world of objects, and successfully communicate back.

The challenge is pattern recognition in things, behaviour and people, despite fuzzy information. One has to decide which objects, showing fuzzy patterns, belong to which style. Or decide to which social group a person should be assigned. What further complicates the issue is that the types and number of styles and social groups are not set in stone. A changing bouquet of styles makes a changing bouquet of social groups. These are the challenges that mark out the consumers' scope of action and the means they have at their disposal to cope with the situation.

Pattern Recognition

By way of illustration, take the example of Table 3: you have six objects, x_i, (paintings by Leonardo, Tintoretto, Raphael, Kelly, Monet and Pollock), or in general a subset $\underline{x_i}$, $\underline{x_i} = (x_1, \ldots, x_N)$, of N objects. You also have a feature vector, with four features differentiating these objects, m_j, (principles of focus, line design-, spatial composition, illumination), or generally a feature vector $\underline{m_j} = (m_1, \ldots, m_j, \ldots, m_M)$ with M features (an M-dimensional feature space). Each object, x_i, is therefore characterised in the feature vector $\underline{m_j}$ by the object-specific feature values $\underline{m_{ij}} = (m_{i1}, \ldots, m_{iM})$. Leonardo's *Last Supper* has the feature value $\underline{m_{ij}}$=(multiple, sharp, flat, without). More generally, every object, x_i, can be characterised by its feature value $\underline{m_{ij}} = (m_{i1}, \ldots, m_{iM})$. I denote this characterisation with $\underline{x_{ij}}$. In Table 3 there are six such characterisations, generally N, with $\underline{x_{ij}} = (\underline{m_{1j}}, \ldots, \underline{m_{Nj}})$.

The consumer's challenge now is to put each of these N objects, characterised in this way, into one of n object clusters whose components 'match up' in the feature space. Matching means that two objects from the same cluster demonstrate a better fit in their feature values, $\underline{m_{ij}}$, than each of them has with any object from another cluster. In Table 3, Leonardo, Raphael, Kelly and Pollock are a good fit and therefore belong in one cluster, while Tintoretto and Monet belong in another cluster.

Table 3 dealt with two given clusters, labelled Renaissance and Baroque, and the task was to determine which paintings belonged more to either of them. Let Q_k be a given cluster label and suppose there are L of them. The challenge for the consumer is to sort each element of a subset $\underline{x_i}$ – a googled list of slippers, a storefront display, an assortment of hats stacked in the store or a collection of pictures on a wall – into one of the clusters $Q_1, \ldots, Q_L$, according to their characteristics, $\underline{x_{ij}}$.

It goes without saying that one and the same feature vector, $\underline{m_j}$, is not equally apt for every conceivable subset of objects $\underline{x_i}$. Sorting six bottles of wine on the basis of Wölfflin's painting features would make as little sense as sorting six paintings using the features space of the Parker's Wine Guide. Suppose, for sorting the world of objects, X, into clusters, the consumer has K alternative feature vectors at their disposal, $\underline{m_1}, \ldots, \underline{m_j}, \ldots, \underline{m_K}$, which may include Wölfflin's and Parker's. But which of these feature vectors will the consumer apply to a concrete subset, $\underline{x_i}$? Two answers are possible, and both have their merits.

The first answer lets the applied feature vectors be exogenous – as if by an invisible hand. Conjured out of a hat by culture, □, when ordering (X, □), which also includes the assignment of feature vectors, $\underline{m_j}$, to objects, $\underline{x_i}$: That is $\underline{x_i}$ from

X already presents itself to the consumer in fixed combination with situation and subset-specific feature vectors $\underline{m}_j$. Consumers perceive $\underline{x}_i$ and $\underline{m}_j$ inseparably merged as $\underline{x}_{ij}(\square)$, with $\underline{x}_{ij}(\square) = \left(x_1, \ldots, x_N, \underline{m}_j(\square)\right)$. Be it internet recommendations, storefront displays, a wine cellar stock, that of a second-hand shop or a luxury boutique, the assortment in a gallery or a record store, the consumer perceives them in a situation and subset-specific way in an automatically activated feature space. Perception is subset-specific, because a medal shown on a carnival costume is appraised differently than one shown on a tailcoat. Also, perception is situation-specific, because the tailcoat at the carnival ball is different from the tailcoat at the Nobel Prize ceremony.

What does that imply? The consumer has no agency here! The manipulation of the feature vector, $\underline{m}_j(\square)$, remains outside their control. What is the impact of culture in this? I have introduced culture into my previous argumentation as 'crystallised history'. It is time to clarify this notion.

If culture pulls the feature vectors out of its hat, subset and situation-specific, then 'crystallised history' is the consumer's library of 'operating instructions' for the clustering of the world of objects. And just like the operating instructions for a technical device, those for the clustering of subsets within the world of objects are the same for all users: human agency is – handling mistakes aside – automated.

This psychological mechanism is known as the 'perspect manager'.[1] It lets people do the right thing, as if guided by an invisible hand. We don't throw a lighted matchstick into a petrol tank to see if there is still fuel in it. And we don't have to explicitly decide against it by considering all alternative light sources – it works automatically. We automatically do many things right, i.e. appropriate to the situation, because the perspect manager suppresses that part of our total knowledge (about the luminosity of the matchstick and about the total inventory of all feature vectors), which is redundant or even dangerous for the accomplishment of a given task. Thus, the eye scans a painting for focal points, searches the surface for depth and notices light and shadow. But when the eye scans a land map, completely different features move into the foreground. The perspect manager not only prevents people from doing stupid things when checking the fuel tank, it also provides consumers with the right $\underline{m}_j(\square)$ for the specific classification tasks, $\underline{x}_i$.

The second possible answer to this question of selecting feature vectors is this: the consumer experiments. Trying this and that, applying the feature vector $\underline{m}_h$ to that same subset, $\underline{x}_i$, whose elements all other consumers classify by the

1 Lengbeyer 2007.

feature vector $\underline{m}_j(\square)$. Resulting in a different classification. This is exactly how the supermarket of styles (chapter 2) was born: archaeologists, art historians, critics and philosophers are experimenting with new pairs of terms – signature versus expression, the how versus the what, etc. – and are thereby constantly creating new feature vectors for classifying artefacts.

In their own world of objects, consumers can do the very same. Men's long hair is classified in the feature space of individuality, say, instead of in that of hygiene (military); the tattoo is classified in the feature space of fashion, instead of in that of social marginalisation (sailors, prison inmates); and insects, instead of in the feature space of the disgusting, are classified as food by way of the feature space of environmental responsibility.

This experimentation clearly carries the risk of failure, that the experimenter will be the only one to apply this feature space. On the upside, however, there is a chance that others will follow, adopting the new feature space and beginning to see the world of objects with fresh eyes. The ultimate success is the change of culture, such that $\underline{x}_{ij}(\square)$ is now removed from the library of the perspect manager and replaced by $\underline{x}_{ih}(\square)$, and long hair on men is now seen as a feature of individuality, a tattoo as a feature of beauty, insects appreciated as a delicacy.

Experimenting with feature vectors, $\underline{m}_h$, is a source of style innovation and therefore not everyone's cup of tea. Its use is reserved for an elite, who are the nucleus of new styles and elective affinities, although they may not be fully aware of it. In this interpretation, the consumer has agency; not every consumer, but those turned into the avant-garde by a random name generator or their own destiny, who have the industry's trend scouts hot on their heels.

So, which is the right answer? Both are right! With the help of the avant-garde only, there could be no 'crystallised history', no widely practised way of seeing things, of classifying them. The world of objects would lose its function as a medium of communication, styles would die out and elective affinities became extinct along with them. But without an avant-garde, there could be no cultural development either. History would not just be crystallised for now, but remain the same for all time, and no one could explain how it came about.

Thus, we are bound to accept a special paradigm of human agency: $\underline{m}_j(\square)$ is fixed for the majority of consumers, only a few can (successfully) manipulate the feature space for classifying objects. I call them the *style leadership*.

Fuzziness

What is the source of the fuzziness that troubles the consumer, if the perspect manager selects the feature space for them in such a manner that doubt never crosses their mind? There are three causes of fuzziness in pattern recognition.

First, a particular feature can be either a crisp or a fuzzy idea. Natural features are usually crisp, such as the weight and size of a painting. The definition of a natural feature is usually beyond doubt. But the perspect manager does not only provide natural features – sometimes $\underline{m}_j(\square)$ contains not a single natural element. Unnatural features are fuzzy. The feature space of Table 3 is a case in point. Leonardo's *Last Supper* has multiple focal points, *Number 1* has none and Tintoretto's *Last Supper* has one. This is easily agreed upon. But does Kirchner's *Sleigh Ride* have one, two or three focal points, Günther Uecker's calligraphic *Kama Kura* paintings (1984) one or not even one? We can all agree that there are focal points, but where exactly the border is between focal point(s) and lack of focal point(s) remains unconfirmed. This uncertainty stems from the fact that 'focal point' is a semantic term whose meaning is under permanent negotiation or else remains un-negotiated. The same applies to the line design principle. What exactly is a line in the viewer's perception? Is a rectangle's outline a line? Is the rectangle itself a line when the ratio of unequal side lengths is less than 1/x? The same goes for the spatial composition principle. What precisely does space in a two-dimensional object mean? Is it the perspective perfected in the Renaissance, with two vanishing points? Do the well-known staircase drawings in the reversible-figures technique convey the impression of space or (by revealing an illusion) of physical flatness of the canvas surface? The same holds true for the illumination principle. What exactly is a shadow, and where does light commence? Tintoretto's *Last Supper* demonstrates what light and shadow are. But is there really nothing of this in Pollock's *Number 1*? All this fuzziness stems from the semantic nature of these features. Even 'painting' as a medium is a fuzzy concept. All six objects in Table 3 are the results of applying moist chemical substances to a surface. But are Niki de Saint Phalles' colour orgies paintings or sculptures? Or, is René Magritte's *Ceci est un morceau de fromage* (1936), the still life of a piece of cheese exhibited under a cheese dome on a miniature easel, a painting or is it object art? What is a railway carriage 'embellished' by graffiti sprayers? Polychromy and monochromy are natural physical features, like weight and size, but what about the terms 'coloured' and 'not coloured'? Does physics always trigger the same thing in us? Is *Number 1* 'coloured'? Or does it depend on which object it is compared to? Compared to *Red Blue Green*, no! Compared to *Kama Kura*, yes! If you look at it alone, well, maybe! The idea of the feature itself causes

fuzziness, although the idea as such should be crisp. In culture, the perspect manager provides the consumer with semantic rather than natural feature spaces: coolness, elegance, luxury, asceticism, hip hop, etc. Fuzziness is part of the daily cultural routine.

Second, for almost all cultural features, the choice of scale is a fuzzy task. Differences in size and weight are measured on a metric scale. Take as an example the cardinal colour shades in Figure 1 (left side). In the field of culture, however, you often have to settle for ordinal scales. What exactly does 'more focused' mean, for example? Is it easy to spot focal points in a painting and is it straightforward to sum them up, meaning a cardinal scale could be used? Is this how the eye (and the brain behind it) functions? Or will it cease counting after five identified focal points, or after only two, assigning paintings with more focal points to the category of 'multiple' or 'no' focal points? The temperature of a mojito can be measured in Celsius, but how 'cool' is it as a drink? Still? Today? In this situation? Decisions cannot easily be made at the feature level. Not making a decision does not here mean that two people are arguing about it, but that the consumer as an individual cannot make sense of it. Sometimes we simply do not know how 'cool' an object is, not even in comparison with other objects. We're just convinced that it is somehow 'cool'. All that remains to do then is to take the object (because of this feature) out of the given subset of comparable objects and place it in another subset (singleton, other tree) that is incomparable to it.

Third, there is also the type of fuzziness that has already been exemplified in chapter 3. In cases where a subset of objects, $\underline{x}_i$, can be ranked ordinally, it is pure chance if the ranking in one feature is the same in all other features and the consumer is faced with a dominance order, $\underline{x}_{ij}(\square_d)$. Then each of the paintings considered has the same rank for all features. But too bad if there are conflicting rankings, for example in the line design principle and the illumination principle. In chapter 3, using ordinal scales, two such objects were simply left standing next to each other, unranked, because one cannot subtract opposing rankings, for example in the illumination and line design principles. Yet, this third cause of fuzziness does not categorically exclude the classification of such subsets, for example in paintings in the Renaissance or perhaps the Baroque style.

Assigning Objects to Styles

Fuzzy logic has a number of different classifiers – procedures with which a given object, x_i, can be allocated to one of L object clusters, Q_k, given a feature vector, $\underline{m}_j = (m_1, \ldots, m_M)$.[2] And for that purpose, a subset of N objects, which have been ranked in each of the M features, $\underline{x}_{ij}(\square)$, needs *not* be a dominance order, $\underline{x}_{ij}(\square_d)$. The question is, however, how the consumer is able to handle this task. Presumably they'll try out a simple procedure that doesn't produce counterintuitive results.

Consider the (ordinal) feature values $\underline{m}_{ij} = \left(m_{i1}, \ldots, m_{ij}, \ldots, m_{iM}\right)$ of object x_i. The consumer could simply consider only the extremes of $\underline{m}_{ij}$ for classification. Take, for example, the classification of a painting as either Renaissance or Baroque. The one extreme value could be a third rank, in terms of the number of focal points – two ranks behind the one stylistic ideal, Leonardo's *The Last Supper*, and one rank behind Raphael's *Galatea*. And in terms of illumination intensity, suppose it ranks only second to the other stylistic ideal, Tintoretto's *The Last Supper*. Following fuzzy logic, the beholder would then classify the painting as Baroque. Stylistically, it also has something of the Renaissance (in terms of focal points), but in its extremes it is more baroque (i.e. in terms of illumination). The beholder may well be left with a twofold feeling of unease.

First, the consumer must classify N paintings (in a museum, on the internet, in a quiz) as either Renaissance or Baroque, but in the way just exemplified, their classification depends on the given subset of paintings as a whole, $\underline{x}_i$. With two more paintings with the Baroque (stylistic) intensity of a Tintoretto, the beholder would classify x_i as being Renaissance, because the highest rank in the Baroque features would now only be rank four. The beholder will have to live with that! Style cannot be defined in absolute but only in relative terms, relative to objects in different styles. Which is why a world with only one style has no style. Which in turn is why, in a world with two or more styles, everything remains and must remain relative. It is like a dictionary: if a new entry (i.e. a new object) is added to the subset, it can only be defined in words from the already existing entries, which, in turn, can change their meanings depending on the new entry.

Precisely this insurmountable relativity is what the founder of (European) semiotics, Ferdinand de Saussure, has postulated. The style of an object is its meaning, and nothing but meaning, and can therefore only be relative. The styles of ornamentation, even Alois Riegl's *kunstwollen*, design styles (such as aesthetic functionalism, technicism, demonstrative aestheticism, deconstructivism, post-

2 Bothe 1995.

modernism, Memphis, gadget design), as well as music and painting styles can only exist relative to each other. 'Existence' is not abstract existence here, but existence by comparison to concrete objects from different styles. Which is why, regardless of the style at hand, the conceptual structure of art books on a style, for example that of the Nabis or the Vienna Secession, is *grosso modo* always the same: positioning it in a style system *vis-à-vis* referential styles, followed by detailed art-historical and art-critical treatises, in which general conclusions are drawn referencing concrete works.

The second feeling of unease arises in the beholder when all features do not seem equally relevant to every style. The focus principle may be deemed less relevant for the Baroque – Rubens' *Three Graces* (1635) has three focal points – but the line design and illumination principles may be deemed all the more important. And the illumination principle may be less important to the beholder for the Renaissance than the focal point principle – after all, Raphael's *Miraculous Draught of Fishes* (1515) also shows a little light and shadow. Overall, it may seem to be too simplistic for the beholder to take the extremes of features simply as they are.

This unease is partly lifted if features are given the 'right' weighting. Let $\underline{\gamma}(\underline{m}_j)$ be the 'sympathy vector', defining the degree of membership of the feature vector $\underline{m}_j = (m_1, \ldots, m_M)$ to L style clusters Q_k: $\underline{\gamma}(\underline{m}_j) = \left(\gamma_{Q_1}(\underline{m}_j), \ldots, \gamma_{Q_L}(\underline{m}_j)\right)$. The sympathy vector, with values between zero and one for each feature, determines how important a feature is for the assignment of an object to style Q_k. For example, the top rank for the focal point principle (a single focal point) does not assign a painting to the Baroque if the weight for this principle, for assigning an object to this style, is zero, i.e. if this feature is irrelevant for classification into this style.

Let's call the largest feature value, weighted with the sympathy vector, the 'primary sympathy value'. Classification, then, is still not a trivial task for consumers, but it is perhaps manageable for them, consisting of assigning objects that have already been assigned feature values, $\underline{x}_{ij}(\square)$, into a style according to their primary sympathy value. All they need for this task, in addition to the ranking in the feature space provided by the perspect manager, $\underline{x}_{ij}(\square)$, is the 'right' sympathy vector for each style. But what is the 'right' sympathy vector that the consumer should apply?

Again, there are two good answers – as was the case with the question about where the feature vector came from in the first place. And they are the very same answers. The first one deprives the consumer of agency and assigns the choice of sympathy vector to the perspect manager. Assessing the relevance of features for a set of styles is, once again, not everyone's cup of tea. Here too, culture can be

described as 'crystallised history': Just as culture provides consumers with the appropriate feature vector for each subset of objects, $\underline{m}_j(\square)$, it also provides them with the style-specific sympathy vector, $\underline{\gamma}\left(\underline{m}_j\right)$. In this interpretation, the sympathy vector is $\underline{\gamma}\left(\underline{m}_j\right) = \underline{\gamma}\left(\underline{m}_j, \square\right)$. This means the sorting of objects into styles, controlled by the perspect manager, is a habitual process for the consumer.

The second, equally good answer, reassigns agency to consumers. The avant-garde, and others striving for style leadership, experiment with $\underline{\gamma}\left(\underline{m}_h\right)$ hoping that others will follow their lead in the weighting of features. Only a few succeed. The industry trend scouts are hot on their heels here too.

Similarity of Objects

It was emphasised in chapter 3 that dissimilarity, not similarity, is the appropriate concept for the relationship between two objects in *consumption*. This still applies. But in the sorting plant of culture, in which consumers are *at work*, sorting precedes consumption. First, that which belongs together is brought together, and only then is that which remains divided consumed. Sorting follows similarity considerations. It is not what is dissimilar that is thrown together, but that which is similar. That is, consumer happiness/utility only results from the *production* of object clusters according to similarity criteria. This is the first step towards clarification of the term 'productive consumer', which untill now I have been rather vague about.

But what does 'sorting according to similarity criteria' actually mean? The consumer's sorting procedure described so far is already deeply imbued with style. This sorting procedure relies on style-*specific* criteria – the feature vector, $\underline{m}_j$, in combination with the style-specific sympathy vectors, $\underline{\gamma}\left(\underline{m}_j\right)$. This is simply due to the exogeneity of object clusters, Q_k, assumed so far. But a style itself is nothing more than such a cluster of objects. In other words, assuming preset clusters, the consumer is forced to sort every object into one of the given L clusters, without exception, even if some do not actually fit into any of them. Accordingly, an oriental carpet, say, shall be classified as belonging either to the design style of aesthetic minimalism (Walter Gropius) or to Memphis (Ettore Sottsass). In doing so, the consumer is prohibited from defining a new style, i.e. from sorting two similiar objects into a new cluster, which do not fit anywhere else in the given set of clusters. For example, to define the oriental style separately from the furnishing styles of aesthetic minimalism and Memphis. Nor is the consumer allowed to eliminate, for example, Memphis and assign the objects already sorted into it to aesthetic minimalism or the oriental style.

But the consumer is free to do this if necessary – sorting objects on the basis of their features alone, without restrictions on the drawers into which they can be put. For this, an idea of the similarity of two objects *per se* is needed, freed of predefined styles. Their use for utility generation only comes afterwards. This is why I call the individual, who sorts objects by similarity criteria, the *worker* in the sorting plant of culture. The worker becomes a *consumer* only once they perceive the world in terms of utility generating dissimilarity criteria.

A similarity measure developed in fuzzy logic is *rank distance*.[3] Applied to the worker in the sorting plant of culture, it concerns the ranking of a subset of N objects, $(x_1, \dots, x_i, \dots, x_N)$, on a feature vector, $\underline{m}_k = (m_1, \dots, m_M)$, which is provided by the perspect manager, and is cluster-*independent*. Cluster independence here means the worker has no prior knowledge of the object clusters/styles, $Q_1, \dots, Q_L$, into which these objects will be finally sorted. With this task, the clustering into styles is dependent on a given subset of objects, as opposed to the previous task, where the clustering of a single object was made dependent on a given (sub)set of clusters/styles. Feature values in the feature vector $\underline{m}_k$ are rank numbers, r_k, for each feature, m_k, such that every object, x_i, is represented by its rank vector $\underline{r}_i = (r_1, \dots, r_k, \dots, r_M)_i$. The rank distance d^r_{ij} between two objects x_i and x_j is then a weighted sum of all rank distances $|r_{ki} - r_{kj}|$, $k = 1, \dots, M$, where r_{ki} and r_{kj} are the kth ranks in the rank vectors $\underline{r}_i$ and $\underline{r}_j$.

But what properties should the rank distance between any two objects satisfy? The worker in the sorting plant of culture might make the following plausible requirements, which are summarised in Table 7.

3 ibid.

Table 7: Relativity of rank distance between two objects.

Rank Distance Principles
1. **Minimum Principle:** Two objects with identical rank positions in all features (identical properties) have zero rank distance.
2. **Maximum Principle:** The greater the number of features considered, the greater the maximum rank distance.
3. **In-Between Principle:** The rank distance between two objects increases if an element is added to the subset of objects and this element is ranked between them in at least one feature and in no feature dominates both or is dominated by both.
4. **Outside Principle:** The rank distance between two objects decreases if an element is added to the subset of objects and this element dominates both objects or is dominated by both in at least one feature and is not ranked between them in any feature.

First, for any two objects, the minimal rank distance should be zero, which is always achieved when two objects occupy the same rank for each feature (minimum principle). In the binary version of Table 3, for example, Leonardo's *The Last Supper* and Raphael's *Galatea* have the same rank for all features and the rank distance is therefore zero.

Second, the maximal rank distance should increase as the number of features used for object comparison increases (maximum principle). Tintoretto's *The Last Supper* and Kelly's *Red Blue Green* have diametrically opposed values for each of the four differentiating features. Thus, the distance between them is maximal. If, however, the dichotomy between representation versus exemplification were to be included as an additional differentiating feature, Raphael's painting would have the characteristic 'representation' and Kelly's the characteristic 'exemplification'. The worker in the sorting plant of culture probably wants a measure for rank distance that also possesses the second characteristic. That is, in the example, increases the rank distance between Raphael and Kelly because they also differ in this additional feature.

Third, the rank distance between two objects should be sensitive to the presence of an additional object to be ranked. In Table 3 the two versions of the *Last Supper* have the maximal rank distance. If a new object, for example Magritte's

The Treachery of Images, moved between them in one or more features, then the rank distance between the two versions of the *Last Supper* should increase (in-between principle).

Fourth, if Duchamp's *Fontaine* is added to Table 3 as the seventh work of art, which is so different from the other six paintings in all features, then the rank distance between the two versions of the *Last Supper* should decrease. Because now, despite all the differences between them that persist, *vis-à-vis Fontaine* they can be regarded as more similar than before (outside principle).[4*]

Rank distances that have these four properties allow for a flexible sorting of subsets of objects into clusters that are not predefined right from the outset. Without the Duchamp, the worker in the sorting plant might want to form two clusters for the objects in Table 3. Whether he calls them Renaissance and Baroque or A and B is of no importance. With the Duchamp in the subset, things look different. The worker might want to stick with just two clusters but put all six paintings of Table 3 in one cluster and make the Duchamp the sole member of the second cluster, as a singleton. Or the worker might want to have three clusters – with the Kelly, Pollock and the Duchamp together in one of them – and call them Renaissance, Baroque and the postmodern. How this cluster formation is to be achieved will now be addressed.

Clustering in Nature

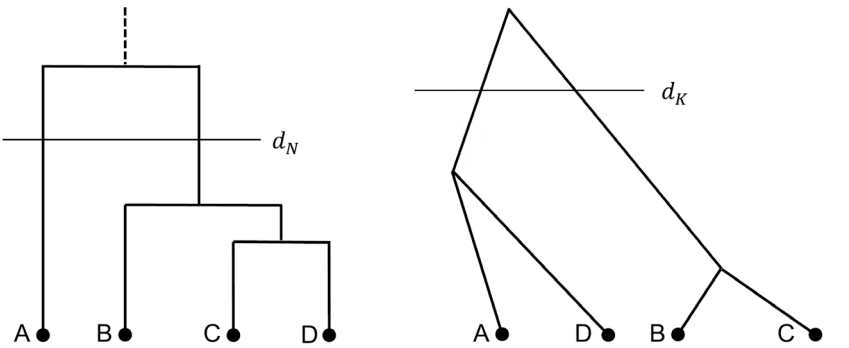
The procedure for clustering in evolutionary biology can be shown by the example of the phylogram of the great apes in Figure 5 (left side). Clustering at the great ape level is only one of many alternatives. It could instead be done at the superordinate taxonomic level of approximately 100 Old World monkeys. This would result in a lengthening of the phylogram in Figure 5 (left side) in the vertical and widening in the horizontal to a total of approximately 100 branches (not shown here). Or else New World monkeys could be added too, which would enlarge the tree again in both dimensions, length and width. And so forth, extended further and further to the phylogram of the fauna, which could even be extended to include the flora. With ever greater rank distances between them, up to the (imagined) tree of life, which vertically connects, i.e. makes comparable, the

4* The rank distance according to Kendall, $d_{ij}^{r} = 1/(h-1)^2 \sum_{k=1,\ldots,M}\left(r_{ki} - r_{kj}\right)^2$, with $d_{ij}^{r} \in [0, M]$, satisfies these four conditions, with h being the number of objects and M being the number of features.

human being and the bacterium, and thereby showing their similarity compared to non-living material.

In evolutionary biology, clusters are formed by capping an (imagined) tree (of life), albeit starting from its trunk. This divides a set X (for example, of all life forms) into two, then three or more subsets. The more clusters formed this way, the shorter the branches of the trees. Just as when a cauliflower turned upside down is separated from the main stalk with a knife. The further away from the stalk you cut, the more, smaller and shorter pieces you get. With this 'haircut in a headstand' method, increasingly smaller and more numerous clusters are formed from the (imagined) tree of life, on different taxonomic levels, for example, the clusters $Q_1, \ldots, Q_K$ at the level of fauna families. Eventually, such continued 'haircutting' leads back to the initial cluster of Figure 5 (left side) as one of $L, L > K$ clusters. However, the options for clustering are still not exhausted. For example, the *haircut* could be placed at the level of the horizontal line d_N in Figure 5 (left side). Then the cluster of the great apes falls apart into two new ones, with A (orangutan) as the only member in one cluster and the other great apes in the other cluster. Ultimately, the haircut will be so short that there is only one species left in each cluster. In Figure 5 (left side) there are then four clusters. In the general case of the (imagined) tree of life there are then as many clusters as there are living beings on the taxonomic species level, which is the basic set, X, on which the tree of life stands.

Figure 5: Clustering.



Left: in the phylogram of great apes. Right: in the cladogram of the semantic variety in Titian's style.

Clustering as a *method* of evolutionary biology aims at determining d_N in the tree of life, whereby the number of clusters and the distribution of species in the clusters are determined. The threshold value d_N determines the maximal height of the tree of each cluster. Nodes above lead to other clusters, nodes below connect species in the cluster.

The above procedure results in an important general cluster characteristic: all pairs of objects (species) in a cluster are more similar than any pair from different clusters. I will apply this basic idea of clustering in nature to culture. But I have to acknowledge a complication: in culture, there are generally no cardinal scales available for clustering as there are in nature. Mostly, only ordinal scales are available. In order to apply the method from evolutionary biology to the field of culture, the ordinal scale must first be converted into a cardinal scale. The concept of rank distance from Table 7 is useful for this purpose.

Clustering in Culture

Titian's semantic style cladogram in Figure 5 (right side), only contains ordinal information, for example that A and D are more similar than A or D and B or C (and vice versa). Rank distance, d_{ij}^{r}, is, however, defined on a cardinal scale. Cardinal scaling is problematic in culture, as has been already stressed a number of times. However, the concept of rank distance does not presuppose cardinality in culture. It merely deduces cardinality from the available ordinal information. This is because rank distances are derived solely from ordinal rankings of objects, $\underline{r}_i = (r_1, \ldots, r_k, \ldots, r_M)_i$, in the feature space, $\underline{m}_j$. Therefore, the core idea of the 'haircut in a headstand' method is solely based on such intuitive ideas as those summarised in Table 7. The similarity of two objects is lower the more other objects are ordinally ranked between them in a given feature, and the more features this applies to. Similarity is greater the more objects there are that have not moved ordinally in between them. And identical rankings are possible. These are modest demands on the world of objects, which are not generally unachievable in the field of culture.

The semantic variety in Titian's individual style is just one example. In a simple, initial approach, the feature vector, $\underline{m}_j = (m_1, \ldots, m_M)$, only generates a two-dimensional space, i.e. $\underline{m}_j = (m_1, m_2)$. Feature m_1, say, shows itself in the work as the significate 'the human being as the most special in all of creation', and feature m_2 as the significate 'the human individual in its own particular highs and lows of being human'. Titian's Paduan early works (A) and his late mythological phase (D) are positioned next to each other (or on equal rank) in

feature m_1, with his still lifes (B) and portraits (C) in third and fourth place respectively. Let's apply to this the rank principles of Table 7.

The existence of B and C lets A and D move closer together in terms of rank distance and vice versa. This is intuitive and is what people always do when ranking three (or more) objects by their features. While two of them may have already been ranked before, when a third is added, the previous two are seen in a different light. And looking at the first two objects, but taking an additional feature into account, they are again seen in a different light. Titian's early Paduan works (A) and his late mythological phase (D) rank in feature m_2 behind the still lifes (B) and portraits (C), which are at the top of this list in this feature, one immediately after the other. Once again, A and D move closer together, as do B and C, and thus both pairs move further apart.

Using the intuitive rank distance principles from Table 7, the variety in Titian's semantic style, obtained by ordinal comparisons only (Figure 3), has been replicated in Figure 5 (right side). Therefore, the use of the rank distance concept, with its cardinal scale, is not *per se* an impermissible analytical operation in the field of culture. The field of culture is not closed to cardinal scales, only they have to be chosen with care. The rank distance with its properties from Table 7 reflects ordinal aspects of comparison that connoisseurs of culture (such as art historians and art critics) deem important. When constructed from rank distances, length as a measure of diversity, based on comparability, can make sense in culture as well. The phylogram representation, in other words, is not necessarily incompatible with culture.

I claim that consumers too, are capable of making similarity assessments of objects as expressed in the rank distance principles. For this, as an inexperienced museum visitor, the consumer does not need to know what Renaissance is, nor know Titian's stylistic signature. It is sufficient when consumers understand their own similarity assessments as for the time being only, and are ready to revise them if new considerations arise in the form of additional reference objects or additional features. It is in this sense that I define the productive consumer as an economic agent that is *able to learn* in the world of objects.

In culture, the threshold value of the rank distance, d_{ij}^r, has the same function as the threshold d_N for clustering in nature. Rank distances, d_{ij}^r, above the threshold are those of objects in different clusters. Higher thresholds tend to result in fewer clusters with more objects in them. Lower thresholds tend to result in more clusters containing fewer objects. Distance d_K in the cladogram of Figure 5 (right side) *represents* (has the same effect as) the threshold for the rank distance: reduction of d_K tends to result in more clusters containing fewer objects and vice versa. However, d_K *is* not the threshold value of the rank distance,

because in a cladogram, visualising ordinal relations only, it would be meaningless as a cardinal value.

Using the threshold for rank distance, the worker in the sorting plant of culture can perform clustering by shifting d_K up or down. This is also a purely ordinal procedure. If it is adjusted as shown in Figure 5 (right side), two clusters, Q_1, Q_2, follow, Q_1 containing objects A and D and Q_2 containing B and C. With this threshold, the beholder regards Titian's Paduan frescoes and his mythological paintings as being so different from the still lifes and portraits that the pairs are packed in different clusters. Until further notice, they belong to separate trees. For the beholder, the differences in the semantic features have been brought to the fore so much that similarities between objects belonging to different clusters seem to disappear. The perspect manager accomplishes this as well.

The perspect manager determines the level of abstraction at which clusters are formed in the 'haircut in headstand' method. Several options always exist. In art, clusters can, for example, be formed at the genus level (music, object art, performing arts) or at the geographical (Asian, American, African, European) or epochal level (antiquity, Medieval, Renaissance, etc.). Or, clustering can be done within an epoch, say within modernism, into abstract, figurative, naïve art, Surrealism, Pop Art, the modern classical, Cubism, Art Nouveau, etc. Different clusters are created by different levels of abstraction, defined by the perspect manager. The higher the level of abstraction, the greater the order of the output of culture's sorting plant, the lower the level of abstraction, the less ordered its output.

The question of human agency leads once again to the already familiar answers. For most of the individuals the perspect manager does the 'haircut'. Style leaders, on the other hand, manipulate the threshold value d_K. As the style leadership's following grows, the threshold set by the leadership is taken over by the perspect manager of the style followers. The ordering $\{\circ, |, \text{⫛}\}$, of the world of objects $(X, \square)$, is crafted by style leaders, and as 'crystallised history', it is their legacy. Be they political leaders like Peter the Great or Ramon Magsaysay, philosophers like Herder or Kant, artists like Bowie or Warhol, or nameless people, it is the style leadership that bequeaths the way in which the world is seen as ordered.

Style Leadership and Innovation

From what has been said so far, I can now define the scope of actions of the individual – human agency. Two types of agency exist, the style followers and the style leaders, which interact via the perspect manager. Style followers are

controlled by the perspect manager, which in turn is (partly) controlled by style leaders. Table 8 lists the scope of action of individual agency.

Table 8: Individual agency.

Individual Agency in the World of Objects	
Style Leader/Experimenter	*Style Follower*
Manipulates the feature space $\underline{m}_j(\square)$ and thereby the characterisation of objects $\underline{x}_{ij}(\square)$	Adopts $\underline{m}_j(\square)$ and hence $\underline{x}_{ij}(\square)$
Manipulates the sympathy vector in case of cardinal feature values $\underline{\nu}(\square,\underline{m}_j)$	Adopts the sympathy vector $\underline{\nu}(\square,\underline{m}_j)$
Instructs on how to cluster, e.g. to reward extreme or moderate feature values	Follows the instructions
Sets the threshold value d_K for clustering	Performs clustering with the threshold value d_K
Enlarges the world of objects as inventor $(X,\square)$	Deploys inventions
Reactivates pre-existing objects for a style	Dares using reactivated objects
Both jointly determine the viscosity of the style by their *0/+consumption*	

The productive consumer is productive either as style leader or style follower. Depending on this, they have different options for action.

Style leaders/experimenters can manipulate a style by manipulating the work performed by style followers in the sorting plant of culture. They have various options for action. They can induce style followers to search the world of objects for new features or to disregard previously heeded ones. They can induce them to alter the weighting of features in the case of cardinal feature values they themselves may have set. They can induce their followers to cluster objects by giving priority to moderate or extreme feature values. And they can induce the clustering of the world of objects into more or less finely subdivided styles.

The above manipulations of their followers depend on communication. Style leaders may write or speak, but they communicate most effectively by showing. Setting an example, they show what they think is suitable for their followers. Or their followers take example from the leadership, which they did not intend to be followed.

Style leaders have yet another option for manipulation. They can be inventors by enlarging the world of objects, X. Works of art are such inventions, as are new DIY consumer goods, or amateur performances like parkour, or the music of the

Sex Pistols. Through the creation of inventions in the world of objects, new styles may even appear as if from nowhere. It is in this sense that Picasso's *Demoiselles d'Avignon* (1907) is regarded as the pioneering work of Cubism.

Alongside inventions for the world of objects, there are also (re-)activations of objects (formerly) used elsewhere, which now suddenly belong to a given style. Style leaders in hipsterism amply apply this innovation technique. The jute sack, the sleeveless, white, fine-ribbed undershirt worn visibly, the cheese cutter cap, horn-rimmed glasses and the moustache – all these things existed before. Hipster style leaders merely retrieved them all from consumerism's warehouse. And it is not a rare occurrence that the inconspicuous (the jute sack before reactivation in hipsterism) or something utterly alien to a style (the mohawk hairdo before activation in punk) turns into a paradigmatic object that stands almost on its own for the style as a whole.

Such style leadership manifests itself only superficially in the introduction of reactivated objects into a style. The crucial question is how style leaders can succeed in such a coup. After all, the perspect manager had previously manipulated the followers into giving object, x_j, the rank distance, d_{ij}^r, which is 'larger' than the threshold level, d_K. This is exactly why that object had initially been sorted out of this style. This makes it clear that the stylistic innovation technique of reactivating an object must be futile without the aid of one or more of the other manipulation options in Table 8. Reactivation will only be successful if style leaders are able to modify the way in which followers work in culture's sorting plant. The fine-ribbed undershirt, the mohawk hairdo, the tattoo or the petticoat must be legitimised into a style by the style leadership, by way of their manipulation of the work practices in culture's sorting plant. This legitimization process has been studied in detail in a number of cases. For instance, how the tattoo, previously classified as subcultural (sailors, criminals), has become fashionable in the mainstream.[5]

Human agency in the world of objects, as summarised in Table 8, is a differentiated concept. In particular, it is not limited to the purchasing act alone, as is assumed by the orthodoxy. There, it is essentially a stunted concept, limited to calculation, purchase and devouring, however much methodological individualism pretends to properly account for self-determination and autonomy of action. But this is not what actually happens in this scientific practice.

Human agency, as defined in QTC, is rich in the means by which people pursue their goals. Human agency is rich because it includes the shaping of culture, which is a non-issue in the orthodoxy. There, the individual acts *de facto* outside

5 Irwin 2001.

of culture, because, due to assumptions regarding its options for action, it has no way of influencing it. In QTC, culture is 'crystallised history' that has been written by the style leadership. It is the history of stylistic innovation. Style leaders and all those who dared to experiment with the world of objects wrote this history. And all those who experiment with it today continue to write it.

Style followers have more limited options for action. They are told by the perspect manager how to see the world of objects. For them, culture cannot be shaped. Culture remains 'crystallised history' as long as they do not dare to experiment with the world of objects. In spite of this, the theory of the style follower, as presented here, is still a richer theory of action than that contained within the orthodoxy. There preferences for alternative goods have fallen from the sky. In QTC the style follower also has exogenous (sorting) preferences, but these preferences are endogenously shaped by style leadership.

Repertoire and Structural Fluidification

The agency specified in Table 8 is an operationalisation of the repertoire theory of culture, which determines a set of evaluative criteria by which people justify their entitlement.[6] Within QTC this entitlement concerns social distance and proximity. Culture's instructions given to its sorting plant, form this set of evaluative criteria, by which style followers justify their entitlement. This set is in turn manipulated by the agency of style leadership. The order created by the sorting instruction, (X, □), is the communicative repertoire with which these entitlements are realised, for example by communicating one's own 'discriminating taste'. From the perspective of repertoire theory, culture is not a general way of living, but a 'toolbox', □, of mental frames, schemata and categorisation modes, with which people make sense of the world.[7] In QTC, this world is the world of objects and with the repertoire of style leadership the world is changed.

The agency developed here shines a light into the black box of alternative sociological theories. Bourdieu's sociology of distinction is a structural theory in which pre-existing class structure determines class-specific preferences, which in turn stabilise that structure.[8] For him, culture is 'crystallised history'. The agency summarised in Table 8 (right side) coincides with Bourdieu's view if you assume that there are no style leaders/experimenters. Agency then is reduced to

6 Boltanski and Thevenot 2006.

7 Swindler 1986.

8 Bordieu 2010.

the execution of all that the perspect manager prescribes, which in turn dictates that which stabilises the social structure. Societal development is non-existent. That is typical of modernist sociology, from the viewpoint of which – according to the agency defined in Table 8 (right side) – societal development is somehow inhibited by (power) structure. In Table 8 (left side), however, is listed what exactly needs to be inhibited by the (power) structure to prevent cultural development. QTC identifies the prerequisites for structural theory – and postulates that they are not fulfilled: the repertoire of style leadership makes social structure fluid.

Postmodernist sociology, on the other hand, postulates that everything is determined by the free will of the individual.[9] However, *how* this can happen is also kept in a black box. Here, too, QTC takes it a step further. A stylistic structure that manifests itself in elective affinities is created by agency as defined in Table 8 (left side). It is created by inventing new or reactivating old objects, and above all by manipulating the way in which the style followers work in the sorting plant of culture.

Stylistic Viscosity

What is the contribution of consumption itself to stylistic innovation? Style leaders exemplify the new in their *o/+consumption*. And style followers then show individual variations of this in their own *o/+consumption*. So, if the style leadership innovates by means of its *o/+consumption*, then this shouldn't be categorically ruled out for its followers.

This is why I assume that every individual style, every individual *o/+consumption*, contributes to the stylistic innovation of the common style in which it is nested. Whoever is contributing to the colourfulness of the world is contributing to stylistic innovation. This is a trivial, almost tautological statement. It becomes more substantial though when it is coupled with a concrete idea of how individual styles affect the common style. The idea of the *viscosity of style* offers this substantiation.

I have defined the similarity of two objects by the rank distance, d_{ij}^{r}, having the properties listed in Table 7. Stylistic viscosity is then a result of the in-between and the outside principles. If a new object is added to the set and its feature values are positioned between object x_i and object x_j, their rank distance increases (in-between principle). It decreases if the feature values of the new object

9 Schulze 2005.

are completely different from those of x_i and x_j, that is, if an 'exotic' is included in the appraisal (outside principle). The uniforms of the general and of the lieutenant fall apart in their similarity if the uniform of the major (with more decoration than that of the lieutenant and less than that of the general) is included in the appraisal. And all three move closer together if the samurai's garb is also taken into consideration.

The similarity in any subset of objects is thus affected by every extra object added. But this is exactly what each individual style does with new objects that differ either slightly or markedly from those already contained in the subset of the common style. Each new object that is added to an elective affinity affects the similarity of two already existing objects in its common style. In that way, the individual style affects how viscous or thin the fluidity of a common style is, that is, how close or distant its objects are from one another. Thus, the viscosity of the common style of an elective affinity is affected by each and every o/+*consumption* therein, be it the individual style of a style leader or that of a style follower. Stylistic viscosity is the fruit of multiple agency. This is why in Table 8 the bottom row is merged into one, for both the style leadership and its followers.

But even here, the style leadership differs from its followers. The inventions and (re)activations of style leaders tend to make the common style more viscous. This is because they occupy the peripheries of the common style, introducing the 'exotic', such as the mohawk hairdo, which causes all other objects of the common style to become more similar, according to the outside principle. It is precisely because the mohawk hairdo is so completely different from piercings, safety pins in eyebrows, full-body tattoos and apocalyptic clothing that it causes these elements of the common punk style to become more similar. So, the coherence of a common style is paradoxically increased by rule-breaking inventions and the reactivations of misfits in elective affinities.

Style followers, with their hesitant experimentation in their o/+*consumption*, here and there applying a nuance differently from everyone else, position themselves with their new objects in the midst of their common style. They introduce similarity to a style, which, according to the in-between principle of rank distance, causes everything else to become less similar. It is precisely whenever the similar is so very similar to what has already been seen that it lets what has already seen become less similar. So, the coherence of the common style is *diminished* by rule-compliant o/+*consumption*. Which is why it is so difficult to describe the mainstream in terms of style. Due to their sheer number, the followers in the mainstream style drive it apart.

Here you are confronted with a stylistic innovation paradox: style leaders hold a common style together by violating its norm, style followers drive a style

apart by adhering to its norm. Yet the mechanism behind the innovation paradox is simple: what falls outside of the norm directs the eye all the more to what is common to the normal, whilst what stays in the norm directs the eye all the more to what falls outside of it.

Classification of People

The workers in the sorting plant of culture cluster objects into styles, and by doing so create styles. They also have to sort people into groups, thus creating social groups. Elective affinities do not fall from the sky nor are they created by *o/+consumption per se*. Rather, they are created by sorting the observed *o/+consumption* into clusters, which only come into being through this process. Feature recognition and feature processing of objects must be transferred to the recognition and processing of the features of people, according to '*Le style c'est l'homme même*'.

Consumer k establishes a subset of N objects, $(x_1, \dots, x_i, \dots, x_N)_k$, by their *o/+consumption decision*. They show this subset to the worker in the sorting plant of culture. The consumer shows, for example, all objects A to D from Figure 5 (right side), by talking about and praising them (behaviour) or by hanging them on the wall as prints. The worker only needs to see this subset as an ensemble. The worker achieves this by pushing the threshold value of the rank distance, d_{ij}^r, so far up that all rank distances in the subset $(x_1, \dots, x_i, \dots, x_N)_k$ come to lie below the threshold value. To 'see as an ensemble' is seeing the subset of objects shown by the consumer as a 'natural', exogenous cluster of objects, from which, for reasons of consumer sovereignty, an object can neither be removed nor added. Adjusting the length of the haircut, d_K, is the means by which the ensemble becomes visible as such. *Le style c'est l'homme même* is the very order of this 'natural' cluster of objects, revealed by the 'haircut in a headstand' procedure. If the worker is able to make sense of a consumer who has surrounded themself with Louis Armstrong records (A), batik scarves (B), Klimt pictures (C) and a vintage car (D), then the 'haircut in a headstand' procedure has revealed a level of abstraction at which the worker sees *l'homme même* in A to D.

This 'natural' cluster of objects belonging to consumer k is their individual style, s_k. It is an order, such as the one in Figure 5 (right or left). The worker can conceive of it as a single object, with specific features such as those from the phylogram or cladogram in Figure 5. Other consumers show themselves to the worker in this same way by their individual style, s_j. Thus z individual styles, $s_1, \dots, s_j, \dots, s_z$, appear before the worker in culture's sorting plant.

The worker's job now is to cluster the z individual styles in n common styles, S_i, $1 \leq n \leq z$. They could classify all consumers as singletons, as stylistically unique, by giving them a short enough haircut. Then $n = z$ and a society with no inner structure would be produced. Or they could gather all individuals into a single cluster, into society as a whole. In a clustering where $1 < n < z$, the worker groups consumers with similar individual styles into a common style of which there are several. This group formation is accomplished in the same way as in our earlier thought experiment of the construction of the tree of life, namely by constructing rank distances between individual styles on the basis of the features of their objects and then shifting the threshold value, d_K, up or down. The common style, S_j, is then a cluster of m individual styles, $s_1, \ldots, s_j, \ldots, s_m$, whereby an individual style cannot belong to more than one common style, and whereby $m \cdot n = z$.

Preferences and the Nucleus of the Social Space

This clustering of consumers with their individual styles, s_j, into groups that share a common style, S_i, is the nucleus of the social space. That nucleus now needs to be characterised.

In my postmodern approach, the social space is *constructed* from the world of objects. Workers in the sorting plant of culture sort people by sorting the objects that they show and do not show. Taking that approach, without the world of objects there is no social space. But it is the heuristics that culture conveys that make the job of sorting manageable. Without culture there would be no sortability, without sortability there would be no social space. Therefore, without culture there is no social space. Culture exerts its power indirectly. Culture does not implant sortability into the objects themselves, but rather determines the *sorting preferences* of individuals, according to which workers in the sorting plant perform their job: this or that feature vector, this or that weighting within it, this or that curvature of the ranking function, this or that threshold value for the 'haircut'. It is worth stressing that in QTC the preferences do not determine what the consumer likes to consume, as they do in the orthodoxy, but instead how the individual *wants to perform the job as worker in the sorting plant of culture*. Preferences here determine the *manner of working*, not the manner of consumption. Preferences of the productive consumer are *production preferences*. However, fully in line with the orthodox epistemic credo *de gustibus non est disputandum*, they are the very same for all individuals within a culture.

But while, in the orthodoxy, preferences are equated with a certain *desire for possession*, in QTC's view culture lets preferences be a certain *desire for understanding*. The difference is quite significant. In QTC, culture is a culture of understanding – of how people want to understand the world of objects. The desire to understand is not dependent on a desire to possess. People understand first and only afterwards do they realise what this implies for their happiness/utility. As a consequence, the social space does not arise from the (Veblenian) desire of those who are worse off to also possess, and the desire of those who are better off to show that they possess, but from a coherent way of *understanding* one another.

The idea of the social space went through a metamorphosis in the (mental) transition from modernism to postmodernism. In modernist sociology, the social space is essentially animalistic: hitting and stabbing (Veblen); or (Bourdieu) no hitting and stabbing because hitting and stabbing simply would not change a thing – the idea of economic efficiency entering sociology! In QTC, the social space is instead essentially humanistic: wanting to understand who the other is, how diverse and yet similar being human is. It is curiosity that drives the social, not hungriness and opulence.

It is this humanism that lets people find a home in an elective affinity. Home manifests itself in their common style. It allows room for the individual, which shows up in the individual styles of group members. Thus, the social space is revealed as social distance and proximity. Social distance reveals itself as the difference between the common styles of groups, proximity shows up under the roof of the common style – a proximity in which the individual thrives.

Identification and Identity

The orthodoxy's *Identity Economics* addresses how people manipulate their belonging to one or another social group by utilisation of their resources.[10] This is not a topic in QTC, because it concerns a social world – completely free of money – in which the resources of all individuals are (almost) identical. With this assumption, it is then possible to discover which factors other than resources allow the social to emerge. If, in the Identity Economics approach, all economic agents had the same resources, they would all be buying themselves into the very same social group and the social world would be desolately monotonous. In QTC, the social world would only be monotonous if there were only one consumer good. An ordered world of objects alone, $(X, \square)$, which does not consist of a lonely

10 Akerlof and Kranton 2000.

singleton, is in QTC sufficient to allow social diversity to emerge. Here, the diversity of the world of objects is not due to the need for a social world, but the diversity of the social world is due to the diversity of the world of objects. In QTC, the world of objects is causal for the social world and not vice versa.

Common to both approaches is that they shortcut the process leading to social identity. Both abstract from the process of initiation and (self) confirmation. This process is what allows an individual to become member of a group, after they have identified with the group. In *Identity Economics*, identity is simply paid for by the investment of personal resources – nothing else can prevent the realisation of sought after identity, only too tight a budget. Also, so far in QTC, identity comes about without social resonance.

In Table 1, this simplification is underscored by the perforated vertical arrow pointing from the economic to the social sphere. QTC, as enhanced by social resonance, will be dealt with in Part 3. There, *o/+consumption* will be interpreted as a signal that ellicits feedback from others – good or bad. Identity is thus made dependent on identification-cum-resonance and is the result of mutual understanding. Whereas in *Identity Economics*, identification-cum-identity is the result of simple calculation. There, the identification process is identical to individual optimisation, and to identifying the group, the choice of which maximises their utility. The subsequently attained identity is then given by the group-specific preferences over goods alternatives.

In QTC, the identification process is the work practised in the sorting plant of culture, and identity thus brought about reveals itself in the mutual understanding of the strong similarity of individual styles as the (sole) commonality in a group, jointly with a mutual understanding of the weaker similarity across groups. Together the individual styles constitute a common stylistic home with which the individual identifies. That is: individual i, with their individual style, identifies themself with an elective affinity, precisely because individual j, with their own individual style, also belongs to it; and j identifies with it precisely because i with their individual style also belongs to it. Through reciprocity alone, identification is transformed into identity.

Above-Average Type/Syndrome and Extreme Type/Syndrome

The clustering of objects into a style can be heavily governed by feature values that are a little above average, and weakly or not at all affected by extreme values. Styles that develop according to this principle differ only by degrees of 'neither fish nor fowl'. I refer to them as styles of the *above-average type*. On the other hand,

clustering in a certain style may heavily depend on the existence of extreme feature values. A style that has been built upon this principle shows as a whole the extreme. I call it a style of the *extreme type*. Styles of the above-average type have in common not *what* they show, but *how* they show it, i.e. with what is simply a little above-average. The same applies to the extreme type of style: whatever it shows, it shows to an extreme.

Again, the issue of human agency arises. And again, the answer is that for most consumers, the perspect manager (of culture) dictates whether an object is to be clustered according to one or the other principle. What they habitually 'do the right way' is for style leaders a decision to be made. For them, the principle of *how* to 'make' a style is a variable.

Yet, the principle activated by the perspect manager is not the same for all styles. For example, if we assess an object by whether it is mainstream, we give less weight to some extreme feature values (such as how extremely inconspicuous the grey of the flannel trousers is, or how very English a jacket is). Instead, we give credit for the presence of sufficiently typical features: not impractical, not really colourful, not really extravagant, not really cheap, etc. Mainstream objects show enough of everything that makes them what they are, nothing more extreme is needed. The flower power and the esoteric styles also do not prize the extreme, although it's not completely ruled out in the details. The fabric must be sufficiently cheap, the cut sufficiently flowing, the material sufficiently natural.

The colours of the drag queen, on the other hand, should not just be colourful, they must be shrill. Due to its extremeness, a safety pin in the eyebrow as depreciation of bourgeois jewellery almost makes the punk on its own. Ellsworth Kelly's *Red Blue Green* is an object of the extreme type: red, blue and green are of the purest colours, the lines of greatest sharpness. Minimalist objects all belong to the extreme type: if it's canvas, it's without a frame. Dada rewards the extremely provocative. Marcel Duchamp's *Fontaine* (1917) provoked his contemporaries not only by insisting that even an everyday object, properly staged, can be art – no, it had to be exemplified by a urinal. Objects are attributed to punk, minimalism and Dada according to the extreme principle. Thus, they all belong to the extreme type.

The consistent adherence to one of these principles of classification produces complementarities between the world of things, patterns of behaviour and moral values, and generates a comprehensive style that embraces all areas of life. Why? Because the type-specific principle is a blueprint both for legitimation strategies (values) of individuals as well as for their role model (behaviour). Showing extreme feature values from the world of things is a non-verbal legitimation of their generalisation beyond the world of things. Whoever shows the extreme, can

themselves be extreme (behaviour), and also demand it of themself and others (values). This is because the coherence demonstrated between things, behaviour and values is what makes a person authentic. Whoever shows only slightly above-average things, may be slightly above-average him or herself, and may also demand little from others. The concept of somatic style (see chapter 2) precisely addresses the coherence between the world of things, personal behaviour and internal values.[11] This all-embracing coherence of *how* a style is made accounts for the type of style.

How a style is made has consequences. The production principle unfolds effects beyond the style. That which is extreme provokes other elective affinities; that which is only above-average does not. What is extreme catches the eye, what is just above average does not. Instead, the above-average helps overcome conflict and bring about harmony, which the extreme cannot. Herein we find confirmation of the insight, discussed in chapter 2, that there cannot be a clear distinction between the *how* of a style and its *what*. The principle of production (how) also influences the effects of object and style.

It is worth reserving the terms 'above-average type' and 'extreme *type*' for the constitutive principles of production, and to use the term 'syndrome' for their effect on other elective affinities. Accordingly, I use the term 'above-average syndrome' when I refer to the effect of the making of the above-average type, and extreme syndrome when I refer to the effect of the style of the extreme type.

Table 9 classifies styles according to the above-average and extreme types and the above-average and extreme syndrome. Many of the cases discussed in chapter 1 are examples of either one or the other.

11 Shusterman 2011.

Table 9: Styles of the extreme and above-average type.

Extreme Type (Syndrome)	Above-Average Type (Syndrome)
Dandyism (19th century)	Gentleman (18th century)
Juvenile gangster style	Classicism in Naples (19th century)
Kogyaru	Vienna Secession
Hiphop	Hipster
Skinheads	Reggae/Rastafarians
Punk	

The types are distinguished by the way styles are 'produced', involving the use of objects with extreme versus above-average feature values. The associated syndrome is the overall effect of the alternative production principles on the style system as a whole.

The dandyism of Beau Brummel is of the extreme type, effecting the extreme syndrome. His wardrobe selection, heightened to the extreme, is combined with behaviour that elevates exclusivity to the point of aloofness, and values that make disdain for others a virtue. Unsurpassed superficiality is considered the pinnacle of excellence. By contrast, the gentleman of the English provincial town in the 18th century belongs to the above-average type, effecting the corresponding syndrome. Wealth is only displayed to the point of decent distinction, appreciation also granted to the less fortunate, liberal education emphasised.[12]

The juvenile gangster style is of the extreme type: clothing that is expensive for youth is combined with their constant readiness to punish for the slightest sign of disrespect, and with the glorification of the jail experience. In contrast, the better Neapolitan society in Emma Hart's time is of the above-average type. Unlike Beau Brummel, the admirers of the classical did not have to labour day and night to hone their stylistic clout and work their way to total victory or defeat. Their path to happiness/utility lay in quiet enjoyment and in sensible conversation, and was closed to no one.[13]

The Japanese *kogyaru* is of the extreme type. The complexion should not appear a little tanned, it must be deeply tanned. As if there were no black-haired Europeans, the hair must be dyed blonde or brown. The colour of the contact lenses must be exactly according to the supposed Western ideal, and the

12 Stobart 2011.

13 Rauser 2015.

behaviour must be far from the Japanese oneness with the whole.[14] The syndrome manifests itself in the irritation of the Japanese mainstream, which retaliates with the term *kogyaru* – infantilised girl. The Vienna Secession, in turn, is of the above-average type. It did not dictate exactly how society should be, but rather, in quite different artistic ways, merely exemplified what it was no longer supposed to be. Klimt's castrating *femme fatale* was a truth, because it showed the lie, it was not dogma about the way things had to be. Exclusion of the wrong instead of definition of the right allowed Klimt a well-off life (syndrome) between court (party) and bohemianism.[15]

The hyper-masculine hip hop is of the extreme type: macho values, macho behaviour and macho clothing as a celebration of the extreme. Only in baggy pants is there a real 'dick', what's contained in skin-tight pants is contemptible, in fact evil.[16] The hipster is of the above-average type. He stands out visibly from the average of the mainstream, but only to a certain degree – with single items that the mainstream has just dumped yesterday, with values that don't really provoke, with behaviour that allows for living in the midst of the mainstream (syndrome).[17]

Skinheads are of the extreme type. They reject everything contained in the prettiness of the bourgeois. Proletarianism is elevated to lumpenproletarianism. Living on the fringes of the mainstream is impossible, only outside of it is life possible.[18] And from the point of view of the mainstream observer (syndrome), that is where they indeed belong. Reggae, born from slavery, is once more of the above-average type. The musical escape 'back to Africa' by turning to the white Bible, which did not provoke the ruling classes, produced black identity through minimal differentiation.[19] Its modern offshoots, the Rasta dreadlocks, khaki pants and marijuana, are only of moderate conflict potential for the mainstream (syndrome). In turn, the punk, this super-alienated creature showing self-mutilation, full-body tattoos, apocalyptic clothing and a mohawk hairdo is, in its constant rejection of any form of conformity, of the extreme type.[20]

14 Black 2009.

15 Néret 2007.

16 Penney 2012.

17 Greif, Ross, Tortorici and Geiselberger 2012.

18 Hebdige 1988.

19 ibid.

20 Force 2009.

New Age and Performance Cult

The philosopher Mario Perniola distinguishes two fundamentally different lifestyles: *New Age* and *Performance Cult*.[21] New Age is the aesthetic confluence of esotericism, Eastern spirituality and alternative therapies. It features a flat intellectual profile and the lack of a rigid ethos. Experience of the self in harmony and reconciliation is the goal. The world is portrayed as if conflict and contradiction could be overcome by means of quietude and conciliation. For Perniola, the somaesthetic experience of New Age is similar to that of weed (cannabis).

In contrast, Performance Cult conveys a somaesthetic experience similar to that of speed (amphetamines). It features emotional overinvestment, performance pushed to the limit, and constantly setting new records. The Performance Cult does not aim for enjoyment, but for the constant upkeep of excitement. For Perniola, New Age is a modern offshoot of the classic Kantian aesthetics, with the ideal of the detachment of the true art lover. The Performance Cult is for him a modern variant of Baudelaire's anti-aesthetics of excessive interest, with the dandy as its paragon.

Parallels exist between Perniola's lifestyle concept and the production type concept of styles that has been elaborated here. They both show themselves in an aesthetic union of things, behaviour and values. In both lifestyle and production type of style, what belongs together comes together. New Age and the above-average type of style form a tandem. New Age's lack of rigid ethos and its low demands on intellectuality are selected with the stylistic production principle of the above-average type. Moreover, the low weighting of extreme feature values facilitates the quest for harmony and the overcoming of conflict and contradictions. Performance Cult and the stylistic production principle of the extreme type also form a tandem. There is nothing more effective for exaggeration and constant excitement than systematically rewarding extreme feature values of things, behaviour and values with a bonus. New Age and the above-average production type of style, on the one hand, and Performance Cult and the extreme production type of style, on the other, are kindred.

However, because each concept – lifestyle and (production) type of style – has pros and cons over the other, depending on the question at hand, I will distinguish them further. For an ongoing interest in the sorting plant of culture, the concept of the (production) type of styles has its advantages, because the lifestyle concept, be it weed or speed, is focused only on the output of the sorting plant. It doesn't tell us *how* (as if by an invisible hand) things, behaviour and values have

21 Perniola 2007.

become coherent. The distinction between the above-average and extreme type of styles discloses the sorting *procedure* that leads to a coherent style. However, this comes at a cost: the cultural wealth inherent in the idea of lifestyle, is partially lost in the idea of the production type of styles.

Another advantage of the concept of the (production) type of styles over that of lifestyle is that the term 'style' can be reserved for what is specific to the group and the individual in it. The term 'style' thereby covers something different from Perniola's lifestyle, which takes effect only at the (meta) stylistic macro level. In contrast, QTC is more micro-focused. It starts from the premise that striving for social distance and proximity manifests itself not only in a few lifestyles, but in many different variants of them. The world of objects offers potential for shaping social life that remains untapped by lifestyle alone. This will be the subject of the next chapter.