

Chapter 3

Distant and Near Vision

"There is a correct tree of life [...]. The same cannot be said for judgements of taste or of museum convenience."

*Richard Dawkins*¹

"[A]s if people were always looking down on others, and as if it were not part of our daily experience that others can be strangers to us in ways that leave us with no say as to whether they are located 'above' or 'below' us."

*Gerhard Schulze*²

In *The Ancestor's Tale – A Pilgrimage to the Dawn of Evolution*, evolutionary biologist Richard Dawkins reports the state of knowledge about the 'true' tree of life – and warns us *passim* against hoping to discover such a tree outside nature. His warning is preaching to the choir of cultural studies: the echo from there is that cultural order is always ambiguous. But exactly why a 'true' cultural order can't exist is a matter of disagreement. So, in this chapter I will begin exploring what exactly makes culture so ambivalent. To this end, I will first aim for the greatest imaginable formal analogy between nature and culture. For this, I conduct a thought experiment to define the cultural equivalent of that which, in biology, determines the dissimilarity of two species – the molecular order in the genome. It is in the differences between the molecular order in nature and the 'molecular' order in culture that we discover the causes of the cultural ambiguity emphasised in cultural studies.

1 Dawkins 2005, p. 178.

2 Schulze 2005, p. XXI.

We need to work with two key concepts: *dissimilarity* and *diversity*. Diversity is grounded in dissimilarity, which is why both come as a pair. But since there exist (at least) two concepts of dissimilarity, there are two corresponding concepts of diversity, making up two pairs of dissimilarity-cum-diversity, in which *o/+consumption* can be further explored. In this chapter, I will assign each pair to a different aspect of identity, the individual and the collective. So, finally, social distance and proximity as well as the common and individual style are all based on these two different pairs of dissimilarity-cum-diversity.

Excursion: from Nature to Culture

In *The Ancestor's Tale*, Richard Dawkins shows how kinship in a subset of species is coded in their genomes. Surprisingly, he is using an example from culture, where, as he claims, the same order of dissimilarity is found: in different versions of an original text, copied long before the invention of letterpress printing, when generations of copyists continuously made new mistakes and perpetuated existing ones. The analogy between nature and culture is extensive. The extinct common ancestor of a subset of species, for example today's gibbon monkeys, corresponds to the lost original of a literary work – in Dawkins' example, *The Canterbury Tales* by Geoffrey Chaucer from the 14th century. The copies of the *Tales* that exist today correspond to a subset of live species, for example the twelve species of gibbon monkeys. Differences in the coding of amino acids in the DNA (the molecular source of morphological differences between gibbon monkeys) correspond to differences in the spelling of words and phrasing of sentences in different versions of the *Tales*. The genome of a gibbon species corresponds to an entire text of the *Tales*. The genetic mutations of the DNA over time correspond to mutations due to copying errors in the *Tales* over time. Furthermore, evolutionary biologists and linguists share the same plausibility-based conviction: degrees of kinship of (natural or artificial) objects do not result from convergence from many different origins, but from divergence from a single origin, from a common biological ancestor or, in Dawkins' example, from Chaucer's original.

Following Dawkins – and in order to better grasp the common 'molecular' order of dissimilarity in nature and culture – let's take the first line of the Prologue of the *Tales* in four of the still existing versions, V1 to V4:

V₁: »Whan that Aprylle / wyth hys showres soote«

V₂: »Whan that Auerell w' his shoures soote«

V₃: »Whan that Aprille with his showres soote«

V₄: »Whan that Aueryll w' his shoures soote«

In biology and linguistics alike, dissimilarity is identified via commonalities and differences in sequences: in biology via sequences of DNA, in linguistics via sequences of letters and punctuation marks (which in biology encodes the building instructions of phenotypic expressions and in writing the expression of entire texts).

Table 2: ‘Molecular’ order of dissimilarity.

Line one in the prologue of four versions of the Canterbury Tales								
V ₁ :	Whan	that	<i>Ap</i> rylle	/	<i>wy</i> th	hys	showres	soote
V ₂ :	Whan	that	<i>Auer</i> ell		w ^t	h ⁱ s	shoures	soote
V ₃ :	Whan	that	<i>Apr</i> ille		<i>with</i>	h ⁱ s	showres	soote
V ₄ :	Whan	that	<i>Auery</i> ll		w ^t	h ⁱ s	shoures	soote

Shown here is a cultural object (text), as an analogy for the molecular order of dissimilarity in DNA (according to Dawkins 2005).

In Table 2, the differences in the first line of the four versions are marked in italics and bold. The complete commonality in the first two words and the last one shows the close degree of kinship of all versions (the taxon of *The Canterbury Tales* – similar to the taxon of the gibbon monkeys). Differences in the spelling of the other words and in the use of a punctuation mark show, however, that they are not identical texts, but different versions. V₁ to V₄ are related, but to differing degrees. V₁ and V₃ are more closely related than either of them is related to V₂ or V₄, which in turn are more closely related than either of them is to V₁ or V₃. The analysis of about 80 versions of the *Tales* has revealed that V₁, the version kept in the British Library, and V₃, the so-called Egerton version, are closely related, as are V₂, the Christ-Church version, and V₄, the Hengwrt version, but both clusters are more distantly related to each other. Dawkins then discusses how biologists, following this pattern of analysis, determine the kinship of species – for example of the twelve gibbon species. This is how biologists determine trees in nature, $\mathfrak{M}$, like the taxon of the gibbons. And similarly, trees can be found in culture, cultural taxa, like the taxon of *The Canterbury Tales*, $\mathfrak{M}$.

Can this correspondence between the genome in nature and *The Canterbury Tales* be generalised within culture? In other words, how does this pattern of analysis have to be modified when you move from one cultural medium to

another – from reading to hearing or seeing? Music too, is a sequence, one of notes, just as the *Tales* are sequences of letters. In music, too, the sequence matters, just as the sequence of letters matters when reading. (By the way, the exact position of a gene in the genome also matters for the formation of the phenotype; the same molecular structure at a different location in the genome causes something different, or often nothing at all.) Thus, the pattern suitable for determining dissimilarities in texts also has potential for determining trees in music. In contrast, the visual, for example painting, behaves quite differently from music in one respect. In music, time conveys information, but not in painting. For example, a song lasts 90 seconds, and it makes a difference when which note is heard in these 90 seconds. One can hardly think of a painting on a timeline. Yet we also find the ‘molecular’ order *mutatis mutandis* in painting.

Art historian Heinrich Wölfflin paved the way to this insight. Even before Kandinsky’s *Point and Line to Plane*, Wölfflin introduced that very same analysis of paintings – syntax above semantics, interior above exterior, genotype above phenotype – to art history. He discovered the syntactic (inner, ‘molecular’) differences between Renaissance and Baroque painting and thus discovered two distinct styles (taxa) of painting. Four of their syntactic distinguishing features are the principles of focal point, line design, spatial composition and illumination. Together they form a feature space in which objects, in this case paintings, can be positioned.

The *focal point principle* is all about where the eye of the viewer is directed – at a single thing in the painting, behind which everything else recedes (one focal point), or at multiple (or no) focal points. High Renaissance painting features multiple focal points. Thus, in Leonardo’s *The Last Supper* (1495–97), not one person stands out from the group, not one recedes behind the others. In contrast, in Rubens’ triptych *Descent from the Cross* (1612–14) the viewer’s gaze is directed not only at the central panel, but also away from the masses of live figures towards the one dead body.

According to the *line design principle*, lines create shapes (for example, bodies). Lines, and thus the boundaries of shapes, can be painted or drawn sharply or blurred. In *The Last Supper*, Leonardo’s lines are sharp and the bodies stand out clearly from each other and from the background. In *Descent from the Cross*, Rubens’ lines are blurred, and the bodies blend into each other and into the background.

The *spatial composition principle* involves painted depth versus painted flatness. *The Last Supper* is flat, not in the sense of Kandinsky’s physical plane, but flat in the depth conveyed. There are only two pictorial planes – the bodies and the windows partially concealed by them – whose distinctiveness is not painted

but can only be deduced by the viewer's experience. *Descent from the Cross* depicts bodies set back in spatial depth to the left and right of, and above and below the centre (showing the lifeless body).

The *illumination principle* concerns the effect of painted or not particularly accented light. In *The Last Supper* not a single ray of light is directed at the bodies or the background, the whole scene is without shadow and does not come across as a painted transient moment. In *Descent from the Cross*, some bodies are illuminated and others are shaded, clouds darken the day, and when the lifeless body is retrieved at night, light falls from it on the faces turned towards it. *Descent from the Cross* is not only painted illumination, the illumination also tells a story.

From these syntactic features, i.e. in this feature space, Wölfflin discovered the inner, 'molecular' dissimilarity between Renaissance and Baroque painting styles. Renaissance painting is 'molecular' like Leonardo's *The Last Supper*, Baroque painting is 'molecular' like Rubens' *Descent from the Cross*. For many, this 'molecular' order in painting can not only be used to distinguish Renaissance and Baroque styles but can also be applied more generally. With surprising results. In a generalisation of Wölfflin's approach, cultural sociologist Albert Bergesen analyses *The Last Supper* by Leonardo (1495-97), *The Last Supper* by Tintoretto (1592-94), *Triumph of Galatea* by Raphael (1514), *Red Blue Green* by Ellsworth Kelly (1963), *Hôtel des Roches Noires, Trouville* by Monet (1870) and *Number 1* by Jackson Pollock (1948).³ What is stylistically closer and what is only distantly related?

Art historians favour a diachronic analysis by searching for the chronological origins of artworks, following the principle that 'only what came before can influence what comes after'. *Number 1* is seen as being in the tradition of *Hôtel des Roches Noires, Trouville*, two paintings that they assign to the taxon of modern art, with the second painting positioned closer to their common origin than the first. Art critics, on the other hand, focus more on the phenotype, declaring that the two versions of *The Last Supper* belong together and are only very, very distantly related to *Red Blue Green* and *Number 1*. But how does the dissimilarity of these artworks appear in Wölfflin's feature space? Table 3 shows the findings.

3 Bergesen 2000.

Table 3: Wölfflin’s ‘molecular’ order.

Dissimilarity in painting						
Object subset	Features space Focus point principle	Line design principle	Spacial composition principle	Illumination principle	(Medium)	(Chromatics)
<i>The Last Supper</i> (Leonardo)	multiple	sharp	flat	without	painting	polychrome
<i>The Last Supper</i> (Tintoretto)	single	blurred	deep	with	painting	polychrome
<i>Galatea</i> (Raffael)	multiple	sharp	flat	without	painting	polychrome
<i>Red, Blue, Green</i> (Kelly)	multiple	sharp	flat	without	painting	polychrome
<i>L'hôtel ...</i> (Monet)	single	blurred	deep	with	painting	polychrome
<i>Number 1</i> (Pollock)	none	sharp	flat	without	painting	polychrome

Six paintings (after Bergesen 2000).

In spite of their phenotypical similarity, both versions of *The Last Supper* reveal ‘molecular’ differences: multiple focal points in Leonardo and only one in Tintoretto, sharp lines in Leonardo, blurred ones in Tintoretto, Leonardo’s painting is flat and without painted illumination, Tintoretto’s has depth and illumination. ‘Molecularly’, they only distantly resemble each other despite their common motif. In contrast, ‘molecularly’ similar are Leonardo’s *The Last Supper* and Kelly’s *Red Blue Green* – that is, High Renaissance painting and abstract minimalism have a close ‘molecular’ structure. And Pollock’s *Number 1* ‘molecularly’ only distantly resembles Monet’s *Hôtel*.

Even though, in contrast to Table 2, the sequence of features (in Table 3 from left to right) does not convey any information, in both, dissimilarity follows from the comparison of features in a feature space. And in both, the feature spaces considered are only part of a larger space. The feature space of the *Tales* could be enlarged by the second and third lines, and so on, which would improve the precision of the dissimilarities thus obtained. The feature space in Table 3 could also be enlarged, for example by those features Wölfflin additionally took into account, thus also improving the precision of the dissimilarities obtained. To be

sure, dissimilarity in paintings has the same ‘molecular’ order as dissimilarity in literature, and dissimilarity in literature has the same order as dissimilarity in nature. An interim conclusion can be drawn: the concept of dissimilarity of cultural objects can, in principle, be further developed from the concept of dissimilarity in nature.

Yet, it is precisely here, at the ‘molecular’ level, that fundamental differences surface. Molecules are *in* the DNA and unfold their epigenetic effect *in* the species. Likewise, letters and words are in the *Tales*, and lines are in *The Last Supper*, but their cultural ‘epigenetic’ effect does not unfold there, but in the beholder. Art, for example, is constructed by the artist as representation or exemplification and is interpreted by the beholder, who exploits a degree of freedom in doing so. All the way through to the constructive interpretation of representation and exemplification: the artist’s expressive intention clashes with the expressive interpretation of the beholder. This creates ambiguity in culture that is not found in nature. It may well be that Leonardo’s *The Last Supper* and *Red Blue Green* are the same at the ‘molecular’ level, but that does not necessarily imply that both elicit the same effect. Semantics still remains contingent on context and thus open to interpretation.

Do not confuse this cultural ambiguity with chaos. Nature’s unambiguity is replaced in culture by consensus. When two people agree that ‘a’ exists, then, between them, ‘a’ exists, regardless of whether ‘a’ is based on, say, ‘A’ or ‘B’. Such consensus can embrace all of society, be limited to savants, or be temporary. But it always follows that those, for whom there is consensus in the interpretation of an object, use it amongst themselves in their *O/+consumption* to produce social distance and proximity. Cultural ambiguity is no barrier to the social. But it does fragment it. A shared culture, $\square$, reaches its limits where this consensus ends, beyond it another culture with consensus among other people prevails. Cultural trees, chains and singletons, the whole world of objects, $(X, \square)$, must be understood as existing and valid only for its consensus community. In all such cultures, the dissimilarities in their respectively ordered world of objects remain, however, the result of bilateral comparisons of objects in a feature space, such as the one in Table 3.

Yet another ambiguity comes into play: a group of people can be in complete agreement as to which features are to be included in a feature space. But they can still disagree on how to interpret the feature values, for example, as binary, cardinal or ordinal values. In Table 3, following Bergesen, a binary interpretation of the feature values has been applied: a painting has either a single focal point or else multiple/no focal points; its lines are either sharp or blurred; it has depth or is flat; it has painted light plus shadows or neither shadow nor light. A principle

from nature has been applied: a gene, analogously, has either the feature value a_1 (flat) or a_2 (deep), but never a_1 (flat) plus a little a_2 (deep). Jason Gaiger, art historian and follower of Wölfflin, offers a graduated interpretation of feature values instead.⁴ The line design principle, for example, merely marks the extremes on a continuum of gradations in possible line design. Each painting is positioned somewhere between these extremes. The same also applies to the principle of spatial composition. Every painting is positioned somewhere between the very flat and the very deep. With Gaiger, in the unchanged feature space, there are no binary differences between objects, but graduated ones. They are all varying degrees of flat, purple, illuminated, etc. In the 'molecular' order in the arts, therefore, there exists something that does not exist in nature: analogously, not only do the (instruction for) the whale fin and the hippo's toed-foot exist, but so do fin-toed feet as a melange of both. Here, culture is more complex than nature.

Again, it is culture itself that prevents cultural chaos. Not so much by explicit consensus of the viewers on whether the lines in Leonardo's *The Last Supper* are to be regarded as entirely sharply painted versus only fairly sharply painted (*sfumato*), but rather by a shared habit of observation. But even in a world of ordinal gradation of feature values it is still true that, with a shared habit of observing, dissimilarities remain the result of bilateral comparisons of objects in a feature space, such as the one in Table 3.

A subset of the world of objects that is ordered in a feature space can be a totally ordered chain. At one extreme of the chain, an ideal type is positioned as supremum, for example Leonardo's *The Last Supper*, and the chain shows how close an object comes to the ideal type, considering all the features. In Bergesen's binary approach (Table 3), Leonardo's painting receives 1 point for each feature, i.e. a total score of 4; but Raphael's, Kelly's and Pollock's paintings also each receive a total score of 4. On the chain, they are positioned together on the supremum as four specimens with identical feature values. The Tintoretto and the Monet each score zero in all their features and are positioned on the chain's infimum as two specimens with identical feature values. The chain shows the inferiority of these two paintings measured against the molecular ideal of High Renaissance painting.

In contrast, in Gaiger's graduated approach, each painting is assigned a value between zero and one in each feature and the sum of all its feature values marks its position in the chain. Instruction for cultural ordering, $\square$, can also assign different weights to features, for example assigning a larger weight to the focal point principle than to the line design principle.

4 Gaiger 2002.

In this simplest case, 'graduated' means leading to marks on a cardinal scale. This interpretation of the feature space makes everything else simple. This is because the comparatively better performance of a painting in one feature can be offset against a worse score for another feature. (In constructing phylograms, evolutionary biologists also use a cardinal scale, like that shown in Figure 1 on the right).

But often, in culture, only ordinal comparisons make sense, for example, of sharpness, depth, shadow. With an ordinal scale, and maintaining the 'molecular' ideal type of the High Renaissance as supremum, you arrive at the same ranking as Gaiger would, with the Tintoretto and the Monet 'behind' the Leonardo, the Raphael, the Kelly and the Pollock. On ordinal scales, however, an advantage in one feature cannot be offset against a shortcoming in another feature.

For instance, to me, Ludwig Kirchner's *Scene at a Café* (ca. 1926), discovered in 2016 under his *Sleigh Ride* (1927-29), shows less depth and less shadowing than *Sleigh Ride* and is thereby closer to the assumed supremum of the High Renaissance. But *Scene* directs my gaze to the void in the middle of the painting, whereas it meanders over the whole landscape of *Sleigh Ride*, so that judged by the focal point principle, *Scene* is further away from the given ideal type than *Sleigh Ride* (note that the semantic commonalty of *Scene at a Café* with Leonardo's *The Last Supper* does not play a role in this syntactic assessment.) *Scene at a Café* and *Sleigh Ride* cannot be neatly ranked according to the 'molecular' ideal of the High Renaissance.

Nature is more starkly ordered. The chain of fossils that documents a live species' evolution is a chain reconstructed in a (morphological) feature space. If a fossil from this chain is also an element of another chain of fossils, at the end of which another live species stands, they are not separate chains, but form in the biologists' understanding a tree, $\mathfrak{A}$. This fossil can only be a node or an even older common relic of at least two evolutionary lines. Firstly, because biologists are convinced that all life (including past life) originates from a common origin (the idea of the tree of life!), and, secondly, because the elements at two ends of a branch cannot by definition be ordinally ranked, i.e. the overall order cannot be a chain.

Segmented Order

Culture's complexity can be reduced by taking subsets from the world of objects that can be uniformly ordered, e.g., ordinally. In this example, each object in the subset is ranked in *each* feature against other objects in the subset: a painting that has more depth than another, showing fewer focal points and more blurred lines

and shadowing, is therefore positioned further away from the supremum in the chain. An object of this subset is either superior or inferior to another object in all features (unless they are equal in all features). Such a *dominance order*, $\square_d$, generates cultural chains, |.^{5*} Table 3 is an example of such a complexity reduction by restriction to a suitable subset of objects, assuming culture dictates Wölfflin's feature space: all six paintings can be grouped into two sets that can be ordinally ranked.

In contrast, Lascaux's cave paintings and Picasso's *Les Femmes d'Alger* cannot be unequivocally ranked in this feature space. But perhaps they can in a different one, archaic style. It is culture – 'crystallised history' – that defines the feature spaces and their corresponding scales. With it, human agency sorts the world of objects into corresponding subsets. This creates the symbolic structure of singletons, chains and trees, $\{\circ, |, \mathfrak{M}\}$, the segmented material, with which consumers produce social distance and proximity.

Consumers must come to grips with a multitude of such 'tiny' orderings, standing incomparably side by side. This sets limits as to how much complexity can be reduced. This reducibility of complexity is further limited because an object can simultaneously be an element in different orders. *Scene at a Café*, for example, can be in the dominance order of renaissance, |₁, and at the same time in the dominance order of – let's say – the Kirchner Museum Davos' memorabilia, |₂. Or *Les Femmes d'Alger* can be in the dominance order of the archaic style, |₃, and at the same time with Lyonel Feininger's *Western Sea* (1932) in the dominance order of cubism, |₄.^{6*} Which order applies to a given situation is determined by culture itself.

Summing up: culture is more ambivalent than nature – Dawkins is right. For example, a floor decoration can be an element of the 'authentic oriental carpets' chain or tree, and it can also be an element of other chains or trees, such as family heirlooms or status objects in the home. There is no cogent logic as to how exactly culture, $\square$, glues the world of things and behaviours, X , into an ordered set

5* Let $\mathbf{K}, \mathbf{K} = \{f_1, \dots, f_M\}$, be a finite set of ordinal scales $f_i : X \rightarrow R$, and $i = 1, \dots, M$. The dominance order $(X, \square_d)$, created by $\mathbf{K}$, is defined as follows: For each $x, y \in X$, $x \square_d y$ if and only if $f_i(x) \leq f_i(y)$ for all $f_i \in \mathbf{K}$. That is, x is dominated by y , if and only if x and y are distinguishable according to $\mathbf{K}$ and $f_i(x) \leq f_i(y)$ for all $f_i \in \mathbf{K}$.

6* Fuzzy logic makes various simplifying assumptions about dominance orders to alleviate clustering in 'fuzzy' tasks. Objects that do not meet the conditions for a dominance order in a given feature space are thereby assigned to different clusters to varying degrees, e.g. to Renaissance painting and archaic style to varying degrees. One and the same painting can thus belong to two styles at the same time, more or less (cf. Bothe 1995).

$(X, \square)$, segmented in $\{\circ, |, \cap\}$. Habits of observation, shared within society and being part of human agency, order the world of objects further. Yet, it remains nearly all the time a segmented one.

This segmentation of order is reflected in the dissimilarity of objects. However, the trivial idea of dissimilarity is not the issue here, that the same things (identical specimens) are nevertheless numerically dissimilar. The issue at hand is the non-trivial dissimilarity of strictly non-identical objects that display qualitative differences of some sort.^{7*} These are exactly the objects found in the *o/+consumption* goods type basket.

Comparability

The phylograms of evolutionary biology are based on the following understanding of dissimilarity⁸:

Definition DIS_c : two objects are dissimilar if and only if they are distinguishable and comparable.^{9*}

Comparability concerns two objects that are asymmetrically related to each other: object a is darker, older, livelier, smarter or more valuable than object b,

^{7*} Every binary dissimilarity relation is irreflexive and symetrical: a and a cannot be dissimilar and if a is dissimilar to b, then b is dissimilar to a.

⁸ Basili and Vannucci 2013.

^{9*} Definition of dissimilarity as comparability: $P_o(X)$ and $DIS(X)$ are the set of all partial orders and the set of all irreflexive symmetrical relations on X , respectively. A dissimilarity function D from $DIS(X)$, $D: P_o(X) \rightarrow DIS(X)$, is a process for the extraction of dissimilarity relations from X . $\square^{-1}$ is the inverse of $\square$ so that $x\square^{-1}y$ if and only if $y\square x$. For each pair of partially ordered sets $(X, \square_1)$ and $(X, \square_2)$ from $P_o(X)$, $D(\square_1) \neq D(\square_2)$, if $\square_1 \cup \square_2^{-1} \neq \square_2 \cup \square_1^{-1}$. Let $\square_x = \{(x, x) : x \in X\}$, and for every binary relation $R \subseteq X \times X$, let $R^{-1} = \{(x, y) : (y, x) \in R\}$ and $R^c = \{(x, y) : (x, y) \in X \text{ and } (x, y) \notin R\}$. Then for every partial order $\square$ on X , $DIS_c(\square) = (\square \cup \square^{-1}) \cap (\square_x)^c$. Example: let $\square$ be the ordinal dominance order of purple shades, $\square_d$, with 'almost blue' as supremum, and let $\square^{-1}$ be the inverse ordinal dominance order with 'almost red' as supremum. Then $(\square \cup \square^{-1})$ are all dominance orders, which rank purple shades either by their red or blue portion. $(\square_x)^c$ excludes all identical pairs of shades, (x, x) , one with 'almost blue' and the other with 'almost red' as supremum, from the set of all purple shades, and hence from the procedure DIS_c for the determination of dissimilarity. Comparability therefore only applies to non-identical objects and requires at least an ordinal scale for $\leq$ ordering.

which in turn is more punky or hip hoppy than a. At the very least, ordinal comparability is required. No more than that will be required in the cultural context for most of what follows.

The concept of dissimilarity as comparability will result in the search for dissimilarity in the vertical of the dissimilarity structures $|$ and $\mathfrak{M}$. With chains this is trivial, because there is only one dimension, a single association between objects in the subset. In Figure 1 (left side), for example, B and D are more distinctly dissimilar in their shades of purple than C and D; and this can be deduced from (and only from) the relative position of B, C and D in the vertical.

The case is more complicated with trees. In addition to the vertical, there is also the horizontal (Figure 1 right side). But in trees also, two objects can be compared vertically. This is because of the construction principle of trees, which consist of chains joined at (at least) one point. In the phylogram of Figure 1 with the cardinal scale in Myr, by vertical addition of the millions of years, it follows that species C and D are more akin than either of them to B; and these three are more akin than either of them to A. In the cladogram of Figure 2 with the ordinal scale, the vertical structure contains the information that species C and D are more akin with B than to A. And in Figure 3 (left side) it follows from the vertical that Titian's painterly phases B and C are semantically more akin than either of them to A or D, and these in turn are semantically more akin than either of them to B or C.

Obviously, 'vertical' and 'horizontal' only mean 'at right angles to each other', i.e. *orthogonal*. You can turn $|$ and $\mathfrak{M}$ on a side and extract the same dissimilarity-as-comparability information from it. Then 'vertical' is simply replaced by 'horizontal' and the fact remains that there is a second dimension in the subset $\mathfrak{M}$. I will stick to the convention of the vertical as a source of information about dissimilarity as comparability, because it is the convention in biology to map trees that way.

However, from a subset consisting of singletons, $\{\circ, \circ, \circ\}$, no information about dissimilarities can be read, if dissimilarity is understood as comparability, *DIS_c*. This is because subsets of singletons do not possess a vertical structure, as they are positioned horizontally next to each other without connection. The same holds true for subsets of singletons, chains and/or unconnected trees, $\{\circ, \circ, |, |, \mathfrak{M}, \mathfrak{M}\}$. There, you find structures with verticals and hence comparable objects, but the subset as a whole also contains non-comparable objects.

Ornament

The following ornamental styles can be found in the classic pattern books *L'Ornement polychrome* and *L'Ornement des tissus*: primitive, Egyptian, Assyrian, Greek, Etruscan, Greco-Roman, late antiquity, Chinese, Japanese, Indian, Indo-Persian, Arabic, Moorish, Ottoman, Celtic, Byzantine, Russian, Armenian and also the European early medieval, medieval, Renaissance and those ornaments typical of the following centuries.¹⁰ Elements of this subset of around 25 ornamental styles can be compared in various ways.

Objects in the same style show the typical characteristics of the style to a greater or lesser extent. Early medieval ornamentation still works with symbols of ancient Rome – lions fighting knights as the symbolic heritage from the time of the gladiators. Different objects in this style show more or less pronounced suggestions of antiquity. They are thus ordinally comparable in this feature. All these ornamental styles show typical characteristics like these.

Diachronic transitions are yet another point of comparability in ornamental styles. The lily emblem of France, for example, goes back to the 12th century, the time of Louis VII. Over time, however, the French lily changes its shape, so that a lily from the 18th century has no more than a structural similarity with one from the time of Louis VII. The longer and more lance-shaped the central petal is, and the less the two outer petals bend downwards, the older the lily is. More recent lilies show an increasingly pronounced curvature of the outer petals, and all three petals become more similar in length. France's lily can therefore be ordered into younger/older on the (vertical) timeline.

Another point of comparability are geographical transitions resulting from intercultural exchange, commerce or political influence. Along the Silk Roads, from east to west, there are Chinese, Indian, Indo-Persian, Persian, Armenian, Arabic, Byzantine, Venetian and Western European ornaments. You can distinguish them by their ideal type, but the geographical transitions are smooth. Features of Chinese ornamentation can therefore also be found further west, and features of Western styles can be found still further west – and vice versa. Two objects may be more or less Chinese, Indian, Armenian, Arabic or Western European. For example, the so-called *Hom* motif of Western European objects from the 12th–14th centuries shows spotted cats that resemble cheetahs, with collars on (dog) leashes attached to candelabras, evidence of the customs of Asian princes. Quite a few Venetian Renaissance inlays show Persian symbols, indicating intercultural exchange that went hand-in-hand with long-distance trade. And in

10 Racinet and Dupont-Auberville, undated (1869–1888 and 1877).

Spanish and southern Italian embroidery patterns dating from the same period you can find stylistic parallels owing to the Moorish political influence in both areas, so that the Spanish and southern Italian ornaments of the time are also a little Moorish.

Diversity Based on Comparability

Dissimilarity always refers to two and only two objects. For more than two objects, I follow the standard terminology in biology, where what is dissimilarity between two objects, for three or more objects is called *diversity*. From the two alternative ideas of dissimilarity – comparability and incomparability – we also arrive at something different for diversity, depending on which idea of dissimilarity you start from. Dissimilarity and diversity thus come in two pairs. The idea of diversity based on the idea of dissimilarity as comparability I call DIV_c . It extracts diversity information from the vertical structure of an ordered set.

Take, for example, a set of species with (extinct) common ancestors. Evolutionary biologists measure the diversity of the great apes (Figure 1, right side) by adding the lengths (representing millions of years) of the vertical branches in their phylogram. Thus $DIV_c = 41$ in Figure 1 (right side). The extinction of a species in the taxon reduces its diversity. For example, $DIV_c = 35$ would result in the taxon of the great apes if species C or D were to disappear.

Evolutionary biologists usually also add to this diversity the dissimilarity (in Myr) between the taxon at hand and its next superordinate taxon. In the example, this is the taxon of the Old World monkeys, from whose total of about 100 species the great apes separated 25 Myr ago. Then, $25 - 14 = 11$ Myr is added to the diversity of 41, resulting in $DIV_c = 52$ for the ‘rooted’ phylogram of the great apes.¹¹ Step by step, such ‘rooting’ results in the tree of life. Since we cannot hope to discover the tree of culture, I will put little effort into ‘rooting’ cultural taxa in this sense, for example, ‘rooting’ the taxon of ornaments in the superordinate taxon of visual expressions. In culture, ‘unrooted’ diversity is a more practical concept.

An excursion into the economics of species protection helps sharpen the understanding of DIV_c . Economists, accustomed to tight budgets, base their analysis on diversity information DIV_c when they advise which species should be

11 Following evolutionary biology, ‘rooted’ is meant here, and only here, as the vertical link to the next higher taxon. Later, when addressing social proximity, I will use the term, without quotation marks, in a very different sense: rooted then refers to the commonalities of individual styles in the common style they share.

given priority protection in the interest of the largest possible diversity.¹² In Figure 1 (right side), A contributes more to diversity than C or D. If not all species have the same probability of becoming extinct, economists also take this into account. Suppose D is not endangered, and C and A are equally critically endangered. Economists then conclude that if there is not enough money to protect all, funds should be diverted away from C towards A. The reason is simple: D is a good safeguard for the preservation of diversity, because if C died out, a branch of only 6 Myr would be lost. C is therefore more dispensable than A, which, if lost, would eliminate a branch of 14 Myr. In protecting A and letting C disappear, ('unrooted') $DIV_c = 35$; otherwise it is 27. In the final step of priority setting – since C (presumably) has the same probability of survival as A if both are left to themselves – the economist abandons C and puts the money into the protection of A. This increases the probability of greater overall diversity.

Considering species D and sacrificing C, this calculation may seem perfidious. Nevertheless, there's a more general take-away: diversity DIV_c is based on the idea of an asymmetric contribution of single objects to diversity (of three or more objects). This is because dissimilarity DIS_c , on which it is based, is a symmetrical relationship between two objects *only*. Therefore, one object can make a greater or lesser contribution to diversity than another object in a subset of at least three.

Phylograms, like the one in Figure 1 (right side), are based on a metric scale, as is the chain in Figure 1 (left side).^{13*} In culture, we mostly have to settle for non-cardinal dissimilarities, as with the semantic variety in Titian's style (Figure 3, left side). It makes no sense to give the dissimilarity between A (the Paduan frescoes) and C (portraits), for example, a distance of 14, as between orangutan and chimpanzee/bonobo/human. Therefore, DIV_c conveys less information. But what diversity information is left? One possibility in Figure 3 is to count the number of nodes, which gives $DIV_c = 3$. Were all paintings of any one stylistic type of Titian's oeuvre to burn, then $DIV_c = 2$, no matter which one burns. The types, viewed in this way, are symmetric in terms of diversity, and thus, in contrast to what is otherwise characteristic of DIV_c , they do not make an asymmetrical contribution to diversity.

Quite rightly, a bad feeling arises. You may accept node-counting when only one stylistic type of Titian's oeuvre burns. But if two go, is it still diversity-neutral which two they are? A (the early Paduan work and all works in this style) and D

¹² Weitzman 1993.

^{13*} In chapter 5, the length of a chain will be defined as the (simple) length above the supremum multiplied by the number of its objects.

(works with mythological subjects) are semantically more akin than either of them are to B (works resembling still lifes) and C (portraits). If A and D were to both burn, you might justifiably feel worse than if D and B were to burn. Because then you would still have remaining two rather different types within Titian's individual style, his Paduan frescoes (A) and his portraits (C), still documenting an impressive range of his oeuvre. In the first case, you would be left with only the still lifes (B) and portraits (C) and thus a smaller selection of his oeuvre. Somehow, by simply counting nodes, information (the degree of kinship), expressed in the length of branches, has vanished. The greater ambiguity in culture compared to nature also pertains to the choice of scale.

In culture, this ambiguity leads to cautious statements. *The Canterbury Tales* are the exception. Archaeologists, art historians, art critics and linguists, not to mention philosophers, feel the need for this caution because culture, $\square$, is more stingy than nature in its instructions for forming dominance orders, $\square_d$.¹⁴ They fluctuate between apodictic rejection of what economists recommend based on the idea of asymmetric contributions to cultural diversity, and apodictic glorification of the elitist idea that not each and every piece contributes the same to cultural diversity (e.g. the high brow versus low brow divide). In this seesaw of contrasting positions, those taking the elitist position that there are more and less valuable cultural items, implicitly rely on the idea of diversity based on comparability, *DIV*.¹⁵

Consumers are in that mess too: Louis Armstrong records, purple batik, prints of Klimt paintings and a vintage car in the garage may find meaning in it as a whole or just in parts. But the meaning is firmly set by the dissimilarity of two objects, together with their twin, the diversity of overall *o/+consumption*. But consumers are not only confronted with a single twin-type of dissimilarity/diversity, namely dissimilarity as comparability and diversity based on comparability. Incomparability is an equally potent basis for dissimilarity/diversity considerations.

14 Here, it is worth noting the difference between culture, $\square$, and culture, $\square_d$. Culture, $\square_d$, is the (dominance) order-creating authority in the world of objects. It is culture, then, that decreases disorder. But to limit the whole of culture to this capacity would rightly meet with fierce opposition from cultural studies. Because culture is also a driver of disorder, of breaches of taboos and conventions, and only this makes development possible. For this reason, a distinction should be made here between the 'smaller' culture, $\square_d$, and the 'larger' culture, $\square$. The latter maintains the balance between order and disorder, as well as the continual fragmentation in all cultural order.

15 For example, Haselbach, Knüsel, Klein and Opitz 2012.

Incomparable Ornaments

In spite of graduated transitions, and thus partial (vertical) comparability, ornamental styles remain incomparable in a fundamental sense. Take, for example, the Viennese art historian Alois Riegl, who decoded the arabesque in the late 19th century. Riegl discovered the formal design pattern of the arabesque in the profiles of the lotus blossom and the palm frond protruding fan-like from a goblet-shaped stem (semantics). As two complementary forms, they ornament ceramics, textiles and the scrolls of column capitals. Riegl traced the ornamental evolution from the stem into the later design element of the line, which later unfolds in wavy bands, which themselves can be combined into continuous ornamentation. Thus the arabesque is born, which has been stripped of its origin of representative elements derived from plant shapes (semantics) and now relies entirely on the complex play of geometric patterns (syntax).¹⁶ Riegl's decoding of the arabesque thus proceeds from the semantic to the syntactic; only there does he find the specifics of the arabesque.

Alois Riegl had always rejected the two explanations for design that were prevalent in his time – the dictate of the technical properties of the media being worked on (materialism), and the dictate of natural forms (naturalism). Thus, with Riegl, the arabesque (or any other ornamental style) is no longer caught in an artistic corset that would allow for comparability across ornaments. Statements about what is special about an (ornamental) object cannot be made either from the way the material is handled, nor by drawing analogies with nature.

Riegl instead credits the arabesque (and every other ornamental style) to a universal impulse of the human spirit, its *kunstwollen* (art volition): the human desire to use aesthetic forms to express something specific about the broader human context. *Kunstwollen* comes from the human need for expression. Riegl fell into oblivion after his *kunstwollen* was criticised by other art historians, including the founder of art history iconology, Erwin Panofsky. Interest in Riegl has since been reawakened and the conceptual potential of his *kunstwollen* for art history is now acknowledged. Also acknowledged is that members of the guild, such as Ernst Gombrich and his London Warburg Institute, have always implicitly relied on it. Riegl's *kunstwollen* was always quietly present.¹⁷ *Style volition* of consumers, in their striving for social distance and proximity, is as present in QTC as Riegl's *kunstwollen*, as the quest for utility of *homo economicus* is always present in the orthodoxy.

16 Arnheim 1995.

17 Elsner 2010.

In *kunstwollen* we find one cause for the incomparability of objects. According to Riegl, what wishes to be expressed arises from a specific social and intellectual reality. Expression obeying *kunstwollen* serves to convey this reality. Because this reality is context-specific, so must be a style.

Take, for example, the post-revolutionary neo-classical American style. The Americans' *kunstwollen* was aimed at expressing the cultural values of a new era, cleansed of absolutism. Due to this specific historical ideology, it is fundamentally incomparable with the Rococo of the former British colonial masters, which aimed at allowing the splendour of the monarch shine everywhere. Take another example from Riegl himself: the late Roman style was an expression of growing social uncertainties specific to the times. In conclusion, *kunstwollen* creates context-specific styles, i.e. incomparable styles and incomparable objects belonging to different styles.

Riegl's *kunstwollen* reveals that the search for ornamental dissimilarity necessarily involves our acceptance of the existence of incomparability. It is only because of this incomparability that the concept of different (for example, ornamental) styles makes any sense at all. They are incomparable precisely because they are different forms of the otherwise universal human desire to create art – restricted by nothing other than their specific social and historical contexts. You find such fundamental incomparability not only in ornamentation, but in all forms of art and handcrafts, and not only there, but also in the most mundane things.

Incomparability

I refer to this idea of dissimilarity, widely implicit in cultural studies, as *DIS_{ic}* with the definition:

DIS_{ic}: two objects are dissimilar if and only if they are incomparable.^{18*}

Incomparability presupposes that two objects are distinguishable and implies that they are not comparable (a tautology). However, this implies most importantly for all else that follows, that two objects that are incomparable stand in a *symmetric* relationship. They cannot be brought into a (vertical) hierarchical

^{18*} Definition of dissimilarity as incomparability (see notation of footnote 9*, this chapter): $DIS_{ic} = (\square \cup \square^{-1})^c$. In words: DIS_{ic} are all dissimilarity relations between two objects that are not a dominance order, i.e. do not produce an $\leq$ ordering.

relationship but remain (horizontally) side by side. With the idea of dissimilarity as incomparability, the banker style does not stand above that of punk. They remain side by side, as strangers in a way that does not allow classification of one being 'above' or 'below' the other. It is the same with the relationship between the arabesque and the Celtic styles, or between Rococo and the neoclassical American styles.

The notion of dissimilarity as incomparability, in dissimilarity structures $\{\circ, |, \mathfrak{M}\}$, leads us to search for dissimilarity in the horizontal. For singletons this is by their definition imperative. Two singletons, $(\circ, \circ)$, are incomparable because they are singletons. In a chain, $|$, elements are by definition comparable, so incomparability can only refer to a chain as a whole. Since elements of a chain are only comparable in this chain, you can take one of their elements, for example their supremum *pars pro toto* and place it (horizontally) next to the supremum of another chain. Two unconnected chains, $(|, |)$, are incomparable, simply because one element from each chain, for example their suprema, placed side by side, are incomparable. That is, two unconnected chains are incomparable because they are not branches of the same tree. In a tree, $\mathfrak{M}$, elements of two chains/branches above their connecting node are comparable, below this node they are incomparable in a fundamental respect.

Despite belonging together in the taxon depicted in the phylogram in Figure 1 and thus despite their (cardinal) comparability (in Myr), species A, B, C and D remain incomparable in a fundamental respect. Humans and chimpanzee/bonobo have become incomparable through their different development over the last 6 Myr in a way that is not discounted by their also being comparable. In this fundamental respect, the objects in phylograms and cladograms are incomparable. It follows for sets of singletons, chains and trees, $(\circ, \circ, |, |, \mathfrak{M}, \mathfrak{M})$ in general, that all singletons and the suprema of all unconnected chains and the suprema of all trees are incomparable.

Diversity Based on Incomparability

As has been shown, diversity based on comparability, DIV_c , is built extracting diversity information from the vertical structure of ordered sets. Diversity based on incomparability, DIV_{ic} , is based on the extraction of information from the horizontal structure of ordered sets, i.e. the structure that escapes dominance ordering. The basic structure for determining DIV_c is the chain/branch. In the ('unrooted') phylogram of Figure 1, $DIV_c = 41$ is therefore calculated by adding the lengths of the branches. The basic structure for the determination of DIV_{ic} is the

opposite of the chain/branch in the horizontal, the *antichain*. I symbolise the antichain with $\sqsubset\sqsupset$.^{19*} In Figure 1 (left side), the antichain consists of a single element, for example (D) . In Figure 1 (right side) and figure 2 the antichain is (A, B, C, D) , in figure 3 (left side) it is (A, D, B, C) . An antichain is a totally dissimilar subset – no single element is (at least) ordinally related to another: the barong tagalog from piña, the shoe of Manitu, Duchamp's *Fontaine*, the lollipop, the Imperial Orb at Aachen, the Veil of Veronica.

Diversity based on incomparability, DIV_{ic} , can in principle be determined by numbering the objects in the antichain. Let this number be $\#$. In Figure 1 (left side) the antichain (as in case of a singleton) consists of, for example, (D) , i.e. $\#=1$. In Figure 1 (right side) and Figure 2 the antichain is (A, B, C, D) , i.e. $\#=4$. In Figure 3 (left side) antichain (A, D, B, C) also numbers $\#=4$. In principle, diversity based on incomparability of a set, $(X, \sqsubset\sqsupset)$, is $DIV_{ic}=\#(\sqsubset\sqsupset)$. Diversity is the cardinality of the antichain.

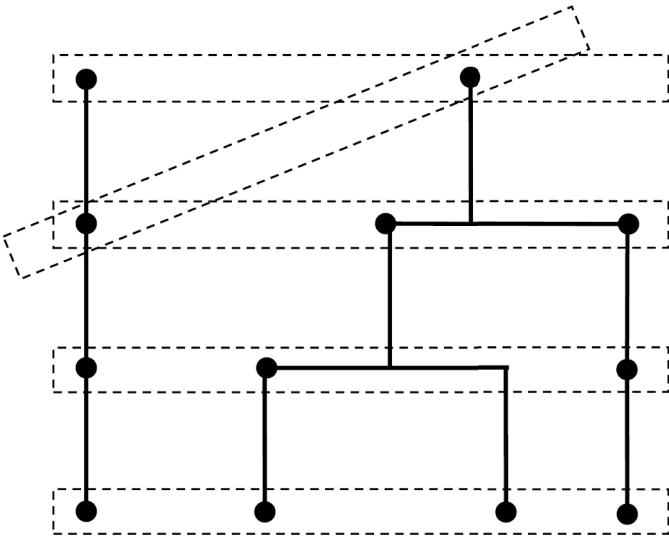
'In principle' warns of the necessity of choosing between alternative antichains beforehand, whose elements are then counted. Because, in $(\circ, \circ, |, |, \mathfrak{M}, \mathfrak{M})$ there is usually more than one antichain. Figure 4 is for illustration. There are 4 horizontal layers of objects. The shortest horizontal antichain (at the top) counts $\#=2$, the next two below $\#=3$, and the lowest $\#=4$. Depending on the choice between these antichains, DIV_{ic} is therefore 2, 3, or 4. In addition, there are 'diagonal' antichains, such as those that include the topmost element in the tree and the second, third, or fourth object in the chain (from the top). However, none of them are longer than the lowest horizontal antichain, numbering $\#=4$, and none are shorter than the top horizontal antichain, numbering $\#=2$. If there were also singletons in the subset, their number would have to be included in the equation for $\#(\sqsubset\sqsupset)$.

If more than one antichain exist, which one is to represent diversity? The simple answer is: it depends on the context. The maximum and the minimum (horizontal) antichains possess special appeal. For biodiversity protection, the longest (horizontal) antichain is of particular interest. In Figure 4, this would be the lowest horizontal antichain with $\#=4$. The interest in biodiversity protection draws attention to the greatest diversity and thus the longest antichain. In the cultural

^{19*} Definition of the antichain: Let $\parallel$ be the incomparability relation based on $\sqsubset\sqsupset$. From footnote 9*, this chapter, $\parallel = DIS_{ic} = (\sqsubset\sqsupset\sqsubset\sqsupset)^c$. The binary relation $\parallel \subseteq X \times X$ comprises the set of all pairs ordered as incomparable, given $\sqsubset\sqsupset$: For each $x, y \in X$, $x \parallel y$, if and only if $x \sqsubset y$ and $y \sqsubset x$. An antichain $\sqsubset\sqsupset$ of $(X, \sqsubset\sqsupset)$ is a set $A \subseteq X$, so that $x \parallel y$ for each $x, y \in X$ with $x \neq y$.

context this also applies to historical monument protection.^{20*} Nevertheless, the shortest antichain must not be ignored for the diversity count. For example, in a context where originality matters most, attention is drawn away from the highest possible number of originals to the lowest possible number.

Figure 4: Multiplicity of antichains.



Example of a set consisting of a chain and a tree with a total of twelve objects (black dots). The objects in a perforated rectangle each form an antichain.

Take-away: Ontology of the World of Objects and the Social Realm

As Table 4 reiterates, dissimilarity as comparability and diversity based on comparability come as a pair, just as dissimilarity as incomparability and diversity based on incomparability do. The question now is whether these twin-pairs are simply two alternative perspectives of the ontology of the world of things, i.e. the

^{20*} Basili and Vannucci (2010) show that there are at least two different methods for selecting the antichain for the diversity count: search for the longest antichain, or search for the antichain consisting of exclusively undominated elements. In Figure 4, both are identical (the lowest horizontal antichain), but in general they are not.

consumption space existing ‘out there’, or whether they are two fundamentally different ontologies of the world of objects. I advocate for the latter.

Table 4: *Different perspectives or different ontologies of the world of objects?*

		Diversity (multilateral)	
		upon incomparability	upon comparability
Dissimilarity (bilateral)	incomparability	(DIS_{ic}, DIV_{ic})	
	comparability		(DIS_o, DIV_o)

As an outside observer, you may choose to see the world of objects $(X, \square)$ through the lens (DIS_o, DIV_o) or through the lens (DIS_{ic}, DIV_{ic}) .^{21*} Evolutionary biologists have historically had their pick of these alternatives. Nothing stands in their way, because in biology the two twin-pairs are in fact different scientific perspectives on the one ontology of nature.

You could treat the consumer’s world of objects in the same way. But that wouldn’t help to better understand the production of social distance and proximity scientifically. Because it doesn’t help knowing which lens is available to the outside observer for the analysis of the social, you must know which lens consumers actually use when *o/+consuming*. For when the outside observer uses the (DIS_o, DIV_o) lens of biologists, whereas consumers judge their *o/+consumption* by looking through the (DIS_{ic}, DIV_{ic}) lens, the outside observer will not understand them.

Consumers must have *already* seen the dissimilarities and diversity in the world of objects *beforehand*, so that they can make consumer decisions. That is, they must make their consumer decisions looking through one of the two lenses. This in turn implies that the lenses cannot offer the analyst *access to* the ontology of the world of objects $(X, \square)$ existing ‘out there’. Instead, the lens is itself *part of* this ontology. Consumers’ choices are not based on their knowledge of $(X, \square)$, but their knowledge of $[(X, \square), (DIS_i, DIV_i)]$, with $i = c$ or $i = ic$.

^{21*} Specification of the lens analogy using footnote 9*, this chapter: the lens is the dissimilarity function D from $DIS(X)$, $D: P_o(X) \rightarrow DIS(X)$, only through which surfaces dissimilarity-cum-diversity (DIS_c, DIV_c) , or (DIS_{ic}, DIV_{ic}) . The main text simplifies this analogy by equating lens D with its projection (DIS_j, DIV_j) , $j = c, ic$ on the wearer’s retina.

Yes, in this I cross the line to constructivism in epistemological terms: the world of objects awaiting consumption is not simply there like nature, which the biologist sees. Dissimilarity and diversity of $(X, \square)$ are not predefined, but are constructed by consumers with (DIS_i, DIV_i) . In other words, the world of objects $[(X, \square), (DIS_i, DIV_i)]$ would not exist without the consumer – it only exists through the consumer. However, this is not by deliberate choice of human agency: the consumer does not choose their lens (DIS_i, DIV_i) , but has it firmly in place.

Contrary to this view, you could now proceed as orthodox Identity Economics does.²² It first lets the consumer choose identity, assuming identity-specific (orthodox) consumer preferences. The consumer chooses their identity in such a way that their lifetime utility is maximised, anticipating the effect of the identity choice on their future preferences. *o/+consuming* can be thought of precisely this way, by replacing identity with (DIS_i, DIV_i) .^{23*}

This is not my way of proceeding, because *o/+consumption* (DIS_i, DIV_i) serves the communication of social distance and proximity. It therefore must be understood by third parties. Hence the consumer cannot simply choose a (DIS_i, DIV_i) lens, instead it is already firmly in place. But not once and for all. I argue that (DIS_i, DIV_i) is situationally fixed, just as there are lenses for distance vision and for near vision. In one situation the consumer has the (DIS_c, DIV_c) lens in place, and in another situation the (DIS_{ic}, DIV_{ic}) lens, because everyone else in the same situation also uses this lens. In this situation, it is only because of this that they can communicate with each other with their *o/+consumption*. (DIS_i, DIV_i) can therefore be understood as a situation-specific convention that everyone adheres to for the moment. Put this way, $[(X, \square), (DIS_i, DIV_i)]$, $i = c$ or $i = ic$, is the habitual way of looking at the world of objects following that convention in a given situation.

For the production of social distance and proximity, in-group situations (within one's own elective affinity) and out-group situations (*vis-à-vis* other elective affinities) are of key importance. The question is: is the social situation at hand an issue of social distance to other groups or of proximity in the in-group? I will focus on these two situations as the relevant contexts of consumption. Through which lens, i.e. following which convention of viewing, are groups confronting each other? And through which lens, i.e. following which convention,

22 Akerlof and Kranton 2010.

23* The consumer chooses (DIS_i, DIV_i) , with $i = c$ or $i = ic$, knowing its effect on $[(X, \square), (DIS_i, DIV_i)]$ and chooses $i = c$ or $i = ic$, depending on which of the two lens alternatives maximises utility.

do members of one's own group face each other? I argue that social distance is created by way of the (DIS_{ic}, DIV_{ic}) lens convention and social proximity is created by way of the (DIS_o, DIV_o) lens convention.

Psychology of Distant and Near Vision

Gerhard Schulze's claim that we can be alienated from each other in a way that leaves us speechless can be stated more formally: the alienation stems from the (DIS_{ic}, DIV_{ic}) way we look at things, bringing the incomparable into the foreground and letting the comparable disappear. No other way of looking at things allows for a quicker and more reliable construction of social distance. Conversely, there is no better way to construct social proximity than letting the incomparable disappear and bringing the comparable to the fore. This basic pattern, of grasping a social situation by letting certain parts of what is there disappear, and moving other parts into the foreground, has been studied in social psychology.²⁴ The application of this basic pattern to the issues at hand is shown in Table 4.

In the first step, by *situation-classification*, the individual organises the perception of their environment, including the world of objects: is it a work, happy hour, vacation, or family situation? If the situation is interactive, i.e. a social one, the world of objects is classified in a way that also takes other individuals into account: what is this object in this interactive situation involving these people? Social classification is self-referential, i.e. the objects shown by other individuals are classified in terms of similarity and dissimilarity compared to objects the observer shows. Which implies that the individual is aware of the bilateral dissimilarities, DIS_i , between themselves and the individual under scrutiny.

Step two is *meta-contrasting*. It consists of two psychological mechanisms. Both sharpen the distinctions between the in-group and out-group(s). The first mechanism lets group members appear more homogeneous to the observer than they actually are: the observer tends to see what everyone in a group is showing and to overlook what distinguishes them from one another. This results in the in-group member looking at what connects them with their in-group. Connectedness requires at least comparability. Without comparability there is no possibility of connection! The (DIS_o, DIV_o) lens, as per my assumption for QTC, is the lens for internal social relations within a group. It is always used by the individual, when it comes to checking their place in the in-group. $[(X, \square), (DIS_o, DIV_o)]$

24 Bessis, Chaserant, Favereau and Thévenon 2006.

is the culturally ordered world of objects for the moderation of intra-group relations.

The second mechanism of meta-contrasting lets the in-group and out-group(s) appear more different than they actually are: the individual tends to see what lets groups differ and to overlook what they share. The individual looks at what separates their in-group from the out-groups. Their gaze is drawn to what is incomparable between the groups. The (DIS_{ic}, DIV_{ic}) lens, as per my assumption for QTC, is the lens for external social relations of each group. It is used by group members when observing what's special about their own group *vis-à-vis* other groups, affirming their distance from them. $[(X, \square), (DIS_{ic}, DIV_{ic})]$ is the culturally ordered world of objects for the moderation of the external relationship of a group.

This constructed perception of the social is not a purely cognitive phenomenon, but at least as much a self-evaluative one. The groups brought to the fore by the egocentrism of the (collective) perspective end up clearly separated from each other and internally cohesive. The individual thus finds their place in the social, i.e. their social identity, with which they can be content: on an equal footing but apart from other groups, by $[(X, \square), (DIS_{ic}, DIV_{ic})]$, and connected with other in-group members by $[(X, \square), (DIS_o, DIV_o)]$. All that is moderated by the culturally ordered world of objects. Table 5 summarises this construction of the world of objects by situation classification and meta-contrasting.

Table 5: The situation-classified and meta-contrasted world of objects of individualistic society.

		Social Situation	
		out-group	in-group
Meta-contrasting Lens	for distance	$[(X, \square), (DIS_{ic}, DIV_{ic})]$	
	for proximity		$[(X, \square), (DIS_o, DIV_o)]$

Proximity in the Collectivistic versus Individualistic Society

In Table 5, bilateral proximity is operationalised by *DIS_c*, i.e. by (a form of) *dissimilarity*. We could operationalise social proximity by *similarity* instead.^{25*} Both concepts of proximity are operationalisations of the notion of non-identity (in the mathematical, not in the socio-psychological sense). In their formal denomination they differ only slightly, but in their social connotation they are fundamentally different.

Their formal difference becomes apparent when considering the gradual transition from (mathematical) non-identity to (mathematical) identity. If object a has become increasingly similar to object b to eventually almost be b, then with the operationalisation of proximity based on similarity you can rightly claim the statement “almost b and b are similar” to be true. Also the statement about identity, “b and b are similar”, is true. Now, turning to the operationalisation of proximity based on dissimilarity, *DIS_c*, the statement “almost b and b are dissimilar” is formally just as true. But the statement about identity, “b and b are dissimilar”, you cannot claim to be true. Therein lies the formal difference between similarity and dissimilarity. In the mathematical transition to the identity of two objects, similarity relations include identity whereas dissimilarity relations do not.

Reversing this thought experiment, however, you will end up with statements that are always formally true: If object a increasingly differs from object b until both have almost nothing in common, the statement that they are (still) similar is formally as correct as the statement that they are dissimilar. However, transferring the thought experiment to the social throws a spanner in the works.

Regarding the social, the statement that I (being a) and my in-group role model, (who is b and whom I almost mirror) are similar, is not only formally correct but also socially telling. But given the same situation, the statement that we are dissimilar is only formally correct. Socially it has no bearing whatsoever, it's just splitting hairs. The same holds true in the opposite direction: the statement that a and b – who have almost nothing in common anymore – are dissimilar, is not only formally correct but also socially telling. But the statement that they are (still) similar is only formally correct, communicatively it is splitting hairs without any social bearing.

This is only confusing at first. We simply have a degree of freedom in interpretation. If I consider one formally correct statement to be telling and the other to be splitting hairs, it is because (with the very best of intentions) I am projecting

^{25*} Every binary similarity relation is reflexive and symmetric: a and a are similar and if a is similar to b, then b is similar to a.

ideas, paradigms, prejudices, etc., from my outside perspective into this open space of interpretations. This projection is exactly my definition of interpretation. Some projections are simply better than others.

I propose to make emic projections. That is, to model how the consumer perceives the world in which they live. As I have argued so far, consuming is a communicative action addressing the in-group and out-groups. To adequately model this action regarding the modelling alternatives of similarity versus dissimilarity, it is first necessary to answer the question: what does the consumer intend to achieve with in-group communication? Do they want to fuse with the in-group, to be one with it, or the role model within it? Or is the aim to sublimate their own individuality in the group while adhering to the restrictions imposed by group cohesion?

In a group-wise fragmented but collectivist society, the first motive is stronger: everyone wants to disappear into their in-group. This is where the statement that I (being a) and my imitated in-group role model (who is b) are similar, is not only formally correct but also in emic terms. In contrast, the equally formally correct statement, “we are (still) dissimilar”, is not correct in emic terms in case of a collectivist society. Having approximately reached my goal of fusing with others there cannot be residual dissimilarity, similarity must be attained. Here, similarity is the emic concept of proximity within groups. Jewish communities in the diaspora are one example. They maintain distance from the outside and are collectivist inside. The Asian personality is another example.²⁶ This personality more actively seeks to fuse with its in-group than the Western one. For Asian societies, similarity is therefore the emic operationalisation of proximity.

The second motive is stronger in an individualistic society. Everyone is a member of an elective affinity, but none want to disappear into it and lose their individuality. “We are different” is communicated to the outside, “I am special” is communicated on the inside. Even when two members of a group (a and b) are by chance approximately matched, they do not see their similarity, but the remaining dissimilarity. And if the unthinkable were to occur and everyone were to become exactly the same, their individuality would completely vanish, and the concept of dissimilarity would no longer be conceivable. For an individualistic society, dissimilarity is the emic operationalisation of proximity within groups.

Nevertheless, the loner is not the ideal type in individualistic society. The ideal type is someone who accepts help, when working on their identity, from others in the chosen elective affinity, without surrendering individuality.

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Internal cohesion is provided by the cement of their common style, within which all group members can cultivate both their individuality and commonality. Un-suitable for this purpose is dissimilarity defined as incomparability, DIS_{ic} , since it is needed for creating rifts between elective affinities. But dissimilarity as comparability DIS_c is adequate for securing individuality in social groups. When looking at internal individual styles, attention is drawn to what is comparable but non-identical, to what binds together and at the same time makes individuality visible. Youth cultures, neo-tribes, *Bobos in Paradise*, the Creative Class and last but not least the remaining mainstream of Western society are examples of such groups in the individualistic society. In this society, the individualistic consumer produces proximity by means of preserving dissimilarity as comparability. For this reason, Table 5 cannot be transferred to collectivist societies; it applies (only) to individualistic ones.

This individualistic consumer receives undivided attention in the second part of the book. The analysis of the collectivist consumer will remain an unfinished task. Its exclusion is necessary, because in the field of culture there is no 'one size fits all'. Culture is not universal, though it is universally present. Therefore, consideration of culture requires acceptance of cultural differences. Therefore, in the following I will explore the consumptive production of social distance and proximity in Western, individualistic society.

Distant and Near Vision and Style

Heinrich Wölfflin's differentiation of individual and common artistic style can now be merged with dissimilarity/diversity. Remember: individual style is manifested in the works of a particular person (known by name or not); in which resides the artistic signature that makes that person unmistakable. Thus, Titian's individual style is manifested in his oeuvre. A style which, while in proximity with the individual styles of other High Renaissance painters, nevertheless retains its distinctiveness – its artistic non-identity with this group of painters. Contrary to the individual style, the common style fails to refer to a specific originator. It serves taxonomic purposes only – for example, classification as a picture in the High Renaissance style. Table 3 is another example of such a taxonomy; the artists' names only serve to uniquely identify the works; they bear no relevance in the attribution to their common style. The common style merely implicitly refers to a group of originators who may be unknown both in name and number, but who share commonalities in style. Someone is assigned to a

common style, not because of who they are themselves, but because of these commonalities.

I apply this conceptual distinction, between common and individual artistic style, to style as mediator of social distance and proximity. The common style identifies an elective affinity, which manifests itself solely in its common style, expressing the proximity of all its members. It is through this style that an elective affinity as a whole distinguishes itself from other elective affinities. The set of common styles defines the set of elective affinities in society and vice versa. If there are n elective affinities, there are also n common styles.

The individual style shows the distinctiveness of the individual within their elective affinity. The member remains a distinct individual, no matter how close all members are. The individual style simultaneously creates both proximity within the elective affinity, as well as the individuality striven for within the individualistic society.

The common style thus moderates social distance outward, and the individual style social proximity within the elective affinities. Which is why everyone is viewed with specific meta-contrasting lenses (see Table 5) and everyone is building on the world of objects thus construed from the stylistic inventory: the common style building on $[(X, \square), (DIS_c, DIV_c)]$ and the individual style building on $[(X, \square), (DIS_i, DIV_i)]$. Table 6 summarises this correspondence.

Table 6: Situation-specific styles.

		Social Situation	
		out-group (external demarcation)	in-group (internal differentiation)
Function of Style	moderation of social distance	common style building on $[(X, \square), (DIS_c, DIV_c)]$	
	moderation of social proximity		individual style building on $[(X, \square), (DIS_i, DIV_i)]$

The individual artistic style refers to an individual originator, and shows their distinctiveness and the uniqueness of their oeuvre. The common artistic style refers to a group of works of multiple origins, and indicates artistic proximity therein. That is, the individual artistic style unmistakably shows something that is discernible as typical in the common style. In other words, the individual artistic style is nested in the common style, varying from it in sublimation or attenuation, but never beyond its boundaries. Applied to elective affinities, each individual is distinguished by two styles: their own individual style and the common style of their elective affinity. Here too, the individual style is nested in the common style, varying from it in sublimation or attenuation, but never beyond its boundaries.

The crucial point for everything that follows is that consumers cannot nurture their individual style with one subset of the world of objects, while contributing to the social distance of their elective affinity with another subset. They must accomplish both with one and the same subset of objects. The *one* subset they choose, together with the chosen subsets of all other in-group members, moderates social proximity within *and* social distance *vis-à-vis* the out-groups. Individual style and common style are therefore two different tools cast in the same mould. This is because, depending on the social situation, two meta-contrasting lenses create from *o/+consumption* either the common or the individual style (Table 6). The two tools from the same mould are interdependent though: manipulation of social proximity affects social distance, and vice versa. This trade-off turns *style volition* of consumers into an economic problem, and its result – human *stylistisation* – into a cultural-economic phenomenon.

By explicitly acknowledging the interdependence of the individual and common styles (and thereby of social distance and proximity) I implicitly model a transparent social present. How someone lives today may not yet be completely transparent, but it is more transparent than it has ever been before. Stylistic Dr Jekylls (common style) and Mr Hydes (individual style) become decreasingly sustainable in an increasingly transparent world. In the following I will discuss the transparent (individualistic) society, in which nobody has anything external that does not also exist on the inside, and inside nobody has anything that can be concealed from the outside.