

THE AESTHETICS OF MIRROR REVERSAL

"The mirror is the master of painters" Leonardo Da Vinci

A flop is a picture that mirror reverses the original scene. Some flops are reversed copies. For instance, mirror reversal is systematic with technologies that require contact between a template and an imprint surface. Other flops are just pictures that have undergone the operation of flopping. For example, a slide that is inserted backwards into a projector is a flop.

1. The orientation of symmetric objects is irrelevant

Hold this page to a mirror. OTTO in OTTO DIED seems unreversed. However, the illiterate mirror reflects all words equally. OTTO only appears to be unchanged because of its vertical symmetry. This becomes manifest as you position a mirror beneath OTTO DIED. Since OTTO is not horizontally symmetric, its horizontal reflection is asymmetric. Just the reverse holds for DIED; it appears unchanged when the mirror is held below.

If someone claimed that the original OTTO is prettier than its flop, we could reply that the change in orientation did not change the identity of the OTTO inscription. Since the flop of OTTO just is OTTO, and OTTO cannot be prettier than itself, it follows that the change in orientation did not affect the aesthetic merit of OTTO.

A second reply will occur to those familiar with the literature on the question whether perfect fakes can differ aesthetically from their originals. Perceptually indistinguishable objects are aesthetically equivalent. Since the flop of a symmetrical artwork is indistinguishable from its original, the principle implies that these flops are aesthetically equivalent to their originals.

2. Asymmetric artworks

Asymmetric pictures are perceptually distinguishable from their flops. (Here the analogy with perfect fakes breaks down.) Even dyslexics can detect that JOE does not match its mirror reversal. Left-right is an elusive kind of perceptual difference because the original has all the same absolute properties as the original. Moreover, the internal relationships between their parts are the same.

Kant (1768) believed that the difference between left and right can only be acquired perceptually. `Left' can be defined in terms of other "chiral" terms such as `north', `port', `clockwise', etc. But a description free of chiral terms and ostension cannot convey the difference.

Martin Gardner (1989, chapt. 18) presents the Ozma problem as a tool for precisifying Kant's thesis that the difference between left and right can be shown but not told. Suppose we establish radio contact with distant extra-terrestrials. Could we convey the difference between left and right? For instance, could we give instructions on how to build a statue of Thing? (Thing is the disembodied left hand in "Addams Family Values" played by the acclaimed magician Christopher Hart.) The physicist could easily give instructions on how to build a hand-shaped statue but how would we ensure that they built a replica of a left hand?

Physicists used to believe that nature was indifferent between left and right and so believed the task was impossible. But in 1958, it was proved that some elementary particles almost always turn left in an otherwise symmetrical environment. Thus, a physicist could describe an experiment over the radio that would enable the extra-terrestrial listener to know what we mean by 'left' and 'right'. The physicist would first describe how to create a stream of left flowing particles. He would then tell the extra-terrestrial to build the hand so that when held palm up, its thumb points in the direction of the particle flow. In addition to establishing which hand is the left hand, the procedure could also correct an antecedent error about which of two oppositely oriented hands is the left hand.

This experiment succeeds in showing that we do not need to see the same object token to standardize left and right. But it still involves perception of the same type of object -- in the above case, hands (Curd 1984). This "ostension at a distance" shows that Kant may still have been right about the need for perception to acquire the difference between left and right.

The nature of the perceptual difference between left and right is qualitatively different from the sort of absolute and structural differences that are the usual focus of aesthetic attention. Hence, there is room to doubt whether this difference is aesthetically relevant.

Many artists (Rubens, Raphael, Munch) express indifference to whether their works are mirror-reversed when reproduced as prints or tapestries. Most people find it difficult to distinguish originals from flops either when recalling famous pictures or recalling ones just seen (Ross 1970).

This point about the visual mirror reversal does not extend to auditory reversal. If you turn a player-piano roll around, you obtain the mirror image of the original roll. The visual difference is subtle. But when you insert the roll in the player-piano, the auditory contrast is striking. The high and low notes are reversed. This makes the piano sound like an organ. Bach intentionally designed the 12th and 13th fugues of Die Kunst der Fuge to be mirror reversed.

Most changes in orientation are visually salient (Rock 1973). Most people easily detect that a picture on a wall is tilted a few degrees. Part of the interest in mirror reversal is that the difference with the original is so inconspicuous to human beings.

However subtle, there do appear to be at least minor aesthetic differences between some original pictures and their flops. In a letter to his art dealer brother, Theo, Vincent Van Gogh complains about how a mirror-reversed print of The Potato Eaters makes the people appear left-handed. To stop the effect, Van Gogh went through the trouble of etching his originals in their mirror image.

Aestheticians have tried to specify subtler differences. Some of their claims about differences between the left and right halves of pictorial space have been experimentally verified. David Eisendrath reports that people who read only English (which reads left to right) prefer original scenic photographs over flops and those who read only Hebrew (which reads right to left) prefer the flops over the originals.

The general opinion of commentators is that orientation is mildly relevant to a minority of asymmetrical artworks. The aesthetic preference is partly due to historical associations. A clockwise swastika (the sort chosen by Adolf Hitler) is more menacing than a counter-clockwise swastika. Convention is a second influence. Flopped photographs of diners are disgusting in societies that require people to reserve their left hand for toilet duties. More speculatively, asymmetries in the brain itself may be responsible for some of the aesthetic preferences (Gross and Bornstein, 1978).

3. Gestalt psychology cannot explain the difference

Although there is a plausible aesthetic difference between an original and its flop, the difference cannot be located in the art object itself. For there is no intrinsic difference between the two. They have exactly the same absolute properties. And each has exactly the same internal relationships between its parts. Consequently, all gestalt phenomena are preserved under reflection. The mirror image of a Necker cube switches just as readily as the original Necker drawing. Flops only differ in the extrinsic property of how they are oriented to observers.

Gestalt psychology cannot explain the perception of left/right differences because gestalt patterns are limited to part-whole relations. The key truth of gestalt psychology is that perception cannot be reduced to an inventory of the constituents of the perceptual field. For that inventory would overlook relationships between those constituents. A parallel truth holds for linguistics. The meaning of a sentence cannot be reduced to an inventory of the words composing the sentence. 'The alligator chased the tiger' has exactly the same words as 'The tiger chased the alligator'. The two sentences differ in meaning because they differ in word order.

Gestalt phenomena are explained by focusing on the perceiver's use of principles to organize visual information. However, this attention to the perceiver is limited to his methods of organizing part-whole relations of the object of perception. The gestalt analysis does not

encompass the perceiver's own relationship with the object. This is in keeping with psychology's general tendency to focus on intrinsic properties, in particular, "what's in the head".

An object's intrinsic properties are those which it has on its own. For instance, I possess the following properties independently of other objects: being awake, having pale skin, having ten toes. Extrinsic properties are those possessed at least partly in virtue of other objects. For instance, the existence of other things can be inferred from my possession of the following properties: being awake longer than my son, having paler skin than average, having fewer toes than Marilyn Monroe (she had six on her left foot). An object's intrinsic properties can be detected by examining just the object itself. An object's extrinsic properties can only be detected by also examining its environment.

Well, with one exception. Since the observer of the object counts as another object, he can detect some of the object's extrinsic properties just by looking. An astronaut in empty space can tell that the distance between him and a clock is decreasing. He can tell that the clock is upside-down relative to himself. And he can also tell whether the clock left-right reversed.

From a mathematical point of view, this judgment of mirror reversal must also be relativized. For if the astronaut were left-right reversed, a normal clock would look reversed. To see why, picture the clock hands as mounted on the sort of transparency used by overhead projectors. If you view this transparent clock from behind, you see the mirror image of clock. The reason why you now see the mirror image is that your walk around the transparency has changed the pattern of stimulation on your retinal cells (Earman 1989, chapter 7). An alternative way of achieving the retinal reversal is to stay in the original position and undergo a mirror reversal yourself. This must suffice for seeing the clock reversed because the condition of your perceptual receptors matches the condition they are in when you walk around to the opposite side of the transparent clock.

A human being cannot mirror reverse a three dimensional object unless he stretches or disassembles it. People can reverse two dimensional objects. I can reverse a cut-out \square by lifting it up and turning it over to yield a \square . A fascinating alternative arises when the cut-outs are on a Mobius strip. We three dimensional beings can make a Mobius strip by giving a two dimensional strip of paper a half twist and attaching the two ends. (Two dimensional flatlanders cannot make a Mobius strip because they lack access to the third dimension needed for the twist.) It is widely known that if you run a pencil along the surface of a Mobius strip, you will return your point of origin. This demonstrates that the strip only has one side. It is less well known that the strip is a "non-orientable space": one can turn a \square into a \square merely by sliding it along the strip. If a two dimensional Alice were slid along with her personal \square , she would not notice any change (Walker 1979). But that would only be because she would have undergone

the same mirror reversal. What she would notice is that the other figures at his point of departure would have all seemed to have mirror reversed.

Mathematically, there could also be a non-orientable three-dimensional space. It would then be possible to mirror reverse a person by sliding along some path. There is strong empirical reason to believe our space is oriented. In any case, the Mobius method of reversal depends on access to a four dimensional space (to get the counterpart of the half-twist). If there were a fourth dimension, then even if the space were oriented, a left hand could be converted into a right hand.

Four dimensional flips are also considered to be hypothetical. As crystallographers say, rigid reflection of a three dimensional object is a non-performable operation. Nevertheless, it is mathematically and physically interesting to study these hypothetical changes. The interest is not restricted to academics. Victorian literature explored the possibility with tales of spirits that dwell in the fourth dimension. These spirits made their presence known by pranks such as changing right shoes into left shoes.

A Victorian four dimensional being could have found employment as a photograph reverser. Early photographs show shop signs in reverse writing, traffic flowing in the wrong lane, etc. This motivated the incorporation of a small mirror into the camera that would flop the flopped image. Portrait photographers were slow to accept the new cameras because the mirrors absorb light and so increase the time needed for exposure. It is also likely that the portrait sitters actually preferred the mirror reversed photographs of themselves. Psychologists have found that people prefer mirror reversed photographs of themselves because that is how people are used to seeing themselves in mirrors.

4. No object is aesthetically altered by a Cambridge event

Reversing a photograph may improve how it looks to you but it cannot improve the picture itself. Consider someone who claims to have improved a decorated window by viewing it from the opposite side. Although the window may look better from that perspective, the aesthetic merit of the window itself remains the same. After all, the window has not been intrinsically changed. The window can be improved by physically altering the decorations. For the alterations give the window a new ability to cause effects or to be affected by other things.

Some philosophers associated with Cambridge University (John McTaggart and Bertrand Russell) maintained that an object changes whenever a new statement about it becomes true. According to this criterion, I can change the Queen of England by lifting my little finger. For after I lift my little finger, it is true that 'The Queen of England has a contemporary that lifted his little finger at 11:39 AM on March 20, 1998 in New York City'. Peter Geach (1969, 71) ridiculed this kind of change as a "Cambridge event". According to Geach, objects only change

when they gain or lose causal powers. The Queen undergoes a real change when pinched. She is not changed by the non-events such as acquiring the aforementioned contemporary.

The operation of flopping is a Cambridge event. A necessary condition of altering the aesthetic merit of an object is intrinsically altering the object. If the object stays intrinsically the same, it stays aesthetically the same -- even if those changes improve the appearance of the object.

5. Two bearers of aesthetic value

In 1961, Matisse's Le Bateau hung upside down in the New York Museum of Modern Art for forty-seven days. Realistic painting with strong horizontal symmetry can also be hung upside down without anyone noticing. Ferdinand Hodler's "Thunersee" depicts a mountain reflected in a large body of water. It is difficult to tell when the painting is right side up. Most pictures are strongly asymmetric along their horizontal axis. They look much worse when hung upside down. However, we blame the mounting of the picture rather than the picture itself. This policy should extend to flops. Although re-mounting a three dimensional flop is a "non-performable operation", we can still distinguish the picture from its orientation and apportion blame accordingly.

An artwork's extrinsic properties are aesthetically relevant but they do not bear on the merit of the work itself. There are two bearers of aesthetic value -- the art object and its mode of presentation. Both contribute to the appearance of the artwork. The mirror reversal of my favorite cartoon depicts a conversation between two ambulance workers. One asks the other "Read any good books lately?". This is funny -- but only when written reversed. The AMBULANCE label on ambulances is mirror reversed so that motorists looking in their rear-view mirror can instantly recognize that an ambulance is behind them. The cartoon amuses by overextending the incongruity.

Artists allocate more attention to the mode of presentation when that mode is difficult to change. A painting that is hung askew can be re-mounted with a nudge. A mural can only be changed by re-orienting a whole wall.

Just as there are institutional aspects to counting an object as art, there are institutional constraints on what qualifies as a legitimate mode of presentation. We are not supposed to view a painting from the rear, or from the ceiling, or cock-eyed. The established viewpoint is normally so limited that spectators at museums must queue to occupy a position within the accepted zone.

However, there is room for innovation. Anamorphic pictures began as a sort of coded art (popular amongst pornographers and political dissidents). But it became an established genre. Spectators view the picture from an extreme oblique angle. Alternatively they use a special

device to decode the picture, for instance, a mirror cylinder. Stereoscopic pictures are intended to be viewed jointly through a stereoscope that achieves a 3-D effect.

Although most pictures are intended to be perceived from a single orientation, others are intended to have multiple orientations. Mathew Brady, the photographer who later chronicled the American Civil War, designed a swing out case that allowed a portrait to be seen from the front or the rear. The extra expense of this case was due to the customer's interest in comparing the photograph from both perspectives i. e. mirror reversed and unreversed.

Others use double-orientation to convey a double meaning. Viewed from the right side, it is a happy face. Viewed from the left, it is a sad face. I have a post civil war postcard of Jefferson Davis (caption: Jefferson Davis going to war) that depicts him as Jackass when turned upside down (caption: Jefferson Davis returning from war).

Multiple orientation artwork should be distinguished from art that employs gestalt switches. Gestalt psychology is driven by the insight that the appearance of an object is affected by the internal relationships between depicted figures. Multiple orientation art focuses on the change in appearance wrought by an altered external relationship with the viewer himself. Gestalt effects are preserved by flops because reflection preserves the internal relationships between elements of the composition.

The mode of presentation can become more important than the art object. Mobiles and kaleidoscopes are interesting just because of their shifting modes of presentation.

6. Reversed observers and universal reversals

An object can be made to appear mirror reversed by reversing the observer rather than the object. We three dimensional beings could reverse a two dimensional flat-lander by picking him up and turning him over. If he had disliked the orientation of his _ cut-outs, then the reversed flat-lander would be pleased that all now appear as _ to him. Sadly, this reversal of the observer would have the side-effect of re-orienting objects that originally had pleasing orientations.

If we did not warn our flat-lander of his impending re-orientation, he might have some trouble figuring out what happened. Once he had determined that everything else had changed orientation with respect to himself, he would have two hypotheses to choose from. Under the first hypothesis, he has maintained his original orientation and all other objects have been reversed. (Then he would be like Alice who goes through the Looking Glass unreversed.) Under the second hypothesis, only he is reversed.

Just as a three dimensional being could reverse a two dimensional being, a four dimensional being could reverse a three dimensional being. If the being reversed me, all other objects would look mirror reversed to me. Some might look better, some worse. But actually, none of the objects would have improved or degraded.

Suppose everything did mirror reverse -- including me. If mirror reversal were relevant to objects themselves, this would change the aesthetic merit of many objects. But actually it would not change the standing of any object.

This argument for the irrelevance of mirror reversal might be challenged on the grounds that universal mirror reversal is meaningless (as first maintained by Gottfried Leibniz). Martin Gardner offers the following analogy:

Imagine a Flatland on a vertical sheet of glass standing in the center of a room. It is, say, a left-handed world when you view it from one side of the glass. Walk around the glass, you see it as right-handed world. (Gardner 1989, 69)

This analogy is less compelling once one draws a process/product distinction for 'extrinsic change'. Walking to the opposite of the glass achieves an extrinsic result through an extrinsic process. But now suppose the glass is composed of two panes. Each pane can be independently slid ("translated") and flipped. Slide the two panes so they exchange positions. Then flip each. The glass as a whole is now the mirror reversal of the original position. An extrinsic result has been achieved by intrinsic means. This is a real change of everything rather than a change of nothing.

The hypothesis that everything mirror reversed could be confirmed or disconfirmed. Suppose I wake to find the sun rising in the west. Both my slippers only fit my left foot. When I try to replace a light bulb, I find that a fresh bulb of the same size will not thread into the socket. Given that half of everything is reversed, I would not know which things are now mirror reversed and which have the same orientation as yesterday. However, I would know one thing: it is false that everything mirror reversed last night.

The above scenario is inspired by John Passmore's (1965) refutation of the claim that 'Everything doubled in size last night' is unfalsifiable. In "Time without change", Sydney Shoemaker presents another scenario to show how there could be evidence for universal changelessness. His basic idea can be adapted to show how we could acquire evidence in favor of a universal mirror reversal. Suppose astronomers discover that distant sectors of the universe mirror reverse in cycles. Sector 1 covers one sixth of the universe and sector 2 covers two sixths. The annual orientations, right (R) and left (L), have been recorded on a table:

Sector 1	R	L	R	R	L	R	R	L	R
Sector 2	R	R	L	R	L	L	L	L	R

One astronomer proposes an hypothesis to simply account for the data. Instead of assuming that only the distant sectors of the universe mirror reverses, assume that the local half of the universe also shifts every 3 years. The re-orientations can then be re-described as follows: sector 1 shifts every year, sector 2 shifts every two years, sector 3 shifts every three years:

Sector 1	R	L	R	L	R	L	R	L	R
Sector 2	R	R	L	L	R	R	L	L	R
Sector 3	R	R	R	L	L	L	R	R	R

The data from first table is correct if sector 3 is taken as the standard orientation. The re-orientations can also be tabulated from the perspective of astronomers in sector 1 and another table from the perspective of sector 2. However, all of these relative standardizations are misleading and artificially complicate the cycles. The simpler hypothesis uses an absolute standard under which it makes sense to say that the entire universe changes its orientation in three phases every four years. The initial labeling of right and left is conventional. But the handedness is objective.

Actual astronomers know that some large objects undergo sudden orientation changes. The sun reverses north and south magnetic poles periodically. It becomes its own enantiomorph. There is also recent evidence that the universe as a whole has an orientation. If the Big Bang has a twist, symmetry considerations suggest there might be another "universe" with the opposite twist. These two ends of the universe might only differ in orientation.

Although speculative, these hypotheses are empirical issues. Since they are meaningful by the standards of physics, these hypotheses are relevant in aesthetics.

A universal reversal would not alter the aesthetic merit of any artwork. Each flopped object would be numerically the same as the original. Hence, we could derive a contradiction from the supposition that the asymmetric object is better than its flop. For an object that is flipped through the fourth dimension would be better than itself.

7. Unfakeable but mirror reversible

Since everything can be flopped, any object can be flopped. This includes beautiful natural phenomena that are not art objects: window frost, sunsets, constellations, etc. These phenomena can be faked but not forged.

As noted by Nelson Goodman, some kinds of art are unfakeable. The origin of a musical piece can be faked but as long as it is played correctly, it is a genuine instance. In the performing arts, origin is not used to individuate the artwork. In Nelson Goodman's (1983, 103) terminology

this makes performances allographic. Only structural features are used to judge whether something is a performance of "Jingle Bells". A work is autographic if, and only if even the most perfect duplication does not make the work genuine. Hence, the distinction between authentic works and fakes is only significant for autographic art works.

Goodman treats literary works and musical scores as allographic. All that is needed for a page of musical notation to constitute an instance of "Jingle Bells" is for it to contain an instance of the notes in the right kind of arrangement. Since the mirror reversal violates this order, the flop of "Jingle Bells" is not an instance of "Jingle Bells". However, the flop of that flop is a genuine instance. Thus genuine instances can be obtained from non-genuine instances. So the mirror produces a curious alternation of authenticity in allographic art works: The mirror reverses genuine instances into non-genuine flops and non-genuine flops into genuine instances. Given a four dimensional view of time, authenticity is an extrinsic property of allographic works but an intrinsic property of autographic works.

Many commentators on forgery claim it is impossible for all artworks to be forgeries. They draw an analogy with Gilbert Ryle's (1953) claim that it is impossible for all currency to be counterfeit. However, Ryle's claim has been refuted with scenarios featuring a population that succumbs to a myth about the origin of their money. For example, Michael Wreen (1980: 147) imagines a new nation that expects coins to be introduced. Just prior to the manufacture of the coins, the government's plates and dies are destroyed and counterfeiters introduce their own phony coins. Wreen offers a similar scenario to show that all examples of a new genre, the painting, could be fakes. Wreen's counterexamples exploit the fact that 'forge' is not a veridical modifier. Although 'forge' must modify another term ('forged coin', 'forged painting', etc.) it is not a relational term that guarantees the existence of what it modifies. The object of the forgery is intentional. For instance, someone can forge the check of W. T. Jones even though Jones does not exist.

In contrast, 'flopped' is an extensional term. Indeed, flops are studied in mathematics under the rubric of "reflection". A flopped F is an F. A forged F is normally not an F at all. Arthur Danto (1973) and George Dickie (1974: 46) have maintained that no forged paintings are paintings. Both insist that originality is a necessary condition for being an artwork. The belief that forged artworks are not real artworks falls in step with a tendency to regard them as inherently inferior. J. L. Austin says 'real' belongs, along with 'good', in the family of words that have the general function of commending:

It is a curious point, of which Idealist philosophers used to make much at one time, that 'real' itself, in certain uses, may belong to this family. 'Now this is a real carving-knife!' may be one way of saying that this is a good carving-knife.

And it is sometimes said of a bad poem, for instance, that it isn't really a poem at all; a certain standard must be reached, as it were, even to qualify. (1962: 73)

The evaluative edge of `forgery' is sharpened by the moral wrongness of forging. Forgeries involve an intent to deceive with the purpose of bilking others.

Happily, `flop' is free of these complexities. When used in the sense of mirror reversal, `flop' is not a pejorative term and does not raise issues of originality or morality. Therefore, there is less danger of issues being confounded with one another.

The central principle brought into discussion by forgeries is that perceptual equivalents are aesthetic equivalents. This principle is relevant to the case of symmetrical flops and to asymmetric artworks that have been flopped an even number of times. It commits us to co-rank flopped but otherwise perfect copies with their symmetrical originals. A commitment to judge operational flops alike with their originals can also be extracted from the principle of identity. An object can become its own flop by being flipped through a higher dimensional space or by being viewed by a flopped observer. If flopping always changed the aesthetic status of work, the object differs from itself. Flopping an object an even number of times is equivalent to not flopping it. One could say that only an odd number of flops changes the aesthetic merit of a symmetrical artwork. But this would be saying that the numerically identical object could be improved by changing its orientation in a way that does not alter its appearance or its intrinsic properties.

Asymmetric objects are perceptually distinguishable when flopped an odd number of times. So the judgment that the flop must be aesthetically equivalent does not rest on the principle that perceptual equivalents are aesthetic equivalents. It is instead based on the principle of identity. In the case of copy flops, the judgment of equality rests on a supervenience principle: the aesthetic merit of a work always depends solely on its intrinsic properties, never on its extrinsic properties.

A fake obviously has different extrinsic properties than the original. If we count the history of an object as part of the object, then a copy will also always be intrinsically different from the original. Under this four dimensional view of time, an artwork is a space-time worm. The interesting question is what happens when some segments of one worm are indistinguishable from segments of another. After all, even a perfect copy only looks like the original for one stage of its existence. Even at this stage, there are imperceptible intrinsic differences, say, at the level of chemical composition. Nevertheless, the supervenience principle still has bearing if we strengthen the principle to mean that the merit of a work always depends solely on its perceptible intrinsic properties. `Perceptible' here means what is perceptible to gallery goers -- not what is perceptible to those chemically analyzing the painting.

Asymmetric flops highlight this supervenience principle more simply and crisply than fakes. Forgeries raise several issues that flops do not. Forgeries involve misdeeds. This moral defect is parlayed into a metaphysical difference by those who think that artworks must enter the artworld via a legitimizing process. They say fraudulent art is no more art than counterfeit money is money.

Those who view artworks as illusions are committed to indifference as to the means by which the illusion is generated. Idealism supplies an elaborate infrastructure for mentalist accounts. R. G. Collingwood, along with many nineteenth century idealists, believed that artworks were ideas (though not necessarily illusions). Recall the joke about Wagner's music: it is better than its sounds. The joke is funny because there is nothing more to music than how it sounds. The appearance is its reality. The instruments used to produce the sounds are not the artworks; they are just devices that create the appearance. Collingwood extends this reasoning to sculpture and paintings. These objects are aesthetically valuable because they generate art (ideas) but they are not themselves art. After all, what constitutes an artwork need not be itself an artwork -- the pebbles that compose a mosaic are not themselves artworks. A perfect copy, by definition, generates an appearance indiscernible from the appearance generated by the original. Indiscernible appearances must be identical because there is nothing more to an appearance than what can be discerned (there is no higher order appearance/reality distinction). Therefore, the perfect fake and the original generate identical artworks. Since the instrumental value of the fake and the original derive from the value of what they produce, the principle of identity implies that the fake and its original are aesthetic equivalents.

All contemporary commentators on forgery take pictures to be concrete particulars. This ensures that a fake can never be numerically identical to its original. Hence, those who are willing to concede that the original has the same appearance as its copy can still attempt to distinguish the two by appealing to hidden differences in their intrinsic properties or their divergent histories. This strategy is not open when only one object is involved.

Flops lead us to issues that fakes only hint at. Forgeries can raise many of the same questions when supplemented with rich metaphysical assumptions such as mentalism. However, flops lead directly to these questions (essentially ones turning on the relevance of extrinsic properties) without the moral and ontological distractions that have side-tracked debate about forgeries.

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