

PERCEIVING CONTRADICTIONS

Graham Priest

I. Introduction

When it is suggested that contradictions might be true, many an analytic philosopher will screw up their face into a look of anguish, and say ‘But I just don’t *see* what it could be for a contradiction to be true’. They might mean many things by this. ‘See’ might simply mean ‘understand’, in which case they might be complaining that classical two-valued semantics leaves no room, as it were, for something to be both true and false. Such a lack of understanding can be rectified by explaining to them the semantics of a suitable paraconsistent logic, which does allow for this possibility.¹

But often, I think, the angst (real or imagined) is of another kind. What such a philosopher is trying to do is *imagine* what it would be like for a situation to be contradictory. They are trying to visualise how an inconsistent situation might look—and they fail. But it can be done. First, I will point out how; next, we will explore some implications of this fact.

II. Seeing Contradictions

So how can one visualise a contradictory state? To visualise a situation (literally) it must, of course, be one of a visible kind. The liar sentence might be true and false; and indeed one might be able to construct some quasi-visual mental representation of this fact; but the state of affairs itself is not of a kind that we can see, or, therefore, literally visually depict. Other things that have been suggested as true contradictions look more promising as candidates for a visible contradiction. It can be argued that some instantaneous transition states are contradictory; that, for example, at the instant a person leaves the room, they are both in it and not in it.² Now, being in a room and not being in it *are* the kinds of things that can be seen. Do we, in this situation, then, perceive a contradiction? No. For the contradictory state in question here is an instantaneous one, and one can perceive states only if they persist for some minimal time. (Suppose, for example, that you are watching something red which turns green for exactly an instant before becoming red again. You would perceive the thing as continuously red. The greenness has no duration.) Hence, though a moving object may realise instantaneous contradictory states, these are not such as can be seen.

But we are looking in the wrong place, and missing the obvious. The strategy pursued so far was: find a true contradictory state of affairs and look at it. If we were to succeed in this enterprise, the content of our visual experience would, by definition, be veridical. But

¹ See, e.g., Priest [7], ch.5.

² See Priest [7], ch.11.

the contents of our visual experiences are not always so: we experience many kinds of visual illusions. These are not necessarily of contradictory situations. Many, in fact, most, optical illusions are of quite consistent situations: they are just not veridical. Consider, for example, the well known Hermann grid, a white grid on a black background. (See figure 1.³) When one looks at this, one sees dark patches at the interstices of the grid. The dark patches are not really there, but there is nothing contradictory about the way the figure appears. There are, however, visual illusions where what is perceived is not consistent. I will give three here.

Example 1. The first kind of example concerns impossible figures: drawings of (or photographs which appear to be of) things which are physically impossible. These have become very familiar thanks to the art of Maurits Escher.⁴ Not all impossible figures depict what we require, however. Consider, for example, the Schuster figure (figure 2). At the right end, the figure appears to have two protuberances; at the left, it appears to have three prongs. One can focus on either end of the figure and see that part coherently; but there is no way that one can focus on the whole and see it coherently. (This, at least, is my reaction.) One never, therefore, sees a contradictory situation. One can see parts of the situation, each of which is quite consistent.

But the situation is different with other impossible figures. Look, for example, at the Penroses' figure, figure 3. If one takes a corner, say the nearest one, one can see that, travelling continuously counter-clockwise, one can ascend to arrive back at the same place. The point, then, is higher than itself (but obviously, it is not higher than itself, as

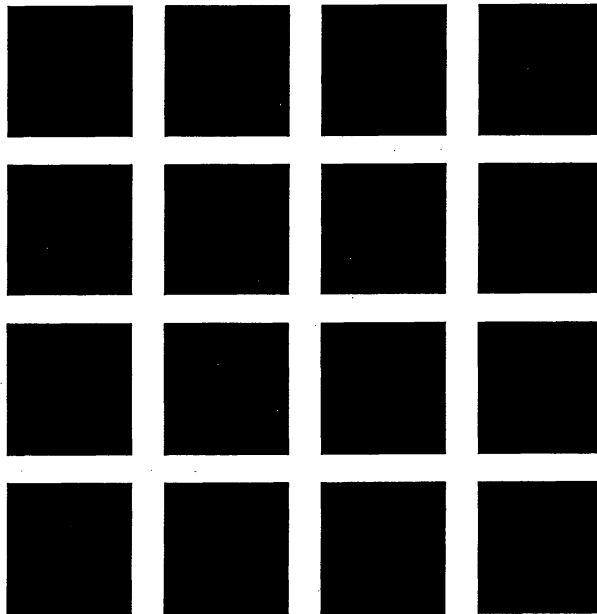


Fig. 1

³ This is taken from Gregory and Gombrich [4], p.23.

⁴ A general discussion of them can be found in Penrose and Penrose [6]; Robinson [12], p.176; Gregory and Gombrich [4], pp.86–88. Figures 2 and 3 below come from Robinson.

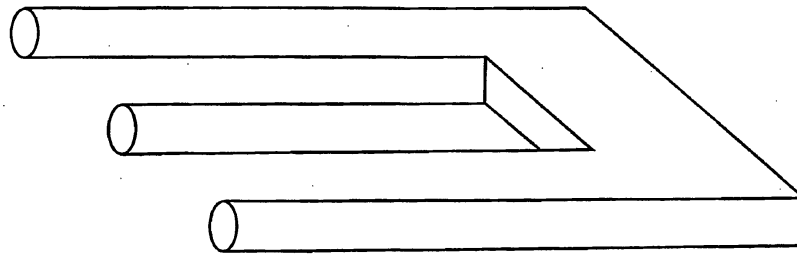


Fig. 2

well). Moreover, one can take the whole figure in, visually parse it, all in one go. This *is* a case where we can see a contradictory situation.⁵

There is an intriguing auditory analogue of the continuously ascending staircase. It is possible to produce a collection of musical tones which appear to be continuously ascending in pitch whilst, at the same time, never getting any higher—again, a contradictory situation.⁶

Example 2. The second kind of example concerns motion. It is often called the ‘waterfall effect’, and depends on a certain kind of visual after-image.⁷ If the visual field is conditioned by viewing continuous motion of a certain kind, say a rotating spiral, when

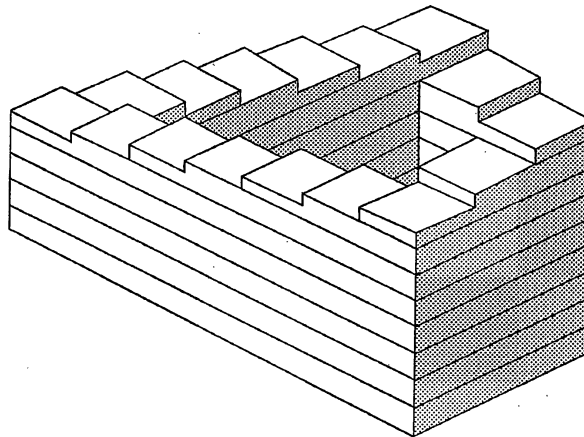


Fig. 3

⁵ The paper drew flak from two referees at this point. One argued that we do not see that the corner is higher than itself, but we infer that it is. I think that this is a false dichotomy. *Seeing that* is always an interpretative process, and inference may well play some role in a rational reconstruction of how it proceeds. A trained eye might be able to see immediately that a person is suffering from jaundice, though no doubt it is the yellowness of the skin that informs this judgment. Indeed, in the kind of pattern-matching that neural networks do, it is often hard to distinguish between perception and analogical inference. And whatever the facts of this matter, it remains the case that one case see that, by continuously ascending, one can return to where one started, a mathematical impossibility in a Euclidean space. A second referee objected that the illusion does not show what it would be like for the world to be inconsistent, because any normal object that appeared that way would not look contradictory from a different angle. Whether or not this is so, this is beside the point—which is that if the world were inconsistent (in a certain way), it would appear as does the illusion.

⁶ See Shepard [14] and [15]. An audio version of this is Tenny [16].

⁷ It is discussed in Robinson [12], pp.227–33 and Gregory and Gombrich [4], p.30.

the viewer then looks at a stationary scene, it appears to be moving in the opposite direction. But a point at the top of the visual field, say, does not appear to change place. As Blakemore puts it:⁸

Any object viewed after looking at movement seems to be drifting in the opposite direction. And yet the apparently *moving* object does not appear to change its *position* relative to its surroundings.

Yet to move is to change position. The situation is, therefore, contradictory.

An illusion of the same kind can be obtained with certain drugs. For example, if one consumes enough alcohol, then before one passes out, one's environment—the room—appears to 'swim', that is, move—usually, spin. If one now focuses one's attention on a point in the room, it appears to be stationary. The rest of the visual field, however, appears to continue moving. But the internal spatial relations between the fixed part and the moving part do not appear to change. Again, we have a perception of stationary motion.

Example 3. The third example concerns colour. It is well known that the brain will 'fill in' details of the optical field that are not there; for example, to fill in the fovea (blind spot). Now suppose a subject is shown a field, half of which is red and half of which is green, the two halves being separated by a black line. If the line is then removed, the brain fills in colours in the vacated space, and some observers report seeing that the boundary is now red and green.⁹

It may be possible to obtain a similar experience in a different way. It is easy to construct a pair of glasses that have a red filter on one lens and a green filter on the other. (It is possible to buy glasses of this kind for viewing old fashioned 3-D films.) If I put such glasses on, and allow perception to stabilise, everything appears a uniform brownish colour. But for a short space of time,¹⁰ until things stabilise, I have the very strange experience of seeing everything as red and as green, though the red and the green seem, somehow, to be at different depths in the visual field.

It might be said that being red and green is not a contradiction. But it is: red and green are complementary colours. It is, hence, a conceptual impossibility for something to be both colours. A feature of complementary colours is that they can't go together. There is no reddy-green, in the same way, for example, that there is a reddy blue. Something that is red and green, is red and not red.

These examples show that it is quite possible to perceive a contradictory situation. What is it like to see something that is, at once, both higher than itself and no higher than itself?

⁸ Gregory and Gombrich [4], p.36. His italics.

⁹ The experiment was done by Crane and Piantinada [1]. It is discussed in Hardin [5], p.124ff. (I am grateful to Alan Hazen for drawing my attention to these.) It must be stressed that, unlike the first two examples, this is a relatively new result, and more work may need to be done to confirm it. It should also be stressed that not all observers report seeing the same thing. Some observers report seeing different kinds of 'filling in'.

¹⁰ Maybe half a second, though I can hold it a bit longer sometimes. I should stress also, that the experiences I report here are mine; I make no claim that everyone sees the same thing. It is not uncommon for different people to report different colour experiences under unusual conditions.

Consult the first example. What is it like to see something that is moving and not moving? Consult the second. What is it like to see something that is red all over and not red all over? Consult the third. Of course, the examples are not veridical; they are illusions; but they fulfill the required function none the less. They show that we may have perceptual experiences the contents of which are contradictory.¹¹

III. The Non-Triviality of the World

And now that we have answered that question, let us use it to answer another. It is important to distinguish between two positions. The first is that some contradictions are true—dialetheism; the second is that everything, and *a fortiori*, every contradiction, is true—trivialism. Though it should go without saying that the second is a lot stronger than the first, many opponents of dialetheism, from Aristotle onwards, have confused the two claims.¹² Yet a substantial case can be made for the first;¹³ belief in the second, though, would appear to be grounds for certifiable insanity. We know that it is untrue. But *how* do we know?

The cup in front of me sits on a table, and these are at rest with respect to each other. How do I know that they are not also not at rest, that is, in motion? I can see it. I know what it is like for things to be both at rest and in motion with respect to each other. That is exactly how things appear in example number two, and it is not like that. This, at any rate, is one contradiction I can see not to obtain. Similarly, the grass before me is green. How do I know that it is not also red? Again, I can see it. I know what it is like for something to be both red and green. That is how things appear in example number three, and it is not like that. A similar argument can be based on example number one. I leave this as an exercise. We know, then, that the world is not trivial, since we can see that this is so.

These considerations, like all *a posteriori* considerations, are defeasible. Observation is a fallible matter, and what appears to be the case may not, in fact, be so. If it turned out, for example, that supposing grass in Australia to be red and green all over allowed us to explain and predict every fluctuation of the Australian dollar, but had no other untoward consequences, we would have strong evidence that our senses deceive us in this case, and that Australian grass is red and green. But there is no cogent evidence that our perception ever does deceive us by making an inconsistent situation appear consistent. Hence, the reasoning stands.¹⁴

¹¹ I am indebted to the independent scholar Henry Flynt for making me see that phenomena of the kind described in this section are important—though we may disagree about what that importance is. Since the early 1970s, Flynt has been exploring the idea of taking illusions as the semantic content of inconsistent expressions; a number of his pieces of art relate to this idea. See, e.g., Flynt [2], [3].

¹² This is documented in Priest [9].

¹³ See Priest [7].

¹⁴ It is, in some sense, *a priori* possible that an inconsistent object appear in a consistent way. Indeed, a skeptic holds that our perceptions may always fail to reflect how things are. And a trivialist, who holds that everything is the case, will hold that all our consistent perceptions are misleading. Against such opponents, the above argument carries no weight—nor does any *a posteriori* argument. The best one can hope for in such cases is some transcendental argument for the non-triviality of the world. An argument of this kind is given in Priest [10]. But here, the question is not how to dispute the issue with a trivialist. I take it for granted that we know that the world is not trivial. The point is to explain how.

IV. The Consistency of the Empirical World

Our perception, then, tells us that not everything is true. But we may also establish something stronger and more interesting than this. Let us work our way up to it.

When we perceive, we can see that something *is* the case. Can we also perceive that something is *not* the case? Some have thought not.¹⁵ We can only perceive that something *is* the case. For example, we cannot see that something is not green. We can see only that it is red. Any judgment to the effect that it is not green has to be added to what we see by inference. This, as we now see, is false. I can see directly that something is not green. Or consider another example: you enter a room; the whole room is visible from where you stand; there is no one there. You can see that Pierre is not in the room. No Pierre-shaped objects meet the eye.¹⁶ Even the very distinction between seeing what is the case and what is not the case is a false one. Some seeings are both. With respect to physical objects, to be transparent is not to be opaque, and vice versa. But you can see that something is transparent and you can see that something is opaque.

Next: if α and β are states of affairs observable by looking in the same direction at the same time, then so is their conjunction. We can see that something is a unicorn; we can see that it is green. Hence, we can see that it is a green unicorn. Applying this: let α describe an observable state of affairs, that x is happening here and now. Then $\neg\alpha$ describes another observable state of affairs, that x is not happening here and now. But then the conjunction $\alpha \wedge \neg\alpha$ also describes an observable state of affairs. That is, if such a state of affairs were ever to be the case, it could be seen. Might it not be the case, though, that our cognitive functioning makes it impossible for us to see certain conjoined states of affairs? Specifically, it might be suggested that our perceptual mechanisms impose a 'consistency filter' on what we see. But there is no empirical evidence, that I know of, to suppose that there is such a filter. Indeed, there is every reason to suppose that there is not. For as the examples of Section II show, we *can* see inconsistent states of affairs.

And now to the point. Consider the observable world, i.e., all that is observably the case. If there were inconsistencies in this, it would follow from the above that we would perceive them. But apart from the odd visual illusion, we do not: our perceptions of the world are entirely consistent. Hence, the observable world is consistent.¹⁷

Here, again, it is possible to object. We do have perceptions with contradictory contents: the visual illusions themselves. Why, in this context, are we entitled to assume that they are illusions? The question is a good one, but there are simple answers. In the case of the first example, we are not actually perceiving a situation at all, simply a picture of one, which we interpret in a certain way. The second example is more complicated. How do I know that when I perceive the waterfall illusion, or am drunk, the room is not both moving and stationary? First, there is the testimony of my other senses. If I touch the spinning wall, it feels (consistently) stationary. Second, there is the testimony of others. Everyone else who perceives the room—or at least, everyone else who is capable of

¹⁵ E.g., Vasil'ev [17].

¹⁶ The example comes from Sartre [13], ch.1, sect.2.

¹⁷ The methodological consequences of this are discussed in Priest [11]. The conclusion here is, again, *a posteriori* and fallible. In particular, if it ever transpired that there were certain kinds of inconsistent situations that our perceptual apparatus could not take in, the conclusion would fold.

saying anything coherent to me—does not see it in the way that I do. Third, there is all sorts of other information. If the room were really spinning, the lamp would swing, things would fall off shelves, etc. Whilst all these facts could be explained away, the simplicity of the hypothesis that the apparent motion of the room is entirely subjective makes this overwhelming. The third example is very similar. How do I know that the room does not go red and green all over when I put on the glasses? Again, the facts that only I see it in this way, that the colouring comes and goes with the glasses, etc., clearly make the hypothesis that the colouring is subjective a superior one.

Could it be the case that, in the future, science will be able to conjure up actual situations that are inconsistent, perceivably so, and not illusions? Who knows?—science is a strange thing.¹⁸ But for the present, at least, there is good reason to suppose that the perceivable world is consistent.

V. Conclusion

Perhaps this is a major reason why a number of philosophers are not prepared to countenance dialetheism—unless that countenance be screwed up in anguish. Take the conclusion that the perceivable world is consistent, throw in a simple empiricism—what is so in the perceivable world is so everywhere—and the result follows. Given the state of modern science, the shortcomings of such empiricism, and so of this argument, require no further comment.¹⁹

University of Queensland

Received: September 1998

Revised: February 1999

REFERENCES

1. H. Crane and T. P. Piantinada, 'On seeing reddish green and yellowish blue', *Science* 221 (1983), pp. 1078–80.
2. H. Flynt, 'The apprehension of plurality', typescript, 1974. Chapter 3, 'A provisional axiomatic treatment' appeared in *Blueprint for a Higher Civilisation* (Milan, Multhipla Edizioni, 1975), pp. 195–200.
3. H. Flynt, 'Phenomenological logic of contradictions as an outcome of normative everyday logic', typescript, 1997.
4. R. L. Gregory and E. H. Gombrich (eds.), *Illusion in Nature and Art* (London, Duckworth, 1973).
5. C. L. Hardin, *Color for Philosophers* (Indianapolis, Hackett Publishing Company, 1988).
6. L. S. Penrose and R. Penrose, 'Impossible objects: a special type of illusion', *British Journal of Psychology* 49 (1958), pp. 31–5.
7. G. Priest, *In Contradiction* (The Hague, Martinus Nijhoff, 1987).
8. G. Priest, 'Sylvan's box; a short story and 10 morals', *Notre Dame Journal of Formal Logic* 38 (1997), pp. 573–82.

¹⁸ For a fictional exploration of this situation, see Priest [8].

¹⁹ A version of this paper was given in the Philosophy Department of the University of Queensland. I would like to thank my colleagues there for their helpful comments, in particular, Deb Brown, Dominic Hyde, Roger Lamb and Byeong Yi. Two referees for the *Journal* also made a number of helpful comments. For many interesting discussions concerning the *a posteriori* nature of the non-triviality of the world, I am indebted to Diderik Batens.

9. G. Priest, 'To be *and* not to be—that is the answer; Aristotle on the law of non-contradiction', *Philosophiegeschichte und Logische Analyse* 1 (1998), pp. 91–130.
10. G. Priest, 'Could Everything be True?', to appear.
11. G. Priest, 'Inconsistency and the Empirical Sciences', to appear.
12. J. O. Robinson, *The Psychology of Visual Illusion* (London, Hutchinson & Co., 1972).
13. J.-P. Sartre, *L'Être et le Néant* (Paris, Gallimard, 1943).
14. R. N. Shepard, 'Circularity in judgments of relative pitch', *Journal of the Acoustical Society of America* 36 (1964), pp. 2346–53.
15. R. N. Shepard, 'Demonstrations of circular components of pitch', *Journal of the Audio Engineering Society* 31 (1983), pp. 638–49.
16. J. Tenney, 'For Anne (rising)', in *Selected Works, 1961–1969* (Hanover, NH, Artifact Records, 1992).
17. N. Vasil'ev, 'Logica i métalogica', *Logos* 1–2 (1913), pp. 53–81. Translated into English by V. Vasukov as 'Logic and metalogic', *Axiomathes* 4 (1993), pp. 329–51.