Arguments from ignorance take the following form (following DeRose 1995), where ‘H’ stands in place of some sceptical hypothesis and ‘P’ is something that we would ordinarily take ourselves to be capable of knowing.

1. I don’t know that not-H.

2. If I don’t know that not-H, then I don’t know that P.

So,

3. I don’t know that P.

The premises of such arguments are often said to be at least initially plausible. Let’s consider a particular instance of the argument using a version of Fred Dretske’s (1970) zebra scenario. Imagine that I am looking at animals in an enclosure in some established, well-organized zoo. In the ordinary course of events, aside from philosophical arguments like arguments from ignorance, I would unhesitatingly regard these animals as zebras. I can recognize zebras when I see them. The notice on the outside of the enclosure describes them as zebras. There is nothing about the circumstances that would lead one to suppose that they are anything other than zebras. But I am presented with the following train of thought.

(1a) I don’t know that those animals are disguised mules.

(1b) If I don’t know that those animals are disguised mules then I don’t know that they are zebras.

So,
(1c) I don’t know that those animals are zebras.

Note first that prior to considering the argument I would certainly have regarded (1a) as absurd. I know that being a zebra precludes being a mule. So were the question to arise I would certainly have been happy to vouch for those animals not being cleverly disguised mules. Suppose that I were on this occasion accompanied by a young child, who has never seen zebras, or representations of zebras, but who has seen mules. She asks me whether these animals are an odd kind of mule. I explain that they are not mules but zebras. In so doing I give her to understand that this is something I know to be so and, since I speak sincerely, I presuppose that it is something I know to be so.

The point of describing the judgements and assertions that I would make in this scenario is to reveal what, I assume, it would be just as natural for others to judge or assert in the circumstances if they were thinking and acting sensibly. And the point of that in turn is to reveal something of the understanding that I take it that I share with others about how one can know the sort of thing that I know in the circumstance described. Part of what is revealed is that in judging the animals to be zebras I deploy a familiar way of telling of certain things that they are zebras: I tell from the way they look. Many others have the concept of a zebra and many of those have mastered this way of employing the concept. It amounts to applying a way of telling that is of a familiar type—telling of something that it is of some kind from the way it looks. Along with many others, I regularly deploy ways of telling of this type, for instance, on countless visits to supermarkets when I identify various kinds of fruit or vegetable from the way they look.

Philosophers who have little regard for armchair reflection as to what one would oneself judge in, or about, some imagined scenario, sometimes observe that we can be wrong in assuming that our judgements reflect what ‘we’—some imagined and supposedly quite indeterminate population—would judge. However, for one thing, at least in this case the imagined population is specifiable for it comprises those who have mastered a familiar and specified way of telling. For another, we should be unashamed to acknowledge our fallibility with respect to judgements about what we would say. The point of much philosophical discussion since the time of Socrates has been to test in discussion whether what comes naturally to one to say or think can stand up to critical discussion. There is no reason to suppose that this general lesson
does not apply to what I would say or think about what we would say or think. A description such as I have given invites others to reflect on whether the judgements and assertions that I assume that I would make in the scenario described match those that they would make. If there is a clash of judgments its source can be explored.

In a live situation, such as the scenario I have described, there is, I take it, nothing even initially plausible about premise (1a). For, not only would we judge the animals to be zebras, we’d be willing sincerely to vouch for them being so as I would to the enquiring child. Any appearance to the contrary, I suggest, derives from approaching the issue having already been gripped by the considerations that are supposed to make (1a) plausible as opposed to reflecting on what would strike one as being plausible in a live situation. In connection with this it is striking that it really would be outrageous to be circumspect with the child as to whether the animals are zebras. If you want children to learn you had better not convey the impression that, because it is possible for things that are not of a certain kind to be made to look like things of that kind, one cannot tell that things are of that kind from their appearance.

What difference does it make when the sceptical argument is presented to me? We can imagine a version of the scenario in which the questioning child is very precocious and, in effect, presents the argument. Having asked what kind of animals are in the enclosure she now asks how I know that they are not mules made to look like zebras. Accordingly she wonders whether I should be claiming that they are zebras. In response to this I would probably advert to the fact that this zoo is not the sort of place at which animals that are not zebras would be made to look like zebras and described as zebras on enclosure-notices. Drawing upon my conception of the character of this place, I would be no less willing to say this sort of thing if I knew, as I do, that somewhere in the world animals that are not zebras have been made to look like zebras. And since it is obvious that being a zebra precludes being a mule cleverly disguised as a zebra I would confidently and sincerely vouch for its being the case that they are not mules cleverly disguised as zebras. In this stretch of dialogue, it should be noted, I do not seek to assure the child simply by re-iterating the claim that I know that these animals are zebras from their visual appearance and drawing the conclusion that they are not mules. Rather I advert to broader considerations that explain why the possibility that they are cleverly disguised mules is not to be taken
seriously. The effect of this explanation is to defend, not simply re-iterate, my claim to know that they are zebras.¹

I do not present the foregoing commentary on the zebra scenario as a satisfying response to scepticism. Its limited function is to speak to whether it is initially plausible that I do not know that the animals are not mules cleverly disguised as zebras. My claim is that there is no initial plausibility to any such claim (that is, to premise (1a)). Such force as the argument (1a)-(3a) might be thought to have depends on a contestable epistemology.²

The primary consideration is, of course, that I do not know that the animals are not cleverly disguised mules because (i) I am judging that they zebras from the way they look, and (ii) they would look just the same if they were (very) cleverly disguised mules. Why is this supposed to be relevant to whether I know they are not cleverly disguised mules? Fred Dretske put the point as follows when he introduced the zebra example.

The evidence you had for thinking them zebras has been effectively neutralized, since it does not count towards their not being mules cleverly disguised to look like zebras. (Dretske 1970: 39)

When Dretske says that the evidence has been effectively neutralized he cannot mean that it turns out not to be evidence for believing that the animals are zebras, but, rather, that this same evidence does not count towards their not being cleverly disguised mules. As is well known, he was unwilling to conclude that the subject in the example does not know that the animals are zebras. This is why he sought to make sense of the idea that knowledge is not closed under known entailment. However, returning to the imagined scenario, even aside from the issue of whether knowledge is closed under known entailment, it is hard to see why it should be so readily thought that I know that the animals are zebras even if I do not know that they are not disguised mules. The knowledge that the animals are zebras is supposed to have some

¹ It would, as Stewart Cohen (2002: 314) implies, be unsatisfactory to reply to the child simply by saying it looks like a zebra so it is a zebra, and so it not a mule cleverly disguised as a zebra. That is not what is going on here.
² John Greco (2008: 111) makes a similar observation in relation to an argument involving a radical sceptical hypothesis.
kind of justification. According to one widely held view, this defeasible justification
is supplied by my having a suitable range of perceptual experiences—experiences
such that it looks just as if a zebra is before me. However, we need an explanation of
why any justification supplied by the appropriate range of experiences would be any
better than that which experiences in this range provide for thinking that the animals
are mules disguised as zebras. After all, *ex hypothesi*, any experiences that are such
that it looks just as if zebras are before one is an experience such that it looks just as if
cleverly disguised mules are before one. So, as things stand, it seems that the
experiences in question do not favour the claim that the animals are zebras any more
than they favour the claim that they are cleverly disguised mules. Similar
considerations apply *mutatis mutandis* if the justification is taken to be supplied by
the visual appearance of the animals since the appearance is as one would expect it to
be if the animals were cleverly disguised mules as much as it is what one would
expect it to be if the animals were zebras.

It might be thought that the situation could be improved if we deepened the
account of perceptual justification. The account needs to be developed in any case
since it is not obvious how either visual experiences or visual appearances are
supposed to provide justification. A natural suggestion at this point is to invoke
conceptual competence. The starting point is that when a belief B is based on other
beliefs, it will be justified only if the subject exercises competences bound up with
employment of the concepts implicated by B and the other beliefs involved. When for
instance, I conclude that John will take the job from the information that he has been
offered the job and that if he were offered the job he would take it, I would be
manifesting competence in employing the logical concept expressed by ‘If … then
…’. Similarly, it might be thought, when a belief is based on visual experiences it will
be justified only if the subject exercises the conceptual competences implicated by
that belief and any other relevant beliefs. If I am prompted to believe that the bird on
the bird table is a goldfinch by an experience of the sort that would normally be
produced by looking at a goldcrest then I shall not have formed by belief competently.

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3 See for instance, Crispin Wright (2002), who speaks in terms of defeasible *warrants*,
provided by experiences. For views of a similar general type, see Pollock 1987 and
Pryor 2000.
4 The underlying principle applied here is what Anthony Brueckner (1994: 830) calls
the underdetermination principle.
Either my dispositions to form beliefs to the effect that there are goldfinches before me have not been attuned to the right range of visual experiences or I have been careless in forming my belief on this occasion. Applied to the present case the idea would be, roughly speaking, that the appropriate, because competent, default response to the visual experiences gained from looking at the zebras is to believe that they are zebras. But as yet we still have no explanation of what makes this response a competent one rather than believing that the animals are cleverly disguised mules. If believing that the animals are zebras is a competent response to visual experiences that I am having, why isn’t it just as competent to believe that they are cleverly disguised mules? Again, similar points could be made in relation to the version of the conception of justification on which justification is provided by visual appearances.

A natural reaction at this point would be to suggest that it is a mistake to suppose that the justification for believing that the animals are zebras is supplied just by current visual experiences or facts about the visual appearance of the animals. We need to take account of the role of background beliefs. For instance, where the focus is on visual appearances the natural line to take would be to regard the belief that the animals in the enclosure are zebras as a conclusion from an assumption as to the appearance of the animals in conjunction with a premise connecting that appearance with being a zebra. This would give us an inferentialist conception of the knowledge. This would require that the relevant background beliefs should themselves have an appropriate epistemic standing. They should be known or at least justifiably accepted. This inferentialist line of thought raises problems.

One problem concerns the epistemic status of the relevant background beliefs. I have a picture of the world and its workings according to which things that look like these animals in the enclosure are far more likely to be zebras than anything else. It is also part of my picture that the people who run places like this zoo would not perpetrate the kind of deception involved in dressing up mules or anything else to look like zebras. It is a further question whether I know such things to be so. This picture, of course, does not come from nowhere. It has been built up from myriad perceptual encounters with objects and events, and sources of information, including

\[5\] I elaborated a view of this kind in Millar 1991.

\[6\] A principle along these lines is assumed in Peter Markie’s (2005) discussion of perceptual justification. He calls it the Background Justified Belief Principle.
statements made by other people. Yet there is a serious and, I think, under-examined, question whether experiences that inculcate a picture of the world should be regarded as justifying the acceptance of that picture, at least if justification is conceived in terms of believing for a reason. (I say more about this in section 4.) Even supposing that I do know, there is a question as to whether in every case in which we tell from the visual appearance of a thing that it is of a certain kind we know that having the appearance in question reliably indicates membership of that kind. In such cases we presuppose that this is so in being prepared to judge things to be of the kind in question from their appearance, and in the absence of reasons not to take the appearance at face value. But it is not obvious that we need have acquired knowledge that it is so or even a justified belief, if that is understood to require belief for a reason. A similar problem arises in connection with the perceptual recognition of individuals as being, say, one’s brother or sister, or the man who runs the corner shop. Who among us has done anything to establish that, for instance, having the appearance of some known relative or acquaintance is a reliable indicator of being that relative or acquaintance? This issue, it should be noted, is no less pressing for the view that the justification in cases of perceptual knowledge is provided by experiences in combination with background beliefs. I do mean to suggest that the problem of the status of background beliefs cannot be solved, but solving it is by no means a routine task. I take some tentative steps in this direction in section 4, though not with the aim of defending the inferentialist conception of the knowledge that the animals are zebras.

Whatever line is taken on the status of background beliefs or presuppositions we should, I think, avoid representing perceptual knowledge that a thing is of a certain kind to be covertly inferential, being based on a premise as to the appearance of the thing and assumptions bearing on the likelihood that a thing would be of this kind if it had this appearance. It might be thought that this is just the right approach to take on the grounds that we cannot know things to belong to some natural kind perceptually. If this were right then from their appearance I could at best know that these things in the enclosure have the appearance they have, but not that they are zebras or even animals. To acquire the latter knowledge I would have to rely on assumptions that connect having this appearance with being a zebra. Arguably, such a view distorts the phenomenology, which strongly suggests that the judgements we make to the effect that things of this or that natural kind can be genuinely recognitional rather than
inferential. I shall in any case take it that what we can see to be so extends well beyond the superficial properties of things that make up their visual appearance.\(^7\) We can, for instance, see that, and in that way know that, our brother or sister has entered a room or that there is milk in the fridge. Such knowledge is perceptual-recognitional rather than arrived at by way of drawing a conclusion from a series of assumptions.

A related problem for the inferentialist view is that it requires that for knowledge that the animal is a zebra I must have either the concept of the appearance of a zebra or concepts pertaining to the visible features that make up that appearance. I see no reason to think that this is so. It is pertinent here that being able to tell *from* its appearance that X is of some kind is not the same as judging on the basis of a statement describing X’s appearance that it is of that kind. As Austin observed

> In view of the fewness and crudeness of the classificatory words in any language compared with the infinite number of features which are recognized, or which could be picked out and recognized, in our experience, it is small wonder that we often and often fall back on the phrases beginning with ‘from’ and ‘by’, and that we are not able to say, further and precisely, *how* we can tell. (Austin 1946/1979: 85)

We could summarise Austin’s point by saying that visual recognition of X as being an F is a direct response to a visually perceived *Gestalt* rather than a conclusion reached on the basis of facts as to the visible appearance of X or the features making up that appearance.

We had better reject the idea that my knowledge that the animals in the enclosure are zebras is covertly inferential and try to make sense of how it can be genuinely recognitional. This presents us with two problems.

(A) If the knowledge is genuinely recognitional then we have to make sense of how we can know that something is a zebra *from its visual appearance*, notwithstanding that it is possible that things other than zebras should have this appearance. The task is to locate an asymmetry between the envisaged good case and the counterpart bad case in which the animals are cleverly disguised

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\(^7\) For relevant discussion, see Millar 2000.
mules. The asymmetry must lie not just in the fact that the animals are zebras in the good case and not in the bad case. It must lie in something that explains how I have latched onto the truth in the good case but not in the bad case.

(B) Even though the knowledge that the animals are zebras is recognitional rather than inferential there is no doubt that background beliefs and presuppositions inform the relevant recognitional ability. For instance, in being willing to judge that something is a zebra from its appearance I presuppose not just that zebras by-and-large have this appearance but also that the appearance is distinctive—that having this appearance is a very highly reliable indicator of being a zebra. So there is a question as to the status of those presuppositions. If they amount to knowledge then we need an account of this knowledge. We also need some understanding of how they may responsibly be exploited in relation to our recognitional and other knowledge-acquisition abilities.

I address these problems in turn in the ensuing sections, highlighting differences from the epistemology that underpins arguments from ignorance. I should make clear that although throughout I focus discussion on the zebra scenario, and the sceptical hypothesis that the animals are disguised mules, I believe that the general line of thought developed here can be extended to examples in which the sceptical hypothesis is more radical, such as the hypothesis that I am a brain in a vat.

I have argued elsewhere that instead of attempting to give a reductive analysis of knowledge in terms of true belief plus the satisfaction of further conditions, we should provide accounts of various kinds of knowledge in terms of the abilities exercised in acquiring or sustaining knowledge of those kinds. The knowledge I have in the zebra scenario is visual-perceptual knowledge in that it is knowledge from the visual appearance of the animals in question. Knowledge of this kind is acquired thanks to our possession and exercise of certain abilities. I know that the animals are zebras in

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virtue of seeing that they are. In other words, seeing that they are is the manner in which I know that they are. My seeing that they are is the exercise of a perceptual-recognition ability—an ability to recognize zebras to be zebras from the way they look. Two preliminary points are worthy of attention. First, it is informative to know that my knowledge was gained by exercising the ability in question. I could have come to know the same thing by other means, for instance, by exercising the abilities that would have been exercised had I gained the knowledge from testimony. Second, to know that the knowledge is acquired by the exercise of the ability in question is not just to know that it is acquired through the operation of some unspecified power to acquire knowledge of this kind. Invoking such a power would have little if any explanatory value. The claim is rather that the knowledge is acquired by a specified ability—the ability to tell of zebras that they are zebras from the way they look. This is an ability that most of us will have acquired as children, even if only through being presented with pictorial representations of zebras. It requires not just mastery of the concept of a zebra but an acquired sensibility that attunes us to the distinctive visual appearance of zebras. We shall have acquired the ability only if with a very high degree of reliability our judgements as to whether this or that is a zebra would be correct, and mistakes would have some explanation, for instance, distraction or temporary impairment of cognitive abilities.

Having the recognitional ability exercised in the zebra scenario amounts to having a way of telling of zebras that they are zebras from the way they look. I exercise the ability if and only if I tell, and thereby come to know, of something that it is a zebra from the way it looks. Nonetheless, I am fallible with respect to exercises of this ability. My fallibility consists in it being possible, and perhaps a fact, that on occasion I do not judge correctly when I judge something to be a zebra from its appearance. On any such occasion I will have, so to speak, aspired to exercise the ability, but have not actually done so; I aspired to tell but didn’t. Similarly, I might aspire to ride a bicycle while drunk but fail to do so. My failure in that case would be a failure to exercise the ability to ride a bicycle.⁹

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⁹ Some abilities like the ability that might roughly be characterized as the ability to put a basketball in the basket from 3 metres are success-rate abilities in that the ability in question is an ability to succeed in doing a certain thing a proportion of the times on which one tries. In Millar 2009 I argue that such abilities are exercised if and only if one performs the feat the relevant proportion of times. They do not provide reason
Not just the exercise of the ability but its possession depends on the environment being favourable. This comes as no surprise because my possession of the recognitional ability depends on me being reliable in the respect specified above. For me to be reliable in this respect the world must be a certain way. In particular, the visual appearance from which I judge things to be zebras must be distinctive of zebras, in that having this appearance—looking just like a zebra—is a very highly reliable indicator of being a zebra.

Examples of the fake-barn type alert us to the fact that distinctiveness can be relative to limited environments. In an environment in which enough mules cleverly disguised as zebras occurred amongst zebras I would be unable to distinguish zebras from disguised mules. Even if there were somewhere a local environment in which this is so it does not follow that I could not perfectly well recognize zebras to be zebras in environments like the zoo of our imagined scenario or the plains of Africa. Part of what it is to have a recognitional ability is to be sensitive to the possibility that appearances can be deceptive. The possibilities to which we need to be sensitive depend on the environment that we inhabit. We need to be circumspect about identifying what look like flowers as flowers in an environment—a flower shop for instance—in which artificial flowers might be sold.

Against this background we can appreciate important contrasts between the view that I commend of the knowledge gained in the zebra scenario and the view considered earlier, according to which knowledge is to be accounted for in terms of justification that is provided either by visual experiences or by visual appearances.

(1) On my account both the acquisition of the knowledge and its standing as knowledge are explained in terms of the exercise of an ability to tell of certain things that they are zebras from the way they look. The knowledge gained consists in seeing that, and in that way knowing that, the animals are zebras. What makes the seeing-that knowledge just is its being the exercise of an ability to tell of certain things that they are zebras from the way they look. Of course, as already observed, I would not have the ability if the appearance in question were not distinctive of being a zebra. Abilities of this sort are externalistically to think that an ability to do something is sometimes exercised by a performance that is a failure.
individuated. One has the ability with respect to favourable environments and that requires that there be a fit between the subject and environments with respect to which one has it: the environment must be favourable in that, there at least, the appearance from which the subject judges is distinctive of being a zebra; the subject must have learned to judge things to be zebras from their having an appearance that is distinctive of being zebras.

(2) The character of the ability that accounts for my knowledge provides us with the beginnings of a response to problem (A) of section 1. There is an asymmetry between the envisaged good case and the counterpart bad case, notwithstanding the fact that the relevant appearances and visual experiences are the same. In the good case, my judgement that those animals are zebras is the exercise of a relevant recognitional ability. In the bad case it is not. The difference between the cases is not just the difference between judging correctly in the good case and incorrectly in the bad case. There is a difference with respect to what accounts for the fact that I attain the truth in one case and not in the other. For in the good case I attain the truth because I have a recognitional ability that I exercise in judging the animals to be zebras. The attainment of truth was the exercise of the ability. The bad case is either one in which I am confronted with a freakish exception, in which case, though I inhabit a world in which having the relevant appearance is a very highly reliable indicator of being a zebra, I have in this case been thwarted by bad luck, or it is radically bad, in which case the world I inhabit is very different from that which we take this world to be, since the appearance in question is not a very highly reliable indicator of being a zebra. In neither version of the bad case do I exercise the recognitional ability that I exercise in the good case. In the non-radical version I have the ability but do not exercise it. In the radical version I lack the ability.

The account thus far has been in terms of an ability the exercise of which consists in nothing less than the acquisition of knowledge. It therefore contrasts with accounts that seek to explain perceptual knowledge in terms of justified belief. But justified belief must come into the picture since I am surely justified in believing that the animals are zebras. How are we to make sense of this?
The starting point is commonsense. I am justified in believing that the animals are zebras because I believe that they are for a reason, the reason being constituted by the fact that I see that they are zebras. I do not come to believe that the animals are zebras in view of, and in response to, the fact that constitutes this reason. (How could that be when in seeing that the animals are zebras I already believe that they are?) Yet the reason can still be my reason for believing since it can sustain my belief. The idea here is that, as I look at the zebras, I simultaneously acquire a belief that they are zebras, in virtue of knowing that they are, and acquire a belief that I see that they are, in virtue of knowing that I see that they are. (Knowing is just a mode of believing.) The fact that I see that the animals are zebras stands in a reason-giving relation to the claim that the animals are zebras since it entails that the animals are zebras. So it can be a reason for me to believe that the animals are zebras. This reason can be my reason for believing because the belief that I see that the animals are zebras can sustain the belief that they are zebras in a sense that entails were I to cease to believe that I see that they are zebras then, all else equal, I would cease to believe that they are zebras, and any challenge to the claim that they are zebras would be resisted so long as I continued to believe that I see that they are zebras.

The knowledge that I see that the animals are zebras is of a similar order to the knowledge that the animals are zebras for it is acquired in exercising a further recognitional ability—an ability to recognize of certain things—the ones I see—that they are seen by me. This ability has the key features of the recognitional abilities already identified. In particular, it is an acquired ability to deploy a concept—the concept of a thing seen by oneself—in a certain way and it is as much dependent on the environment’s being favourable to its possession as the ability to recognize zebras to be zebras. Were it to be false that having visual experiences such that it looks just as if zebras are before me is a very highly reliable indicator that I see that there are zebras before me, I would not so much as possess the ability in question.\textsuperscript{10}

From the fact that my reason for believing that the animals are zebras is that I see that they are it should not be concluded that I can reasonably address all doubts about the claim that they are zebras simply by drawing attention to this reason. Suppose that there is someone who, like me, is looking at these animals in the enclosure, but is not clear about what entitles me to suppose that they are zebras. My saying that I see that

\textsuperscript{10} I develop this account more fully in Millar 2011\textit{a}. 
they are zebras will do little to assure this person that I am justified in believing that they are. Perhaps such a person needs assurance that I am equipped to recognize zebras by sight. If so, then saying that I see that they are zebras would not be apt to provide the assurance sought. I would need to explain how I came to be able to recognize zebras. But there are other contexts of enquiry for which this response—citing the reason constituted by the fact that I see that they are zebras—would be just right. Suppose that there had been no zebras in the zoo for some time. Subsequent to my visit to the zoo someone claims that there are still no zebras there. I assert that there are, and am challenged by this person to say why I am so sure of this. In this context it would be perfectly appropriate to say that I saw that there were zebras in the zebra enclosure. This would serve to explain how I know, and to show why I am justified in believing, that there were zebras in the enclosure at least on my last visit.\(^\text{11}\) It could be that my interlocutor by this transaction now knows that I saw that there were zebras in the enclosure and so has an excellent reason to believe that there were.

This model of perceptual knowledge serves to reinforce the earlier claim that any plausibility that premise (1a) has depends on a contestable epistemology. It also provides some explanation of how it can be that I know in the good case but not in the bad case and so is a step towards dealing with problem (A). A fully satisfying response to problem (A) will depend on our dealing satisfactorily with problem (B), to which I shall turn presently. Before doing that I need to underline some further points about recognitional abilities.

To have the ability visually to recognize roses as roses is something like being in command of a technique for judging correctly of certain things that they are roses.\(^\text{12}\) I

\(^{11}\) Notice how unnatural it would be to make any reference of visual experiences conceived in non-committal terms, using the expression ‘looks just as if…’.

\(^{12}\) More and less sophisticated abilities may satisfy this description. Some may be able to tell concerning virtually anything that they look at whether or not it is a rose. They are in command of a decision procedure for whether something is or is not a rose. Others may be able to tell only of certain familiar varieties of roses that they are roses and will sometimes suspend judgement because they are aware that there are varieties that they might not recognize as such. Some might have a vulnerable ability, in that, although they are reliably correct in the judgements they make as to what is or is not a rose, in the environment in which they make those judgements, they have a
say ‘something like’ because, whereas we generally think of techniques as the sort of things we can decide to apply or not, perceptual-recognition abilities are not exercised by choice. You can choose to look at a flower with a view to identifying the kind of flower that it is, but if you have the ability to tell that it is a rose, and it clearly is, you have no choice over whether to exercise the ability—you judge it to be a rose. The ability is triggered rather than deliberately exercised. The analogy with techniques, though imperfect, is designed to emphasise that exercising a recognitional ability is doing something you have learned to do, sometimes by explicit training. Whether you have learned well can be assessed. The test is whether you are prepared to make a judgement over a suitable range of cases, nearly always judge correctly if you judge at all, and make mistakes only when there is some explanation, such as temporary cognitive impairment or lack of due attention. Passing the test is a highly reliable indicator that you have the ability. The key consideration in relation to whether one counts as having a recognitional ability is whether you can, so to speak, do the business, that is, do the thing you have learned to do, non-accidently getting things right. This, as we shall see, is relevant to how we should think of the background conceptions that inform our recognitional abilities.

I observed earlier (towards the end of section 2) that one might have an ability to recognize Fs as Fs from the way they look while lacking any concept of the look of an F. Nonetheless in practice we are almost certain to acquire concepts of the looks of things. In learning to recognize roses as roses we are likely to acquire a conception or picture of the world on which, roughly speaking, you can tell that something is a rose if it looks like this or that and on which, accordingly, looking like this, and looking like that, are each distinctive of being a rose. A sophisticated ability to recognize roses would be attuned to a wide range of appearances that roses can have and would be informed by a belief that there is such a wide range and some idea of what it encompasses. Our conception of roses and the way they look might well include, for instance, the fact that there are wild rambling roses that don’t look much like cultivated roses. Recalling such a fact might ensure that one does not too quickly dismiss the suggestion that certain flowers are roses just because they do not look like limited conception of the range of appearances that roses can have and avoid false negatives only because they never encounter roses outside the range.
cultivated roses, and so enable one to avoid false negatives. Learning the fact in the first place might serve to refine one’s ability to recognize roses as roses, and tell when a flower is not a rose, even if the fact is never actually recalled.

The conceptions informing our recognitional abilities not only shape those abilities, they also enable us to make sense of our exercises of those abilities. As rational reflective agents we need to be able to make sense of what we think and do, for otherwise we shall be unable to think and act effectively. If having set off on a task we do not know why we are performing that task we are liable to stop and reflect of whether we need or want to continue. An inability to make sense of present action forces this sort of reflection. Similarly, an inability to make sense of why we believe what we believe is liable to result in suspension of belief, pending reflection on whether there is reason to believe it. If on the road to Larissa I have a true belief that I am on the right road and it strikes me, spontaneously or through prompts from others, that I have no idea why I take this to be right road, or even how I might have come by the information that it is the right road, then I am liable to doubt that it is. If my insistence that the animals in the enclosure are zebras were not informed by a conception that makes sense of how I know this—from school teaching, nature programmes on television, and the like—then it might easily seem to me to be doubtful that I do know it.

Our conceptions, then, form part of our recognitional equipment: they contribute to equipping us to do something that we routinely do, that is, recognize things as, for instance, being of some kind from their appearance to this or that sense modality. And they enable us to make sense of those abilities to ourselves and to others, as in my interaction with the enquiring child in the zebra scenario.

In the next section, against the background of these considerations, I shall offer an explanation of the standing of the conceptions that inform our abilities in terms of their role in relation to our knowledge-acquisition equipment. This will take us towards a response to problem B. I shall focus again on perceptual-recognitional equipment.

In exercising my ability visually to recognize zebras as zebras I take for granted that zebras have a distinctive appearance. This is, of course, part of a broader conception
that has a bearing on the judgments and assertions I make in the envisaged scenario. Included in this conception is that animals, birds, plants, insects and so forth, belong to species and that members of each species have a distinctive appearance. What I take for granted about zebras is, therefore, not an *ad hoc* assumption about them but is in keeping with this general conception. It is also part of the broader conception that zoos are particular kinds of institution functioning to educate and entertain, that there are rigorous sanctions from the law, public opinion and news media against deceiving the public who visit zoos, and that these sanctions and other constraints make it highly unlikely that animals of one kind would be made to look like another. I exploit this conception when I reassure the child that, in this place, mules would not be dressed up to look like zebras.

I say that these various propositions form part of my conception of the world but this has the potential to mislead. Some might never have been brought to mind and one might reasonably wonder whether in that case they should be regarded as things I believe. They could be said to be implicitly believed since I would readily assent to them and, taking a reflective stance towards the scenario in the zoo, they come to mind as propositions that collectively form part of a representation or picture of the world in terms of which I think and act. They are akin to the truisms that Moore famously said he knew at the beginning of ‘A Defence of Common Sense’ (Moore 1925).

Is it right to say, with Moore, that I know these various things because we have evidence for them adequate for knowledge of them? With respect to some of them, perhaps it is. News media are constantly searching for, and often finding, scandals or ethically dubious practices, so there is plenty of evidence that there are sanctions against blatant deceptions on the part of organizations whose activities can readily be scrutinised. Perhaps I know that there are such sanctions on the basis of this evidence. It is important to note, however, that there might be much else that I know, and that is relevant to the possession and exercise of a range of my recognitional abilities, but which is not best conceived as evidenced-based.

A vast amount of what we know constitutes what I call *detached standing knowledge*. We often come to know factual information via encounters with numerous reliable sources of information, and retain such knowledge over time despite losing touch with—being detached from—the sources that provided the information in the first place or that subsequently reinforced our acceptance of it. Though I shall not
pursue the matter in detail here, I take it that such knowledge should not be regarded as evidence-based, or if it is so described, should be distinguished from a certain paradigm of knowledge based on evidence. The paradigm is knowledge that is acquired in view of evidence and retains its status as knowledge because the evidence remains in view or is at hand so that it could be cited as one’s reason for believing. An example is my knowledge, at the time of writing, that there are miners trapped underground in Chile. There have been numerous recent news broadcasts about their plight that I recall having heard and seen and that constitute the evidence by which I know this fact. Much of our knowledge of factual information does not conform to the paradigm. I know, for instance, that Hobart is the state capital of Tasmania. While I am confident that there is evidence of this, and that I could direct people to reliable sources if necessary, I have lost touch with—am detached from—the particular sources of information from which I gleaned this information. These sources do not, in the central and clear sense, constitute evidence that constitutes a reason for which I presently believe that Hobart is the state capital of Tasmania, simply because I do not recall which sources furnished me with this information. It seems plausible that the knowledge consists in my possession of a capacity to recall this fact as a result of having encountered various reliable sources of information that present it. The role of experience here is that of inculcating an ability to recall a fact, rather than furnishing me with evidence that I can recall and that is my present basis for believing this fact to be a fact. A mere disposition to avow what happen to be truths would not count as detached standing knowledge. The truths in question must be established facts. One or several people will have had, in the clear and central sense, evidence-based knowledge of those facts. Our ability to recall them must have been shaped by encounters, sometimes several encounters, with relevant sources of information or by direct encounters with the facts themselves.

It might well be that much of the background that informs our recognitional abilities, including the ability I imagine exercising in the zoo scenario, comprises knowledge, and that some of that knowledge is evidence-based and some of it is detached standing knowledge. I do not think that all of it can plausibly be taken to belong to those categories. There is a question then as to how any of the remainder

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13 This view is more fully developed in my contribution to Pritchard, Millar, and Haddock 2010 and in Millar forthcoming 2011b.
can be knowledge at all and, if it is knowledge, how it can be explained to be knowledge. I shall focus on knowledge concerning the appearances of things belonging to kinds. What I have to say on this is tentative and provisional.

As children we learn from an early stage to recognize things from the way they look as being of certain natural or artificial kinds. With the learning we take on board a picture of the world according which *that* is what zebras look like, *that* is what goldfinches look like, *that* is what washing machines look like, and so forth. What we thereby learn is not just that things of such-and-such a kind look like *that* but that things that look like *that* are of such-and-such a kind. In other words we learn in effect that things have distinctive appearances and we learn what those experiences are. As we progress we learn that it is possible to make some things look as if they are of a certain kind when they are not. This is a further element of the picture or conception that we take on board. It enables us to refine our belief- and judgement-forming practices so that we become appropriately reactive to circumstances in which appearances might be defective. (Recall the example of artificial flowers.) It is quite natural to treat what we thereby learn as knowledge because it is natural to suppose that what we genuinely learn, as opposed to what we are taught, is knowledge. It is quite tempting to think that what we learn about appearances is detached standing knowledge, the idea being that even if not all of us have acquired evidence-based knowledge about appearances, we nonetheless have such knowledge derivatively from encounters with sources of information that ultimately derives from people with suitable evidence-based knowledge. The problem with this suggestion is that it is hard to see how this can be so generally. Surely at some point some people must have learned for themselves about appearances and done so without the aid of an already well-established theory of the world. They must have acquired through experience habits of thought whereby they uncritically and unreflectively associate appearances with kinds.

The process I have in mind is very like that of which Hume speaks in the following passage from *A Treatise of Human Nature*, Bk. I, Part III, section VIII, in connection with judgements about cause and effect.

‘Twill be worth our observation, that the past experience, on which all our judgements depend, may operate on our mind in such an insensible manner as never to be taken notice of, and may even in some measure be unknown to us. A
person who stops by a river in his way, foresees the consequences of his proceeding forward; and his knowledge of these consequences is convey’d to him by past experience, which informs him of certain conjunctions of causes and effects. But can we think, that on this occasion he reflects on any past experience, and calls to remembrance instances that he has seen or heard of, in order to discover the effects of water on animal bodies? No surely; this is not the method in which he proceeds in his reasoning. The idea of sinking is so closely connected with that of water, and the idea of suffocating with that of sinking, that the mind makes the transition without the assistance of the memory. The custom operates before we have time for reflexion. The objects seem so inseparable, that we interpose not a moment’s delay in passing from the one to the other. But as this transition proceeds from experience, and not from any primary connexion betwixt the ideas, we must necessarily acknowledge, that experience may produce a belief and a judgement of causes and effects by a secret operation, and without being once thought of. This removes all pretext, if there yet remains any, for asserting that the mind is convinc’d by reasoning of that principle, that instances of which we have no experience, must necessarily resemble those, of which we have. For we here find, that the understanding or imagination can draw inferences from past experience, without reflecting on it; much more without forming any principle concerning it or reasoning from that principle. (Hume 1965: 103-104)

The passage does not clearly distinguish knowledge in the particular case that one would be suffocated if one were to be overwhelmed by this water from the general knowledge that being overwhelmed by water results in suffocation. Certainly, part of what Hume is saying is that the knowledge in the particular case that one would suffocate if one were to be overwhelmed by this water case is the upshot of the manifestation of a habit of inference whereby given that someone is, or will, be overwhelmed by water one is liable to conclude that this person is being suffocated, or will suffocate. The main claim of the passage is that the habit is created by experience and not via acceptance of the highly general principle of uniformity of nature. We draw our conclusion simply because a habit that has been uncritically acquired is uncritically manifested and not because we have a basis of accepting a general principle of uniformity connecting past cases with present circumstances. W. V. Quine (1969: 125) much later spoke of induction as animal expectation or habit
formation, adding that these habits can catch on only if we are endowed with innate
quality spaces that attune us to significant similarities. More recently Ernest Sosa
(2009: 237) has spoken of ‘animal competence [that] comes fundamentally with our
endowment at birth or is triggered sub-personally through normal early development’,
the epistemic standing of which ‘is in essential part its animal reliability in enabling
the harvest of needful information’. Quine’s and Sosa’s emphasis on the animality of
the relevant habits or competences recalls Hume’s point that these are shaped ‘by a
secret operation’.

Of course, in making the inference we presuppose that in general, being
overwhelmed by water results in suffocation. But Hume does not treat that as an
established premise that figures in an inference to the conclusion that one would be
suffocated. The conclusion is drawn because a habit of inference that has been
unreflectively acquired is unreflectively manifested. But how on Hume’s view do we
stand to the generalization that being whelmed by water results in suffocation? If
Hume supposes that we know that one would suffocate if overwhelmed in the
particular case how can he suppose that we do not know that in general being
overwhelmed by water results in suffocation? Surely that is something we learn as
much as we have learned to make the inferences in question. This seems to me to be
suggestive of what might be called a practical conception of the knowledge in
question: it amounts to having the habit of inference combined with a true belief that
being overwhelmed by water results in suffocation.

Hume was speaking of judgements about effects that are in effect recognitional
judgements pertaining to the indicative significance of causes. A plausible gloss on
his idea would be that our capacity to recognize the significance of, for instance,
being overwhelmed by water—being suffocated—is induced and honed by experience
that leads us to associate the effect—being suffocated—with a cause—being
overwhelmed with water. Similarly, it seems, our ability to recognize things to be of
certain kinds from their appearance is induced and honed by experience that leads us
to associate appearances with kinds. Acquiring abilities of the latter sort would not be
possible without innate endowments that lead us to be responsive to what might be
called kind-significant appearances. We are not naturally prone to respond to the
appearance of rock-aggregates or collections of stones by treating those aggregates or
collections as belonging to natural kinds, but we are naturally prone to respond to the
appearances of birds, plants and animals by treating them as belonging to natural
kinds. We are naturally endowed to acquire such abilities though the particular abilities we acquire depend on the course of our own experience.

The suggestion emerging is that at least some of our knowledge concerning the appearances of things belonging to kinds—knowledge to the effect that a certain appearance is distinctive of being of a certain kind—should be treated in a Humean spirit. Such knowledge is to be conceived as having a practical dimension since it amounts to being in possession of an ability to recognize certain things from their visual appearance as being of a certain kind, coupled with the belief that the appearance is distinctive of being of that kind. The standing of the belief—our entitlement to hold it—is parasitic on the possession of what is in fact a recognitional ability.

One who is prepared to judge things to be Fs from the way they look is committed to regarding the appearance in question as distinctive of Fs. Trouble lies in store if we suppose that the ability would not count as a genuine recognitional ability unless this commitment were independently established to be true, or at least suitably justified, by evidence. But Hume came close to seeing that experience endows us with abilities to acquire knowledge simply by shaping our judgement-forming dispositions and he came close to treating those judgement-forming abilities as themselves a species of knowledge. Here as elsewhere it is important to distinguish between the role of experience in shaping recognitional abilities and its role in furnishing us with evidence that is the basis of evidence-based knowledge. We avoid the trouble by acknowledging that we have Humean-style knowledge about appearances that is partially constitutive of our recognitional abilities. The resulting view is in keeping with what I have said about recognitional abilities in the previous section. What is crucial for determining whether we count as having an ability to recognize Fs to be Fs from the way they look is, as I said, being able to do the business in that, roughly speaking, it is no accident that we nearly always get it right when we judge something to be an F from the way it looks. That the appearance in question is distinctive of Fs is part of the equipment—a form of practical knowledge—that enables us to do this business and it is equipment with which our experience has endowed us.

It might seem to be an objection to this view that it seems possible that false assumptions might inform a recognitional ability. To make sense of this we just need plausible stories that fit the following schema, suggested by examples of the fake-barn-type. I recognize Fs as Fs from their visual appearance. In the region in which I
operate, the visual appearance of Fs is distinctive of Fs. I presuppose that whenever a
thing has that appearance it is an F. But this is not universally so. There are places in
which there are things looking like Fs but which are not Fs. We would set the bar too
high for having an ability visually to recognize Fs as Fs if we were to deny me such
an ability with respect to the region in which I operate. If the ability is not informed
by the realization that there might be places where things that look like Fs are not Fs
then it is vulnerable in the sense that, elsewhere, I might easily judge things to be Fs
from their visual appearance though they are not Fs. But, I contend, I might for all
that have an ability to acquire, concerning Fs in the region in which I function,
knowledge that they are Fs, from the way they look. The essentials of the account
already given apply here too, with a twist. The subject has a practical Humean-style
knowledge that the appearances in question are distinctive of Fs, even if unaware
that this distinctiveness is environment-relative. The subject’s belief might be that the
appearance in question is universally distinctive of being an F. If so it is false, but is
ture enough for practice purposes in that it is not falsified and not likely to be falsified
so long as his operations are confined to the region in which he routinely exercises the
ability. We should think of what he knows concerning the appearance as reflecting,
and embodied in, his recognitional ability. He has practical knowledge of how things
stand with regard to the appearance in the region within which he operates.

Do these considerations give a satisfying account of how we may responsibly
exploit the conceptions that inform our recognitional abilities? It is not automatic that
just because one has Humean-style knowledge of the sort I have posited, its content
may responsibly be avowed.

Live issues of responsibility arise in the stream of life when what we are assessing
are not the elements of a background conception but claims or hypothesis thrown up
in the course of our experience. One might as well ask whether a trained carpenter can
responsibly use a saw or screwdriver as ask whether I can responsibly presuppose that
the appearance of zebras is distinctive of zebras or the appearance of carrots is
distinctive of carrots. Responsible thinking involves having a feel for what should be
enquired into and what it would be frivolous to enquire into. The detective who,
having done an evening class on scepticism, tried to settle whether he was dreaming
or not, with a view to having a secure foundation for conducting the investigation he
is working on, would rightly be regarded as grossly irresponsible, if not insane. The
reason is not that in the ordinary course of life it is impractical to investigate what
really ought to be investigated if we are seriously searching for the truth. It is that we would be failing to make proper use the tools for effective enquiry if we were to raise doubts about elements of our conceptions of the world in the absence of specific reasons for doubt.

A presupposition will not be responsibly held if it is retained in the face of serious challenge. Serious challenges are ones that convincingly represent there to be evidence that falsifies them. Suppose that the hapless subject in fake barn territory eventually discovers that there are fake barns there. Returning to his home territory he relates the startling news that there is a place where there are things that are not barns, but which look just like barns from the kind of point of view from which folks at home were used to recognizing barns. This enables the standing presupposition to be refined along with a refinement of the recognitional ability it has informed. If they go travelling these folks are now going to be careful in any the judgements they make as to whether or not a structure is barn.

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