

Janette Dinishak
Jdinisha(at)ucsc.edu

Embracing the In-Betweenness of Aspect-Perception's Normative and Evaluative Dimensions

Abstract

This paper examines the following two ideas and their relations: (i) aspect-perception is a perceptual experience; (ii) veridicality is the primary standard for evaluating the success of a perceptual experience. I argue that a valuable lesson to glean from Wittgenstein's investigations of aspect-perception is that aspect-perception is "in-between" when it comes to whether and how veridicality is at issue in it. Yet it does not follow from this in-betweenness that there is no standard by which we evaluate aspect-perception, no notion of success at perceiving an aspect. Aspect-perception has normative and evaluative dimensions that are not a matter of veridicality, or at least not in any straightforward way, some of which I explore here. These dimensions are brought to light, in part, by shifting evaluative focus to what the perceiver "brings" to aspect-perception experiences and attending to the ways aspect-perception requires and involves mastery of a technique. The shift in focus also helps illuminate different ways of understanding aspect-blindness and the kinds of failure at play in different kinds of aspect-blindness. All in all, embracing aspect-perception's in-betweenness regarding whether or not veridicality is at issue in it illumines aspect-perception's distinctive character and richness.

Keywords: Wittgenstein, aspect-perception, aspect-blindness, perception, perceptual experience, veridicality, psychological concepts

Imagine there are two faces before you, which you see. Suddenly you see a likeness between them. When you see the likeness you are noticing an aspect. Another person may see the faces as clearly as you do but not see the likeness. If a likeness is seen, the faces that manifest the likeness have also been seen, but one can see the two faces without noticing a likeness between them.

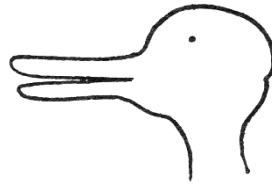
“Noticing an aspect” is one of a variety of aspect-perception¹ concepts developed by Wittgenstein.

This paper examines the following two ideas and their relations: (i) aspect-perception is a perceptual experience; (ii) veridicality is the primary standard for evaluating the success of a perceptual experience. Part I of the paper provides overviews of characteristic features of kinds of aspect-perception and of veridicality as a measure of perceptual success. I argue that a valuable lesson to glean from Wittgenstein’s investigations of aspect-perception is that aspect-perception is “in-between” when it comes to whether and how veridicality is at issue in it. Part II of the paper explores the implications of this conclusion for understanding success and failure at aspect-perception. It does not follow from aspect-perception’s in-betweenness when it comes to whether veridicality is at issue that there is no standard by which we evaluate aspect-perception, no notion of success at perceiving an aspect. Aspect-perception has normative and evaluative dimensions that are not a matter of veridicality, or at least not in any straightforward way, some of which I explore here. These dimensions are brought to light, in part, by shifting evaluative focus to what the perceiver “brings” to aspect-perception experiences and attending to the ways aspect-perception requires and involves mastery of a technique. The shift in focus also helps illuminate different ways of understanding aspect-blindness and the kinds of failure at play in different kinds of aspect-blindness. All in all, embracing aspect-perception’s in-betweenness regarding whether or not veridicality is at issue in it illumines aspect-perception’s distinctive character and richness as a motley collection of forms of perception.

1. Aspect-Perception

Seeing a likeness between two faces, the example described above, opens the stretch of passages on aspect-perception in Wittgenstein’s *PPF*, but perhaps the example of aspect-perception most familiar to academics and non-academics alike is the “duck-rabbit” figure (*PPF*: §118):

¹ The term “aspect-perception” is not Wittgenstein’s, but it helps capture that the relevant phenomena and concepts are not limited to the visual modality. Here I focus primarily on the visual modality and on perceptual uses of “seeing”.



It can be seen as a duck, and it can be seen as a rabbit. But it cannot be seen as both, at the same time. The two aspects “interfere with” one another: when I see the figure as a duck, the parts of the drawing on the left side of the figure are seen as a bill. When I see the figure as a rabbit, those same parts are seen as ears. If I see the figure as a duck and experience a “change of aspect,” the bill “becomes” rabbit ears as I experience the “lighting up” (*Aufleuchten*) of the rabbit-aspect. Although I recognize that the drawing has not changed, once I undergo the perceptual shift, I see the drawing differently than I did before the shift.

Aspect-change experiences had while viewing ambiguous figures such as the duck-rabbit (often referred to as “perceptual reversals” in the perception literature) are the most well-known and well-studied in philosophy and psychology. They are often (arguably misleadingly) treated as paradigmatic of aspect-perception, but there are many different kinds of aspects and many different ways of experiencing them besides aspect-change in the form of perceptual reversal. Seeing a likeness between two faces is just one example of a kind of aspect-perception that does not involve a perceptual reversal. Another kind of aspect-seeing case is seeing a human form in a jumble of lines of a puzzle picture (*PPF*: §131). And yet another kind of case is hearing a musical bar as an introduction (*PPF*: §178). Some aspect-perception requires imagination (e.g., seeing a chest of drawers as a house) (*PPF*: §207).

From this obviously meager sample we can already begin to appreciate that “aspect-perception” picks out a motley collection of interrelated phenomena which are “somehow similar, and yet again very different” (*RPP* I: §316). A common feature of many aspect-perception experiences is that they involve the lighting up of an aspect, a “perceptual movement” from perceiving one way to perceiving another way, even though the object of perception has not changed. There are different kinds of lighting up of an aspect. In some cases, the lighting up is like the experience of noticing a feature of the object of perception that was previously unnoticed. In other cases “it is as if one had

brought a concept to what one sees” (*RPP* I: §961) and, as a result, one now sees the object of sight “in different connections” (*RPP* I: §960).² One kind of lighting up involves a change of aspect. The duck-rabbit example given above illustrates this. There is also a form of lighting up of an aspect that occurs *without* a change of aspect in this sense. For example, when one goes from seeing a puzzle-picture as a mass of meaningless splotches to seeing a Dalmatian sniffing,³ the sniffing dog lights up, but there is no other aspect which the sniffing dog “replaces” or locally “excludes”. When one notices a likeness between two faces which was previously unnoticed when viewing the two faces, the likeness lights up. In both cases there is a perceptual movement characterized by the description “I see that it has not changed, and yet I see it differently,” but it is an experiential shift from seeing no aspect at all to seeing an aspect rather than a shift from seeing one aspect to seeing another.

In striking, sudden, and surprising experiences of aspect-change⁴ the perceiver’s expression of the experience has a paradoxical character (*RPP* II: §474). We want to say that there is something new though it is entirely old, or that nothing and everything has changed. An experience of a change of aspect has both a character of sameness and one of change. We experience the object of sight as the same yet different. The two-sided character of these kinds of aspect-change experiences comes out in the way we express them.

“Noticing an aspect”, “change of aspect”, and the “lighting up” of an aspect characterize episodic, temporary experiential phenomena that last only as long as one is occupied with the “observed object” (*PPF*: §237) in a certain way. As Child (2019) has emphasized, these varieties of aspect-perception involve novelty and change, and the change is not just a change in experience but also an experience of change, one with a distinctive character.

² As Baz (2000) observes, on some accounts of visual perception, we bring concepts to all that we see. How then is aspect-seeing different from ordinary seeing? On Baz’s (2000: 111) reading of *RPP* I §961, aspect-seeing involves our *actively* bringing a *new* (to us) concept to what is seen. This reading helps distinguish aspect-seeing from our usual way of seeing, but it also suggests that aspect-seeing *always* involves an element of being surprised or struck by what is seen.

³ An illustration of this well-known puzzle picture from Gregory (1970) is available online in Dean (2009): <https://www.moillusions.com/mysterious-dots-optical-illusion/>.

⁴ Some aspect-change comes about gradually, experience by experience; such cases would be akin to incremental changes in our way of looking at things. Hacking (2008) playfully calls gradual aspect-change “Pascalian conversion” to contrast it with Kuhnian, sudden gestalt switches, or “the born-again version of seeing an aspect” (145).

1.1. Veridicality and Success

In most cases of perception veridicality is at issue. We are interested in whether a particular perceptual experience is veridical or not. For example, suppose I see a ball on the floor, and it looks red to me. If the ball is red, my experience is veridical. If the ball is not red, my experience is not veridical. A key sense in which veridicality is at issue in most cases of perception is that it serves as a standard for evaluating the success of a perceptual experience. If the perceptual experience is veridical, it is successful. It presents things as they actually are, represents the world accurately. On this picture of perception, a standard picture in contemporary philosophical and scientific study of perception,⁵ perceptual success is a matter of accurately representing the world. One's perceptual activity characteristically involves correctly identifying or trying to correctly identify what one sees and attributing properties to it, gathering information about the world, making judgments, and forming beliefs in order to acquire knowledge about the mind-independent world. Veridicality is understood in terms of accuracy. Having accuracy conditions is part of what it is to be a perceptual state (Burge 2010).

Taking a closer look at the relations between veridicality, forming a belief or judgment from a veridical perceptual experience, and what constitutes perceptual success will help us refine this initial characterization. In many everyday instances of seeing, seeing, believing, and recognizing go hand-in-hand. We recognize and identify what we see. We see *that* the cat is on the mat and thereby believe it and know it. However, perceptual experience, believing/judging, and veridicality can come apart in different ways. A perceptual experience can be non-veridical yet issue in a belief. For example, I perceive the cube in front of me, the cube looks yellow to me, and I form a belief that the cube is yellow, but the cube is green. And a perceptual experience can be veridical without issuing in a belief. Seeing is not believing always and everywhere. For example, you are seeing what appears to be a calico cat, and it is a calico cat, but because of poor viewing conditions you do not form the belief or judgment that what you are seeing is a calico cat in response to this perceptual experience. Or to take another kind of example, suppose you see a car go by while sitting outside but pay no attention to it because you are

⁵ The picture of perception sketched here functions as an object of comparison (*PI*: §130), not as a view that I wish to argue for or against. Note also that in calling the picture standard, I do not mean to suggest that it does not go unchallenged. For example, see Brewer (2006), Martin (2006), and Travis (2004).

completely focused on a phone conversation you are having with a friend. Later, if asked if you saw a car go by, you may recall that you did see a car go by, and recalling that experience afterwards may produce a belief about the thing you saw.⁶ Do these last two kinds of example of how veridicality and belief- or judgment-formation can come apart illustrate a case of perceptual success? If one holds that typically perceptual success results in knowledge and knowledge requires true belief, they would not count as cases of perceptual success even though the perceptual experiences are veridical. Still, while veridicality, belief- or judgment-formation, and perceptual success can come apart in some cases, they often go hand and hand in much of perceptual experience.

1.2. Aspect-Perception and Veridicality

Aspect-perception does not fit the above picture of perception in any straightforward way. Consider the case where aspect-perception involves imagining what is perceived as something else. For example, if a child sees a banana as a telephone, there is a banana but not a telephone. When I see the letter F as a gallows, there is a letter F but not a gallows. In these examples, what follows the as-phrase is something merely imagined while what precedes the as-phrase is not merely imagined.

Attending to similarities between seeing an aspect and imaging or imagining helps specify a sense in which veridicality is not at issue in some cases of aspect-perception. We may not care whether the image we form or the aspect we see “corresponds to” or “matches” anything in reality. Sometimes when we imagine we entertain a possibility or form an image without regard for whether the product of our imagining corresponds to anything actual. Likewise, when someone sees the duck-rabbit figure as a duck and understands that the duck-rabbit figure is ambiguous, there is no interest in establishing whether the aspect is “objective”. This idea connects with how one might teach someone the concept of “seeing an aspect”. We cannot interchange “What is that?” and “What do you see?” in aspect-seeing contexts as freely as we can in cases of seeing physical objects and their properties and identifying them correctly. Another, parallel point is that ambiguous figures are not the first, only, or paradigmatic sample for teaching the proper application of the concept “picture”. To teach a child how to apply the concept “picture of a duck”, one

⁶ This is an adaptation of an example in Audi (2011).

would not employ the duck-rabbit figure as the first, only, or paradigmatic sample because the ambiguous figure might also be used for teaching the concept “picture of a rabbit”.

Another sense in which veridicality is not at issue in some cases of aspect-perception is brought out by noticing differences between aspect-seeing experiences and the experience of misperceiving. The subject’s use of “see...as...” in aspect-seeing often indicates their reluctance simply to subsume X under Y. I am viewing the double cross figure (*PPF*: §212) and say, “I see the figure as a black cross on a white ground” not “I see a black cross on a white ground”, for example. Contrast this with a case of misperceiving. Suppose S mistakes a bird for a plane and sees the bird as a plane. We say “S sees X as Y” while S says “It’s a plane!” In this case, S sees the object perceived in just one way. From S’s point of view there is just one thing seen, an airplane.⁷ S’s perceptual experience issues in the belief or judgment that what they see is a plane. By contrast, on the basis of my seeing the figure as a black cross on a white ground, seeing an aspect of an ambiguous figure, I do not form the belief or judgment that the figure is a black cross on a white ground.

But perhaps there are other senses of veridicality that are at issue in some cases of aspect-perception, senses that appear to differ from the notion at issue in cases of assessing the veridicality of perceptual experiences like a painting looking askew or a ball looking red. Notice that although the duck-rabbit figure, for example, is ambiguous, there are constraints on what aspects one can see when viewing it. One can see the duck-rabbit figure as a duck or as a rabbit. But can one see the duck-rabbit figure as a skunk? To explore this, we can draw a broad distinction between constraints on how a figure can be seen that would seem to be due to the perceiver and those that would seem to be due to features of the figure. Let’s put aside constraints on aspect-seeing due to the perceiver for now and focus on what sense we can make of there being constraints due to features of the figure. On this way of understanding constraints on how ambiguous figures can be seen, features of the duck-rabbit figure itself (e.g., its shape) constrain what it can be seen as. As Munz (2016) notes, “it would make little sense to give someone the order ‘See the duck-rabbit head as a turtle’” (109). This kind of constraint suggests we can make sense of there being a right way and a wrong way the duck-rabbit figure can be seen as. My experience seeing the duck-rabbit figure as a duck is accurate of

⁷See Church (2000) for an interesting discussion of these differences.

the duck-rabbit's shape. So is my experience seeing the figure as a rabbit. Now suppose that I claim to see the duck-rabbit figure as a skunk. We might wish to grant that if I had something plausible to say about which parts of the figure relate to which parts of the skunk, it would make sense to say that I have seen the figure as a skunk.⁸

Another kind of constraint on how a figure can be seen, in some cases, including the duck-rabbit figure, might be the illustrator's intention. Suppose I see the duck-rabbit figure as a duck and am inclined to ask whether my experience is veridical. We could understand this as a question about what the duck-rabbit figure depicts. And what the figure depicts depends on the creator's intention. Assuming that the creator intended the figure to depict both a duck and a rabbit and the creator's intention has been realized, one might reason that the duck-rabbit simultaneously depicts a rabbit and a duck. Although a single subject can know that the figure can be seen in these two ways, a single subject cannot see the duck-rabbit figure as a duck and as a rabbit simultaneously. However, two subjects can see the figure two different ways at a given time, one as a depiction of a rabbit, and one as a depiction of a duck. On this understanding both perceptual experiences are, one might suppose, in some sense veridical even though the two depictions are locally incompatible (i.e., what parts of the figure depict ears in one subject's pictorial experience depict a duck's bill in the other). Each subject's pictorial experience is partly accurate⁹ of the duck-rabbit creator's intentions. The creator's intentions function as a standard of accuracy for ways of seeing the figure. A subject who sees the duck-rabbit figure as a depiction of a ladybug with its flight wings slightly untucked, or a skunk, for example, has a non-veridical pictorial experience of the figure, on this way of understanding constraints on how the figure can be seen.

The above discussion suggests that veridicality is not an all or nothing thing. It admits of varieties and degrees. Despite this added nuance, one might think

⁸ I am indebted to an anonymous reviewer for this example.

⁹ Compare this candidate example of a partly veridical aspect-perception experience to Siegel's (2011) example of a partly veridical perceptual experience: "*Fishtank*: The fish you are seeing is blue and it looks blue. It is at location L, but looks to be at location L*, which is a bit to the right of L" (35). According to Siegel, the experience is veridical with respect to color and shape but not with respect to location, and in this sense *Fishtank* is a partly but not completely veridical experience. What "partly veridical" (of the illustrator's intention) means in the case of one's pictorial experience of the duck-rabbit figure would seem to differ from what it means in Siegel's *Fishtank*. In *Fishtank*, your representation is partially inaccurate. It is mistaken with respect to the fish's location.

that centering our explanation of what constitutes perceptual success on the question of whether a visual experience accurately represents the world is sometimes misplaced, including in cases of aspect-perception. This is a key lesson of Köhler's (1929) discussion of Gestalt phenomena. Among other things, Gestalt phenomena challenge the idea that there is a one-one correlation between local stimulation and genuine sensory experience. On the one-to-one correlation view, if there has been no change in the local stimulation, then there should be no change in the genuine visual experience. There can be no changes in sensory experience without a change in proximal stimulation.¹⁰ In the case of aspect-seeing, however, there can be differences in what one sees (for a single perceiver across time or across perceivers at a given time) without a change in the physical stimuli received. For example, when I see the duck-rabbit as a duck, my seeing parts of the drawing as a duck bill depends on my seeing the whole figure as a duck. I "embed" these parts in the perceptual context of seeing the whole figure as a duck. It is only when I see the whole figure as a duck that I see those parts as a duck bill. The very same parts of the drawing are seen as a rabbit's ears when I see the whole figure as a rabbit. These differences in visual experience cannot be explained in terms of a difference in what physical stimuli are received since, by hypothesis, physical stimulation does not vary in these cases.

Even if veridicality turns out to be irrelevant to evaluating perceptual success in cases of aspect-perception experience, this does not mean that there is no standard by which we evaluate aspect-perception. There is, after all, the command or guideline, "See X as Y," which tells us that one can try and fail or succeed at perceiving an aspect. And if someone else cannot see an aspect one sees there is the sense that there is something that the perceiver who cannot see the aspect is missing in what is there to be seen and is thus, in a sense, blind to it.

2. (Other) Normative and Evaluative Dimensions of Aspect-Perception

What normative and evaluative dimensions of aspect-perception come into view if we shift focus away from evaluating the veridicality or non-veridicality

¹⁰ Köhler (1929) calls this the constancy hypothesis.

of an aspect-perception experience and towards evaluating what it is a perceiver brings to aspect-perception that creates possibilities for some kinds of aspect-perception experiences and excludes others? The prerequisites for aspect-perception are not well understood, but it is a topic that Wittgenstein takes up, for example in his discussion of the idea that aspect-perception requires “mastery of a technique” (*PPF*: §222) and how this feature of aspect-perception gives us grounds for appeal to different and modified concepts of “experience”, “seeing” and “sensing” to characterize aspect-perception experiences (*PPF*: §§223-4; 231).

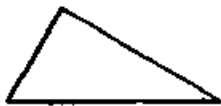
2.1. Mastery of a Technique

In aspect-perception, perceivers’ knowledge and interests are brought to bear on their experience in different ways, including to make comparisons, conceptual connections, and associations between what is perceptually present and something else (e.g., this face that I have before me and a character I saw in a film years ago). What concepts perceivers possess, their background knowledge, abilities, past (perceptual) experiences and particular interests create possibilities for some kinds of aspect-perception experience while the absence of certain kinds of background knowledge, abilities, and so forth excludes others. For example, someone unfamiliar with the shape of a rabbit could not see the duck-rabbit figure as a rabbit. The same condition holds for seeing the duck aspect. To take another example, partly by virtue of musical training one may hear as one beat what another hears as two beats. Finally, suppose that you are told to see a textbook illustration as a glass cube (*PPF*: §116). We can describe this as your being prompted to see according to an interpretation. In order to understand the command “See this figure as a glass cube” and to try to see the figure this way, the perceiver must be able to make a “conceptual connection” (*RPP* II: §510)¹¹ between the textbook figure and the concept “glass cube.”

These examples illustrate that not only one’s knowledge but also one’s *abilities* play a role in shaping what aspect-perception experiences are possible for one. One facet of this idea is that perceiving aspects is itself an ability, which here means that one becomes able to do it. It is a skill one acquires and hones through practice, something one can try to do and fail in the attempt. Another

¹¹ For a nuanced discussion of whether and how aspect-perception is conceptual and involves concept-application see Agam-Segal (2019).

facet of this idea is that aspect-perception is an ability that oftentimes requires other, requisite abilities, knowledge, and inclination or motivation to engage in it. Only if the perceiver knows or is interested in such-and-such and brings the knowledge or interest to bear on their experience, or is able to make *this* comparison or association in this context (e.g., between the duck-rabbit figure they see now and a rabbit in a favorite comic strip or between this perceptually present face and a character they saw in a film years ago), can they have the relevant aspect experience (*PPF*: §224). Which requisite abilities are needed or which techniques must be mastered to be capable of aspect-perception of a given kind vary. Some aspects are “summoned up by thoughts” (*RPP I* §1036). Other kinds of aspect-perception would seem to involve a kind of sensitivity and attunement such as sensing the solemnity of a melody (*PPF*: §233). Some pictorial aspect-seeing requires facility with making certain applications of the figure. For example, take this triangle figure:¹²



To see the triangle as hanging from its apex or as having fallen (*PPF*: §167) over one must first learn the concepts of “apex” and “base” and their correct applications to the figure. The ability to correctly apply “apex” and “base” to the figure serves as a template for the aspect-perception experience (e.g., seeing the triangle figure as hanging from its apex), although one is not explicitly taught to see such-and-such aspect, and one may be given the command “See this triangle as hanging from its apex.” Another capacity that one may need to hone for some kinds of aspect-perception (e.g., seeing a cloud as a hippopotamus) is imagination. To take another kind of example of imaginative aspect-seeing, Temple Grandin (1995), an autistic adult, noticed aspects in cattle behavior not typically noticed by fellow humans, and this helped her to design more humane slaughterhouses. Grandin’s felt connection to animals and commitment to animal welfare fueled her interest in seeing from a cow’s point of view. On her understanding, her autism results in heightened sensory perceptions that allow her to imagine how an animal will feel moving through

¹² This triangle figure appears at *PPF*: §162.

a system. She is then able to see a small piece of chain hanging down from an alley fence, for example, as frightening, from a cow's point of view.

In addition to the roles one's knowledge, past experience, and interests play in creating possibilities for some kinds of aspect-perception experience and excluding others, custom and upbringing have a hand in shaping one's aspect-perception experience by influencing whether, what, and how one comes to know, believe, or imagine such-and-such or to be able to do such-and-such or to be interested in such-and-such. A striking example of how cultural ideas and practices can affect perceptual experience is auditory hallucinations. Intriguing anthropological research¹³ suggests that the way the mind is conceptualized in one's local social world influences the character of hallucinatory experience itself, not just societal attitudes towards hallucinations and those who have them. One particular dimension of how societies imagine the mind is "boundedness" or "the degree to which presence external to the mind can be understood to participate within the mind" (Luhmann 2011: 78). For example, while the Ghanian Ewe conceptualize selves as "porous," such that the supernatural can "flit in and out of them and even take up residence in them" modern Westerners conceptualize selves as "buffered" (ibid). These societal attitudes about the boundaries of the mind affect the extent to which the voice itself is heard as more or less commanding or instructing by those who hear them as well as how voice-hearers regard and relate to their voices in response to instances of hearing them as friendly or hostile, say. In aspect-perception, whether, what, and how one comes to know about a particular style of painting (e.g., Cubism or Shijo) or a style of furniture (e.g., Louis XIV, *LW* I: §750), musical genre (e.g., blues or punk) or a kind of mathematics (geometry or dynamical systems) partly depends on one's cultural milieu and education and influences aspect-perception possibilities in these contexts (painting, interior design, music, and mathematics). Custom and upbringing, then, shape which kinds of aspect-perception experience possibilities are included and which are not included in our field of possible experience as well as which kinds of aspect-perception experience one is likely to have.

A key upshot of the theme of mastery of a technique is that there are perceiver-dependent influences on which kinds of aspect-perception experience are possible for any given perceiver. While the physiological soundness of one's sensory faculties, the (physical) features of the object of

¹³ See Larøi et al. (2014) for an overview of research on ways culture shapes hallucinations.

perception, and the quality of sensory conditions set constraints on aspect-perception possibilities, they are only part of what makes possible or excludes a particular kind of aspect-perception experience. Skill and practice play a role in determining possibilities for aspect-perception experiences of various kinds, perceiving aspects is something one becomes able to do, and in many cases aspect-perception has other techniques as prerequisites. Aspect-perception phenomena involve the dynamic use of know-how and active engagement with what is perceptually present.

Now are these conceptual or empirical conditions of aspect-perception? To be conversant with the shape of a duck is a logical condition of seeing the duck-rabbit figure as a duck. No creature could see the duck-rabbit figure as a duck and not be conversant with the shape of a duck. Part of what it means to be imaginative is to be open to seeing things in new ways and to conceiving new aspects. It would not make sense to say, “They’re really open to seeing aspects but not imaginative in the least.” One might call these logical conditions of aspect-perception. And there are clearly empirical conditions of aspect-perception. For example, interest would appear to be an empirical condition in that interest increases the likelihood that one will have such-and-such aspect-perception experience. And being able to see a particular kind of aspect on a given occasion may require imagination. One might think of imagination as an empirical condition of aspect-seeing in these instances. Here I gesture at some distinction between logical and empirical conditions for aspect-seeing, but I hesitate to put too much emphasis on the distinction.¹⁴

While aspect-perception requires mastery of a technique the kinds of techniques involved in some kinds of aspect-perception differ from techniques that, when applied appropriately, yield the same results for all those who can be said to have mastered them, for example techniques for addition. Some kinds of aspect-perception would seem to rely on techniques that, despite the role of practice and skill, are more like knacks or sensitivities, where there is less agreement and regularity in outcome of application, and learning them is not a matter of coming to know and correctly applying a set of rules. Recall the case of Temple Grandin from above, for instance.

As such, there may be cases of aspect-perception where the one who succeeds at perceiving the aspect in question is manifesting a knack or ability

¹⁴ I am indebted to an anonymous reviewer for encouraging me to consider the applicability of this distinction to prerequisites for aspect-perception.

that cannot be explained or taught by appeal to a formulaic technique, a technique that has rules for the correct application of the technique. One might not be able to explain the conditions for perceptual success in these cases. For example, suppose I hear a melody as exuberant and a fellow listener does not hear it as exuberant. What can I do to help them hear the melody as exuberant? I may only be able to give hints and suggestions, such as drawing the fellow listener's attention to changes in dynamics that express an exuberant mood. Something similar holds for judging the genuineness of another person's expressions, where there is an analogous absence of rules (*PPF*: §355). Suppose I see a stranger's smile as manifesting a particularly subtle form of sadness, such as joyful sadness, and it is. Someone else perceiving the same person does not see that person's smile as manifesting sadness, let alone joyful sadness. In this case it may be that there is nothing I could point to to settle the issue decisively, although I may be able to give the person the kind of tip that enables them to see the stranger's smile as manifesting joyful sadness.

2.2 Revisiting Success and Failure in Aspect-Perception

Attending to the ways aspect-perception requires and involves mastery of a technique foregrounds possible features of the perceiver that are connected with success and failure at aspect-perception and the variety of normative and evaluative elements other than veridicality at issue across different cases of aspect-perception.

Consider how we might evaluate positively the subject who has the ability to undergo particular kinds of aspect-perception experiences. For example, in cases of aspect-perception like seeing a cloud as a camel, a formation of stalagmites as a dragon, William Blake seeing heaven in a wildflower, or a small child seeing a tree stump as a table, the subject correctly identifies the object of sight (the cloud, the formation of stalagmites, the wildflower, the tree stump), but also, partly by involving their imagination, sees the object of sight as something it is not and in a way other than the and/or their usual way of seeing it. Here we might say the ability to see the cloud as a camel, the

stalagmites as a dragon, heaven in a wildflower, or the tree stump as a table expresses creativity.¹⁵

Next, notice that many kinds of aspect-perception experiences involve being able to undergo aspect-change experiences (e.g., when viewing the duck-rabbit figure). We can understand this ability as a form of cognitive flexibility. In this connection, there is compelling experimental work on how a perceiver's training, experience, and socio-cultural background may influence aspect-perception experiences in ambiguous figure perception. For example, some of this research explores the superior performance of bilingual children at perceptually reversing ambiguous figures and suggests superior cognitive flexibility in bilinguals may explain their superior performance (Bialystok and Shapero 2005; Wimmer and Marx 2014). Other research explores the potential theoretical and practical significance of differences in perceptual reversal rates when comparing spontaneous¹⁶ and prompted perceptual reversals of ambiguous figures across different groups. For example, autistic people would seem to differ in their perception of ambiguous figures, including in their reversal rates (e.g., Ropar et al. 2003; Sobel et al. 2005; Best et al. 2008). These performance differences suggest different kinds of cognitive flexibility in autistic participants by comparison with non-autistic participants.¹⁷ There is no consensus in the current research on how best to understand these and other differences in performance on cognitive flexibility tasks, however (Uddin 2021). Nonetheless, the conceptual distinction between spontaneous and prompted perceptual reversals raises interesting questions concerning whether those perceivers who are more inclined to spontaneously undergo perceptual reversals when viewing ambiguous figures are in some way "better" at aspect-seeing. Is needing to be prompted to undergo a change of aspect a way of being less adept at perceiving aspects?

Other normative and evaluative dimensions of aspect-perception are brought to light by considering the role that context plays in evaluating particular aspect-perception experiences. Seeing this or that aspect in a

¹⁵ These examples come from Strawson (1971), who emphasizes that aspect-perception is only creative if the perceiver in question goes beyond the routine, obvious, usual, familiar, established, or literal. What counts as imaginative for any given perceiver depends to some extent on the perceiver's training, experience, and cultural background.

¹⁶ Here "spontaneous" means that the subject is uninformed about the ambiguity: either told that the figure is reversible but not informed of the possible alternatives or not informed in any way about the ambiguity.

¹⁷ For more on autism and aspect-perception see Dinishak (2019).

particular context may be right or wrong in the sense that it is appropriate or called for in a particular context. For example, seeing an ambiguous schematic sketch of a man with a stick in profile on the side of a hill as a man sliding downhill (rather than as climbing up the hill) in a textbook at a particular juncture in a lesson could facilitate learning in that particular context, and thus we would evaluate that experience, seeing the sketch as an illustration of a man sliding down the hill, as appropriate to the context and in that sense better, relative to the learning goal in that setting, than seeing it as a man climbing up the hill.¹⁸ To take another example, seeing a friend's smile as generous (rather than as skeptical) while you are apologizing for a wrongdoing could facilitate intimacy and goodwill between you and your friend, and in this sense be called for in this context, regardless of whether the smile is in fact generous or skeptical. Bringing these observations back to how they are related to ways one can assess the aspect-perceiver, success at aspect-perception in these cases is connected to attentiveness to context and being able to gauge whether and how a particular aspect-seeing experience is appropriate or called for in a given context.

The above discussions of how to characterize success at aspect-perception and what sorts of features and abilities of the perceiver make aspect-perception experiences of various kinds possible invite further reflection on how to understand *failure* at aspect-perception. Wittgenstein uses the notion of “aspect-blindness” to explore what it would be like to lack the ability to have aspect-perception experiences (*PPF*: §§257-60). But what kind of failure is aspect-blindness? As with aspect-perception experiences, there are hugely many motley, interrelated phenomena and possible concepts. Regarding aspect-change experiences, the aspect-blind would be unable to experience aspect-change—to switch from one aspect to another and experience the switch (*PPF*: §258). For example, they would not experience the perceptual shift from seeing the duck-aspect to seeing the rabbit-aspect or vice versa while viewing the duck-rabbit. That is, they would not have the experience that is expressed by saying “I *see* that it has not changed, and yet I see it differently” even though they may *know* that the duck-rabbit figure can be seen both as a duck and as a rabbit *and* they are able to see both aspects. We can distinguish another possible form of aspect-blindness that is not a matter of blindness to change of aspect but instead a matter of being unable to see something *as*

¹⁸ Cf. *PI* boxed note (b) between §139 and §140.

something where that kind of seeing-as involves the lighting up of an aspect without aspect-change.¹⁹ Those with this kind of aspect-blindness would be unable to experience the lighting up of an aspect at all. For example, they would be unable to *notice* an aspect such as seeing a likeness between two faces or to shift from seeing meaningless lines to seeing a face in a puzzle-picture or to see a wooden crate *as* a dollhouse.

As we see, there are various ways to construe aspect-blindness yet they all seem to appeal to the notion of an inability to capture the sense of perceptual failure. One is said to have an inability to x when failure to x is frequent and systematic, and one is said to have an ability to x when success at x is frequent and systematic. To say that aspect-blindness is an inability is to suggest that it is not a one-off failure.

Failure in aspect-blindness is also not a failure in accuracy of perception in any straightforward way. In aspect-blindness, there is the *lack* or *absence* of a kind of perception, not the occurrence of a mistaken (inaccurate) perception. If someone else cannot see an aspect one sees (e.g., cannot see the likeness between two faces that one sees despite seeing the faces as clearly as I do), there is the sense that there is something that the perceiver who cannot see the aspect is missing in what is there to be seen and is thus, in a sense, blind to it. However, it is not obvious that we capture the distinctive character of the kind of failure aspect-blindness is by thinking about what it is the aspect-blind are missing it in terms of a *misperception*. Perhaps characterizing aspect-blindness in terms of a partially accurate experience is more apt. But the partiality in play in aspect-perception would not seem to be a shortcoming if one is able to perceive multiple aspects across different times. After all, seeing one aspect locally excludes seeing another. For example, seeing the duck-rabbit figure as a rabbit locally excludes seeing it as a duck.

Reflecting on the interrelations between inability and unwillingness can add further nuance to our understanding of failures at aspect-perception. Although both inability and unwillingness can be construed as forms of failure,²⁰ they are distinct. Willingness (or unwillingness) and ability (or inability) can come apart in aspect-perception. One may be willing but unable to see a letter F as a

¹⁹ See *PPF*: §257. Notice Wittgenstein's especially tentative tone in this passage as he considers possible kinds of inability and their possible relations.

²⁰ This is not to say that unwillingness to see something under a certain aspect is necessarily a failure. In fact, such unwillingness may be positively evaluable in some cases (e.g., being unwilling to see an animal's flesh as food).

gallows or a wooden box as a dollhouse or to find the solution in the puzzle-picture despite effortful attempts to do so, for example. Likewise, one may be able but unwilling to perceive an aspect. Some forms of aspect-blindness would seem to involve willful ignorance. Rather than attempting to see an aspect and failing, one neglects or even resists trying to see that aspect. In this connection, consider a vignette from Coetzee's *Boyhood* (1997) that Hacking (2008) cites while discussing connections between aspect-seeing and our relations to non-human animals:

At the bottom of the yard they put up a poultry-run and install three hens, which are supposed to lay eggs for them. But the hens do not flourish. Rainwater, unable to seep away in the clay, stands in pools in the yard. The poultry-run turns into an evil smelling morass. The hens develop gross swellings on their legs, like chicken elephant skin. Sickly and cross, they cease to lay. His mother consults her sister in Stellenbosch, who says they will return to laying only after their horny shells under their tongues have been cut out. So one after another his mother takes the hens between her knees, presses on their jowls till they open their beaks, and with the point of a paring-knife picks at their tongues. The hens shriek and struggle, their eyes bulging. He shudders and turns away. He thinks of his mother slapping stewing-steak down on the kitchen counter and cutting it into cubes; he thinks of her bloody fingers. (pp. 1-2)

Hacking (2008) describes the boy's experience in terms of seeing a previously unnoticed aspect that opens the boy's eyes and transforms his way of looking at animals:

The boy shudders and turns away. He sees what he sees, right there, but *he also sees what he did not see before*. The steak, bloody, his mother's fingers, bloody, the flesh and blood of something that was once alive, like the three chickens in the yard.... The experience stuck with Coetzee all his life. (pp. 146-7)

Turning back to the relation between inability and unwillingness, one can easily imagine instances where one might actively resist noticing the aspect the boy notices in this vignette, especially if one is highly motivated to preserve meat-eating practices and traditions or disgusted by the aspect one sees. Hacking writes: "[t]here is something wrong, morally lacking (I feel) with someone who does not shudder with the boy at Coetzee's vignette" (151). Some kinds of aspect-blindness might be understood as moral failures.²¹ More generally,

²¹ Here I do not mean to imply that aspect-blindness is always and everywhere a failure (moral or otherwise) or correspondingly that aspect-seeing is always and everywhere a success (moral or otherwise).

unwillingness could impede becoming skillful at being cognitively and imaginatively flexible and at appreciating open-endedness (i.e., that what one sees can be seen another way, as something other than what one sees it as, or that other aspects may “light up” for another such that they notice different aspects of what is “there to be seen”) skills that help make possible aspect-perception experiences, including those that can be morally transformative.

In conclusion, aspect-perception is in-between when it comes to whether and how veridicality is at issue in it. This in-betweenness has implications for how to understand success and failure at aspect-perception. It prompts us to consider other normative and evaluative dimensions of aspect-perception that are brought into view both by attending to key features of aspect-perception experience and by shifting evaluative focus away from the representational success or failure of our aspect-perception experiences and toward what the perceiver brings to aspect-perception opportunities to render possible some kinds of aspect-perception experience and exclude others. Among the skills, dispositions, sensibilities, or sensitivities that perceivers bring to aspect-perception experiences are creativity, cognitive or imaginative flexibility, and attention to the context of such experiences. Appreciating aspect-perception’s in-betweenness when it comes to whether and how veridicality is a standard for assessing it also prompts reflection on what kind of failure aspect-blindness is. I suggested that we do not make much headway on understanding what it is the aspect-blind are missing by casting the failure in terms of misperception.

Aspect-perception experiences can provide opportunities for meaningful relations to “objects of perception” that are not primarily a matter of having veridical experiences. If we fixate on veridicality as the standard for assessing success at aspect-perception, we run the danger of failing to appreciate the ways aspect-perception involves open-ended kinds of engagement with the world that go beyond kinds of engagement characteristic of much of perception: identifying and recognizing objects, attributing properties to them, and forming, maintaining, or revising beliefs about the objects of our perception. The (epistemic) significance of aspect-perception differs from standard perception.²²

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Biographical Note

Janette Dinishak is an Associate Professor of Philosophy and Associate Director of the Center for Public Philosophy at the University of California, Santa Cruz. Her research interests include Wittgenstein, the ethics and epistemology of other minds, and the philosophy of psychology and psychiatry. She has published papers on Wittgenstein, Gestalt psychology, autism, and the pathologization and de-pathologization of human differences in *Philosophical Psychology, Behavioral and Brain Sciences, Philosophical Investigations, History of the Human Sciences, Metaphilosophy, PLOS One*, and *Disability Studies Quarterly*.