The role of expression in the perception of emotion

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Abstract

One of the problems concerning our knowledge of others' minds has to do with identifying the source of such knowledge. I defend the idea that, very often, the source is perception. In particular, I argue that the emotions of others are available to the senses in the same way as other everyday objects of perception and that this is possible because of expression. This simple thesis faces the following objection. If our perception of emotion relies on expression, then it must be distinguished from our ordinary perception of everyday objects. Our ordinary perceptual experiences are not mediated by anything analogous to expression, so the objection goes. In this thesis, I seek to understand and respond to this objection by exploring the relationship between emotions and expressions. I propose that there are analogous intermediaries in our ordinary perceptual experiences – we perceive objects through perceptual media like sound and illumination and we perceive events by perceiving the activities that constitute them. Through drawing these comparisons, emotional expression comes to be understood as a fundamentally perceptual phenomenon. In thinking about the role expression plays in our perception of emotion, we in turn shed light on what it is to express emotion.

Impact Statement

This thesis should be of particular interest to anyone working on the problem of other minds, the philosophy of interpersonal consciousnessness, the perception of ephemera and the philosophy of emotion and expression. Outside of philosophy, the arguments put forward could impact how we go about studying emotions and expressions in psychology, cognitive science and neuroscience. For example, in the influential debate regarding the unversality of emotions in psychology, experiments traditionally proceed by asking participants to match a static image of a facial expression to a single corresponding emotion. One of my arguments in this thesis is that we perceive emotions through expressions over time. In addition, I argue that we can perceive more than one mental state or occurrence through a single expressive behaviour. Each of these arguments puts pressure on the dominant method of testing universality in psychology. More broadly still, this thesis may interest anyone who is concerned with how we connect with one another.

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Introduction

The problem of other minds has several facets. I am concerned with just one – the task of identifying and explaining the source of our knowledge of other people's minds. To further restrict things, I am concerned not with other people's minds in general, but with their emotions. I defend the idea that, very often, the source is perception. In particular, I argue that the emotions of others are available to the senses in the same way as other everyday objects of perception and that this is possible because of expression. I call this the Direct Perception of Emotion Theory:

> The Direct Perception of Emotion Theory (DP)
> Our perception of token emotions is structurally analogous to our perception of ordinary objects.

This formulation of a direct perceptual theory of our knowledge of others' emotions is not the default. In fact, it is often unclear what those who profess to support a 'direct' perceptual view have in mind. In Chapter 1 I discuss a series of candidate interpretations of a 'direct' perception of emotion theory by considering what it might stand in contrast to. In particular, I consider interpreting the theory as a rejection of scepticism about our access to the emotions of others; as a rejection of an inferential account of our knowledge of others' emotions; and as an account of our perception of certain facts about the emotions of others.

   While one or more of these interpretations may capture what current proponents of a 'direct' theory have in mind, there is a recent objection to the direct perception of emotion that speaks past them. I call this the asymmetry objection. It says that our perception of emotion must always be indirect because while we may perceive emotions, we only perceive them by first perceiving expressions. In our perception of ordinary things in our environment, there is no analogous intermediary which screens such objects from our direct awareness. I argue that for this objection

to gain purchase, we must interpret the direct perception of emotion theory as saying something more than that we perceive emotions. There is a direct/indirect distinction that can be made at the level of the perception of emotions themselves. I adopt Jackson's account of indirect perception relating to the additional use of the in-virtue-of relation as a means by which we can make sense of the objection. Expressions introduce an in-virtue-of relation not present in ordinary perception. I call this the Indirect Realist Theory of Emotion Perception:

> The Indirect Realist Theory of Emotion Perception
>
> Our perception of token emotions is structurally disanalogous to our perception of ordinary objects because we perceive emotions in virtue of perceiving expressions.

The version of DP that I present and defend is a rejection of the indirect realist theory of emotion perception. It denies that expressions operate in a way that makes our perception of emotion structurally disanalogous to our perception of ordinary things in our environment. This is a very strong interpretation of how we perceive emotions (even those that grant emotions are the objects of perception concede that we perceive them indirectly in at least the indirect realist's sense). It is my task in this thesis to defend this strong version of DP against the indirect realist. I will do so by exploring assumptions that are made regarding emotions, expressions and the relationship between them.

It is not an accident that emotions have often been a test case for the putative perception of other minds in the literature, rather than other mental phenomena like states of belief or knowledge. Something about emotions and their associated expressions makes them the appropriate objects of a perceptual account. But this is often overlooked in subsequent discussions of whether and how we can perceive others' emotions. The nature and ontology of emotions and their associated expressions often go uninterrogated; the arguments could apply just as easily to any

kind of mental state. For this reason, I start with a discussion of the nature of emotions and expressions in Chapters 2 and 3 respectively.

In Chapter 2 I focus on emotions through the example of surprise. I argue that when we experience surprise, the experience shares enough features that are typical of emotions more generally to qualify as a member of the group 'emotion'. Nonetheless, I highlight various features of surprise that distinguish it from other example emotions – of particular note is its distinctive temporal nature. I then show how these reflections have interesting implications for philosophical accounts of surprise. I suggest that current philosophical accounts, which take surprise to be rooted in unexpected events, should be more sensitive to the emotional nature of surprise. In particular, they should be sensitive to the distinction between the cause and object of an emotion (a familiar distinction in the philosophy of emotion literature). While I see no problem in describing the cause of surprise in terms of expectations, I present three problems for understanding the object of surprise in terms of expectations. Finally, I suggest some potential supplementations we can make to our accounts of surprise in order to better capture its object.

In Chapter 3 I turn to expressions. In order to think about the nature of expressions, we need examples. But it is not always obvious which of the many diverse behaviours people engage in are expressive and which are not. I argue that current accounts of expression in the literature all make the same assumption. They assume that a subject's behaviour is expressive if certain facts about the individual subject and their behaviour obtain. One prominent example of this is Green's design account of expression. It holds that behaviour is expressive if the subject designs it for a particular purpose – namely, to communicate to others about their emotions. I argue that this view is unsatisfactory since design and expression are in tension with one another. I then offer a suggestion for where this and other accounts go wrong – they treat expression as a primary quality. Instead, we should treat expression as a secondary quality. I suggest that for behaviour to be expressive of anger is for it to be disposed

to be perceived as expressive of anger to normal observers in normal conditions. What it is for something to be an expression is tied to the perceptual responses of others.

I turn next, in Chapter 4, to the first solution to the asymmetry objection and the indirect realist. This solution is a rejection of both parts of the indirect realist's claim – it rejects that our perception of emotion is structurally disanalogous to our perception of ordinary things in our environment and it rejects the idea that we perceive emotions by perceiving expressions. I do this not by denying the importance of expressions in the perceptual process, but by introducing an alternative way in which something can enable perception. In ordinary perception, we perceive objects through perceptual media like sound and illumination. Without illumination, we would not be able to see things around us, yet we do not see objects by first seeing illumination. Rather, we see through the illumination. I draw on Fritz Heider's work to argue that there are a number of striking similarities between sound and illumination and expressions of emotion. As such, I argue that in our perception of emotion, expressions play an analogous role to that which perceptual media play in our ordinary perception. Since the role of perceptual media in ordinary perception does not render such perception indirect, the same can be said for expressions in emotion perception.

In Chapter 5 I consider an alternative solution to the asymmetry objection. In this solution I grant that we perceive emotions by perceiving expressions, but deny that this makes our perception of emotion structurally disanalogous to our perception of ordinary things in our environment. This is to reject just one of the indirect realist's claims. It is sometimes suggested that we perceive ordinary objects by perceiving parts of those objects. For example, we perceive the fox by perceiving part of the surface of its body. If expressions are parts of emotions, then perhaps we perceive emotions in this same way. This argument has been rejected elsewhere on the basis that expressions are not the sorts of things that can be parts of emotions. Emotions are states, expressions are occurrences, and occurrences cannot partly constitute states, so the argument goes. After considering a series of responses to this ontological objection, I argue for a plural ontology of emotions. Emotions are ontologically

complex in that some are states, some are occurrences and some can be either states or occurrences. Given that the objection warns against particular part-whole relations between occurrences and states, but not between things of the same ontological kind, we can maintain that expressions can be parts of emotions at least when considering emotions and expressions to both be occurrences.

In Chapter 6 I build on this proposal and consider what kind of occurrence emotions might be. I raise considerations in favour of thinking about emotions – in particular, episodes of emotion – as events. I argue that they are particular kinds of events, accomplishments, since they are similarly governed by completeness conditions. This opens up a new way to think about the perception of emotion; we can draw an analogy with our ordinary perception of events. Events, like the fox crossing the road, I include within the category of ordinary objects of perception. I draw on Crowther's account of event perception in terms of the perception of activity. While Crowther argues that activity is the stuff of events, I argue that expressions are the stuff of emotions. In this account of emotion perception in terms of the perception of expressions, expressions play the same role as activity in our ordinary perception of events. We have therefore landed on an account which is structurally analogous to our perception of ordinary objects in our environment.

By the end of the thesis, I will have proposed two roles for expressions to play in our perception of emotion. One proposal is that expressions behave as the perceptual media through which we perceive emotions and the other is that expressions are the activities of emotion. Both render emotion perception structurally analogous to our perception of ordinary objects and answer the indirect realist about emotion perception. In my concluding remarks I think about whether these two solutions are compatible.

Chapter 1

What is it to directly perceive an emotion?

I introduce the Direct Perception of Emotion Theory and an objection to it – that emotion perception is indirect given the mediating role played by expressions. To understand what this charge of indirectness is, and whether it threatens the thesis that we directly perceive emotions, I review several options for how we might understand

the direct perception proponent's claim. I argue for a strong reading of the claim wherein what matters to the direct perception of emotion theorist is the symmetry between our perception of emotion and our perception of ordinary objects.

1. Introduction: the asymmetry objection

Let us assume that we have knowledge of other minds. Not only this, but we have knowledge of some of the specific states of others' minds. In particular, we know about the emotions of others. When I am having a conversation with my friend Sammy and I sense a shift in his mood, I become aware of his sadness as we talk. How do I know my friend is sad? That is, what is the source of this knowledge?[1] There are a number of plausible options. One is testimony – Sammy tells me that he is feeling sad. Another is inference – I infer that Sammy must be sad given that, say, he tells me a story about himself that I believe is bound to make him sad. There are also some implausible options. Introspection, which is thought of as a means one has of gaining knowledge of one's own thoughts and feelings, is confined to one's own mind and not to the inspection of others.

The proponent of a perceptual model of knowing others' emotions thinks that perception is one of the plausible options. How I know about Sammy's sadness is comparable to how I know that he's in the room with me – I see him there, or I hear him talking – and likewise, we can perceive things that enable us to know that Sammy is sad. There can be weak and strong ways to develop this claim.[2] A weak way might be to suggest that perception is involved but in conjunction with something else. I see his tears and infer on that basis that he is sad, or I hear his words, and determine by testimony that he is sad. In these cases, the role of perception is trivial in the sense

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[1] Gomes calls this the 'problem of sources' (2019)

[2] See McNeill (2012a) on the distinction between the weak perceptual hypothesis and the strong perceptual hypothesis.

that almost all our inferential knowledge and testimonial knowledge require perception of some kind.

A number of recent proponents of the perceptual model have looked to various stronger ways of developing the claim. Here are some notable examples:

We often say such things as that we could see the anxiety on someone's face, feel the trepidation in her handshake, and hear the exuberance in her voice. (Green, 2010, 45)

[We] can literally perceive someone's anger in his face. (Stout, 2010, 29)

it may be possible to know that James is angry by seeing that he is angry, and to see that he is angry by seeing his anger. (McNeill, 2012b, 594)

When I am angry, I generally *feel* that anger immediately (even if the responses of others are often crucial for helping me grasp the *extent* of my anger, say); when another is angry, I do not feel it (at least in the way I feel my own) – rather, I *see* it…the crucial point, once again, is simply put: in both cases the anger – whether my own or another's – is *directly* known. (Krueger, 2014, 344)

Passages like this have led to several philosophers being described as holding the position that we can 'directly' perceive others' emotions (Gallagher, 2008; Rodríguez, 2018; Green, 2010; Green, 2007; Krueger, 2014; Krueger & Overgaard, 2012; McNeill, 2012b, 2019; Rodríguez, 2021; Stout, 2010). I call this theory DP, though it will not be until the end of this chapter that I give a canonical definition of how I will be understanding DP in the rest of this thesis. For now, following these quotations, we can say that DP captures an account of our knowledge of others' minds in which token emotions are the direct objects of perceptual verbs. What exactly this might amount to will be the subject of this chapter.

While proponents of this account suggest it captures a common-sense thought, the claim itself is surprising. Assuming we are not behaviourists, the contents of people's minds do not sit around in plain sight. There is the sense that they are hidden away and never reach beyond the surfaces of our bodies.

To dispel this thought, proponents of DP appeal to several twentieth-century phenomenologists – predecessors to the direct perception thesis:

Cheerfulness or sorrow, calmness or excitement, friendliness or rejection can lie in the tone of voice. (Stein, 1964, 76)

In the sight of clasped hands, for example, the 'please' is given exactly as the physical object is – for the latter is assuredly *given* as an object (including the fact that it has a back and an inside), in the visual phenomenon. (Scheler, 2008, 178)

For we certainly believe ourselves to be directly acquainted with another person's joy in his laughter, with his sorrow in his tears, with his shame in his blushing with his entreaty in his outstretched hands, with the love in his look of affection, with his rage in his gnashing of his teeth, with his threats in the clenching of his fist, and with the tenor of his thoughts in the sound of his words. (Scheler, 2008, 260)

Recently, a number of authors have cited a paper by Nathalie Duddington as capturing the view:

My object in the present paper is to maintain that our knowledge of other minds is as direct and immediate as our knowledge of physical things. (Duddington, 1918, 147)

In and through the act of discriminating we become aware of that upon which the act is directed. Such knowledge is direct and immediate in character in the

sense that there is no *tertium quid* intervening between the mind and that which it knows, no screen which hides the object of knowledge from that knower. (Duddington, 1918, 150)

She describes this kind of knowledge as follows:

Knowledge in which the object is thus contemplated seems to me best described by the term "direct acquaintance" or "perception". The essential characteristic of such knowledge is that in it we are "face to face" with the object. (Duddington, 1918, 152)

I want to highlight two features that are emphasised in the above quotations. One is the similarity between our ordinary perception of things in our environment and our perception of emotions. This is present in the first quotations from both Scheler and Duddington. These accounts build from a sense that the emotions of others are *just there* in front of us (in the visual case at least), available to be grasped by the senses in the same way various objects around us are. There is no disanalogy between how we grasp the presence of another's body and how we grasp the presence of their emotion. This is an important insight in maintaining one of the attractive features of a perceptual theory. When we are faced with the *problem* of other minds, we are tasked with accounting for the source of our putative knowledge of them. A simple solution is to maintain that there is no real problem here since we can just adopt a ready-to-use model from our perception of ordinary things around us. If emotions are perceived, but in a way that is dissimilar to ordinary perception, then this attractive simplicity is weakened.

The second feature is the reliance on expression. Stein and Scheler, in particular, detail our awareness of others' emotions through the expressions of others – through their tone of voice, clasped hands, *in* their blushing, in their laughter, in their tears, in their look of affection, in the gnashing of their teeth, in their clenched fists. Here,

emotions are not perceived alone, but in some relation to various actions and bodily movements.

It is this reliance on expression that causes problems for the proponent of DP. Historically, it has been used to suggest that we have *no* access to the minds of others. In response to Duddington's paper, Gregory writes:

The dependence of the inspecting mind upon information received from the mind it inspects through the actions of the bodies' they inhabit becomes evident when it is deprived of these indexes to conscious life...As a human being approaches the immobility of a statue, his thoughts and feelings retire from the view of others: it becomes less and less possible to discover whether he is angry of pleased or in pain. If he lie paralysed by a "stroke" his friends cannot be certain whether he recognises them, whether he is suffering, even whether he is at all conscious of his surroundings. In such tense moments, we seem to realise that we can only know one another's minds by observing one another's bodies. (Gregory, 1920, 447-448)

Gregory's argument is as follows. The less a person moves and expresses, the less access we have to their mind. When a person stops moving and expressing entirely, we lose access to their mental life entirely. Therefore, we can only access another's mind by observing their bodily movement and expression. In the paper, he concludes from this that we do not observe nor access minds themselves.

This passage from Gregory neither establishes our reliance on expressions nor that they prevent our perception of minds. Firstly, one could draw two conclusions from the fact that we are less able to track the mental life of someone with diminishing expressive capabilities. One is to suggest, as Gregory does, that our inability to discern their mental life is explained by their lack of expression. Another is to suggest that what explains our inability to discern some emotion in them is the retreat of the

emotion itself from view. We do not fail to perceive the emotion of a statue because of its immobility, but because it does not feel.

Secondly, and granting that we are only ever aware of another's mental life by being aware of their bodies, we cannot draw from this that we do not observe minds themselves. I can only have visual awareness of my face (or at least certain parts of it) with the use of some reflective material – mirrors or glass, usually – or with the use of a camera lens. This does not mean, however, that I cannot observe my face. The reliance of our awareness of one thing on our perceptual awareness of another does not entail that we are only perceptually aware of the latter.

It does, however, mean that we are perceptually aware of it in a particular way. And here we can draw out a more subtle form of the argument against the direct perception of emotion theorist. What Gregory does get right is that when we are perceptually aware of another's emotion, such awareness involves expression. Expressions are, as the phenomenological proponents suggested, very much involved in the process. Several philosophers currently thinking about the problem have argued that while this needn't mean we have no perceptual access to emotions, such access is indirect since it is mediated by our direct awareness of expressions. It is therefore disanalogous to our perceptual access to ordinary objects. I call this the asymmetry objection.[3] Here are three examples in which it is raised:

Our knowledge of others' minds is mediated in a way that our paradigmatic perceptual knowledge is not…I come to know another's mental state by perceiving some piece of expressive behaviour. But the use of this 'by' locution indicates that we do not treat expressions of mentality on a par with the distinctive appearances of the objects of perceptual knowledge. (Gomes, 2019, 163-164)

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[3] This is distinct from what is sometimes called the 'Asymmetry Thesis' in discussions surrounding knowledge of other minds, which relates to the apparent asymmetry between first and third personal knowledge.

What comes naturally to us is to say that we see emotions but only in people's expressions or behaviours. And this suggests a level of perceptual indirectness that does not intuitively hold between us and common objects or their colours. And it suggests a mediating role for people's expressions and other behaviours for which there is no analogue in central cases of perceptual awareness or knowledge. (McNeill, 2019, 175-176)

If we are seeking to defend the manifest image of our awareness of the emotional life of others, then we must recognise that we perceive others' emotions in virtue of perceiving their bodily behaviour and, paradigmatically, their expressive behaviour. The question is not *whether* the perception of emotion is indirect, but *how* it is. (Smith, 2017, 134)

Smith claims that even if we can somehow perceive emotions in virtue of perceiving expressions – that is, the relation between expression and emotion is such that the perception of the former carries over into perception of the latter – such perception is indirect. He claims that if the proponent of the direct perception of emotion means to deny this, their account is 'implausible' (Smith, 2017, 134). Gomes and McNeill highlight the mediating role played by expressions – the wedge they drive between our perception of emotions and our perception of ordinary objects.

To understand the full force of the asymmetry objection, as it's presented here, we need to understand both what the charge of 'indirectness' here is supposed to carry, and what the proponent of the direct perception of emotion really means by 'direct'. In turning our attention to this question, we will be looking for three things. Firstly, we will be determining how those that defend the direct perception of emotion in fact construe their proposal. Secondly, we will be looking at how the critics construe the direct perception theorist's proposal, to determine whether they find the right target. Thirdly, we will be looking at how those that defend the direct perception of

emotion *should* construe their proposal if they are to stay in line with their predecessors in phenomenology.

As Austin remarks, within the direct/indirect perception distinction, the notion of indirect perception calls the shots (1962, 15). We usually determine what kind of indirectness is in play and understand direct perception as its opposite. We will use this tool in what follows, determining what the direct perception of emotion theorist means by thinking about what the thesis could stand in contrast with.

2. Direct emotion-perception in contrast to scepticism

For the asymmetry objection to get off the ground, it must be a local rather than global charge of indirectness. That is, for the problem to be special to emotion perception as opposed to all kinds of object perception, what renders the perception indirect must not apply to the perception of objects ubiquitously. As such, it must be something distinct from, say, a commitment to indirect realism. Such a commitment would tell us that we do not directly perceive emotions, but it would also tell us that we do not directly perceive any objects since the direct objects of our awareness are only ever private, subjective sense-data.

One way of bringing a local charge against the direct perception of emotion is to present a sceptical challenge. People often deceive us about how they are feeling. Sammy may look one way to me (sad) but be putting this on to gain my sympathies. And even in cases in which there is no intentional deception, other people can be difficult to read. Sammy may look sad but as it happens his sad expression is indistinguishable from his confused expression. If Sammy's non-sad look, deceptive or otherwise, is indistinguishable from his sad look, then one cannot ever know through perceiving Sammy looking this way that he is sad. One cannot know whether they are in the good case or the bad case with respect to Sammy's sadness.

However, as with the charge of indirect realism, this epistemological sceptical challenge is not special to the emotions of others (Gomes, 2011). Take the coffee cup

in front of you. It is a possibility that there is no cup there and you are merely hallucinating it. However, your hallucination is indistinguishable from the situation in which the cup is really in front of you. As such, even when the coffee cup is there, you cannot know this to be the case (or so it might be argued). Or perhaps there is a Cartesian demon controlling all your perceptions, such that they manoeuvre it to seem like there is a coffee cup in front of you – this scenario again being indistinguishable, from your perspective, from the scenario in which the coffee cup is in front of you. One cannot know whether they are in the good case or the bad case with respect to the coffee cup.

Not only are sceptical concerns of this kind not special to emotions, but they also cannot single out DP's claim amongst others. One can reject scepticism about others' minds without endorsing the claim that emotions can be directly perceived, or indeed perceived at all. One can maintain we have knowledge of others' minds, but explain it in terms of a distinct source: as testimonial knowledge (Gomes, 2015), as expressive knowledge *sui generis* (Gomes, 2019), or as inferential knowledge (see below).

Perhaps the DP theorist stands not in contrast to the above sceptical challenge but in contrast to part of what motivates it – to the idea that such perception, as a result of pretence and deception, is challenging. The difficulty in deciphering the emotions of others is, their opponent may say, distinctive to emotion perception. In support of this position, it might be said that we do often struggle to discern what another is thinking or feeling, we describe others as 'unreadable' and have access to only a small portion of their internal goings on. Our access can vary according to our relationships with others – we can tell more about how our friends feel than we can mere acquaintances. Furthermore, our access can vary according to the particular emotions of others. We are more readily aware of another's anger than the resentment they are quietly harbouring. While these kinds of perceptual struggles occur in the perception of ordinary objects – say, trying to make something out in the distance – they are not characteristic of paradigmatic cases of object perception.

In contrast with this picture, one consideration that often crops up when motivating DP is that we can access the emotions of others with ease. For example, McNeill writes:

> We often come to be aware of others' mental states without doing any conscious work. We rarely have to put any effort into becoming aware that someone is angry, say. At the personal level, others are given to us as minded. And in most cases, some specific aspects of their present state of mind are also given to us. (McNeill, 2012, 570)

So perhaps it is this position – that of highlighting the ease of our knowledge of others – that distinguishes the direct perception of emotion theorist's claim. The emotions of others immediately present themselves to us, and we have as little trouble explaining our knowledge of them as we do the knowledge that the chair in front of us is brown.

However, we should reject this way of characterising the distinction if we are to pay attention to our phenomenological motivators. In particular, Duddington maintains that it is a mistake to distinguish the relation we stand to another's mental state based on how hard it was for us to get there:

> So far then as the way in which a knowing mind comes to discern any given content is concerned, there are endless differences in the degree of discrimination required, but these differences have nothing to do with the relation that holds between the knowing mind and the object when once it has been discriminated…the important point is that the *directness* of knowledge has to do not with the means whereby the perception of any particular reality is attained, but with the circumstance that when the end is reached, the mind is *in the presence of* the object. (Duddington, 1918, 151-152)

Here, we are told that directness does not depend on degree of discrimination required to discern some object. Duddington illustrates this point by encouraging us to think about the complex pattern of a carpet. While we immediately recognise the colours of the carpet, it takes us some time to make out their particular arrangement – the carpet's pattern. One we do, however, we stand in no different relation to the pattern of the carpet than we do to the colours themselves. We are directly acquainted with both in equal measure (Duddington, 1918, 151).

Furthermore, at the level of distinguishing between direct and indirect perception, ease of perception need not correspond to direct perception. Later on in this chapter, we will look at Jackson's account of the distinction between direct and indirect perception (Jackson, 1977). He takes physical objects (middle-sized dry goods) to be perceived indirectly, in virtue of directly perceiving some coloured expanse. As Jackson emphasises, however, this does not entail that we can identify or specify said coloured expanses with greater ease than we can the indirect objects of perception (Jackson, 1977, 23). It is far easier to specify that there is a compact disc in front of me than it is to specify the colour of its underside, even though I only indirectly perceive the compact disc in virtue of directly perceiving its underside. So, even if emotions were easy to discern, it is unclear how this distinguishes the kind of perceptual account involved. Therefore, while the ease with which we come upon the emotions of another may be a phenomenological motivation that guides much of the theory here, it cannot be the whole story.

3. Direct emotion-perception in contrast to inference

Perceptual accounts of other minds stand in contrast to inferential accounts. The standard inferential account runs as follows. All we can observe of others are their bodies and behaviours, which are not themselves mental states of any kind. In our own case, however, we are aware of more than this – we are aware of our minds as well as our bodies and behaviours. We have access to our own pains and pleasures and

emotional experiences. Not only this, but we are aware, in our own case, of certain connections between these experiences and our bodies. We know that when we are angry we scowl and that we bow our heads in shame. We can therefore infer, in the case of others, that when they scowl or bow their head, then they too are experiencing anger or shame. We reason by analogy from our own case to that of others, and thereby come to know others' mental states.

This simple inferential account is often attributed to Mill. He writes that 'other human beings have feelings like me, because, first, they have bodies like me, which I know in my own case, to be the antecedent condition of feelings; and because, secondly, they exhibit the acts, the other outward signs, which in my own case I know by experience to be caused by feelings' (Mill, 1865/2009, 190-191). A similar argument is developed by G. F. Stout, who writes that we cannot directly perceive what's in another's mind, but 'can only interpret external signs on the analogy of his own experience. These external signs always consist in some kind of bodily action or attitude. Thus when a man clenches his fist, stamps, etc., we infer that he is angry' (Stout, 1899, 20).

I will not rehearse all the objections that have been made to an inferential account of this sort, but it will be helpful to mention a couple. One common objection appeals to the ability of infants to understand, to some extent, what's going on in the minds of others. If an infant, who has yet to observe their own behaviour (they are yet to study themselves in the mirror) and has yet to develop their skills in reasoning by analogy, can respond to the intentions and emotions of others, then their awareness of others' minds must be antecedent to the development of the supposed analogy. It is reasoned that infants do in fact respond and track the intentions and emotions of others, and as such, any inference cannot be our primary source of knowledge. As Merleau-Ponty puts the point in *Phenomenology of Perception*: 'A baby of fifteen months opens its mouth if I playfully take one of its fingers between my teeth and pretend to bite it. And yet it has scarcely looked at its face in the glass, and its teeth are not in any case like mine' (1962, 410).

There are two arguments in the passage just quoted. As described above, one issue is that the infant is unable to draw the appropriate analogy. The second, and more interesting, issue is that even if they were able, the analogy breaks down. Leaving aside the differences between the faces of adults and infants, we can extend this objection to the interactions between all people. One can grant that we have an awareness of our own bodies and behaviours, and an awareness of how these are connected with our feelings. However, such awareness is not that of a second-personal visual image. When we shed tears of sadness, what we are aware of is the way our body feels; the feeling of tears rushing down our cheeks. When we laugh in amusement, we are aware of it in our stomach and chest, and in the way our bodies shake. This awareness is very different to the proposed parallel awareness we have in the analogy – we see another, their movements and the surface of their body, from an external standpoint – and given this contrast, the comparison between our experience and the other's experience cannot be drawn.

These points indicate why some have opposed the simple inferential model. We can now ask: is opposition to an inferential account what is at stake when theorists offer a perceptual account and, moreover, a direct perceptual account? For many it is. Often, the phenomenological motivators of this view set, as their interlocuter, the inferentialist about other minds. In *Zettel* Wittgenstein writes:

"We see emotion." – As opposed to what? – We do not see facial contortions and make inferences from them (like a doctor framing a diagnosis) to joy, grief, boredom. We describe a face immediately as sad, radiant, bored, even when we are unable to give any other description of the features. (Wittgenstein, 1967, 225)

And later in *Remarks on the Philosophy of Psychology Volume II*:

In general I do not surmise fear in him – I see it. I do not feel that I am deducing the probable existence of something inside from something outside; rather it is

as if the human face were in a way translucent and that I were seeing it not in reflected light but rather in its own. (Wittgenstein, 1980, 170)

These remarks highlight that we do not find, in our experience of others' emotions, a step-by-step process, akin to other inferential workings out. What we learn, we learn non-inferentially. Here are some other remarks in the same vein:

There is nothing here resembling 'reasoning by analogy'. (Scheler, 2008, 410)

For we intuitively ascribe to the other person his lived experiencing, and we do this completely without mediation and without consciousness of any impressional or imaginative picturing. (Husserl, 1910-1911, 84)

We do not *first* know bodies and *then* infer that they are animated bodies; the presence of mental life is revealed to us along with the qualities of shape, colour, movement, and so on that characterise the body. (Duddington, 1918, 164)

We sometimes need to play detective to discern how someone, issuing an unusual or idiosyncratic expression, is feeling. However, for the most part, this sort of process is not required. These passages seem to suggest that the predecessors of the direct perceptual account were concerned with the perceptual nature of our knowledge (as opposed to inferential), rather than the kind of perception involved. A prominent recent proponent of what he calls a 'direct perception' model clarifies what he means by 'direct' as follows:

Second, what precisely do we mean by direct? Is this in contrast to an indirect perception – and what precisely is an indirect perception? It turns out that there are not many examples of indirect perception. In one sense, perception of something through a mirror might be considered an indirect perception of that

thing. I directly see the mirror image, and that image is of some X. So I am indirectly seeing X. Or in the tactile modality, perhaps I feel the shape of something through something else, e.g., a cloth that loosely shrouds the shape of something. A blind person may have a tactile perception of the environment through the use of a cane, or a scientist might perceive something by means of an instrument. But I will set these examples aside as irrelevant to the current discussion, and in doing that I suggest that what we mean by direct perception (or a direct perceptual grasp) is nothing more than perception itself, not in contrast to indirect perception, but in the sense that all perception is direct...The relevant contrast is not between direct and indirect perception but between perception and something added to perception, e.g., an inference or interpretation that goes beyond what is perceived. (Gallagher, 2008, 537)

Gallagher takes the directness in his account to amount to no more than that our awareness is solely perceptual, rather than to distinguish between perceptual accounts. He supports this by raising doubt over how robust any distinction between direct and indirect perception will be. We will come back to this later. For now, it suffices to show that, on this interpretation of DP, the direct perception of emotion theorist can be relatively unmoved by the objections raised above. That we indirectly perceive emotions because our perception is mediated, or runs via, our perception of expressions (so the objection goes), does not necessarily involve anything that goes beyond perception. It says something about what the perception is like, rather than raising a contrast with something extra-perceptual.

However, there might be a way to interpret a perceptual account which runs via the perception of expression as an inferential account. We will address this in the following section.

4. Perceiving-that

One way to develop a perceptual model of our knowledge of others' minds is to grant that emotions themselves are private and inaccessible to the senses while maintaining that all we actually need to perceive to know the mind of another is a *person* under certain conditions. This can enable the perception of certain facts: *that* they are angry or *that* they are embarrassed (Dretske, 1969, 1973).[4]

> When we say that a person 'blew up', could no longer conceal his anger, we do not mean that everyone could suddenly see his anger (though, I admit, we might easily say just that). What we mean is that everyone could now see that he was angry, that he was angry became evident. What is evident (can be seen), however, is a fact (that he is angry), not a thing (his anger). (Dretske, 1973, 37)

To develop this account, we need to follow Dretske's distinction between two kinds of seeing: simple seeing and epistemic seeing. To simply see something is to see it in a sense distinct from one's higher-level cognitive capacities. Simply seeing a banana is compatible with having no belief about what it is that is seen. We can say that *S* simply sees *a* only if *a* is visually differentiated from its immediate environment by *S* (Dretske, 1969, 20). It is differentiated by things like its size, shape and movement.

In contrast, to epistemically see something has epistemic consequences. Instead of merely seeing a differentiated object in front of me, I see that it is a banana – I identify it in a particular way. Epistemic seeing comes in two forms, primary and secondary. One sees that *a* is F in a primary epistemic way by simply seeing *a*, plus some further conditions, while one sees that *a* is F in a secondary epistemic way by simply seeing something else, *b*, plus some further conditions.

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[4] Talk of perceiving-that attributes knowledge in at least two ways. When we see that the proof is valid we perceive that something is the case without necessarily implying any perceptual apparatus was used in order for it to be so – one can simply swap see for understand. Another way of understanding perceiving-that is as a description of coming to know something in a particular way – specifically, through perception. In this sense, if we see that the vizsla is red we come to know that the vizsla is red on the basis of seeing it. It is this latter sense that we are interested in here.

We can ignore secondary epistemic seeing for now and focus on primary epistemic seeing. Cassam adopts Dretske's criteria for primary epistemic seeing and applies it to the perception of emotion, rendering the following account of what it is to see that someone is angry (Cassam, 2007, 163):

S sees that *a* is angry in a primary epistemic way only if:

 (i) *a* is angry

 (ii) *S* simply sees *a*

 (iii) The conditions under which *S* simply sees *a* are such that *a* would not look, L, the way they look to *S* unless they were angry

 (iv) *S*, believing the conditions are as described in (iii), takes *a* to be angry

It is through seeing a person with a distinctive look, as specified in (iii) that we come to know that another is in a particular emotional state. For some feature, F, to have a distinctive look, L, would be for most things in our environment which have L to in fact be F. That is, for anger to have a distinctive look would be for it to be the case that most people who look that way are angry.[5]

Parrott has recently argued that appealing to the look of an emotional state cannot give us perceptual knowledge that an agent is in that state. He does this by first noticing that we must change condition (iii), and that once we do, we can see how emotions will always fail to satisfy it. We need to adjust (iii) because of the following kind of case (Parrott, 2017, 1028-1029):

Angry Patrick Stewart

The magnificent actor Patrick Stewart has been cast to play Hamlet at the local theatre. During each performance, there is a time at which he looks angry. As it happens, before last Tuesday's performance, Stewart got some very bad news

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[5] See (Martin, 2010a) on looks.

and actually is angry during the performance. Stewart both is F and looks F, but it is not the case that he looks F because he is F.

Here, Parrott describes a case in which (iii) is satisfied, but we wouldn't want to suggest that it amounts to seeing that Patrick is angry, since the fact Patrick is also in fact angry is only accidental. What is responsible for his overall look of anger, in this case, is his intention to look angry for the performance. As such, while the correlation between the look and the mental state is accidental, the overall look of anger is not (Stewart meant for it to look this way).

For this reason, we should adjust (iii) to: (iii*) the conditions are such that he looks the way he looks in virtue of his being angry (Parrott, 2017, 1031). The case of Angry Patrick Stewart, and the possibility of (iii*) breaking down, need not pose a *special* sceptical concern given that it is possible to raise the same worries with respect to various inanimate objects we do take ourselves to have perceptual knowledge of, on the basis of how they look. We can appeal to familiar disjunctivist arguments[6] to explain how we can have knowledge of the thing in front of us being a banana, even though there is a possible case in which a banana has been manipulated by external causes to look banana-like (perhaps it had been bruised beyond recognition and then patched back up again and painted yellow to look more appealing).

Nonetheless, Parrott suggests, there is something different between the two cases – between the looks of mental states and inanimate objects. Non-mental properties like being a banana satisfy the following principle:

Virtuous Look: For any individual *x* and property F, if *x* both is F and non-accidentally looks F, then, absent a causal intervention to change *x*'s look, *x* looks F in virtue of *x*'s being F. (Parrott, 2017, 1034)

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[6] See (McDowell, 1998).

The only way for a banana to look like a banana, but the banana itself not be responsible for it having this look, would be if some external cause acted upon it. For something to be responsible for the way it looks is for it to determine the basic observational properties of that thing. For something to look like a banana in virtue of being a banana is for the nature of the banana to determine its size, shape, colour, etc. And in the case of bananas, absent external influence, they do have these properties (being yellow, for example) naturally as a result of being a banana.

Virtuous Look is not satisfied by emotional states. Even absent external intervention, a person cannot look angry and their observational properties be naturally determined by their anger alone:

> Consider anger. Being angry does not appear to determine the observational properties exemplified by an individual. Rather, it seems that someone can be angry but not manifest any observable behavioural response. Moreover, an angry person can typically alter her behavioural response on different occasions, and may look very different each time she is angry. It is not as if there is a specific set of basic observational properties that Patrick Stewart must manifest on the day he happens to be angry. But since Patrick Stewart's overall look supervenes on these properties, it is difficult to understand precisely how the overall look Patrick Stewart manifests to a spectator on a particular occasion is manifested *in virtue* of his underlying mental state, rather than in virtue of the behaviour he intentionally displays. (Parrott, 2017, 1041)

There is, so the argument goes, an ontological gap between an agent's emotion and how they look, given that these two things are always mediated by their agency. As such, even in cases in which the agent feels as they appear to, what they feel cannot fully determine their overall look. The analogy with our perceptual knowledge of inanimate objects thus breaks down, and (iii*) cannot be satisfied with respect to mental states.

This is both a compelling objection to the above perceptual model, and a potential way of understanding the asymmetry objection. The relevant mediation, present in emotion-perception and not ordinary perception, is the agency of the emotional subject.

I take the argument, however, to rely on some assumptions about the way in which mental states work – ones which we may wish to resist. It assumes that when an agent manifests two different looks of anger, they are manifesting two different looks for the same thing; that if there is a distinctive look of anger, it is distinctive of all angry experiences. As such, when noticing that an agent can be angry on one occasion and look different to how they did on another angry occasion, their mental states are sufficiently similar to render this two looks for the same mental state. If, however, we distinguish both instances of anger, we can attribute the distinct observational properties to the distinct instances. Let's say the first is furious-anger and the second is disappointed-anger, with two overall looks, we do not yet have reason to think these distinct mental states do not naturally determine these respective observational properties.

Moreover, one might suggest that mental states are slightly less atomistic than has been presented by Parrott. In Patrick Stewart's case, the example trades on the idea that his original anger, anger(o), is joined onstage by an intention to behave angrily for his character, which we can call anger(i). Anger(o) persists somewhat in the background, while anger(i) comes to the foreground in determining, at least in part, the observational properties the audience sees and which underpin his overall look of anger. But given that anger(o) didn't fully determine how he looked, we cannot see that Patrick is angry(o), since anger(i) got in the way. But another way to paint the picture would be to suggest that one's mental states are more malleable in how they interact. Instead of anger(o) and anger(i) existing in tandem as two discrete mental states, once the intention to behave angrily is formed, we have an adjustment and change in the mental state of the agent. Now we have anger(o+i), non-identical to either anger(o) or anger(i). As such, it is still anger that is responsible for how the agent

looks, it's just not exactly the same as it was before. This latter way of carving things up better resembles current theories describing how the brain looks when we are in the grips of a particular emotion; in particular these theories' emphasis on the neurological differences across instances of the same emotion category (see Barrett, 2017). It also better reflects the way an actor like Patrick Stewart might think about what they are doing. Actors are told to *channel* their emotions into their performance, to *use their pain* in order to emote effectively. Perhaps it is only in virtue of the underlying mental states that an actor can portray an emotion as effectively as Stewart does in the example.

Leaving aside worries as to whether the above perceptual account can explain our knowledge of others' emotions, it may fall short of being an account of how we come to know about emotions *directly*, in the sense discussed in the previous section. That is, it may not satisfy the condition that it be merely perceptual rather than inferential. McNeill argues that there is an important distinction to be made at the level of Dretske's primary epistemic seeing (2012b, 579). This is with respect to the particular feature of the thing that is seen. To remind ourselves, to see something in a primary epistemic way is to see that *a* is F by simply seeing *a*, plus some additional conditions. McNeill points out that there are two ways in which we can see that *a* is F by simply seeing *a* – we can either simply see *a*'s Fness, or we can simply see *a*'s Gness. Take one's perceptual knowledge that the traffic light is green. Imagine persons A and B both see that the traffic light is green by seeing the bottom traffic light. However, A and B see the bottom traffic light in a different way. While A simply sees its greenness, B is partially colourblind and simply sees not its greenness, but its brightness. It would only look the way it looks to both A and B if the traffic light is green, since its distinctive look for A is its being green, and its distinctive look for B is its brightness.

McNeill argues that while A and B may both see that the traffic light is green, B's knowledge involves inference. It involves the relevant belief that the bottom light is bright only if it is green. As a result, the only cases in which we have purely perceptual and non-inferential knowledge are cases in which we simply see the feature in

question. The result of this, according to the above model of how we see that another is angry, is that we only have non-inferential knowledge of this if we see not just the person, but their anger.[7]

In the previous section we saw that many proponents of the direct perception of emotion take as their opponent the inferentialist about emotion perception. Our direct perception of emotion is non-inferential. We have considered whether seeing-that another is in some mental state can satisfy this condition on the direct perception of emotion. If McNeill is right about Dretske's perceiving-that account involving inference, then it cannot be how we should understand DP. McNeill's point tells us that we can only ever see that something has some feature non-inferentially if that feature is what is simply seen itself. To non-inferentially perceive emotions, we must simply see the emotions themselves.

Given that perceiving-that accounts do not capture DP, objections to perceiving-that accounts will not capture the asymmetry objection to DP. If they did, the asymmetry objection would have misidentified its target. To object to the direct perception of emotion theorist by claiming that even on their model, emotion perception is indirect, requires one to draw the distinction at the level of simply seeing an object itself. When I discuss perceiving from this point on, I mean in the sense that we simply see something, or simply hear, touch, taste, smell, etc. When I discuss the claim that we can perceive emotions, I mean in the sense that emotions themselves are available to the senses, rather than facts about them.

5. Direct and indirect objects of perception

We have established that to directly perceive emotions, emotions must be the objects of perception themselves. This is the only way to develop a purely perceptual and non-

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[7] The discussion of perceiving-that, as well as McNeill's critique, understands emotions to be features or properties of a person, akin to other features like colour. Anger and redness are both features of things. This will be the assumption we will operate under.

inferential model. Our next question is whether we can draw a direct/indirect distinction internal to a purely perceptual model. If this is possible, then perhaps the opponent to the direct perception of emotion has further ammunition up their sleeve. They can argue that even if we perceive emotions themselves, such perception is still indirect.

There are numerous ways to distinguish direct and indirect senses of the perception of objects, with little consensus on the correct interpretation.[8] The burden of proof is on the challenger – they who argue that the perception of something is indirect. Austin highlights how difficult it is to understand the indirect-perception claim, given it doesn't seem to track our ordinary language usage of 'indirect' (Austin, 1962, 15-19). If we follow our ordinary usage of the term, Austin thinks the following features emerge. If someone says they see the fox indirectly, the natural way to understand this is in terms of their line of vision. One can assume that they mean there is some sort of kink in vision between themselves and the fox such that they do not see it straight on. For example, I might see the fox indirectly if I see its reflection in a mirror, or in a slanted pane of glass. If, however, I look straight ahead out my window and see the fox in front of me on the road outside, I see it directly.

Things work differently for hearing. When we talk about hearing something indirectly, the most natural sense in which to take this is that we hear something by means of someone else. I might hear some gossip about Rita indirectly because I hear it from Sasha and not Rita herself.

We can leave aside any worries about whether to trust our ordinary talk in these cases, or even whether there *is* any kind of pre-philosophical talk we can draw on. The issue for the opponent of the direct perception of emotion here is that neither interpretation renders our emotion perception (necessarily) indirect. I do not have to look in the mirror to catch a glimpse of my friend's fear – I can look directly at it. Similarly, if I hear someone crying in the next room, I do not need a third party to come

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[8] I will by no means cover every interpretation of the direct/indirect distinction at the level of the perception of objects. For some notable omissions see Snowdon (1992, Chapter 3), Martin (2017) and Clarke (1965).

and tell me they are upset. Therefore, the asymmetry objection cannot be drawing on these senses of indirect perception.

Another way to draw the distinction at the level of perceptual objects, as cited (but not endorsed) by Jackson (1977, 13), is to suggest that we indirectly perceive things when we fail to perceive *all* of them. He attributes this view to Broad (1952), Wisdom (1934) and Moore (1906). Wisdom writes:

> That part of the surface of an object which is the whole of that much of its surface which I can fully see, I call the *observed surface* of the object....It is quite proper and good conventional English to say that one sees an object such as a penny or a house, even when one is fully seeing only a part (say the front-door part) of its surface. And it is also good English to say, "No, I could not see the back of the house, only the front side". There are therefore two senses of 'seeing'. The one is applicable to objects, and is the sense which we distinguished above as the one to be analysed. The second sense of 'seeing' is applicable to surfaces. It looks as if there sense applicable to objects is analysable in terms of that applicable to surfaces. (Wisdom, 1934, 140-141)

This second sense, which Jackson aligns with direct perception, only applies to the perception of those things which we can see in their entirety – which we can see *completely*. In most cases this will be a portion of the surface of an object. While many reject this view of the perceptible as dissective (see Snowdon, 1992), this sense of direct perception in terms of perceiving all of something has recently been attributed to the phenomenological motivators of the direct perception of emotion model (Rodríguez, 2021). Scheler, for instance, writes:

> Our immediate perceptions of our fellow-men do not relate their bodies (unless we happen to be engaged in a medical examination), nor yet to their 'selves' or 'souls'. What we perceive are *integral wholes*, whose intuitive content is not

immediately resolved in terms of external or internal perception. (Scheler, 2008, 261)

But every 'expressive unity' at this level of appearance remains a unity belonging to the whole of this living organism as an individual *whole*. (Scheler, 2008, 262)

On Rodríguez's interpretation, we should interpret the direct perception of emotion as the perception of the *complete* emotion. It is not clear, however, that this is the only way to interpret Scheler's proposal. In Scheler's work on the subject, he develops a particular picture of the relationship between the emotion and its outward expression. The expression is thought of as the result of the feeling – it is the outward release of the emotion, the terminal point. He calls this the symbolic relation. What he is emphasising, in describing the 'expressive unity' is the connection between feeling and outward expression, while rejecting the idea that these two things are separable. We find this emphasis in the following passage:

Again, the shade of red which visibly covers the physical surface of a man's cheek can never present the unity of a blush, whose redness appears, as it were, as the outcome of the shame which I sense him to feel. If the cheek is red, merely, the same immediate appearance of redness might equally well betray overheating, anger or debauchery, or be due to the light from a red lamp. (Scheler, 2008, 263)

Unity, here, stands in contrast to the division of physical symptom and inner feeling, rather than capturing a sense of completeness. Scheler wants to show us that redness alone is not enough to be expressive – the expressive unity only comes when we perceive, in the redness, the relevant emotion (in this case, shame). This is distinct from telling us that there is no part of the emotion that we fail to perceptually differentiate.

And it is not clear that, if this were the proposal, it would correctly capture the phenomenology of our awareness of others' emotions. Part of what it's like to be aware

of the emotion of another is the sense of our incomplete access to it. When I see the flash of anger across someone's face, I have the sense of both being aware of their anger, but aware that my awareness is from an outside perspective. We will discuss the components of emotional experiences in the next chapter, but many take emotions to involve a subjective feeling component – what it's like to undergo an emotion (J. Deonna & Teroni, 2012). When we are aware of the emotions of others, we are detached from at least this component, by its very nature. In her paper defending the directness of our awareness of other minds, one of Duddington's repeated concerns is to disentangle the idea that direct awareness corresponds with complete awareness. She writes:

> To say that knowledge is direct and immediate in character, in the sense that there is no veil, no barrier intervening between the knowing subject and the reality which the conscious subject knows, it is very far indeed from saying that our knowledge is complete and exhaustive, or that it presents no difficulty in the attainment of it. Discrimination of some elements of the real world may require endless labour, and be only possible for intellects endowed with special aptitude. (Duddington, 1918, 167)

Here, Duddington draws comparison again with our perception of ordinary things in our environment. I may look at a table from across the room and perceive certain things – its colour, its shape, its size etc. I may then move closer, or to a different side of it, and detect some small indentations in the wood or a patch of discoloration. In neither case, so Duddington would say, do I stand in a distinct relation of awareness to the table. And furthermore, there are elements of the table – the atoms that compose it – that my naked eye cannot detect.

This last point is the basis of Jackson's own rejection of the idea that we should draw the direct/indirect distinction as one between complete and incomplete perception. If direct perception is complete perception, it is hard to see how we could

have any direct objects of perception. There are still parts of the portions of surfaces of objects that we do not see – their undersides, for example (Jackson, 1977, 13). In the next section, we will look at Jackson's positive proposal.

6. Perceiving emotions in virtue of expressions

Jackson draws on the 'in virtue of' relation in specifying the difference between direct and indirect perception.[9] When x is F, there are cases in which x's being F can be analysed in terms of something else, y, being F. Jackson offers the following examples (Jackson, 1977, 15). That a car is red might be analysed in terms of something else being red, say, the body of the car being red. That a man is tall might be analysed in terms of something distinct from him being tall, say, his body being tall. That the car touches the curb may be analysed in terms of some part, not identical to the car, touching the curb. For instance, the car wheel is touching the curb. Another kind of case in which the relation features is with respect to location: that one is in England is explained by one being in Dover.

These are cases in which something is F *in virtue of* something else being F. As Jackson notes, a precise definition of the in virtue of relation is difficult to specify, but we can distinguish it from other kinds of connectives. For one, it is not a causal relation. The body of the car being red does not cause the car to be red, and a man is not tall because his body's being tall caused him to be tall. It is an explanatory relation, rather, in the sense that it allows for a 'systemic analysis' (Jackson, 1977, 16). To explain that something is F in terms of something else adds a layer of logical complexity to the explanation (Martin, 2017). In addition to the relation being non-causal, it is also asymmetric. While I may be in England in virtue of being in Dover, I cannot be in Dover in virtue of being in England, since I could be many places in England and not be in Dover.

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[9] Jackson uses the terms 'immediate' and 'mediate' perception, for which we will substitute 'direct' and 'indirect' respectively.

We can now apply this relation to perceptual contexts. We can say that to indirectly perceive x is to perceive x, and there be a y such that a) x is not identical to y, and b) x is perceived in virtue of perceiving y. To directly perceive something is understood in relation to this; to directly perceive x is to not perceive it indirectly. We perceive England indirectly, since we perceive it in virtue of perceiving the white cliffs of Dover (Jackson, 1977, 19). On what we perceive directly, Jackson gives few examples. He takes the surfaces of objects to add a layer of logical complexity to our perception of middle-sized objects – we perceive objects in virtue of perceiving their surfaces. What we are left with as the direct objects of perception are things like after-images, or the coloured expanse of a wall.

A final feature of the account of direct and indirect perception to highlight is that things can be perceived indirectly to a greater or lesser extent. Take again the red car. Its redness may be perceived in virtue of the body of the car's redness being perceived, since we saw earlier that the car is red in virtue of the body of the car being red. But in addition to this, objects are seen in virtue of their facing surfaces. As a result, the car's redness is perceived in virtue of perceiving the redness of the car's body, which is perceived in virtue of perceiving the redness of the facing surface of the car's body. The backside of the car's body is not a direct object of perception. As Martin puts it, Jackson introduces a hierarchy of perception, where the direct objects of perception exist on the ground floor, and each 'in virtue of' relation relegates the object of perception a floor up. As we go up a floor, our perceptual position with respect to the object gets worse off (Martin, 2017, 253). We can now try and map this account of perception onto emotions.

Given that Jackson takes the perception of middle-sized dry goods to be indirect (because we see them in virtue of seeing their surfaces), then emotion perception will be indirect in at least this sense. This should not trouble the proponent of the direct perception of emotion. As we have seen from our phenomenological proponents, what matters to them is the symmetry between our perception of ordinary objects and our perception of emotion. Whether or not we take surfaces to mediate

our perception of things, emotion perception is still direct in the sense that it's as good as that which we are modelling it on.

But this is not all that the proponent of the direct perception of emotion is committed to. They are also committed to giving expressions a crucial role in the perceptual process. The phenomenological remarks which motivate proponents, almost always, give a central role to expression, while maintaining that emotions and expressions are distinct (they are not endorsing a kind of behaviourism). For Scheler, we are acquainted with 'another person's joy in his laughter, with his sorrow and pain in his tears, with his shame in his blushing' (Wittgenstein, 1967). For Merleau-Ponty we 'perceive the grief or the anger of the other in his conduct, in his face or his hands' (Merleau-Ponty, 1962, 414-415), and more recently for Green, we 'see the anxiety on someone's face, feel the trepidation in her handshake, and hear the exuberance in her voice (Green, 2010, 45). Emotions are perceived, they suggest, but not without expression.

On the face of it, these two commitments are in tension. On the one hand, emotions are perceived in a structurally analogous way to ordinary things in our environment. On the other hand, we need expressions in order to perceive emotions.

What is troubling to the direct perception of emotion theorist is the suggestion that something additional mediates our perception in the case of emotions. This is exactly what I take the objections we are considering to be suggesting, albeit with respect to different ways of formulating the claims in question. They build on the idea that expressions are the key to our putative perception of emotion and suggest that expressions are an additional intermediary not present in the standard perception of objects. By Jackson's terms, expressions introduce an additional 'in virtue of' relation, and our perceptual position concerning emotions is worse off since we only perceive emotions in virtue of perceiving expressions. We could present the hierarchy of perception of both objects and emotions as follows:

S perceives the banana *in virtue of* perceiving the facing surface of the banana

> *S* perceives the anger *in virtue of* perceiving the scowl and *S* perceives the scowl *in virtue of* perceiving the facing surface of the scowl

The asymmetry objection can be put as follows: even if emotions are the objects of perception, our awareness of them is worse off than our awareness of ordinary objects given that expressions are an additional intermediary, not present in our ordinary perception of objects. Expressions screen off others' emotions from direct view. Our interlocuter who holds this view I call the indirect realist with respect to emotion perception. We can summarise their position as follows:

> <u>The Indirect Realist Theory of Emotion Perception</u>
> Our perception of token emotions is structurally disanalogous to our perception of ordinary objects because we perceive emotions in virtue of perceiving expressions.

Given that we now have a characterisation of the Indirect Realist's position, we can define DP as follows:

> <u>The Direct Perception of Emotion Theory (DP)</u>
> Our perception of token emotions is structurally analogous to our perception of ordinary objects.

As we can see, on our definition, DP is not necessarily incompatible with a charge of indirectness, so long as an analogous charge can be made against our perception of ordinary objects. Not only does this characterisation capture what's at stake when it comes to the asymmetry objection, but it also captures one of the core features of the phenomenology – what is important for DP is the symmetry in structure between ordinary perception and emotion perception. The rest of this thesis serves as a defence

of DP against the indirect realist about emotion perception. The direct realist position I offer contends that expressions render us no worse off with respect to the perception of emotion. In fact, expressions (properly understood) are analogous to intermediaries that exist in our ordinary perception of objects.

7. Conclusion

We saw that what is often meant by the 'direct' perception of emotion is that we have non-inferential knowledge of emotions. Holding this position, I argued, requires the direct perception of emotion theorist to embrace emotions as the objects of perception themselves, rather than facts about agents being in particular emotional states.

The opponent to the direct perception of emotion on the basis of the asymmetry objection wants to meet the perception theorist on their own terms and grant that we may somehow perceive emotions themselves, but that if we do, such perception is *still* indirect and disanalogous to the perception of ordinary middle-sized objects in our environment. A useful way to understand this claim is to look at a direct/indirect distinction like Jackson's, where perceiving something in virtue of perceiving something else renders such perception indirect. The indirect realist theory of emotion perception tells us that our perception of token emotions is indirect and structurally disanalogous to our perception of ordinary objects because we perceive emotions in virtue of perceiving their expressions.

One thing it is important to emphasise is that this way of understanding the objection wouldn't trouble most modern-day accounts of what it is to 'directly' perceive emotions. An influential proponent, Gallagher, we saw to suggest that direct perception of emotion just means perception of emotion. That such perception is indirect in Jackson's sense does not render emotions themselves imperceptible.

But the defence of the direct perception of emotion that I embark upon is stronger than Gallagher's. It stands in contrast to the indirect realist and tells us that

our perception of emotion is structurally analogous to our perception of ordinary objects. And I think there is reason to want a stronger view. As remarked throughout the chapter, a key motivation present in the phenomenological writings of the predecessors to this view was the symmetry in our awareness of emotions and ordinary objects. Not only does this give us a reason to carve out a strong interpretation of the direct perception of emotion, I will argue that such a position is the right one.

To argue this, it must be shown that the following hierarchy (according to Jackson's account) is somehow mistaken:

Objects
Parts

Emotions
Expressions
Parts
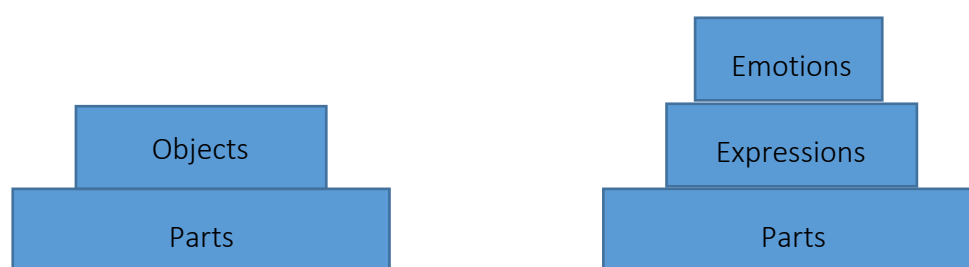
On Jackson's account, we perceive objects in virtue of perceiving parts of their surfaces. DP requires it to be such that emotions stand at the same level as objects. As it stands, and as the asymmetry objection suggests, it is expressions, and not emotions, which occupy this position – they are the 'tertium quid' between perceiver and emotion that Duddington denied the existence of.

Two ways of responding to this are pursued in the thesis. The first strategy is to accept part of the Indirect Realist's claim: that we perceive emotions in virtue of perceiving expressions. However, we can reject the part of their claim pertaining to the structural disanalogy between emotion perception and ordinary perception, since they have neglected the possibility that expressions play the same role in the perception of emotion as parts of objects do in the perception of ordinary objects. In the above picture, expressions can move down one step in the hierarchy. Emotion perception

involves an in virtue of relation, but no more than ordinary perception. This strategy is explored in chapters 5 and 6.

The second approach is to reject both parts of the Indirect Realist's claim. It is to reject the disanalogy by pointing to intermediaries that exist in the ordinary objects case that play the same role as expressions. These intermediaries are perceptual media – the sound and illumination that enable our perception of ordinary things around us. It is also to reject that we perceive emotions in virtue of perceiving expressions. Sound and illumination are the media through which we perceive objects; they enable our perception without themselves being seen. I argue that expressions play a similar role in our awareness of token emotions, and as such, we perceive *through* them – we do not perceive expressions in and of themselves. This response is explored in chapter 4.

Each of these chapters focuses on the role that expressions play in the perception of emotion, positing different ways in which emotions and expressions relate to one another. To discuss their relation requires us to step back in the next two chapters, focusing individually on emotions and expressions respectively, so that it is clear what we can take each to be.

Chapter 2

What are emotions? Surprise as a case study

In the last chapter, I suggested that defending the idea that we directly perceive others' emotions requires us to investigate the relationship between emotions and the expressions of those emotions. Before proceeding to this question in chapter 4, we need a more robust understanding of what emotions and expressions are. In this chapter, the focus will be on emotions, explored through a lesser-discussed emotional phenomenon: surprise.

Existing philosophical accounts of surprise disagree over which conditions are sufficient for surprise, but agree that for something to be surprising, it must be unexpected. I distinguish between the cause and object of emotion, arguing that philosophers should look beyond expectations in order to identify the object of surprise.

1. Introduction

A good place to start a discussion of emotional phenomena is in examples of the phenomena. There are a number of seemingly undisputed examples of mental phenomena that warrant the title of emotions. In psychology, Basic Emotion Theory seeks to develop an account of the so-called basic emotions. These are understood to be biologically grounded and discrete states which each have a cross-culturally

recognisable set of facial expressions associated with them. There is a biological essence underpinning what it is to be sad, and a specific way of moving one's face by which sadness is recognised cross-culturally. There are supposedly six core examples – six basic emotions. These are anger, sadness, disgust, fear, happiness, and surprise (Ekman, 1980; Ekman et al., 1969; Ekman & Friesen, 1976).

Not everyone adheres to this framework. Some argue instead that emotions are socially contingent categories, grounded by varying neurological processes, whose cross-cultural recognisability is partly characterised by its variation rather than universality (Barrett, 2017a; Russell, 1994). I will not be concerned with this debate. What matters for this thesis is that there exist phenomena which we do in fact treat as emotions, irrespective of how this came to be. In addition to the six examples that Basic Emotion Theory highlights, I take other key examples to be: embarrassment, shame, love, desire, pride, anticipation, curiosity, awe, relief and perhaps moods such as boredom, irritability and anxiety.

Surprise seems a natural member of this group. There is something it is like to be surprised – it feels a certain way; it is an experience that stands in relation to an intentional object – we are surprised by or about something; it has certain action tendencies associated with it, such as an effort to make sense of a surprising event; and, as we can see above, it is associated with particular expressions that are distinctive of it. These are features that are commonly discussed when distinguishing the nature of the emotions (Deonna & Scherer, 2010; Deonna & Teroni, 2012).

Despite all of this, philosophers of emotion have been relatively quiet on the subject of surprise. As a subject for philosophers, surprise has been more substantially discussed in epistemology. Epistemologists argue that for something to surprise us, it must be unexpected – i.e. it must have had a low prior subjective probability (Harker, 2012; Horwich, 1982; Shogenji, 2021).

I argue that if we are to treat surprise as we do other emotions in philosophy, we must be sensitive to the distinction between the cause and object of surprise. Existing accounts in the epistemology literature focus on the eliciting conditions of

surprise – its cause. But this is not necessarily the same as the object of surprise – what it is typically directed towards. I argue that while something's being unexpected may be (at least partly) the cause of surprise, there are various problems with conflating this with the object of surprise. We need to supplement our theory if we are to have a full picture of the emotion.

The plan for the chapter is as follows. In §2 I pick out some general features shared by the emotions and apply these to surprise. While I take surprise to share enough of these features to warrant membership of the group 'emotion', I highlight some of its distinctive characteristics. In §3 I review some of the literature on surprise in the epistemological tradition and explain the expectation condition. In §4 I elaborate on the distinction between the cause and object of emotion. In §5 I outline Baras and Na'aman's recent account of the surprise emotion – the Significance Account – and in §6 I present three problems for the account based on its commitment to expectations as the object of surprise. Finally, in §7 I suggest where we might look in supplementing existing accounts of surprise. Two kinds of theory in the literature on surprise in psychology – contrast and sense-making theories – have been as of yet unappreciated in philosophical discussions. I suggest that by focusing on these features we stand a better chance of capturing the object of surprise.

2. Is surprise an emotion?

I take emotions to be mental phenomena of some kind (be they mental states or mental occurrences), which can be identified in relation to a number of constitutive components. By constitutive, I do not mean anything metaphysically rich, but just that a person in the grips of an emotion will usually be going through/displaying/manifesting/describable-in-terms-of a good proportion of these components.

There is no broad consensus on what an emotion is. What most theorists do agree on, however, is that emotions are complex phenomena involving a number of

interrelated components (Scherer, 2005). As we will see below, these include (but are not limited to) *feeling, expression, evaluation of their object, action tendencies, and physiological changes.* While these things are characteristically involved in episodes of emotional experience, they may not each be necessary to them. One can experience an emotion without expressing it, for example.

The root of much of the disagreement among emotion researchers is about whether there is an essential component (or components), and if so, which it is. Feelings theories, which often cite James (1884) as their forebear, focus on the way our bodies feel when undergoing a particular emotion – what it is like for our bodies to change in a particular way *is* the emotion. Evaluative theories (Deonna & Teroni, 2015; Solomon, 1976; Tappolet, 2016) have a more cognitive focus, distinguishing between emotions on the basis of how the emotional agent evaluates the object of their emotion. Fear is the evaluation of the car driving towards you as dangerous, anger is the evaluation of another's lie as having wronged or harmed you, etc. As we will see below, how we specify the kind of evaluation involved differs between different evaluative theories.

In this section, I describe certain features of surprise in relation to the features that are taken to be constitutive of emotions more generally. To do so, we do not need to define emotions by distinguishing which aspect of them is special. To have reason to treat surprise as an emotion, we just need to determine to what extent surprise shares in some of these core traits.

Feeling. We can categorise an event as 'surprising' without reporting on any affective experience, just as we can say that an action was 'hurtful' without actually feeling hurt by it. However, the meaning of surprise and hurt in these cases is parasitic on cases in which there is an associated affective state (Baras & Na'aman, 2021). We only understand what it is for an act to be a hurtful one by thinking of acts which usually elicit a hurt feeling. Similarly, we can describe things as surprising only because we

have felt surprised by similar occurrences. Therefore, in the central meaning of surprise, there is something it is like to be surprised.

This suggests a point of contact with other emotions. There is something it is like to be angry, and something else that it is like to be sad, hopeful, happy or amused. And like with these other emotions, surprise can feel different depending on the surprising situation – for instance, we can feel it more or less. It also differentiates surprise from other cognitive states. It doesn't feel a certain way to know that it is Monday, although knowing it's Monday may likely cause certain feelings – annoyance, fear etc. These feelings are distinct from the state of knowing. Surprise is therefore unlike certain other cognitive states that don't in and of themselves feel a certain way.

While surprise shares this feature of feeling a certain way with other emotions, it also shares it with non-emotional phenomena. Pain and pleasure, for example, are non-emotional mental states that involve feelings of a distinctive kind.

Expression. Like most emotions, surprise is associated with particular facial and bodily movements. In *The Expression of Emotion in Man and Animals* (Darwin, 1872), Darwin treats surprise as an emotion in a chapter dedicated to surprise, astonishment, fear and horror. He describes surprise as a sudden emotion, with a distinguishing set of universally recognisable expressions. These include widely opened eyes, raised eyebrows and an open mouth.

> As surprise is excited by something unexpected or unknown, we naturally desire, when startled, to perceive the cause as quickly as possible; and we consequently open our eyes fully, so that the field of vision may be increased, and the eyeballs moved easily in any direction. (Darwin, 1872, 281)

As well as these predominant behaviours, Darwin suggests surprise can also be shown through a little whistle, a 'whew', or raising opened hands above one's head.

More recent accounts of the expressions of surprise in psychology treat surprise similarly, as involving wide eyes, raised eyebrows and a dropped jaw (Ekman et al., 1992). These expressive behaviours are interestingly different from the standard expressions associated with *startle*. When we are startled, Ekman and colleagues suggest we typically express it through closed eyes, lowered brows and tense lips – a very different overall picture to the surprised face.

That said, Ekman and colleagues have also observed that the evidence for a universal facial expression for surprise is not as strong as with the other so-called basic emotions (Ekman et al., 1992). This is corroborated in Etcoff and Magee's study on the perception of expressions (Etcoff & Magee, 1992). They observed that while surprised faces can be identified on their own, they cannot be identified in discrimination tasks involving happy or afraid faces. While this is perhaps unsurprising for distinguishing between surprised and afraid faces (since the expressions are similar), it is surprising that subjects cannot discriminate happy and surprised faces. The results of this study on surprise are used to suggest that we perceive surprise differently from other emotions; in particular, we perceive it in combination with other emotions rather than as a distinctive category.

Object. Emotions are said to involve an intentional object that is evaluated or appraised in some way. That is, emotions are directed towards something. If we are afraid of the fire because we take it to be dangerous, the emotion is fear, and the evaluation of the fire being dangerous is the object. The object of emotion is sometimes further distinguished into a particular and formal object. The particular object is the thing of which the evaluation is made (the fire, in the case above) and the formal object is the evaluative property ascribed to it (its dangerousness).

Surprise does seem to be intentionally directed towards objects – we are surprised by or about something. The particular objects of surprise are various: a surprise party, bumping into an old friend, winning the lottery, finding a note in your pocket, an empty train at rush hour etc. The formal object of an emotion is often the

subject of debate for philosophers discussing that particular emotion. I shall address the formal object of surprise later in this chapter.

Action tendencies and attention. Emotions set in motion certain responses (e.g. preparing to flee when afraid) and focus attention on the object of the emotion. Above in Darwin's analysis, we can take an action response to be the perception of the cause of surprise. More recently (Reisenzein et al., 2019), surprise has been analysed in terms of its motivational impetus – specifically the analysis of the surprising event. Surprise focuses our attention on an eliciting event in order to 'enable and prepare the ensuing event analysis (by freeing cognitive resources and reallocating these to the unexpected event)'. Surprise sets in motion actions directed towards the goal of making sense of some event.

Fittingness. Emotions are said to be fitting or correct with respect to their object. As said above, emotions are directed towards objects that are appraised or evaluated in some way. Emotions are fitting just in case these appraisals or evaluations are in fact true of the object. If we evaluate the fire as dangerous, then our fear is fitting if the fire is in fact dangerous. Our fear would be unfitting if the fire were controlled and posed no threat at all. Surprise, like fear, seems like the sort of thing we can deem fitting or unfitting. Imagine someone having their CV rejected outright by a company they are applying to work for. They send their CV in another two times, without making changes. Each time they are rejected in the same way. They choose to send it in a fourth time, again without making any changes. Upon receiving their fourth rejection, they feel surprised. In this scenario, we would like to say that their surprise is unfitting.

This feature distinguishes emotions from certain other affective states. Some might argue that there are no obvious correctness conditions placed on a person's pain. This follows from the fact that (arguably) pain and pleasure do not have intentional objects, and a cognitive state's fittingness is analysed with respect to its intentional object. On the other hand, this feature is shared by certain non-emotional

cognitive states, like various perceptual experiences (Deonna & Teroni, 2012). A perceptual experience can be correct with respect to what it's an experience *of* – i.e. whether it matches reality.

Physiological changes. Finally, surprise shares with other emotions the fact that it involves certain distinctive physiological changes in the subject undergoing it. Anger, for example, involves a range of characteristic physiological changes. These include the release of neurotransmitters, such as noradrenaline, an increased heart rate and blood pressure, elevated temperature and a number of hormonal changes (Sander & Scherer, 2009, 32). Surprise shares with anger the elevation in blood pressure, but in contrast to anger, it involves a temporary lowering of the heart rate as well as an increase in the activity of the sweat glands (Sander & Scherer, 2009, 386).

Surprise seemingly shares in the above five central traits of emotion. In response to this, the following two features have been taken to differentiate surprise from emotions. These arguments are, I argue, misplaced. Firstly, Lazarus (1991) argues that surprise, startle, curiosity and attentiveness should all be classified as reflexes rather than emotions. The key differential is that reflexes are relatively fixed sensorimotor events that are elicited by the same stimulus for any person. Emotions, on the other hand, are capable of flexibility – they can be elicited by different stimuli, and involve various responses (Lazarus, 1991, 50-54).

Aside from the fact that, as we've seen above, emotions can be distinguished in terms of a relatively specific set of action tendencies, the above analysis fails to appreciate the differences in surprising stimuli across agents. What surprises one person will fail to surprise another. On even the most traditional account of surprise in terms of the unexpected – what is unexpected is relative to the agent and the credences they assign to outcomes.

The second argument points to the valence of emotions. Some hold that surprise is better understood as a non-emotional cognitive state since it does not have

a particular affective valence (Ortony & Turner, 1990, 317). A common assumption held about emotions is that they have a characteristic valence. Fear and anger are negatively valenced, whereas happiness and relief are positively valenced. Surprise is more neutral – it can be either positive or negative, distinguishing it from the other emotions. We can feel positively surprised by a birthday party and negatively surprised when we step into a puddle we didn't see coming. In these cases, the valence is determined by the eliciting event and whether that event is seen as good or bad for the agent.

However, recent research suggests that surprise may be valenced after all – in particular, that it is always initially negatively valenced (Noordewier & Breugelmans, 2013; Topolinski & Strack, 2015). The initial interruption that occurs with surprise (when attention is directed towards the surprising stimulus) is experienced negatively, irrespective of whether the overall event is a positive one for the agent. Part of the confusion may come from theorists focusing on different aspects of the overall experience of surprise (Noordewier et al., 2016). How surprise is experienced at one stage may differ from how it is experienced at a later stage. Take, for example, the experience of opening a gift which is different to the one you thought you might get. It's no worse, in fact, it's better and you like that it was a surprise. Your surprise over the gift, after a few moments, is positively valenced because of these things. However, the initial discrepancy between what is in front of you and what you thought you may be presented with often takes a moment to sink in – and these moments, when coming to terms with the new scenario presented before you, don't often feel good. This may be parasitic on the involvement of other cognitive states a surprised agent is in. We tend to feel dissatisfaction when failing to understand something, and satisfaction when we succeed. When faced with a discrepancy, or disorientation, our cognitive state is negatively valenced – an inability to anticipate something or understand an outcome causes distress in the agent (Miceli & Castelfranchi, 2002). This then motivates our curiosity to seek an explanation or re-orient ourselves (Sander & Scherer, 2009, 292).

Given the above, there are more reasons than not to consider surprise an emotion alongside things like anger, fear, sadness, joy, amusement, etc. We have

reason to deny that surprise is a mere reflex and that it is neutrally valenced. However, even if this were not the case and surprise did share features with reflexes and stand alone amongst emotions concerning its valence, this would not be detrimental to the case for surprise as an emotion. Emotions are a particularly heterogeneous group. We have social emotions like shame, embarrassment, pride, and self-consciousness. These stand apart from other emotions in that one feels these emotions as a result of, or as constituted by, one's standing in a particular relation to others (real or imagined). One is embarrassed, so the dominant argument goes, when one construes oneself as exposed before another (Purshouse, 2001). One feels shame when one sees oneself as socially diminished in relation to another (O'Brien, 2020). The essential role played by one's standing in a particular relation to others distinguishes social emotions from other emotions like anger, fear and happiness which don't necessitate particular social relations.

Moods are another distinctive category of emotions. Lazarus takes moods like depression, glumness, and cheerfulness to be emotions, but distinguishes them as follows:

> Most moods do not seem related to a single object or piece of business in an adaptational encounter, as is the case in acute anger or fear. When we speak of someone's being melancholy or cheerful, it is usually difficult to identify either a specific object (as in the target of anger) or cause of the state (as in a provocative act), to use Hume's famous distinction...I suggest that moods have to do with the larger background of one's life...A good or bad mood, whether or not it has a distinct provocation, depends on how one is doing in the agendas of one's life overall. (Lazarus, 1991, 48)

Referencing the aforementioned distinction between cause and object, Lazarus distinguishes moods as those emotions for which the cause and object are not specific to a particular occurrence or situation. In contrast, the mood depends on a wider set

of circumstances. The fact that moods don't seem to direct themselves towards particular events is reflected in their typical duration. They often endure for longer than particular episodes of emotion. One's anger about something is typically bound to one eliciting event or a series of related events. Moods, however, seem to carry over discrete events or series of events. One's mood of apathy is not tied to any particular event and taints the experience of a diverse range of events, irrespective of what these events are. In contrast, the culmination of an event that induced anger, when replaced by a positive event, can quash one's anger. Given this, moods are disposed to last longer than particular emotional episodes.

In the same vein, surprise is peculiar among emotions in two important respects. First, surprise has its own distinctive temporal nature. The following is found on Paul Ekman's website on emotions:

> Surprise is the briefest of all the emotions, lasting a few seconds at most. Other emotions can be very brief, but they can also endure much longer, whereas surprise has a fixed, limited duration....Within seconds, surprise passes as we figure out what is happening. From there, surprise may merge into fear, amusement, relief, anger, disgust, and so forth depending upon what it was that surprised us. (Ekman, n.d.)

While the duration of surprise is supposed to be brief[10], recent studies have demonstrated that it is also organised into a series of distinct stages (Noordewier et al., 2016). A typical experience of surprise will begin with the detection of the unexpected, followed by some cognitive interruption. The agent then begins making sense of the interruption, leading to the stage in which they cognitively master the situation, thus ending the experience of surprise. These stages occur in a sequence, and always in this order.

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[10] This is reflected also in (Darwin, 1872).

Second, surprise is sometimes classed as an *epistemic* (or *cognitive*) emotion. There are two ways in which we might characterise something as an epistemic emotion – one concerning what the emotion is in response to and the other concerning its function. Something is an epistemic emotion if it is, at least in part, a response to epistemic concerns. This is so with surprise, being a response to an agent's assessment of an event being improbable – this leads to incongruity in one's information, and the desire to cognitively master the situation. But often epistemic emotions are deemed as such in terms of their function, or how they motivate the agent (Morton, 2009). On this understanding, an epistemic emotion is one that is directed in some special way toward epistemic ends. One example is curiosity, whose end is to motivate the agent to seek true beliefs. Surprise may be thought of as having the function of focusing the agent on an incongruity – it is a special way of registering a mismatch between expectation and reality. This may have the epistemic benefit of highlighting the event, preparing the agent for future similar events and revising one's view of the world so that it is more accurate. This kind of epistemic orientation distinguishes surprise, and other epistemic emotions, from emotions like anger and fear. The purpose of fear is to draw attention towards potential danger – it need not have a bearing on the beliefs or knowledge of the agent.

In sum, while surprise shares enough features with other emotions to be classed as one of them, its distinctive features highlight the variation within the category of emotions. These distinctive features – its temporal characteristics and epistemic flavour – make it a particularly interesting emotion for philosophers to study. In what follows I highlight some complications that current theories of surprise have yet to address.

3. Surprising events as unexpected (improbable) events

What makes something surprising? Most epistemologists agree that for some outcome to be surprising, it must be unexpected. We will follow them in understanding an outcome to be unexpected if it has a low subjective probability.

The outcome in question need not be something for which one has an 'active' expectation (Horwich, 1982, 100). I may not have an active expectation that is violated when I see a penguin on Tottenham Court Road, but this event is still unexpected in the sense that I *would* have assigned it a low probability had I considered the likelihood of its occurrence.

Horwich argues that while being improbable is a necessary condition for a surprising outcome, it is not sufficient. Take the following case:

> Suppose I fish a coin from my pocket and begin tossing it. I would be astonished if it landed heads 100 times in a row; but that outcome is no less probable than any other particular sequence of heads and tails; yet certainly not every outcome would surprise me, for example an irregular sequence of about 50 heads and 50 tails. Thus, the improbability of an event is not sufficient – but it does seem necessary. (Horwich, 1982, 101)

The probability of tossing 100 heads in a row, P(100H), is 1 in 2^{100}. Given this low probability, it makes sense that we would be surprised by the outcome if we understand surprise in terms of the unexpected. However, the probability of some random sequence with no especially defining characteristics and roughly an equal number of heads and tails, P(R), is also 1 in 2^{100}. If P(R) is unsurprising and P(100H) is surprising, as Horwich suggests, then what marks the difference between the two cases? There must be some extra condition, beyond mere low subjective probability, that we need to identify in fully characterising what makes for surprising outcomes.

Horwich's solution is to introduce possible alternatives into the picture. The key difference between the two cases, P(100H) and P(R), is that upon the occurrence of the former, we subsequently experience diminished confidence in some default assumption (Horwich, 1982, 102). The default assumption in this case is that we are dealing with a fair coin, whose probability of being heads on each toss is 1 in 2. On seeing 100 heads in a row, the natural reaction is to cast doubt over the fairness of the

coin. The random sequence would not cause the same reaction. The reason for this difference is that in the 100 heads case there is an alternative hypothesis that comes to mind that is inconsistent with the assumption that the coin is fair, and which explains the improbable outcome. In this case, the alternative may be that the coin reads heads on both sides. While this alternative exists in the 100 heads case, in the random sequence outcome there is no obvious alternative hypothesis that one can imagine, and so the outcome is unsurprising. To summarise Horwich's account: an event is surprising to an agent if a) the agent judges the event to be improbable, and b) there is an alternative hypothesis that comes to mind which reduces the agent's confidence in a background assumption which had explained the event's improbability. This account has since been supported by a number of authors (Good, 1984; Manson & Thrush, 2003; Olsson, 2002; White, 2000).

There are many real-life cases in which this analysis captures something.[11] Think of the paradigm case of a surprising event – the surprise party. Imagine you are surprised by a room full of your friends jumping out from behind furniture upon your return home. Your confidence in the default assumption that you were returning home to have dinner with your partner is shaken, given that the alternative hypothesis (that your partner made this story up) looms as an explanation of the event taking place in front of you.

This is a case in which one is surprised and the alternative hypothesis both explains the situation and is true. This needn't be so, as Harker emphasises (2012, 249). Horwich must not think that the alternative hypotheses must always be true in order for things to be surprising. If the relevant alternative hypothesis were true, the surprising event is in fact more probable than the agent thought. If it were not true, the event remains highly improbable. A consequence would therefore be that only

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[11] Horwich gives the following example. 'Thus, it is a surprising coincidence if I accidentally meet a close friend on holiday in Mexico City, for such an encounter suggests a plan; but there is no coincidence when I happen to bump into Mr Samuel Ortcutt from Cleveland, an individual with whom I am not at all acquainted' (Horwich, 1982, 104). The theory purports to explain the fact that bumping into a friend, rather than a stranger, is surprising by leveraging the fact that the former scenario implies an explanation which satisfies (b), while the latter does not.

events that are probable, in hindsight, could be surprising. But it seems highly counterintuitive to suggest that truly improbable events cannot be surprising. The condition must be less strict than saying there is some true alternative hypothesis that explains the surprising event – it must merely be available to the agent, whether true or not.

Even with this stipulation, the account has a worrying consequence (Harker, 2012). Imagine a case in which you see a tiger wandering around your neighbourhood, and in your neighbourhood there happens to be a wildlife park which is home to a number of tigers. Then imagine a slightly different case, in which you see a tiger wandering around your neighbourhood, but there is not a wildlife park in or near your neighbourhood. Horwich's account seems to imply that the first case should be more surprising than the latter, given that there's a readily imaginable alternative hypothesis available which explains why your assumption (that tigers don't wander around my neighbourhood) can be doubted. Specifically, you can hypothesise that the tiger has escaped from the wildlife park. In the latter case, no such hypothesis is obvious. But we would not want to deny that seeing the tiger in the second case is surprising. In fact, it is all the more surprising given a lack of plausible explanation.

The problem with a solution pointing to alternative hypotheses is therefore that we can just stipulate that such hypotheses have been ruled out, and yet that the relevant outcomes still surprise us.

A further concern is with the observation that gets Horwich's account going – that surprising outcomes always cast doubt over the default assumption. What counts as a relevant default assumption? For Horwich it is something that partly explains why the outcome is improbable in the first place. Let's say you are applying for a job, for which there are 20 applicants, each as qualified as you are. You are hopeful, but think it unlikely you'll get the job, partly on the basis that you think the hiring committee is fair, and it's around a 1 in 20 chance you would be picked.

Let's say that you are picked and that you are surprised by this. Does it seem likely you will lose confidence in the assumption that the hiring committee chose fairly?

The phenomenon of hindsight bias recognises that we tend to have an elevated sense of the likelihood of certain outcomes after we gain the knowledge that those outcomes have occurred (Fischhoff, 1975). Experimental results demonstrate that we assign higher probabilities to outcomes after they have been confirmed than we did beforehand – and that we are largely unaware of this shift. Our initial surprise is replaced by a sense that we knew all along – rather than a sense that there has been some change in assumption (Fischhoff, 1975, 297). As such, one likely response to being offered a job is not to cast doubt over the selection process, but to focus on some feature of your application that confirms the greater likelihood of the choice. While the coin-toss case may strike us as so implausible we seek an explanation, many cases of surprise will fail to shake our confidence at all.

A number of alternative solutions have been offered. In one promising recent example, Shogenji argues that the reason we are surprised by the 100 heads outcome and not the random sequence outcome is down to how we partition these outcomes (Shogenji, 2021). The partition that is likely most salient to us in the coin toss case is what the H-ratio is: what proportion of the total tosses landed as heads. What we should expect, going into the coin toss, is that after 100 tosses, we should have roughly 50 heads. We can then measure surprise with respect to the proximity of the outcome to our expectation. The 100 heads outcome is surprising, while the random sequence is not, because it gives an H-ratio of 100/100, which is far from the expected 50/100. So, surprise rests on something being an unexpected as well as standing some degree of proximity away from what was expected.

4. The cause and object of emotion

The above accounts of surprise, and the traditional debate, rest on doxastic concerns – they ask what the beliefs of an agent need to be in order for surprise to occur. But what aspect of the emotional phenomenon is this describing? The philosophy of emotion has historically distinguished between the cause of an emotion and the object of an emotion. On pride, Hume writes:

We must, therefore, make a distinction betwixt the cause and the object of these passions; betwixt that idea, which excites them, and that to which they direct their view, when excited. Pride and humility, being once rais'd, immediately turn our attention to ourself, and regard that as their ultimate and final object; but there is something farther requisite in order to raise them: Something, which is peculiar to one of the passions, and produces not both in the very same degree. The first idea, that is presented to the mind, is that of the cause or productive principle. This excites the passion, connected with it; and that passion, when excited, turns our view to another idea, which is that of the self. Here then is a passion plac'd betwixt two ideas, of which the one produces it, and the other is produc'd by it. The first idea, therefore, represents the *cause*, the second the *object* of the passion. (Hume, 1739/2007, 183)

Hume distinguishes the cause of pride from the object of pride which, for Hume, is always the self. The distinction here is made in terms of production. For Hume, our sensory inputs, impressions, render in us corresponding ideas. Some ideas (causes) elicit a particular passion, the emotion, and this passion elicits in us another idea (objects). The emotion is sandwiched between the cause and object, each being ideas related to the emotion and distinguished in terms of their ordering. The cause comes first, and the resulting emotion elicits the object.

In Kenny's *Action, Emotion and the Will*, he distinguishes the cause and object of emotions differently, highlighting their relation to the knowledge and beliefs of the agent undergoing an emotion (Kenny, 1963). If, say, someone's sadness is associated with some event, then for this event to be the object of the sadness, the association between the sadness and the event must be known to the agent. If the event is the cause of the sadness, then it can be known to the agent, but this is not necessary in order for it to be true that it is the cause of the sadness. That is, someone's hunger can be the cause of their anger towards the traffic, without that person knowing that their

hunger is causing their anger – without them even knowing they are hungry at all. However, that their anger is directed at the traffic must be known in order for the traffic to be the object of the anger. For another example, Kenny writes:

> "I feel elated because I have just been complimented" suggests that I believe that I have just been complimented; whereas I may feel elated because I am drunk, though I may not know that I am drunk and may boldly contradict anyone who suggests that I am. My being complimented is the object, and my being drunk a cause, of my elation. (Kenny, 1963, 52)

That we need not know or believe the cause of our emotions for them to actually be the cause seems right. This is clear from the times in which we can identify the root cause of another person's emotion long before they can themselves. More controversial is Kenny's idea that a necessary condition on something's being the intentional object of an emotion is that the subject believes it to be so. It seems plausible that we face situations in which we cannot identify the object of our emotion, but the emotion falls short of being objectless. Insofar as objectless emotions exist, they would be characterised as emotions that do not feel as though they are directed towards anything in particular – a general sense of boredom or apathy, for example. But on some occasions, we do have a sense that we are angry about something, or afraid of something, without quite being able to pinpoint what it could be.[12]

For our purposes, we do not need an airtight characterisation of the distinction – it suffices to show that such a distinction has often been made. I will characterise it loosely as follows. Emotions, like other mental phenomena, have causes. Being kicked is the cause of the pain one feels, a lie can be the cause of the hurt, etc. One can attribute these sorts of things, the causes of emotion, as reasons why an emotion occurred. Emotions are also said to have intentional objects – things that they are

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[12] See Ellis (1970) for more problems with Kenny's distinction.

directed towards. A person is afraid *of* the tiger, or sad *about* the lie. These were discussed in §2.

The cause and the object of a particular emotional occurrence may or may not be the same thing. Hume's distinction between what he calls direct and indirect passions rests on a distinction between those emotions for which the cause and object can be the very same thing, and those for which they cannot.

Returning to the existing epistemological accounts of surprise, characterising surprise in terms of unexpected events, it is unclear whether these accounts are describing the cause of surprise, the object of surprise, or both. I see no problem with deeming that unexpected events (plus whichever additional conditions one's epistemological theory suggests) are what cause surprise. I do, however, see problems arising for an account of the object of surprise that is spelled out in terms of expectations. Before looking at these in §6, in the next section I consider a recent account of surprise which is alive to the need to express the object of surprise and which does so in terms of expectations.

5. Expectation and Significance

Given that we are treating surprise as an emotion, we can try and give an account of it that mirrors, in form, the accounts that emotion theorists give of other emotions. This has recently been done in a comprehensive paper on surprise by Baras and Na'aman (2021). In this section, I present their account (the Significance Account), before offering a critique in section §6. This critique is relevant not just to the Significance Account, but to any account which treats an event being unexpected as the formal object of surprise rather than merely as part of its cause.

One prominent way of understanding emotions is as certain kinds of evaluation. Three main options then arise. We can think of emotions as judgments, for example, to desire the coffee is to judge the coffee to be desirable (see (Ekman, 1992) for defence). In contrast, we can think of emotions as perceptions, for example, to desire

the coffee is to have a perceptual experience of the coffee as desirable (see Tappolet (2016) for defence). Finally, Deonna and Teroni (2015; 2012) defend an attitudinal theory, wherein emotions are a *sui generis* evaluative attitude directed towards some intentional object. In this account, to desire the coffee is to have a desire-attitude towards the coffee, which is fitting if and only if the coffee is desirable.

This latter account differs from the first two in that the evaluative element is built into the relation towards the object – the attitude itself is evaluative. In the other two accounts, it is the content that we are cognitively or perceptually related to that is evaluative. Leaving this disagreement aside, in each case, theorists have a way of differentiating between different emotions in terms of what the fitting evaluation is for all instances of that emotion. With reference to our earlier terminology, they differentiate emotions based on their formal object. What makes an emotion fitting is that the particular evaluation we make of some object matches the way things are in the world (Deonna & Teroni, 2012; cf. Naar, 2021; Tappolet, 2016). For desire to be a fitting emotion, the object should be desirable. For fear to be fitting, the object should be dangerous. To give a parallel analysis for surprise, we need to identify the conditions that make surprise a fitting emotion.

A recent, and as of yet the only, substantial philosophical account of surprise as an emotion puts things in these terms and builds on the epistemologists' explanation. Baras and Na'aman (2021) suggest the following:

<u>The Significance Account</u>
An agent's surprise by a fact is fitting if and to the extent that the fact is fittingly unexpected by that agent and significant to the agent.

On this account, surprise is directed towards things that are unexpected and significant to the agent. As pointed out in (§3), the fittingness of an emotion is something that pertains to its object. It is about how accurately the agent's assessment of the particular

object tracks how things are in the world. This account, therefore, treats things being unexpected not only as the cause of surprise, but as its formal object also.

We have a sense of the expectation condition from the epistemologists' accounts, however, what is it for something to be *fittingly* unexpected? For Baras and Na'aman this qualification is just to rule out interpretations of the unexpected as low probability in which such low probability is not subjective. They cite Lange's surprising mathematical results (Lange, 2019) as cases in which we have surprising results that technically have a very high probability. However, it is fitting (for the average non-expert in mathematics) not to expect these results.

For a fact to be significant to an agent, it must either have a personal impact on the agent with respect to their values or their moral, epistemic or aesthetic concerns. For example, that Miss Lucky wins the lottery is an unexpected outcome (given the chances of each lottery ticket holder winning are slim), but it is unsurprising. This is unless Miss Lucky is you, or some close acquaintance, a situation in which we would be very surprised by the news. What makes the difference between these two cases is the personal significance the result has in the latter case. In turn, this suggests why certain other mundane facts which are unexpected fail to surprise us. One would be very unlikely to guess correctly the exact number of words in this thesis. The exact number of words is, therefore, unexpected, and yet if one were told the number, it would be unlikely to surprise them. Baras and Na'aman would credit this to the fact that such a result bears little significance to one.

Not only must a fact or event be significant to the agent, but it must also be comparatively significant. A fact or event is comparatively significant to an agent if it has an impact on the values of that agent, and is not one of a number of related and unexpected outcomes that could have had that same significance (Baras & Na'aman, 2021, 28). This helps us to rule out the following concern. Let's say 32 people turn up to your surprise birthday party. This precise number is both unexpected and significant to you – you are touched that so many of your friends made the effort. But insofar as this fails to surprise you, the plausible reason is that there was a range of numbers that

you could have been told that would have been equally unexpected and significant – for example, if 33 people had shown up.

One final thing to point out is that it makes a claim about the extent to which things are fittingly surprising. Specifically, it asserts that surprise is fitting to the extent that it is unexpected and significant. The more unexpected and the more significant to the agent, the more surprising it will be. To incorporate a claim that recognises the gradation of surprise is important. As with other emotions, we can feel surprise to a greater or lesser degree, and an explanation of this in terms of how unexpected and how significant seems plausible. We are likely more surprised to win £1000 in a raffle of 100 people than we are to win £100 in a raffle of 50 people, other things being equal.

The concerns I raise in the next section will sideline the significance condition, for the most part. Instead, the focus will be on unexpectedness as the object of surprise. I will raise one issue with the notion of significance here, however. An interesting group of cases are ones in which the outcome is extremely unexpected and extremely significant to the agent. Imagine a morning in which you really would rather not run into a particular person on your way to work. On this day, the last thing you want is to see them, and this takes up a lot of space in your imagination as you walk to the station. The good news is that you don't expect to see them – they live far away and would have absolutely no reason to be near your route, and you've never bumped into them before. You arrive at the station, and there they are. Your heart sinks and instead of being surprised, you think: of course.

Consider also waiting to hear which member of your group is being chosen to perform some unwanted task, one that will have a significant personal impact on the individual chosen. Instead of being surprised by the improbable event of being chosen, you're filled with a sense of the inevitability of it. There are some things that, perhaps in virtue of how improbable and how significant they are, take up a lot of space in our imagination. When they happen, the feelings elicited are different to those we usually feel when presented with unexpected events – we have, in a sense, prepared ourselves

for the outcome. This accords with empirical research which suggests that the more prepared one is for an outcome, irrespective of its probability, the less surprising it will be (Teigen & Keren, 2003, 69).

In cases like these, unexpectedness coupled with significance can play against surprise, rather than enhance it. There may be cases in which the outcome is so unexpected and so significant, that it fails to be surprising at all.

6. Three problems with expectations as objects

6.1. The surprise paradox

Let's try and make the Significance Account more precise with respect to emotion theory. If we model emotions on the Attitudinal Theory described above, we can put the Significance Account with respect to a surprise party as follows:

> To be surprised by the party is to have a surprise-attitude towards the party, which is fitting if and only if the party *is* unexpected and significant.

One's surprise occurs at the point of entering one's home and finding a bunch of people jumping out from behind things. In usual circumstances, it would linger for a short period of time after this – to be surprised for at least a few minutes upon the reveal seems to be a reasonable response. However, something can only be expected or unexpected up until the point at which it occurs or doesn't occur. So once the party starts, it can no longer be unexpected. As a result, the Significance Account has a problem in that it cannot have the appropriate evaluation of its object (that the party is unexpected) be contemporaneous with the emotion. This distinguishes it from many other emotions. The fire continues to be dangerous while I am afraid of it, and the coffee continues to be desirable while I desire it. Something similar to this point is acknowledged by Baras and Na'aman:

Surprise is unique among the emotions in another way. Anger, disgust, or fear, for example, may fittingly persist for some time because the conditions that merit their occurrence can persist. By contrast, the very occurrence of surprise implies that the conditions that merited it have changed. Once a person is fittingly surprised by a fact, she comes to believe it obtains and cannot be fittingly surprised by this fact *again*, even if the initial surprise fittingly lingers for a while. (Baras & Na'aman, 2021, 5)

While this acknowledges the distinctive nature of surprise, I don't think the diagnosis is strong enough. If the object of surprise is that the fact or event in question *is* unexpected, then the account becomes self-defeating. Once the event occurs, the surprise cannot fittingly persist at all, much less fittingly linger for a while. To ensure that the account is not self-defeating, we must say not that the conditions that merit it have changed, but rather make the following small adjustment:

To be surprised by the party is to have a surprise-attitude towards the party, which is fitting if and only if the party *was* unexpected and significant.

This tells us something interesting about surprise as compared to other emotions – that the conditions by which it is fitting obtain in the past, and necessarily so. Of course, it could be that one is afraid of something that is only fleetingly dangerous, and the fear outlasts or ensues after the danger. But the difference is that things must always be backwards looking for surprise.

Although this may distinguish surprise from other emotions, such a distinction may be apt. Earlier we highlighted the distinctive temporality of surprise when discussing the nature of the surprise emotion. On the back of empirical research, it was observed that surprise is a relatively short-lived emotion. While we can plausibly remain afraid of the dangerous thing in front of us for a good deal of time, we tend to

get past our initial feelings of surprise, and often the surprise is replaced by some other emotion. In the surprise party case, our surprise may soon be replaced by feelings of joy, or perhaps anxiety.

However, understanding the expectation condition in terms of what *was* unexpected raises another problem. If the surprise is fitting on the basis of something that is true in virtue of what has already happened, then if it is fitting at all, it will always remain fitting. The fact that the party *was* unexpected and significant at time t will never change. This leaves no scope for fitting surprise to ever become unfitting. But compare this with the case of being afraid of a disease before and after one is vaccinated against it. If the vaccination is known to be 100% effective, then one's fear after getting such protection is no longer fitting, since the evaluation of the disease as posing a threat to oneself is no longer correct.

This sort of change is not possible when we account for surprise in terms of what was unexpected. Moreover, we fail to capture the short-lived nature of our feelings of surprise. As the passage from Baras and Na'aman above suggests, there is something wrong with the idea that we can be fittingly surprised by something over and over again. They are mistaken, however, in thinking an account based on expectation can accommodate this. On either way of spelling out the object of surprise in terms of unexpectedness, surprise comes out as either self-defeating or indefinitely fitting.

## 6.2.	Degrees of surprise

Results from empirical research demonstrate that equally unexpected events (events with equally low subjective probabilities) differ in the extent to which they are surprising. This is not in and of itself a problem for the Significance Account. As we have seen, the Significance Account, like the epistemic accounts, takes being unexpected to be a necessary but insufficient condition. The account faces a problem,

however, if the different extents to which the events are surprising cannot be explained in terms of significance to the agent.

There is a possible response. We might grant that something like unexpectedness and significance is sufficient in eliciting surprise, while leaving room for there to be other important features in play – i.e. if we locate the object of surprise as distinct to its cause. But an account which takes the cause and object to be the same does not leave itself room for this kind of response.

The following two experiments in (Teigen & Keren, 2003) look at cases in which the extent of surprise differs across equally improbable events. In the first experiment, participants are given the following scenario. Tom and Fred are taking an exam, covering a book with one chapter on each of 'Prehistoric times', 'Ancient history' and 'Middle ages', and seven chapters on 'Modern history'. Tom and Fred will each pick a card which corresponds to the topic they will be examined on, and the cards correspond to the ten chapters in the book – a card for each. Tom draws a card on the Middle ages, and Fred draws a card on Prehistoric times. Participants in the experiment correctly identified the equally low probability of each of these outcomes and were asked to rate how surprised they thought Tom and Fred would be. Out of the 42 participants, 29 thought Fred would be more surprised than Tom, only 3 thought Tom would be more surprised than Fred, and 10 thought they would be equally surprised (Teigen & Keren, 2003, 66).

In a second experiment, participants were asked to choose which would be a more surprising gift for Johan to bring Karin out of a bunch of flowers or a bottle of white wine, given that he usually brings her a bottle of red wine. The results showed that participants did not attribute a difference in probabilities or unexpectedness to either the white wine or the flowers. Participants did, however, overwhelmingly (94%) choose flowers as the more surprising gift for Johan to bring Karin (Teigen & Keren, 2003, 67).

Both experiments demonstrate a difference in the extent to which surprise is generated that cannot be attributed to probabilities. In addition, I do not see an

obvious case for the difference being explained by the extent to which things are significant to the agent. To be significant to the agent, the result must have a personal impact on the agent's values, and moral, aesthetic or epistemic concerns. In neither experiment were participants given information about the personal values of the subjects.

Perhaps aesthetic value comes into play with flowers being the more surprising gift. We might suggest that there is something inherently aesthetically pleasing about flowers, more so than wine, that make them a more significant choice for most agents. However, this response is ruled out given that the experiment was run again, although this time the usual present was a bunch of red flowers, and the participants had to choose which was more surprising out of a bunch of white flowers or a bottle of wine. Participants chose the bottle of wine, and so the resultant surprise is not explained by the greater aesthetic value we give to flowers.

These tests demonstrate that there are patterns in our surprise responses whose explanation is not exhausted by unexpectedness, nor indeed significance. As stated above, this is a particular concern if an account of surprise fails to distinguish between cause and object, and thus fails to leave room for more factors to be in play.

6.3. Surprising transformative experience

When raising the distinction between cause and object, Hume put it in terms of what produces the emotion and what is produced by the emotion. Even though Hume understands this as a sandwich of ideas (the emotion being the filling between cause and object), implying that everything occurs together, there is a sense in which the cause must predate the object. Something elicits the emotion, and then the object is what, in having the emotion, we turn our attention towards. If we understand the object of surprise in terms of unexpectedness, we have the following chain of events. Something happens which was unexpected to the agent (it has a low probability for the agent), eliciting surprise. The agent then, in feeling surprised, turns their attention

towards the unexpectedness of the event (towards their deeming it to have had a low probability). A special kind of case may raise a problem for this account. I have in mind cases in which this chain of events breaks down, and yet, we may still feel surprised.

As we have seen, for something to be unexpected, it must have a low prior subjective probability. This has the following implication:

> Probabilities and surprise differ not merely on the cognitive/emotional dimension, but also by being assessed at different points in time. Probabilities are most meaningfully evaluated before the outcome, whereas surprise is typically experienced after the outcome is known. (Teigen & Keren, 2003, 56)

This restricts the sorts of things that can be surprising – they must be things for which a prior probability rating is possible. That is, they must at least be able to be conceived of prior to their occurrence. This fits well with the classic models we are given – for example, winning the lottery, which implies a prior process (buying a ticket and waiting for the winner to be announced). But many of the things that surprise us don't easily manifest as the sort of thing for which a prior probability rating is possible, even in hindsight.

Take an experience like having a child. Paul argues that experiences like these are such that we cannot assign accurate probabilities to the relevant values either before or after the experience (Paul, 2014). The relevant values are the various experiential states – the emotions, beliefs, and dispositions – that the experience may elicit. For certain events, we cannot know what these future states will be like. This is because certain experiences like having a child change us in ways we cannot predict, shaping our values and preferences. This means in turn that, once experienced, we cannot accurately compare these states to the ones we had before, given the changes undergone. There is an immeasurability of value in both directions. Paul compares this situation to Jackson's Mary before she experiences colour for the first time:

Because of her limited experience and information, before Mary leaves her room, she faces a deep subjective unpredictability about the future. Not only does Mary not know what it'll be like to see red before she sees it, she also doesn't know what emotions, beliefs, desires, and dispositions will be caused by what it's like for her to see red. Maybe she'll feel joy and elation. Or maybe she'll feel fear and despair. And so on. And all of these new emotions, whatever they are, will change her preferences about seeing color. Maybe red will become her favourite color. Or maybe she'll run back to her room and refuse to leave it ever again. She doesn't know, and she cannot predict, the subjective values of the experiential outcomes of her act, and she doesn't know how her preferences will change as a result of that experience.

Before she has her first child, a prospective parent is in the same sort of situation. (Paul, 2014, 76)

When a certain anticipated event, x, takes place, it may be possible to assign a probability to x itself, but we cannot accurately assign probabilities to the various experiential states it will bring with it since we cannot know what these are like before x takes place. Let's say that the experiential state we are concerned with is the love the new parent feels for their child. This emotion is not merely unexpected – rather, it was unexpectable, since the state itself cannot have been in view.

The consequence of this, with respect to surprise, is that if surprise must have the unexpected as its object, it rules out the possibility of our being surprised by the unexpectable. As we saw above, according to Kenny, the object is something the agent must be aware of, while the cause need not be. The cause of my irritation at the stiff lid of a jar can be my hunger, without my knowing about it, but for the lid to be the object of my emotion, I must be aware of it as the object – I must have it in mind somehow. The fact that an agent cannot make an accurate assessment of the

probability of an event doesn't mean that the improbability of that event, for the agent, is not the cause. However, in cases of transformative experience, in addition to being unable to model the probability of something before its occurrence, one is unable to look back and access how one would have modelled the event before it happened. There is a breakdown in both directions. As such, in a situation that transverses a transformative experience, one cannot direct one's surprise towards how one assigned probabilities in the past. But it seems very natural to regard as surprising many of the new experiences we undergo in the wake of life-changing experiences – new parents often report their surprise over how parenthood feels.

7. Beyond expectations

7.1. If not unexpectedness, what?

I have raised three problems for our current philosophical accounts of the surprise emotion, which take for granted that the object of surprise is the unexpectedness of an event. As I have suggested, however, we need not assign *both* the cause and object of surprise as unexpectedness. We can maintain that unexpectedness (plus some additional condition) is what usually elicits surprise, while looking elsewhere for its intentional object.

While expectations are the main focus in any philosophical discussion of surprise, the empirical research on surprise in psychology can offer us resources to supplement this picture. The psychological literature on surprise involves three dominant theories: expectation theories, contrast theories and sense-making theories. I suggest that if we focus on the latter two, we can avoid the above worries and redefine the object of the surprise emotion.

The following is not intended as a full-blown account, but rather as some tentative suggestions for where an account of this kind might look.

In §5.2 I described two experiments from Teigen and Keren's influential paper on surprise (2003). These experiments raised doubts over whether an expectation condition could account for the differing degrees of surprise we feel towards certain events. Nor did significance to the agent account for these differences. Teigen and Keren suggest that what explains the difference in these cases is contrast; specifically, the contrast between the outcome and a likely disconfirmed alternative.

In the first experiment, Fred was deemed more surprised than Tom, despite the likelihood of each of their results being the same – Fred choosing a card on the topic of Prehistoric times, and Tom on the Middle ages. Both results were less likely than an alternative, which was to pick a card on the topic of Modern history. Teigen and Keren explain this result by pointing out that while both Middle ages and Prehistoric times are equally likely, the latter has a higher degree of contrast with the most likely outcome of Modern history. It has a greater contrast in terms of the content (studying a period of time that is further away) and its position in the book (being an additional chapter away from the Modern history chapters).

In the second experiment, participants deemed flowers to be more surprising than white wine, as a substitute gift for the usual red wine. This can be explained by the greater contrast between flowers and the expected gift (red wine), while the two types of wine are less contrasting.

As such, we have a candidate object of surprise, one which correctly tracks the extent to which we feel surprised across equally improbable outcomes. When an agent is surprised by some event, x, that surprise is directed towards a contrast between x and a relevant disconfirmed alternative, y.

One might worry that explaining surprise in terms of a contrast with disconfirmed expectations will face the same worries that were raised for an explanation of surprise in terms of unexpected outcomes. We're still thinking about prior expectations one way or another. The two accounts, however, are crucially

different. In both cases, the primary object of surprise is something to do with the actual event/outcome, x, the agent is faced with. On the traditional models, what matters for surprise is whether x was itself unexpected. On a contrast account, one need not assign x itself a prior probability rating, one only needs to recognise that x conflicts with some alternative, y, for which there is a high prior probability rating. But y's being an expected outcome is not what the surprised agent's emotion is directed towards – it is rather what explains why this alternative is salient to the agent.

Moreover, we need not understand the alternative, y, in terms of a probability rating at all. The kinds of alternatives that an outcome can contrast with are more varied than those tested in these experiments above. Contrasts can arise as a result of conflicting beliefs, or outcomes conflicting with the experiences and norms of the agent.

> Thus, an astrophysicist may be extremely "surprised" to learn that the moon is one billion years older than previously thought, whereas a layman may declare himself not surprised at all; not because the new estimate was expected, but because it did not conflict with any previously held beliefs.… Contrasts can also be created by dominant expectations arising from accumulated personal experiences, which have established a standard of comparison for future outcomes. (Teigen & Keren, 2003, 57)

We can explain the difficult cases raised in §5.3 regarding experiences that surprise us, for which we cannot assign a prior probability, since these experiences cannot be accurately conceived of prior to their occurrence. Traditional accounts based on the unexpectedness of the surprising event itself fail to capture what's going on in these cases; the love a new parent feels for their child is not the sort of thing we can attach a prior probability score. It is, however, the sort of thing that stands in contrast, for the agent, to their previous experiences and beliefs. For example, an apt contrast may be

the way one feels towards a parent, partner or friend. There is no issue, on a contrast account, in deeming entirely novel experiences as surprising.

Finally, we can avoid the problems raised in §5.1 regarding the backwards-looking nature of surprise in terms of unexpectedness. It was argued that the object of surprise was an event being unexpected, which was self-defeating, or an event having *been* unexpected, which rendered surprise endlessly fitting. On the contrast account, the emotion can be contemporaneous with its object – we need not appeal to how things were.

7.3.   Sense-making

Contrasts are not the only thing that psychologists have identified as affecting levels of surprise. Another theory is that, at its core, surprise is a process of sense-making or integration on the part of the agent – one that seeks to explain some result, event or experience (Foster & Keane, 2013; Maguire et al., 2011). The more difficult it is to explain an event, with respect to one's existing set of representations, the more surprising it is:

> For example, if you found your house keys were missing, and you had no way of explaining it, then you might experience a high level of surprise. However, if a plausible explanation subsequently emerged that allowed the anomaly to be resolved, such as realizing that you must have left the keys in the door, then the experience of surprise should subside. (Maguire et al., 2011, 177)

Foster and Keane describe surprise as a 'meta-cognitive sense of the amount of explanatory, mental work that was carried out to establish coherence between unfolding events in the world' (Foster & Keane, 2013, 2321). They present a series of experiments to demonstrate that outcomes with fewer 'ready-made' explanations are

more surprising than outcomes with a greater number of 'ready-made' explanations. Take losing one's wallet – we have several options available to us: it was left at home, dropped at the shops, still on one's desk at work etc. Losing one's belt, however, is more surprising, given that we have fewer forthcoming eventualities.

The sense-making hypothesis and the contrast hypothesis both compete as to the object of surprise – whether it is rooted in contrasts or a cognitive process by which we try to comprehend events. This is difficult to marshal given that we can interpret many examples either way. In the case of Johan bringing white wine or flowers as a gift for Karin, as opposed to the usual gift of red wine, the contrast hypothesis explained why we are more surprised by flowers, given the contrast between flowers and wine is greater than the contrast between the different grapes of wine. But the sense-making theorist has options as well; they can point to the fact that it's clear from the fact Johan usually brings a wine home that they pass a shop that sells wine – but how it is that Johan acquired flowers requires more explanatory work.

In many cases, both contrast and sense-making will be in play. And thinking about both in an account of surprise has its advantages. An account that just focuses on the sense-making process may be too broad for our purposes in discussing surprise. There are many things, such as reading a philosophy paper, that require a great deal of cognitive processing in order to integrate a new piece of information into an existing set of representations. This needn't be a surprising endeavour (although it can be).

But the idea of sense-making helps to capture the nature of surprise in two important ways, making it a useful addition to a contrast account. Firstly, it may help to explain the short-lived nature of the surprise emotion. As was observed earlier, surprise tends to subside in the wake of the surprising event. This could be explained by the sense-making process, whereby the surprise emotion lessens or disappears once an explanation is found, lasting only for the duration of the sense-making process. Secondly, the sense-making account coheres with the idea that surprise is an epistemic or cognitive emotion – an emotion with epistemic aims. The sense-making

account puts surprise in these terms, explaining it in terms of an agent's explanatory demands to make sense of the world and provide cohesion between certain surprising events and contrasting representations.

8. Conclusion

I have argued that, if surprise is an emotion, we need to distinguish its object. Current accounts explaining surprise in terms of an unexpected event will not do the trick. I presented three arguments for this. One, if surprise is directed towards unexpected events, the relevant evaluation of its object cannot be contemporaneous with the emotion. Two, these accounts fail to capture the extent to which we feel surprised, and three, the surprise emotion can be elicited in circumstances in which we cannot plausibly model our expectations about an event prior to its occurrence. To avoid these worries, we stand a better chance of capturing the object of the surprise emotion if we look to alternative theories in the psychological literature. Two candidates are contrast theories and sense-making theories. This does not offer a replacement for existing accounts of the cause of surprise in terms of unexpectedness but supplements them by differentiating the object of surprise. On a contrast account, for example, the particular object of our surprise is some event and the formal object is our evaluation of it as standing in contrast with some alternative event.

The above discussion is divorced from our overall discussion of emotion perceptibility in the following way. While we can differentiate one emotion from another in terms of their objects and how we evaluate them, it is not this that the emotion perception theorist claims we are clapping eyes on when we perceive emotions. The claim is that we can perceive the mental phenomena, and not that the content of these mental phenomena is transparent to us. By seeing a friend's anger, we do not necessarily see what they are angry about.

However, insofar as we can perceive emotions, we do seem to perceptually discriminate between different emotions. We don't just see emotion *per se*, we

experience others' particular emotions – their fear, anger, surprise, embarrassment etc.[13] So when it comes to the question of perception, emotional phenomena must be distinguished by something else. One candidate is an expression – upon which we will now turn our focus.

Chapter 3

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[13] This is not accepted by everyone. Some claim that our access to the minds of others is not captured by our access to discrete states, but by our access to others' mindedness. See Varga (2020).

A secondary quality account of expression

An assumption behind existing accounts of expression is that a subject's behaviour is expressive if certain facts about the individual subject, and their behaviour, obtain. For example, one prominent account understands a subject's behaviour to be expressive if the subject designs it for a particular purpose. I argue that this view is unsatisfactory since design and expression are in tension with one another. More generally, I diagnose a common problem with existing accounts – they treat expression as a primary quality. In contrast, I argue that expression is best understood on the model of a secondary quality account. On this account, for behaviour to be expressive of anger is for it to be disposed to look expressive of anger to normal observers. As such, our approach towards expression shifts from the individual to the responses of others.

1. Introduction

Of the many and divergent human behaviours, which count as expressions of emotion? Consider some things you've done so far today. These might include walking to work, smiling at a joke, tapping your foot absentmindedly, or scrunching up a piece of paper in a fit of frustration. If we consider the smiling and scrunching to be expressive, and the walking and tapping to be non-expressive, what explains this?[14]

These are questions about the extension of 'expression'. The aim of this paper is to give an account of expression that can accurately draw a line around behaviours that express emotion and leave out those that do not.[15] Existing accounts in the literature place their focus on the individual expressive subject and their behaviour.

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[14] I use the term 'behaviours' very liberally to include any person's actions, movements, internal or external bodily changes.

[15] In developing such an account of expression, my focus is limited to expressions of emotion rather than a theory of expression more generally. One can express things other than just emotion, as when I express confusion through a furrowed brow. Moreover, I may express confusion by simply saying that I don't understand something. So, in addition to a focus on expression of emotion, the focus here will also be limited to non-verbal expressions of emotion.

For example, they argue that for behaviour to be expressive, certain mental states of the individual must obtain or the behaviour itself must be a certain way. I argue for an alternative approach – one that focuses not on the individual, but the responses of others.

In order to differentiate these approaches, it will be useful to borrow a familiar distinction from discussions in the philosophy of colour: between primary and secondary qualities. A primary quality account of colours understands something to have a particular colour on the basis of certain intrinsic properties of that thing. For the book to be blue is for the book to have a unique set of surface properties common to all blue things. Determining which things have particular colours is consequently an observer-independent matter.

Existing accounts of expression take a similar structure, and so I suggest they can be grouped as primary quality accounts of expression. For a scowl to express anger is for certain intrinsic facts about the scowling subject and the scowl itself to be true. We need not appeal to any observers in determining which things are expressive.

A secondary quality account of colour need not deny that colours have particular intrinsic properties, but rather state that these properties underwrite the colours' disposition to produce a particular sensory experience in observers. On the secondary quality account, for the book to be blue is for it to be disposed to look blue to normal observers under normal conditions. Determining which things have particular colours is consequently an observer-dependent matter. [16]

We can make a parallel statement about expressions. A secondary quality account of expression emphasises the responses of normal observers, rather than intrinsic facts about the individual and their behaviour. I argue for the following account.

The Dispositional Account of Expression

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[16] I use a simple version of a dispositional account of colour as a secondary quality. See (Johnston, 1992) for a discussion of the benefits of a dispositional analysis.

> For some behaviour, *b*, to be expressive of some emotion, *e*, is for *b* to be disposed to look expressive of *e* to normal observers under normal conditions.

If normal conditions obtain, then one's scowl is expressive of anger if it is disposed to look expressive of anger to normal observers. The sensory responses of others are built into an account of the extension of 'expression'.

I will motivate this shift in emphasis by highlighting inadequacies in the primary quality accounts and demonstrating how they cannot accommodate the full range of expressive behaviours. Not only does this give us a *prima facie* reason to adopt a secondary quality account, but I show how such an account captures the cases of expression that primary accounts leave out. These include the following four kinds of cases: our novel expressions; expressing ourselves despite our best efforts to hide what we feel; failing to express ourselves despite our best efforts to do so; and expressing ourselves in the absence of a corresponding emotion.

The plan for the rest of the chapter is as follows. In §2 I will spell out three primary quality accounts of expression and show how they fail to do justice to four central cases of expressive behaviour. In §3 I will introduce the design account of expression, which provides a middle ground between a primary and secondary qualities account. I will explain why we should drop part of this account but retain an insight that is implicit in it; that expressive behaviour must involve an *other* or *others*. In §4, after considering a related account, I spell out the Dispositional Account which treats expression as a secondary quality and demonstrate how this account can capture the four central cases of expression raised in §2.

2. Primary quality accounts of expression

2.1. Two metaphysical accounts

Primary quality accounts of expression take the extension of 'expression' to be determined by facts about the individual expresser and their behaviour. Such facts are

perceiver-independent, and we need not look to anything further to capture which behaviours are, or are not, expressive. A good place to start in thinking about candidates for such facts is to consider claims that are commonly made by philosophers discussing expressions of emotion.[17] The discussion of expressions often focuses on some real mind-independent relation between an expression and a corresponding emotion. Recently, a number of philosophers have pointed out the causal connection between expressions and emotions; emotions cause their corresponding expressions (Parrott, 2017; Smith, 2017). We cry because we are sad and laugh because we are amused. Cause, here, is best understood in an explanatory sense; emotions provide explanations or reasons for our expressive behaviour.[18] We can therefore consider the following.

The Causal Account of Expression

Some behaviour, b, is expressive of some emotion, e, if and only if b is caused by e.

This seems to capture why some behaviours, and not others, are expressive of emotion. For example, Millie is full of joy and skips home from work. When she arrives home she is ravenous and searches for a snack. The skipping is expressive of emotion and not the snack search because joy caused the former and hunger caused the latter.

But while the causal account can distinguish between some of our expressive and non-expressive behaviour, it insufficiently captures which behaviours are expressive and which are not. Take the following case.

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[17] Part of the challenge here has to do with gathering existing accounts that specifically answer the extension question. Aside from Green (2007), those I discuss have not been offered up in the literature as answers to this specific question. Given a lack of material pertaining directly to this question, I take them as suggestive of how we might go about developing a primary quality account.

[18] Early 20th century phenomenologists working on this topic reject the idea that there is a causal relation obtaining between emotions and expressions; they argue that the expression relation is more intimate than this. See, for example, Stein (1989, 53).

Bad Acting

Jacques is part of a reality series in which he must recreate scenes from his real life. In real life, Jacques is very angry with his partner Luann, and must now also convey this on camera. This drives him to want to do a good job and so he studies an acting guide that tells him all the right facial movements and gestures to make oneself appear angry. When the scene is shot, Jacques puts this all into practice, but fails to move the audience. Those who watch the scene can see that Jacques is putting on a performance and fail to appreciate his real anger.

An intuitive reading of this situation is one in which Jacques has tried but failed to express himself; or at least tried but failed to express *anger*. His behaviour fails to be expressive of anger, despite the fact that he is actually angry, and despite the fact that this anger is (at least in part) the reason why he chose the particular bodily and facial movements that he did. He did not consult the acting guide to see which behaviours typically correspond with love. Rather, his anger directed him towards the motions he chose. The Causal Account is thereby insufficient in that, in this case, the appropriate relation obtains without generating the right expression of emotion.

We can find numerous other examples that demonstrate the insufficiency of the causal account. Take, for instance, a fearful flyer waiting for take-off. The fear causes at least two occurrences in the flyer: an increase in adrenaline and trembling hands. On our liberal understanding of behaviour, both of these occurrences are viable candidates for expression. However, we ordinarily would only take the trembling hands to be expressive of emotion.

The story is much the same for other accounts of the extension of expression that focus on some metaphysical relation obtaining between emotions and their expressions. Take an account that suggests that what we take to be expressive behaviour tracks those behaviours that are *parts* of emotions. This may be a natural way to go if we take seriously several authors who suggest emotions come in parts, of

which one of these components is expression (Parkinson & Colman, 1995; Scherer, 2005). We can put it simply as follows.

The Parthood Account of Expression

Some behaviour, *b*, is expressive of some emotion, *e*, if and only if *b* is part of *e*.

Again, this account is not sufficient. Expressions are one of several parts, and so an account of the extension of expression in terms of parthood alone fails to distinguish *which* part counts as expressive. One might think, however, that while the Causal and Parthood accounts may not be sufficient, this should not be expected. To give each account a good chance, we should have added some further conditions. For example, we might have added as a condition that the behaviour is also visible. As such, the worry about distinguishing between adrenaline and trembling hands would not arise, and the *parts* that count as expressive are the ones we can see.

However, in addition to sufficiency worries, neither causation nor parthood is necessary for expression. Take the following case to rival *Bad Acting*.

Brilliant Acting

Ashley goes on stage every night and stuns the audience with her performance. Despite being perfectly happy, she is able to depict the anguish of her character to great effect. The entire audience is completely swept up, believing Ashley to have completely lost herself in the role. The audience members later marvel over just how expressive Ashley was.

It would be difficult to suggest that all the audience members in this case are wrong; that Ashley's behaviour was not expressive because she was not in fact experiencing the anguish she so expertly portrayed. Part of the goal of an actor is to convincingly express emotions that they do not necessarily feel, and there should be room in an

account of the extension of expression for these kinds of cases. But neither the Causal nor Parthood account can accommodate this. On both of these accounts, Ashley's behaviour fails to be expressive since, by stipulation, there is no corresponding emotion that the behaviour is either caused by or a part of.

2.2. Innate expression

Given the above problems, we can consider a third primary quality account which suggests that the extension of expression tracks particular physical features, rather than a relation. This account suggests that there are a set of physical changes on people's faces and bodies that are *always* expressive, and so whether some behaviour is expressive is determined by whether it falls within this set. But what groups this particular physical set together?

Here, an account may draw on something like Ekman's influential work on the universality of facial expressions. In their 1976 paper, Ekman and Friesen introduce the Facial Action Code (FAC), designed to map out all the possible movements of muscles in the face, and give a comprehensive list of all facial expressions (Ekman & Friesen, 1976). A particular collection of these constitutes the entire range of emotional expressions. The FAC distinguishes 'action units', units of appearance change – for example, action unit 15 is 'lip corner depressor' (66). This action unit interacts with others to form a number of facial expressions. These action units constitute the full range of emotional expression since they are universally recognised [although recent evidence suggests otherwise (Jack, 2016; Jack et al., 2012; Russell, 1994)]. The universality claim is used to suggest that there is something innate in the behaviour itself that makes it expressive; some behaviours *just are* expressive and expressive to everyone. We may suggest the following.

The Account of Innate Expression

Some behaviour, *b*, is expressive of some emotion, *e*, if and only if *b* is a particular muscular movement or set of muscular movements that are innately expressive of *e*.

One's smile is an expression, always, because of the intricate features of the muscle movements themselves. There are distinctive and universally recognisable looks that are expressive, no matter what.

One case that this account *can* deal with is *Brilliant Acting*. Insofar as we think that it is possible for Ashley to express an emotion she doesn't feel, we distinguish the extension of expressions from an explanation involving the presence of a corresponding emotion. Perhaps what generates expression in cases of brilliant acting is that actors are able to produce the relevant action units for each emotion. If some behaviour is expressive because it conforms to these units, then producing this behaviour should be enough.

It is not enough, however, in the case of *Bad Acting*. In this case, Jacques has studied exactly how to move his face in order to express what he needs to. We can imagine he has been given a copy of the FAC manual, in which particular instructions are given for particular action units. To produce action unit 15, one must 'Pull your lip corners downwards. Be careful not to raise your lower lip at the same time – do not use AU17. If you are unable to do this, place your fingers above the lip corners and push downwards, noting the changes in appearance. Now, try to hold this appearance when you take your fingers away' (Ekman & Friesen, 1976, 68). Let's imagine Jacques manages to do all the right things with his face – it *still* seems plausible that we are unconvinced by his acting; he fails to express anger.

But perhaps this is uncharitable. It may be that Jacques fails to express because getting these action units spot on is a challenge. A greater worry for the Innate Expression Account comes, I think, with the expressions it leaves out. Take the following.

Unintentional Blush

Alex likes Simon but doesn't want anybody to find out, least of all Simon. When they are together, Alex tries not to give anything away, but cannot help but blush when Simon is around.

In this case, Alex expresses feelings towards Simon despite efforts to avoid this. He is able to control all the muscles in his face so that he remains neutral. Still, the blush comes through. Muscular movements alone, even the entire spread of them, cannot capture all the cases of expression we want them to. Nor is it the case that facial expressions alone constitute the full range of expressive behaviours. Brandishing one's fist can be just as expressive as a scowl. A good account of the extension of expression should permit, not only non-facial bodily changes but behaviours that are not, in and of themselves, always expressive.[19] And this is exactly what the above account does not permit. Take the following case of expression.

First Expressions

Ronnie gets anxious whilst he is at school. For some reason, he starts to tap his chest whenever he is feeling anxious. His friends notice this and some of them adopt the behaviour when they themselves feel stressed. After a while, most of the pupils at the school recognise chest tapping as expressing anxiety in one another. Ronnie's behaviour has come to be mutually understood as an expression of emotion at his school.

In *First Expressions* Ronnie's chest-tapping generates a new expressive behaviour being adopted at his school; one that is non-native. Giving a proposal which captures the expressive in terms of a designated set of behavioural movements restricts our ability to capture new and developing expressions. Chest-tapping, if it does occur,

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[19] Goldie has a similar thought: 'Much of one's emotional life is expressed in this way: not through action which is solely expressive, but through everyday, mundane action which is adverbially expressive.' (2000, 32). When we bang the door shut in anger, an everyday and typically non-expressive action is imbued with expression.

does not usually pair with stress for the vast majority of people. The point here is not just that Ronnie's expression cannot be captured on this account, but the account is in principle unfriendly towards idiosyncratic and unconventional expression.

This is not to say that particular facial or bodily movements are not involved in expressive behaviour – all expressive smiles are going to involve some change to the expresser's face. But pointing to such changes is not sufficient for determining the extension of expressive behaviours. We should not assume identity between particular muscle movements on the one hand, and expression on the other, despite the fact that expression may indeed require particular muscle movements in each instance. Many people will tap their chest, and the behaviour be unexpressive. But in Ronnie's case, the behaviour has the property of being expressive and this supervenes on the physical movements involved. Expressions and particular physical movements are therefore not one and the same thing.

This is clear, also, from the fact that multiple expressions can be realised by the same behaviour. Alex's blushing in *Unintentional Blush* expresses affection towards Simon. But the same change in Alex's body has expressed shame, embarrassment, and rage, in different situations.[20]

We have so far looked at problems for three primary quality accounts of expression. These problems arose through thinking about four central cases of expressive and non-expressive behaviour. These involved: failing to express ourselves despite our best efforts, as in *Bad Acting*; expressing ourselves despite having no corresponding emotional experience, as in *Brilliant Acting*; expressions we simply cannot help, as in *Unintentional Blush*; and novel expressions, as in *First Expressions.* In the next section, I show how the most prominent recent account of expression in the literature also has trouble accommodating these cases.

3. Expression and design

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[20] This point is also made by Stein (1989, 53).

Another primary quality account argues that the extension of expression should be determined by thinking about the core aspect of expression; its communication, by the expresser, of an internal state to another. This puts the expresser themselves at the centre of an account of what makes behaviour expressive.

A version of this, and what I call the Design Account, is offered by Green in his *Self-Expression* (2007). We can put it as follows.

<u>The Design Account of Expression</u>

Some behaviour, *b*, is expressive of some emotion, *e*, if and only if it either shows or signals *e.*

Showing is a matter of doing one of the following three things. Either one shows an emotion by making it perceptible, by providing evidence for its truth, or by putting another in a position to empathise with it. This condition on expression involves a key insight which we will come back to later.

For now, we can focus on the condition that an emotion must be signalled for some behaviour to count as expressive. This proposes a perceiver-independent fact for our concept of expression to track and makes this a primary quality account. What is it, then, for something to signal an emotion? It is that the behaviour was *designed* for the purpose of conveying information, irrespective of any potential uptake on the part of those it was designed for (Green, 2007, 5). In the expression of emotion case, this will be information about the emotion of the expresser.

Such design can either be agential or evolutionary. That is, the behaviour must either be intentional on the part of an agent, or there must be an evolutionary explanation for the development of that particular behaviour to communicate with others. The emphasis here is on how the behaviour *came about* – either by thinking about the intention of the agent, or the genealogy of the behaviour. For example, what makes one's frown of disapproval expressive is that one intends for that disapproval to be communicated to those around one; the frown is designed for others to see.

How plausible is an account of expression based on design? There certainly are occasions in which we consciously form an intention to communicate something with an expression, say when we smile encouragingly at the presenter during a talk. However, much of our expressive behaviour is not consciously so; we may not have been aware of the perplexed look on our face throughout the talk until someone pointed it out afterwards. But we might set a less restrictive definition of intention. On Green's account, at least, some action is intentional (or voluntary) if it could have been prevented at its onset (2007, 28). If one's perplexed countenance occurs absentmindedly, it can still be expressive just as long as it *could* have been prevented.

Even if this captures a particular sub-set of expression, voluntary expression, it will not do the job of capturing all the expressive behaviours we would like it to. Take *Unintentional Blush* in which Alex doesn't want his affection to be known. He tries his best to keep a neutral face when Simon is talking but has no control over the blush. The blushing cannot be intentional because it could not have been prevented at its onset.

For this reason, agential design is not alone sufficient in capturing expressive behaviours. This is where the case for evolutionary design comes in: 'the terror in my voice is not something that I either will to be there or even allow to be there when I happen upon the intruder in my home. Yet that tone of voice expresses my terror because I am outfitted by natural selection to react in that way to situations of extreme danger' (Green, 2007, 27-28). With this, we can capture those expressions that are not intentional by explaining how behaviours of that sort developed with a particular function.

What Green has in mind here is something like Darwin's characterisation of the function of expressions (Darwin, 1899). His focus on the expression of emotion has been cited as the influence for much of the subsequent research into emotions (Ekman, 1980; Izard, 1971). An analysis of a cry of terror as having the evolutionary function of warning others of danger would fit with the condition that expressions must be designed for the purpose of communication.

This reliance on Darwin's characterisation of expressions needs a little unpacking since Darwin didn't merely focus on their function of conveying information. Much of his work focuses on how expressive behaviours are designed for reproductive success more generally (Jack, 2016). Take his description of crying, which is primarily to enable lubrication of the eye, and in turn serves to wash away dust, and keep the nostrils moist so as to aid smelling (Darwin, 1899, 620-621). The standard facial expression for fear involves flared nostrils and an open mouth. These features have the evolutionary function of increasing the input of oxygen and visual information, increasing muscle function, and enabling the identification of escape routes (Jack, 2016).

Nowhere, here, is there reference to how tears or a fearful expression have adapted for the function of communication. So, in order to maintain support for the communicative model on Darwinian grounds, we need to introduce a distinction between original adaptive functions and secondary adaptive functions (Goldie, 2000, 35). Expressions' original adaptive functions are those for which they were originally designed, and secondary adaptive functions are the functions they now serve. Behaviours that once served one function are now only used for the sake of communication. Take baring one's teeth in anger. While this historically has prepared people to fight, it no longer serves this purpose; its purpose is now entirely in letting others know that the person is angry (2000, 34).

While it may be clear that we no longer bare our teeth in preparation to fight as often as we used to, things might not be so clear for the function of tears. The primary adaptive function that Darwin presents, centred around keeping the eye healthy, is just as operative now as it was then. Of greater concern, however, are the behaviours that the analysis in terms of evolutionary design leaves out altogether. We started this discussion of evolutionary design in the hope that it would capture those expressive behaviours that we do not intend. The case pointed to was *Unintentional Blush*. Green, however, denies that blushing is expressive since, in addition to being unintentional, it hasn't been shown to have an evolutionary basis:

> As we have mentioned, a galvanic skin response might show a primate's fear, but does not express his fear. Likewise, consider the difference between blushing and weeping. A blush shows my embarrassment, but it doesn't seem natural to say that it expresses my embarrassment…we don't intuitively think of blushing as designed to convey that one is embarrassed. (Green, 2007, 27)

The range of things which reveal a person's emotion is not the same as the range of things that express a person's emotion. Blushing might reveal embarrassment, but it doesn't express it. This, Green thinks, is in accordance with our intuitions. Others disagree. Martin, for example, thinks that it is 'entirely natural' to treat blushing as an expression (2010, 87), and at the outset of this paper I introduced *Unintentional Blush* as an uncontroversial example of an expressive interaction. So, how do we move beyond a disagreement over intuitions about where to draw the boundary? Is expressive behaviour limited to the special intentional sub-set that Green has identified, or is it broader than this, including the sorts of behaviours I have in mind? In bringing out the following tension between expression and design, I hope to tip the scales in one direction.

For this, it will be useful to think about cases in which the Design Account is satisfied, and yet we fail to generate expressive behaviour. Consider again *Bad Acting*. Jacques is angry and he shows this anger.[21] He also intends for his behaviour to communicate his anger to others; he actively studies in order to bring this about. And yet, somehow, Jacques fails to express himself. How is this possible? This case brings out an important tension between design and expression. Behaviours that are *put on* by the behaving subject can often mask how the subject really feels, regardless of whether they really do feel as they behave, and regardless of whether their behaviour

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[21] One may wonder whether Jacques has really shown his anger, given that the case stipulated that the audience fail to be moved by his performance. Green argues, however, that in showing some emotion does not require recognition. Something can be shown without anyone cottoning on (Green, 2007, 49).

is appropriate for their emotion. Consider the person that finds your joke funny but laughs that bit too much. We are often caught by the feeling that another's behaviour is inauthentic or slightly 'off'. When this happens we often think about the motives behind such action, and this disrupts the effortless process by which we engage with the emotions of others.[22]

One may worry that this presents too negative a picture of voluntary expression. In fact, voluntary and manipulated expressions are a pervasive and natural part of our social interactions. As Green says, 'we often exaggerate the facial configurations that do happen to us, as for instance when I deepen my frown in order to underline the gravity of someone's infraction' (2008, 94). I can hardly be said to have masked my disapproval by ensuring that my frown lasts a moment or two longer than it would have done without my intervention.

However, to argue that expression and design are in tension does not preclude cases like this. There is a place for both unintentional frowns and exaggerated frowns. What I want to draw out, however, is the reason why these expressions are different. They look different, and they convey different things. We react differently to the two frowns. While the former may express disapproval, we will take away more than this with the latter. We will be aware of the disapproval *and* the fact that they wanted us to know about it. Intended expressions run the risk that the presence of an emotion is clouded in a way that involuntary expressions do not. This is the sense in which intention pulls against expression of emotion. We can find this idea in Stein, who describes what happens when we witness an intended behavioural expression:

I now not only comprehend the disapproval in the furrowed brow but it intends to and ought to announce it. The comprehended intention gives the whole phenomenon a new character (Stein, 1916, 79).

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[22] For a similar sentiment, see Goldie (2000, 26) and Grice (1957, 383).

When we talk in terms of exaggerating our facial configurations, or deepening our frowns, we imply a certain picture of expressions in which the facial configurations, the frowns, are objects which we can manipulate in certain ways. But in doing so, we forget that the manipulation itself becomes part of the object. Instead of thinking in terms of exaggerating our expressions, we should rather think of exaggerations as being part of what's expressed. And given this way of understanding intention to express as part of what's expressed, it occurs in cases where it isn't emotion alone that's being expressed. So, while intention may be involved in a large number of cases of expression, it strikes me as a strange place to centre an account of *emotional* expression.

We have so far focused on the second condition in the Design Account: signalling. We have seen how it fails to accommodate *Bad Acting* and *Unintentional Blush*, and how it is in tension with the expression of (just) emotion. What about the first condition, that the behaviour must *show* an emotion? One way in which behaviour can show emotion, according to Green, is if the behaviour makes the emotion perceptible. In this way, the account is one that demands a notion of the recipient in accounting for expression. In fact, the concentration on expression as a means of communicating *to others* requires the notion of a recipient; communication demands an interpersonal situation, we communicate with or to someone else. It is with this important insight that we can begin to reframe the way we think about the extension of expression, wherein the perceiver's experience is emphasised.

Taken alone, this condition (that the behaviour makes some emotion perceptible) does not constitute a full-blown secondary quality account of expression. Something must hold true of the behaving subject in order for their behaviour to be expressive. This is that they are actually experiencing the emotion in question. As such, accounting for our intuitions about *Brilliant Acting* becomes tricky. By stipulation, Ashley is not experiencing the emotion she expresses. However, everybody in the audience is completely convinced that Ashley's behaviour is expressive. Is it plausible

to say that every audience member here is wrong? We will return to this in the next section.

4. Response-relative accounts of expression

4.1. The Community Response-Relative Account

I want to build on the important insight implicit in the Design Account that an account of the extension of 'expression' must involve reference to an *other* or *others*. To help motivate this move, consider the following passage from Martin.

> For a number of years I was concerned that my roommate in graduate school would often show signs of anxiety: his hand shaking when he rolled a cigarette or held a cup of coffee. But eventually I came to realize that he just had incipient Parkinson's disease, and had a very mild apraxia (which in no way has become more severe in the last twenty years). The moment I realized that, I treated his movement differently, and it looked different to me. From one perspective, low firing neural centers of motor control and an emotional state of anxiety are both just internal causes of behavior. But faced with the normal demands of making sense of the social world and the actors within it, we tend to treat the two very differently: the latter kind of cause we classify as a psychological or mental cause of behavior; something our social competence needs to keep track of; the former, we think of as purely mechanical. So perhaps what classifies together various overt behaviors as expressive is just that we do so treat them as what we must track when discerning the mind of an agent. (Martin, 2010, 87-88)

There are two ways to interpret Martin's example. One way is to understand him as saying that it is sufficient for a behaviour to be expressive if it was caused by some

psychological state. Martin treated his friend's shaking hands as expressive only because he had assumed a psychological cause. This is Green's interpretation and he worries that it renders an overly permissive account: 'The galvanic skin response, increased adrenaline, and elevated blood pressure that all ensue upon my fear, show that fear, yet it seems highly counterintuitive to describe any of them as expressing fear' (Green, 2011). This is the same criticism we levelled at the causal proposal earlier.

However, I read the example differently. Martin's point is not that some behaviour's being caused by a psychological state is sufficient for that behaviour to be expressive, but rather that our *taking* some behaviour to be caused by some psychological state is sufficient for it to be expressive. It is a more sociological approach wherein the unifying feature of expressions has to do with what the interpreters of certain behaviours take to be the cause of those behaviours. The character of the behaviour that Martin witnessed changed for him when he realised the cause was mechanical rather than psychological; he no longer treated the behaviour as expressive. The sensitivity we need to have in the social world towards the psychological aspects of other people leads us to mark out a certain group of behaviours as those which we must track in keeping up with this demand. On this understanding, we have something like the following response-relative account of expression.

The Community Response-Relative Account of Expression

S's behaviour, *b*, is expressive of some emotion, *e*, for a community C, if and only if behaviour of type-*b* is what, normally, enables members of C to know that S is in *e*.

The shaking hands were expressive because shaking hands usually enable people to come to know of each other's anxiety. This leaves open *how* such knowledge is attained from the behaviour, and as such we have a response-relative account that

does not rely on *perceptual* experience. In this way, it is not a full-blown secondary quality account, despite the emphasis on the responses of others.

This account has many advantages. For one, we avoid the above criticism over permissiveness. The galvanic skin response (a change in levels of sweat, brought on by emotions), increased adrenaline and a change in blood pressure, lose out on being expressions on this account since they are not, normally, things that enable knowledge of emotions. Most likely because we are, for the most part, unaware of them in our social interactions. The account, therefore, rules out the sorts of behaviours one might worry it permits.

Another advantage is that, given the account is put in terms of knowledge, we generate the right kind of connection between expression and the successful discernment of others' emotions. Since for someone to know their friend is embarrassed, their friend must in fact be embarrassed. An account which tracks knowledge in most cases will render expressive behaviour that is paired with real emotions.

That being said, the Community Response-Relative Account leaves some room for divergence. In the case of the roommate's shaking hands, these were expressive since such behaviour *normally* enables knowledge of anxiety, but in this case, no anxiety was present. Likewise, we have space to account for cases like *Brilliant Acting*. Ashley's behaviour is expressive since it is behaviour that usually enables knowledge of anguish, even though the connection breaks down in this case.

This account is right to focus on people's responses to behaviour, but in its current form, there are two main extensional issues. Firstly, it has trouble explaining the phenomenon of trying but failing to express. As we have seen in *Bad Acting*, somebody can do all the right things and yet fail to produce expressive behaviour. On this account, in cultures in which a smile usually enables others to have knowledge of one's happiness, it would not be possible to smile and it not be expressive of happiness. This leads to trouble if we want an account that makes room for disingenuous smiles, or smiles that express something other than happiness, as when

we read pain in another's attempts to show us they're okay. To account for these nuances, rather than a focus on *types* of behaviour, we need a theory of expression that individuates expressive behaviour.

The second extensional issue is that, as it stands, the account is too broad. Sending a text that states one's emotional state normally leads to knowledge of said emotional state. But we may feel hesitation in accepting that the behaviour of tapping fingers on the screen can in these cases be expressive. The text itself, the image of words on a screen, may more plausibly be described as expressive, as objects sometimes are, but this is to capture something different to the study of what makes particular instances of *behaviour* expressive. The reason that Community Response-Relative Account can sometimes entail that behaviours like the texting of particular phrases are expressive is because it does not specify any means by which behaviour may lead to the knowledge of someone's emotional state.

But not all behaviours that typically enable knowledge of this kind are expressive. There is something special about *certain* actions that lead to an awareness of others' emotions. Perhaps what feels wrong about the texting case is the lack of proximity that is required between the behaving subject and the recipient. What makes emotional expressions special is, among other things, the potential for others to perceive them. The phenomenon is bound up with the notion of perceivers. So, while the Community Response-Relative Account comes close to our desired account by focusing on the social response to behaviour, we want something that individuates expressive behaviour, and relies on perceptual experience. This is what the following secondary quality account gives us.

4.2.   A secondary quality account

We are now in a position to return to and detail the positive proposal, in which the emphasis shifts entirely from the individual expresser to the perceptual responses of others.

The Dispositional Account of Expression

For some behaviour, *b*, to be expressive of some emotion, *e*, is for *b* to be disposed to look expressive of *e* to normal observers under normal conditions.

This account understands behaviour to count as expressive based on the potential perceptual responses of normal observers. As such, we build on the advantages of a response-relative account over primary quality accounts but narrow the means by which we can gain awareness of expressions – such awareness involves perceptual experience. We also individuate expressions such that individual behaviours are determined to be expressive or not on a case-by-case basis.

Notice that it is not put in terms of a counterfactual. It is not equivalent to saying that *b* is expressive if and only if it is experienced as expressive, or some similar formulation. The dispositional analysis allows us to avoid counterfactuals, and consequently, we can avoid the following counter-argument. Imagine that somebody wears a face mask that has a particular shape such that it tricks the eye into thinking the wearer is smiling. Even when this person frowns, the frown looks like an expression of happiness. By the conditional reading, this frown must be an expression of happiness. This conclusion is avoided on the dispositional analysis since the frown itself is not disposed to look expressive of happiness – some extrinsic cause has influenced how things look.[23]

The Dispositional Account can be elaborated on by specifying particular conditions that fall under the 'normal observers' and 'normal conditions' clauses. I present an initial outline of what some of these conditions might be.

(1) Perceptually normal conditions. The perceptual conditions should be standard and conducive to our picking up on others' behaviour. There is sufficient lighting, nothing obstructing our view, etc.

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[23] See Johnston (1992, 232) for the same argument with respect to colours.

(2) Perceptually normal observers. The perceptual systems, such as the visual system, of observers are operating at a level that is standard for successful perception.

(3) Conditions and observers as they actually are. By stipulating this, we need not worry about possible worlds in which normal observers in normal conditions perceive behaviours as expressive of entirely different things.

(4) Relativised observers. An expressive behaviour may look expressive to one person and not another, or one group and not another. Some of us are better placed to discern the expressions of another, given our relationship with them, or our belonging to a similar social group. Those that count as normal observers will vary depending on the expressive subject.

This last condition can help explain cases of newly emerging expression within a particular group, as in *First Expressions*. Ronnie's chest-tapping is expressive at his school since many other students recognised the meaning behind the behaviour and started to do it themselves. Chest-tapping was expressive at this school because students began to perceive the tapping as expressive of anxiety. But it is plausible to think that while chest-tapping is expressive for students at this school, it doesn't look expressive of anxiety elsewhere. A school across the road, for example, hasn't caught on to the behaviour and so when they see Ronnie's chest-tapping, it looks different to them. Does this require us to say that Ronnie's chest-tapping stops being expressive as soon as he exits the school gates? Not according to *(4)*, since we can relativize the account to observers *in a similar social group* to the behaving subject. In this case, it is Ronnie's classmates that count as normal observers.

What about Ronnie's chest-tapping before his classmates came to recognise it as expressive? It might seem like this account renders the implausible suggestion that Ronnie's behaviour was one day unexpressive and the next expressive, through no change on Ronnie's part. This is not the case. To see this, compare this account with dispositional accounts of colour. Consider a fossil that takes years to be discovered. The dispositionalist about colour does not think that the fossil becomes coloured only

once it is discovered. It is disposed to look coloured throughout its existence, even though it takes some time for actual observers to see it as such. Similarly, Ronnie's behaviour is always disposed to look expressive, even though it takes observers some time to cotton on.

Another upshot is that the account deals well with cross-cultural variation in expressions of emotion. In contrast to the claims of the Innate Expression Account discussed above, many psychologists offer accounts of the different ways in which different social groups express themselves; see Jack (2016) for an overview. The Dispositional Account can explain how an almost identical behaviour can be expressive on one person and not another, and in one place and not another. Who is behaving and where one is behaving are relevant on the Dispositional Account, since the who and where affect who the normal observers will be, and what the normal conditions will be. For example, in some Western countries, wearing a face-mask will inhibit perceivers' abilities to recognise expressions. Smiling under a face-mask would therefore fail to be a case of expressing within perceptually normal conditions. Said smile would not be prohibited from being expressive just because others cannot recognise it through the mask. In some East Asian countries, perceivers are much better at recognising expression from the eyes alone (Jack, 2016, 181). Relative to these groups, face-masks stand more of a chance of being included within perceptually normal conditions.

How, then, does the Dispositional Account deal with the other three cases of expression discussed in §3? With *Unintentional Blush*, we don't encounter the same problems that the Design Account faced. On that account, Alex's blushing couldn't be expressive since it couldn't have been prevented. However, we felt there was something strange in denying that blushes could be expressive. On the Dispositional Account, it is perfectly possible for blushes to be expressive, just so long as they are disposed to look expressive of, say, affection, to normal observers under normal conditions. In Alex and Simon's case, the blush did look expressive of affection, and given that relative to Alex, Simon counts as a normal observer, and the event took

place under normal conditions, the blush is an expression of affection. Alex's intention doesn't come into the picture.

When it comes to the common phenomenon of trying but failing to express, as in *Bad Acting*, we can explain how it is possible to do all the right things but produce no expression. Despite the fact that Jacques was indeed angry when shooting his scene, he failed to enable *anybody* to recognise this. Under normal conditions, Jacques' behaviour did not look expressive of anger to normal observers.

Likewise, in *Brilliant Acting*, the audience members' perceptual experience of Ashley's behaviour can explain why there *is* expression, in this case. Perceptual conditions are such that Ashley's behaviour is fully visible, and the audience is made up of those in a sufficiently similar social group to Ashley. It does not matter, on the Dispositional Account, that Ashley was not in fact in anguish; it is the fact that her behaviour looked expressive of anguish to the audience members that makes it expressive.

We can still capture, however, the sense in which something has gone wrong here. In most cases in which another's behaviour looks expressive of some emotion will track the existence of said emotion. This is because we usually act in ways that look expressive when we feel a certain way, and our capacities as perceivers to recognise these expressions are usually very good. However, there are occasions in which our perceptual experience of behaviour as expressive doesn't in fact track an existing emotion. Ashley has convinced the audience of something that isn't real – what an actor is often hoping to do. Similarly, there seemed to be a mistake being made by Martin when he experienced his roommate's shaking hands as expressive of anxiety since the roommate was not in fact anxious. This is not a mistake brought about intentionally on the part of the roommate but reflects the occasions in which we get other people slightly wrong. But the mistakes in these cases are not at the level of the expression. The behaviours are still expressive in these cases since they looked expressive to normal observers under normal conditions. The mistake is, rather, in the breakdown between the expression and the emotion it looks like it corresponds to.

In these ways, the Dispositional Account is consistent with the four central cases of expressive and non-expressive behaviours that were seen to present problems for our other accounts. The Dispositional Account is flexible enough to accommodate the emergence of new expressions in particular social groups, expressions that occur despite our best efforts to prevent them, and expressions that occur in the absence of a corresponding emotion. It is restrictive enough, however, to capture occasions in which we can fail to express ourselves, despite the occurrence of *typically* expressive behaviours like smiles and frowns.

The issues with the primary quality accounts of expression provided us with a *prima facie* reason to shift our analysis to a secondary quality account. In this way, we moved from a focus on the expressive individual and their behaviour, to focus instead on the perceptual responses of others. In turn, this shift from the individual to the other has rendered an account that accurately identifies *which* of our behaviours express emotion.

5. Conclusion

I have argued that expression is best understood on a secondary quality account. In particular, I have argued for a dispositional analysis. On this account, what it is to be expressive is for some behaviour to be disposed to look expressive to normal observers under normal conditions.

The dispositional account of expression, as I have presented it, is visuo-centric. In talking about how something looks, I limit the account to visual perception. This was the result of an analogy with colour, which is the subject of visual perception only. The expression of emotion is not just a visual phenomenon, but a perceptual one more generally. We can hear the expression of emotion in someone's voice, and perhaps even sometimes smell and touch it. Going forward, we can capture this with a slight adjustment to our account. We can say that what it is for an agent's behaviour to be

expressive of emotion is for it to be disposed to be perceived as expressive of emotion by normal perceivers under normal conditions.

Chapter 4

Expressions of emotion as perceptual media

We saw in Chapter 1 that expressions of emotion pose a serious challenge to the phenomenologically appealing view that we perceive other people's emotions directly. If we must perceive expressions in order to perceive emotions, then it is only ever the expressions that we are directly aware of, not emotions themselves. This Chapter develops a new response to this challenge by drawing an analogy between expressions of emotion and perceptual media. It is through illumination and sound, the paradigmatic examples of perceptual media, that we can see and hear objects around us. Instead of screening these objects from view, however, they enable our perception while being transparent to us. With reference to perceptual constancy and transparency, I show how expressions show up in our experience of emotions in a surprisingly similar way. Given this, we can understand expressions as the media *through* which we perceive emotions and overcome the above challenge to an otherwise attractive view.

1. Introduction

An attractively simple answer to the question of how we know the emotions of others is the direct perceptual model, which says that not only do we have knowledge of others' emotions, but we have it through the perception of those very emotions themselves. In most cases, this is based on an analogy with how we perceive ordinary objects and their properties.

This view finds support in the phenomenological tradition:

But that 'experiences occur [in other people] is given for us *in* expressive phenomena – again, not by inference, but directly, as a sort of primary 'perception'. It is *in* the blush that we perceive shame, *in* the laughter joy. (Scheler, 2008, 260)

The spirit and the soul shine through the human eye, through a man's face, flesh, skin, through his whole figure…the inner shines in the outer and makes itself known through the outer. (Hegel, 1835, 20)

When I "see" shame "in" blushing, irritation in the furrowed brow, anger in the clenched fist, this is a still different phenomenon than when I look at the foreign living body's level of sensation or perceive the other individual's sensations and feelings of life with him. In the latter case, I comprehend one with the other. In the former case I see the one through the other. In the new phenomenon what is psychic is not only co-perceived with what is bodily but expressed through it. (Stein, 1964, 75-76

A recent challenge to the direct perception of emotion comes about through reflection on expressions of emotion. If we only ever perceive emotions by first perceiving expressions, then the perception of emotion is at best indirect. To remind ourselves, here is a recent statement of the challenge:

In particular, [proponents of the perception of emotion] must claim that one can perceive an emotion in virtue of perceiving its expression, despite the fact that these are not identical. That is to say that there is a sense in which the perception of others' emotions must be indirect. One sees someone's fear in virtue of seeing their facial or other bodily expression. (Smith, 2017, 134)

So, the worry goes, while we may perceive emotions, such perception is disanalogous to paradigmatic cases of perception, since we perceive emotions via expressions. In comparison, we do not typically perceive a physical object by first perceiving something else. I have called this the asymmetry objection.

This chapter develops a response to the asymmetry objection. In particular, I argue that it rests on a particular assumption about the epistemic role played by expressions in our perception of emotion. The contemporary literature offers two options for how to understand the epistemological role played by expressions. First, we can think of expressions as evidence – evidence for our taking other people to be in particular emotional states. We see the speaker's shaking hands and come to know that they are nervous on the basis of this evidence. This may come about through, for instance, some sort of post-perceptual inference.

While perceptual accounts of our knowledge of others' emotions do not always rule out the expressions-as-evidence view (see (Cassam, 2007), they deny that we gain knowledge of emotions by perceiving emotions themselves. As such, the evidence view of expressions is incompatible with our target view.

The second option is implicit in the quotation above from Smith. Here, expressions are assumed to be perceptual intermediaries – things by which we perceive other things. Perceptual intermediaries mediate our awareness of other things by being that with which we are directly aware. This direct awareness of the perceptual intermediary somehow affords us indirect perceptual awareness of the object it mediates. The indirect realist with respect to other minds holds that emotions are only ever perceived by perceiving expressions, just as some claim that we are only ever aware of physical objects by being aware of sense-data.

But while seeing something by seeing something else can capture the intuition that our knowledge of others' emotions is in some sense perceptual, it does not capture what's going on in the phenomenological remarks made above. To see something by seeing something else is importantly different to seeing something in or through something else. In the former, we perceive two things: the perceptual

intermediary and the object it affords us perceptual awareness of. In the latter, we directly perceive the object of our awareness in or through something that is transparent to us. As such, neither the evidence view nor the perceptual intermediaries view of expressions seem to capture the phenomenologically motivated idea that we directly perceive emotions.

I present a new solution to the asymmetry objection by considering a third option, inspired by Fritz Heider's classic work *The Psychology of Interpersonal Relations* (Heider, 1958). This is that we can understand expressions to play an analogous role to perceptual media.

Illumination and sound are examples of perceptual media. They enable perception such that without illumination (or light), we would not be able to see the colour of the fox at the end of the road, and without sound, we would not be able to hear its activities. Crucially, we see and hear things through or in perceptual media. As will be spelled out later, in our perceptual experience of objects through media, media may contribute to our perceptual awareness, but they are not the objects of it.

Understood in this way, expressions can aid the perception of emotion in a way that is compatible with the direct perception model. In what follows, I draw an analogy between expressions and the paradigmatic examples of perceptual media: sound and illumination. By this account, we can capture the intuition that we see emotions in the expressions of others, without having to suggest an asymmetry between this and paradigmatic cases of perceptual knowledge.

Before proceeding, one important clarification should be made in order to distinguish this solution from some nearby alternatives. This is that the following solution supports the direct perception of emotion by analogy with object perception. This is not the only way we could go in defending the direct perceptual model. For example, García Rodríguez has recently argued that we should interpret the direct perception theorist's claim that we see emotions in expressions as a form of Gestalt perception (García Rodríguez, 2021). An example of perceiving a Gestalt is when we perceive either a duck's beak or rabbit's ears in the famous duck-rabbit ambiguous

drawing. We cannot perceive either without perceiving the lines in front of us as a total and in context; if we see a duck's beak, our perception of it is direct and complete. Being aware of an emotion in an expression is like being aware of the duck's beak in the drawing's lines.

Another alternative perceptual model that could rescue the direct perception theorist is Richard Wollheim's seeing-in.[24] Here, seeing-in describes a kind of perception appropriate to artistic representations, where we have a twofold experience of medium and object – the medium being the picture, the object being that which is represented in it (Wollheim, 2015). The distinctive phenomenology of this kind of seeing is of a dual awareness of both things, where neither is more directly perceived than the other. If our perception of emotion is like this, we can explain the directness by analogy with representational seeing.

Both solutions provide interesting avenues for the perception of emotion theorist to follow. They are distinct, however, from the solution put forth in this paper, since neither offer an account of the direct perception of emotion on the model of our perception of ordinary objects.[25] There are two main reasons I provide a solution on the model of object perception. Firstly, it is what the critics of the direct perception model have in mind. Take the McNeill quote above: 'And this suggests a level of perceptual indirectness that does not intuitively hold between us and common objects or their colours.' There is value, therefore, in meeting this objection on its own terms. Secondly, many of the historical motivators in phenomenology have analogies with ordinary objects in mind when they defend the perception of emotion. Take Nathalie Duddington's opener in her paper on other minds: 'our knowledge of other minds is as direct and immediate as our knowledge of physical things' (Duddington, 1918). The way I have framed the above objection is as a threat to this symmetry and it is worthwhile, therefore, exploring a solution that addresses this.

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[24] Thank you to an anonymous reviewer for suggesting this.
[25] This has its own advantages, see García Rodríguez (2021).

With this in mind, the plan for the rest of the chapter is as follows. In §2 I introduce the phenomenon of perceptual media in more detail and draw out three key features of media: their variation, their role in perceptual constancy and their transparency. In §3 I introduce expressions, and in §4, §5 and §6 I draw an analogy between expressions and media with respect to expressive variation, emotion constancy and expressive transparency. I conclude in §7.

2. Perceptual Media

Imagine seeing a fox on the road outside your window. We may ask how we can see the fox's reddish colour, given that it lies some distance away from us. This is a question about how the fox can causally affect us. We may answer by positing various physical media: the particles in the air, the window, one's eyes, and so on. In different situations, the physical media that enable one's perception may change. Imagine snorkelling in the sea and seeing some reddish coral. In this case, the water mediates your perception of the coral's colour where it didn't with the fox's.[26]

Perceptual media are distinct from these physical media. Instead of answering a causal question, they answer the question of how it is that things are perceptually accessible to us. The propagation of light waves (the illumination) is what enables us to have a visual experience of the fox and the coral. In auditory perception, it is the patterned disturbance to the medium between us and a source (the sound) that enables us to hear the activities of objects. Without illumination, we would be unable to see most things, without sound, we would be unable to hear most things.[27]

This is not yet enough to distinguish the phenomena fully. So far, perceptual media are understood as being enablers of perception such that, without them, things generally wouldn't be seen or heard.[28] But this is also true of certain physical media

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[26] For discussion of physical media, see Heider (1958) and (Mizrahi, 2019, 2020).

[27] Note that this assumes an account of hearing in which the objects of auditory perception are sources of sounds, rather than sounds themselves. For a defence of this picture, see (Nudds, 2009) and (Leddington, 2014).

[28] Note that this claim is modality specific. We can of course hear things without illumination and see things without sound.

like one's eyes and ears. The following three features will help to refine the phenomenon further. They are important to have in view before the analogy with expressions is drawn.

2.1.   Variation in media

We can distinguish differences in how illumination appears according to hue, saturation and brightness. Imagine watching a live concert. The spotlight on the singer is brighter than the surrounding light, which is atmospherically dim. This, of course, is useful in highlighting the singer. The backdrop is being lit with a slight blue hue, while the fire exist on either side of the stage are lit up in red so that they are easy to locate.

Sound, too, can vary according to volume, pitch, timbre and tone. This can sometimes be due to differences in the sources of sound; drums produce different sounds to violins. It can also be contingent on the surroundings. The density of the material in which the sound wave inheres will affect its form, and this is why the same object or event can sound different in different spaces. The same speech will be louder in a room with good acoustics. This raises an interesting feature of perceptual media: we can choose the way in which perceptual media present objects by adjusting our surrounding materials. We pick particular sources of light depending on how we want things to look, and we move to different rooms depending on how we want them to sound.[29]

2.2.   Perceptual constancy

Perceptual media play a particular role in the phenomenon of perceptual constancy.[30] Let's take visual perception first. It is not the case that illumination remains constant

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[29] See (Mizrahi, 2020) for emphasis on the role of choice in perceptual media.
[30] Not all cases of perceptual constancy involve the phenomenal presence of media. Instances of size and shape constancy need not invoke an illuminant, nor do some instances of colour constancy involving colour contrast against varying backgrounds. The discussion here is therefore limited to cases of perceptual constancy in which perceptual media feature in our awareness as part of the phenomenon.

throughout all our experiences. Imagine reading a paper, under a lamp, in a room dimly lit by an overhead light. Here, we have two illuminants, the lamp and overhead light, with the overall effect of variation in the illumination before us. The top of the paper closest to the lamp is brightest, whilst the other side falls under shadow.

The variation in the medium, however, is not necessarily mirrored in the perceived colour. There is a sense in which the whiteness of the paper remains fairly uniform, despite the change in brightness. As Heider puts it, 'the color of an object appears surprisingly little influenced. In other words, perception of the object remains fairly constant in spite of the enormous variation in the proximal stimuli which mediate it' (Heider, 1958, 28).

Nonetheless, the colour appearance does admit of some change. The apparent whiteness of the paper appears in different shades as one's eyes travel down the page. As such, there is some variation in the way the colour appears. We still take there to be one associated colour, but under the two sources of illumination, we have a dual experience of the paper's colour as stable yet changing (Hilbert, 2005).

What we can take from this is that a change to perceptual medium sometimes invokes a phenomenon of both change and stability, where the object's colour looks the same, despite differences in colour appearance.

We get something similar in auditory perception:

So consider approaching a continuous source of sound, such as a waterfall. The waterfall, heard from different distances, sounds different. Heard from afar, the waterfall sounds quieter than it does when heard from nearby. As the perceiver approaches the waterfall, the sound of the waterfall increases in volume. But throughout the perceiver's approach, the perceiver heard the constant flowing of the waterfall. The flowing of the waterfall is not experienced as getting louder so much as the perceiver is getting in a better position to hear just how loud the waterfall really is. (Kalderon, 2017, 130)

Here we have variation in the sound as the perceiver's position changes, whilst the object of perception remains stable. The waterfall seems to be flowing at a constant volume, and yet we have a sense of change with regard to its auditory appearance. Likewise, imagine that someone is shouting down the phone at you. This makes you hold the phone a little further away from your ear. Once you do this, you still hear them shouting just as loudly as they were before, but at the same time, it's quieter from your adjusted position. This experience of change and stability in the way the shouting is heard is accompanied by a change to the perceptual medium; you are aware of the sound's volume change.

In both of these instances of perceptual constancy, visual and auditory, we find we experience three things when perceiving an object. Firstly, we experience the constancy of the object, secondly, we experience variation in how that object appears or is heard, and thirdly, we experience this through a changing perceptual medium.

2.3.   Transparency

Perceptual media are transparent. This means that they are perceptually penetrable, such that we see through or in them. Transparent things include air, water, glass and crystals. Recent discussions of media appeal to Aristotle's notion of transparency (Kalderon, 2007; Mizrahi, 2019).

> Now there is clearly something which is transparent, and by "transparent" I mean, what is visible, and yet not visible in itself, but rather owing its visibility to the colour of something else; of this character are air, water, and many solid bodies. (De Anima II, 7, transl. J.A. Smith)

Transparent things can in some sense be perceived – but if they are, their visible character is owed to the things seen through them. If we look out of our window on a

clear day, the window may be a part of our experience, but its blueness can be attributed to the sky that is seen through it.

A very transparent medium is phenomenologically significant in the following way. It contributes to the character of the experience by being the perspective – the way in which – the object is seen or heard. We are aware of the medium, but only in the background of our experience. Take, again, our waterfall:

Hearing the sound of the waterfall, from a given auditory perspective, may be implicit, it may be recessive and in the background, so that it does not compete for attentive resources directed towards the flowing of the waterfall, but it contributes to the conscious character of the perceiver's auditory experience by being the way in which the distal process is presented in that experience. (Kalderon, 2017, 130)

Crucially, however, transparency comes in degrees. An immaculately clean window has a higher transparency than one covered in dirt. When the window is highly transparent, it features less in one's experience. It may be so clean that one isn't aware of it being there at all (and walks right into it on the way outside). The dirty window is less transparent and intrudes into one's experience more.

So, too, for perceptual media. Sounds can be recessive and in the background of our experience. When we listen to someone talk we are often only aware of the sound of their voice in the background of our experience – for the most part, we're just aware of what they're saying. However, we may find the sound of their voice particularly grating and lose track of what they're saying altogether as the medium intrudes into our experience. In this way, the medium becomes less transparent, and performs less well in its role.

Illumination, too, can be a better or worse medium depending on its level of transparency. On a foggy day, it will be less transparent; going on a walk on a foggy day makes the things in one's environment harder to discern.

These cases bring out a crucial feature of perceptual media which is that as their transparency decreases, as does our perceptual access to objects perceived through them (Kalderon, 2017, 159).

3. Expressions of emotion

Rather than give an account of emotional expression here, I will focus on expressions on a case by case basis.[31] I will take for granted that there are certain behaviours and changes to the surfaces of our bodies that at least some of us recognise as emotional expressions. Wrinkling one's nose in disgust, sighing with relief, cheering with happiness, and frowning in disappointment, are just some of the things we tend to describe.

I will, however, make two assumptions about expressions. Firstly, expressions are not identical to emotions. Sadness may be expressed through tears, but it is not itself merely tears. This assumption is shared between proponents of emotion perception and opponents of the view – since if there were no distinction here and to perceive tears just is to perceive sadness, direct emotion perception would be uncontroversial.

Secondly, emotions must be expressed to be perceptible. This is the first point of analogy with perceptual media. Just as one's ability to visually make out their car in the dark depends on at least some degree of light, one's ability to make out someone's emotion depends on at least some degree of expression. Expressions, like media, are necessary for the perception of that which they mediate.

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[31] How we should delineate emotional expression is contested; see (Green, 2007) for a prominent recent account. In addition, much of the research into expressions in psychology has centred around the debate over whether expressions, or some number of them, are universally recognised. For work in support of this view, see (Ekman, 1992; Ekman et al., 1969; Ekman & Friesen, 1976; Izard, 1971). More recently, many psychologists have denied this claim, offering evidence for the cross-cultural variation in our recognition of expressions; see (Barrett et al., 2019; Jack, 2016; Jack et al., 2012).

4. Expressive variation

Above I describe illumination and sound to vary according to things like brightness, hue, volume and tone, resulting in a variety of different forms. The bright green light from a lamp and the sound of bird song are particular forms of illumination and sound.

Expressions are similarly varied. We express our discontent with a sigh, a huff, a frown, a squint, clasped hands, shaking heads, grimaces or grumbles. We do these things themselves in different ways; each person's frown looks slightly different. As with illumination and sound, these differences are dependent on their sources. That is, different people produce different expressions. In part, this is because we have different faces. But, moreover, there are differences in the ways in which we choose to express ourselves. While one person is prone to a grimace, the other more often grumbles.

Additionally, we find expressive variation to be contingent upon our surroundings, in much the same way as illumination and sound. The same joke, told at work and at home, is likely to elicit two distinct expressive responses – we often need to emphasise our expressions in certain settings, as per certain social conventions, in ways we wouldn't in our own homes. This emphasis on context when it comes to expressions is supported by a vast array of recent empirical research which highlights how context influences both the production of expression and its perception by others (Barrett et al., 2019).

We can also see the influence of choice when it comes to expression. Just as we choose particular sources of light in order to see things in a certain way, such as shifting the spotlight on stage so as to emphasise the actor, we can manipulate our expressions in order to emphasise some feelings over others.

This control shouldn't be overstated. Our expressions often give us away despite our best efforts. We often find ourselves unable to exert full control over our expressions, and thus unable to determine the aspects of our emotional lives that others have access to. However, this limitation is also true of our control with regards

to illumination and sound. While we can sometimes manipulate them for perceptual purposes, this isn't always the case. For instance, despite the efforts of conference organisers, we sometimes find ourselves in rooms where the acoustics make it impossible to hear the speaker from the back of the room. And we certainly cannot do much about the light on a gloomy day as we try and fail to see our surroundings.

In sum, the above features of expressive variation demonstrate commonality with the variation in perceptual media. They come in a variety of forms; such variety is dependent on differences sources and surroundings; they are liable to manipulation; and such manipulation serves to alter what we have perceptual access to.

5. Emotion constancy

Earlier, we saw that variation in perceptual media is not always straightforwardly tracked in our identification of what is seen through them. Strikingly, our awareness of others' emotions exhibits constancy in much the same way as colours do (McNeill, 2019). Heider draws out this connection as follows:

> The term constancy phenomenon is usually applied to the perception of color, brightness, size, and shape, but it is also applicable in the social perception of such crucial distal stimuli as wishes, needs, beliefs, abilities, affects, and personality traits. If we assert that "wish constancy" is possible just as there is a size, shape, or color constancy, that means we recognize a wish as being the same in spite of its being mediated by different cues. The same wish may be conveyed, for example, by an innumerable variety of word combinations, ranging from "I want that" to the lengthy and complicated reflections transmitted to the therapist in a psychoanalytic session. Or, the same wish may be conveyed by a colorful array of actions, as when a child, wanting a red wagon above all else, goes up and takes it, pushes a competing child from it, and even angrily kicks it in a fit of frustration. (Heider, 1958, 28)

Heider emphasises how we can recognise the same underlying mental states despite a range of changes occurring in the medium; that is, differences in the way such mental states are conveyed. We can appreciate this, especially, when it comes to emotional expression. Imagine Michael and Robyn both apply for the same job, but only Robyn is successful. When Michael receives the news, he cycles through a series of expressions. To begin with, he just looks at the ground, then shakes his head, gives his friend a knowing look, and finally rests his head in his hands. When Robyn happens to enter the room, Michael's expression changes again. He is gracious and congratulates her, but there's a slight pinch in his voice and a tightness to his face. Despite such variation, it seems likely that an observer would take Michael to be disappointed throughout. This is the sense in which the emotion appears constant.

Nonetheless, as with perceptual constancy, the variation does not incur a phenomenon devoid of any appearance change. The way the disappointment appears changes through the differences in expression. The disappointment clearly looks different when expressed through Michael's head in his hands to when it's expressed through a subtle tightness to his face. As such, we have a phenomenon involving variation and stability in emotion appearance, mediated by variation in expression.

As a capacity, our ability to recognise the constancy of emotions amid variation in expressions is imperfect. Sometimes, changes to expressions do alter the perception of their underlying mental states. Someone else might be totally convinced by Michael's attempts to appear entirely happy for Robyn. Through his smile they not take him to be perfectly content. This demonstrates that our capacity to recognise constancy can be greater or weaker across perceivers. We capture this in our everyday language when we observe that people can be more or less 'emotionally astute'.

Furthermore, our ability to spot steadfast emotions depends on the kinds of expressive changes in operation. We associate some expressions with some emotions more than others. Smiles and laughs usually indicate happiness, and grimaces are usually paired with disgust. These associations help us categorise what others feel. I

would have little trouble tracking my friend's happiness if they were to progress from a smile to a laugh. But, assuming they are indeed happy throughout, I might have more trouble tracking this if their smile becomes a grimace. There's a sense in which our capacity for recognising emotion constancy can be thrown off when an unexpected expression enters the mix.

These limitations to emotion constancy are similarly found in ordinary colour constancy. Colour constancy is imperfect (Hilbert, 2005). Imagine looking at a wooden table in a shop window, as the sunlight shines through, throwing half of the table into shade. You might initially be taken by the interesting design – to varnish the wood only on one side so that it takes on two different colours. However, as the light passes behind a cloud, you come to realise there is no such colour difference. The reality is merely a failure of colour constancy.

And as with emotion constancy, our ability to spot constant colours can vary across perceivers (Hardin, 1988). Lower abilities in identifying colour constancy are associated with naïve perceivers (such as children) who tend to focus on surfaces of objects, whereas those with higher abilities tend to focus on light intensities. In explaining why this may be, Hardin writes: 'A rather high degree of constancy is, in general, evolutionarily advantageous because it significantly assists the animal to reidentify objects; attention to proximal rather than distal stimulus is a sophisticated luxury' (1988, 86). Likewise, we might think that being emotionally astute is a socially advantageous luxury.

Finally, limitations on colour constancy can depend on differences in the particular perceptual medium in play. Just as we are used to certain expressions being associated with certain emotions, aiding our identification of them, we can be used to particular sources of light. I am used to the lamp emitting green light on my desk and I expect a certain change in the appearance of objects under its glow. I have no trouble seeing my purple pen as purple, despite the green hue it now appears to also have. But if I were to visit a desk which throws my purple pen under an unfamiliar blue light, I may have trouble identifying its purpleness and briefly mistake it for a different pen.

In these examples, we see emotion constancy to work in a similar way to our paradigm case of perceptual constancy. In particular, expressions occupy the same role as perceptual media: our discriminatory abilities transcend their variation and, as with perceptual media, this occurs to varying degrees.

6. Transparent expressions

In this section, I draw a further parallel between expressions and media. In order to play the same epistemological role in emotion perception as perceptual media play in paradigmatic perception, expressions need to be transparent. In the same way that we see through a sheet of glass to the cakes on display behind it, we need to see through or in expressions to the underlying mental state.

To motivate this, consider how we often invoke talk of transparency when discussing other people. What do we mean when we say, 'he's so transparent'? We usually mean that his *real* thoughts or feelings have been laid bare. More often than not, this is in spite of an intention on his part to conceal them. For instance, imagine asking the room who ate the last of the biscuits you'd been saving. Everyone adopts a nonplussed expression, but you can see through your brother's expression to his evident guilt. This seems the sort of situation in which we'd call another 'transparent'. What it's natural to take this to mean is that we can see straight through their expressions to how they are truly feeling. The fact that our language can represent expressions as transparent may at least lend some intuitive support to the suggestion.

On the other hand, the transparency of expressions may be *prima facie* strange. After all, the vehicles of expressions seem to be people's faces and bodies – expressions consist in opaque objects. And these we certainly seem to see.

However, this is also true of many uncontroversially transparent things. Windows are transparent. We see through, in, or out of them to what lies beyond. But this doesn't mean they cannot sometimes be opaque. We sometimes look at them *as windows*. For example, we might admire the windows on another person's home in

the hope of adopting the same ones for our own. Likewise, having left a concert you might be left with a ringing in your ear. The sound of ringing signifies no object beyond it, but you are forced to attend to the sound as something in its own right. Expressions, similarly, can be the sole objects of our perceptual attention. They need not always be transparent, but this fact alone is not enough to rule out that they sometimes are.

Let's remind ourselves what it is for something to be highly transparent. It is not straightforwardly that the thing isn't seen, but rather that it isn't seen in and of itself. Any perceptual character it has, it derives from the object seen through it. Furthermore, it is in the background of our awareness. Are expressions like this? Heider thinks they sometimes are:

> In social perception, too, there are some instances in which the mediating factors are very obscure, and others in which we are or can be quite cognizant of the cues for the perception of o. For instance, we may see that a person is displeased, without being able to say just what about his appearance or behavior gave us that impression. This very often is true when the cues involve the interpretation of physiognomies, gestures, the tone of voice, and similar expressive features. They often mediate personality traits, wishes, or attitudes of persons without our being able to say what the materials upon which we base our perceptions. On the other hand, there are many occasions in which we can quite precisely elucidate the mediating conditions for our perceptions of other people. Often the raw material consists of actions and reactions of the person that can be perceived in their own right and can be separated from the terminal focus. (Heider, 1958, 26)

Imagine looking at a friend and seeing that they are relieved. There's a complex array of things happening on their face that contribute to their overall expression, and in this instance, one of them happens to be a smile. If you are pushed to explain why you saw them as relieved rather than happy (as smiles standardly display) it would be very

difficult to explain without reference to the relief itself. Their smile gets its character in virtue of being a smile *of relief*.

Another reason it's difficult to explain is that, in many of our social interactions, we don't attend to the expressions of others. We interact on the basis of how others think and feel. We are wary of someone because they are angry, not merely because they are scowling. While the scowl may be part of our experience of them, it is not our 'terminal' focus. Much like with our brightly lit phone screen, where we don't so much see the brightness, but the text brightly lit, we don't so much see expressions, but rather emotions expressed.

Heider is quite right, however, to point out that the extent to which expressions feature in our experience of another's emotion varies. While I may not be attuned to another's expression in some instances, there are times when expressions come into the foreground. When someone explodes in a tirade of anger, for example, their physical behaviour can be as much a part of my experience of them as their anger is. This, however, should not surprise us given what was said above regarding how transparency comes in degrees. Illumination and sound can similarly encroach on our perceptual experiences.

That said, in the discussion of transparency above, a particular phenomenon was identified. We saw that as the medium becomes less transparent, our perceptual access to that which is mediates is weakened. In other words, the more we attend to the medium, the less we are able to perceive things through it. Is this sort of see-saw phenomenon true of expressions and emotions? At a first glance, no. One might think that the opposite is true; the more expressive one is, the more likely another is to perceive the underlying emotion. The bigger the smile, the more likely it is that you see the happiness. We tend to think of expressions as aids in our perception of emotion, rather than as distractions.

There are two lines of response here. Firstly, we might think that the see-saw phenomenon is overstated when it comes to perceptual media. It is not obvious that *all* cases of perceptual media being more obtrusive in our experience of an object

renders its perception worse off. Imagine you are trying out a new set of speakers at a friend's house. You put on a song you know well in order to investigate whether the speakers really do improve sound quality. When listening, you're more attuned than you normally would be to how it sounds. You pick up some of the subtleties that you wouldn't normally hear and conclude that the new speakers really are very good. In this case, the sound of the song is more obtrusive in your experience than it has been, but you seem to have heard the song just as well.

Children with specific language impairments are sometimes encouraged to read books under coloured lighting, so that the pages appear, say, yellow or pink. This is said to make the words stand out better on the page and are therefore easier to follow. Yet, the experience of viewing the page under these conditions can be one in which you are more aware of the light that you see through than you would otherwise be; you're aware of its distinctive yellowness. There seem to be, therefore, cases in which the increased phenomenal presence of perceptual media can enhance perception in much the same way that exuberant expressions can enhance emotion perception.

Secondly, there are situations in which expressions and emotions *do* reflect this inverse relation. Cases in which the more the expression features in one's experience of another's emotion, the less that emotion is in view. Imagine walking beside someone as they share details of an incident playing on their mind. While expressing their remorse, you are struck by the beauty of the expression and, in the process, lose touch with their remorse in favour of attending to their expressive eyes. The aesthetics of expressions can often be a distraction from what underlies them. It is perhaps telling that people often say, 'I'm an ugly crier' as a way to alleviate the emotional weight of a situation. Likewise, part of why it must be so frustrating to be told 'you're cute when you're angry' is that they've failed to focus on how you actually feel.

For another example, take the perception of someone exploding in a tirade of anger. At some point, the hail of fists coming towards you will take over your perceptual focus. In turn, you might lose sight of the anger all together (as well as everything else in your vicinity) as you focus exclusively on the fists and how to avoid

them. These cases demonstrate that, as with perceptual media, largely opaque expressions can make our perception of things worse off.

The idea defended here, that expressions are transparent, is crucial in distinguishing the epistemic role expressions play in our awareness of emotions. Perceptual intermediaries are not conceived of as transparent; our vision doesn't penetrate through them. We see their perceptible properties, and from this, we perceive other things indirectly. If expressions are transparent, then the perceptual access we are afforded to the emotions is direct. We peer through expressions, they are penetrable, and they derive their character from the emotions that shine through.

7. Conclusion

At the start of this chapter, I introduced three options for how expressions may operate in our coming to know another's emotional state. The suggestion of their being evidence, upon which we could infer the minds of others, or perceptual intermediaries, upon which we could perceive the minds of others, are both incompatible with the idea that the direct object of our awareness is another's emotion. I suggested a third option that is compatible. This is that we can think about expressions by analogy with illumination and sound, the perceptual media for vision and hearing.

By thinking about the often-neglected role of perceptual media in paradigmatic perception, we can reject the assumption that expressive mediation means that there must be an asymmetry between these paradigmatic cases and emotion perception. Perhaps the kind of mediation offered by expressions is just like that of perceptual media. I showed why this is an appealing option given the phenomenology, and as a result we can rescue the view that we directly perceive emotions whilst maintaining the significance of expressions in this process.

Chapter 5

The ontology of emotions and their parts

1. Introduction: the parthood proposal

In Chapter 1 the asymmetry objection was raised. This was an objection to the directness of our perception of emotion, on the basis that what we directly perceive are expressions rather than emotions themselves. In our ordinary perception of middle-sized objects, there is no intermediary analogous to expressions. In the previous chapter, we resisted this final claim by offering an analogous intermediary in our ordinary perception of objects in our environment: that of perceptual media.

In this chapter, we will pursue an alternative solution. In our perception of ordinary objects in our environment, our acquaintance with objects does not involve our perception of every one of their parts. In perceiving objects, we often perceive only the facing surfaces of those objects (Broad, 1952; Clarke, 1965; Snowdon, 1992). Perhaps our perception of emotion is no more mysterious than this. We perceive expressions, expressions are parts of emotions, and thus we perceive emotions by part-whole perception. We can call this the parthood proposal: we perceive others' emotions by perceiving their visible parts (their expressions).[32]

Given disagreement over whether the perception of objects via their parts renders such perception indirect, it is useful to refer back to the hierarchy of perception laid out in Chapter 1. Expressions, if parts of emotions, would occupy the same position

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[32] Recent proponents include (Green, 2010; Green, 2007; Krueger & Overgaard, 2012; R. Stout, 2010)

as parts of objects. If they are indirectly perceived, then such perception is only indirect in the same sense as our perception of ordinary objects. The symmetry, with respect to our perceptual access, between emotions and ordinary objects is thus saved and the asymmetry objection answered. This should satisfy the proponent of the direct perception of emotion, at least on the interpretation of their proposal that I have been endorsing. On this interpretation, what matters is symmetry rather than all-out directness.

In what follows I explain and rebut a recent objection given by both Smith (2017) and Parrott (2017) to the claim that we perceive emotions by perceiving their visible parts. This is that emotions and expressions are of different ontological kinds and as such the latter cannot be part of the former. In §3 I spell this out. The ontology of a thing is sometimes characterised in terms of how that thing exists in time or occupies time. We can distinguish states, events and processes as three categories that describe how things move in or through time differently. The question with regards to the ontology of emotions and expressions is which of these categories best captures how emotions and expressions move through time.

On one particular interpretation of the temporal nature of states, events and processes, it is understood that states cannot have processes or events as parts (Steward, 1997). Smith contends that since emotions are states and expressions are either processes or events, the latter cannot be part of the former.

Within this set-up of the issue, there are at least two options to pursue in order to rebut this objection. One option is to deny that emotions and expressions are of different ontological kinds. I pursue arguments relating to this in §4, §5 and §6. A second option is to deny that states cannot have things like processes and events as constituents, for which I argue in §7.

Finally, in §8 I propose a third alternative and argue for a plural ontology for emotions. Rather than arguing that emotions are states or occurrences, we can understand them to be either – emotions are ontologically complex.

As a result, while there may be a number of other reasons to deny that we perceive emotions by part-whole perception, I demonstrate that it is too quick to deny this on the basis that the temporal profiles of expressions and emotions prevent their being part-whole related in the first place.

2. Componentialism and characteristic components

The parthood proposal tells us that we can perceive others' emotions by perceiving parts of those emotions. The relevant parts are expressions. This assumes that the following is true:

<u>Componentialism</u>

Emotions are constituted by a number of components and expressions can be among those components.

Why is Componentialism attractive? Imagine Tony has planned to play tennis today. He arrives at the court and realises he's left his new racket at home and brought his old racket (which needs to be re-strung). He believes that he will surely lose the match now. Upon seeing the old racket, he scowls and starts to feel his face getting hot as he goes red. His doubles partner arrives and sees that Tony has a face of thunder. Tony is angry with himself for making the mistake. The componentialist can consider each aspect of this story as constitutive of Tony's anger.

This sort of component view of emotions is advantageous because it does not require us to pick one part of the phenomena and give it a privileged status – we do not have to locate the component that is essential to Tony's anger. This strategy would be vulnerable to counter-examples. Let's say we decide that Tony's scowl is the essential component of the emotion and so we identify the emotion with that particular part. But Tony has been and will be angry on many occasions in which he doesn't scowl – in fact, if there had been lots of people around at the tennis court, he

would have self-consciously held back. Tony's anger can exist without a scowl, so scowling cannot be essential to it. We could find similar counterexamples for the other components, were we to identify any of those with the emotion.[33]

On the componential account, we need not take any one component, or any particular groupings of components, to be essential to the emotion. We can say very generally that when emotions are experienced they consist in a range of different things. As discussed in Chapter 2, accounts in the literature on emotions vary somewhat in describing the typical components of emotions. Goldie typifies them as involving the following:

> An emotion is a complex in that it will typically involve many different elements: it involves episodes of emotional experience, including perceptions, thoughts, and feelings of various kinds, and bodily changes of various kinds; and it involves dispositions, including dispositions to experience further emotional episodes, to have further thoughts and feelings, and to behave in certain ways. (Goldie, 2000b, 12-13)

Similarly, Scherer gives a component model where emotions are episodes of 'interrelated, synchronised changes in the states of all or most of the five organismic subsystems in response to the evaluation of an external or internal stimulus event as relevant to the major concerns of the organism' (Scherer, 2005). The five key elements involved in his characterisation of the component view are: the cognitive component (some appraisal of an eliciting event relevant to the concerns of the subject of the emotional experience), the neurophysiological component (bodily symptoms/bodily changes), the motivational component (certain action tendencies), the motor expression component (facial and vocal expression), and the subjective feeling component (the emotional experience).

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[33] See Russell (2016) for an account of why no component is necessary for determining that particular emotion is occurring – one person's experience of anger may involve entirely different features to another's.

Both of these accounts take emotions to come in parts and, at least in Scherer's account, expressions are among those parts. My discussion does not rely on any one particular picture of what constitutes emotions. But, if accounts of this kind are going to work, then we need to see how it is possible that something like a scowl can be partly constitutive of anger.

A componential approach underlies the account of one of the leading proponents of the parthood proposal. Green starts with the contention that basic emotions like anger and sadness are comprised of an interrelated set of phenomena. For Green, these are: psychological responses, cognitive processes, subjective feelings, behavioural dispositions and certain facial expressions (Green, 2010, 50). Given this, he argues that the way in which we know that another is sad is structurally similar to how we know that there is an apple in front of us. When we see apples, we do not clap eyes on the back or middle parts of them. What is presented to us is just the facing surface of the apple. But, so long as 'normal ecological conditions' hold, we can be said to infer the existence of the apple from seeing its surface (Green, 2010, 49). Facial expressions operate as surfaces when it comes to emotion perception – we perceive emotions by perceiving the component that is visually available to us.

The normal ecological conditions stipulation just ensures that this takes place in a world in which apples look like apples. The reference to inference that Green has in mind here is distinct from the sort of inference involved in certain non-perceptual accounts of how we know things. Green likens it to a filling-in phenomenon, as opposed to a transition from one proposition to another. This unconscious and spatial kind of perceptual inference is used in illusions like the Kanisza Triangle – a number of disks and lines are presented in such a position that we perceive two triangles in the image, despite these triangles not being present. Our perception of the triangles is immediate and involves no seeming inference.

Green's is an account of perceptual *knowledge*, distinguishing it from our purposes. In this thesis, my aim is to explain how emotions are perceived, and whether they are perceived in an analogous way to ordinary things in our environment. My aim

falls short of explaining how this guarantees us knowledge about the things we perceive. Nonetheless, a debate between Green (2010, 2007) and Stout (2010) raises an interesting question. The contention that we know that there is an emotion present based on seeing a part requires us to say more about the part seen. Take Green's apples, for example. We cannot see just any part of the apple in order to guarantee us knowledge that there is an apple there. We might perceive just the stalk of an apple, and one that's an irregular shape and colour. From our perception of this alone, we might in fact see an apple, but we do not know that we have seen it. To be able to know that there is an apple there, by seeing part of it, we need to see a particular kind of part. We need to see a surface of an apple that is characteristic of apples. Under normal conditions, this particular look of the surface of an apple means that an apple is present.

Likewise, we can know that there is an emotion present just as long as we see a part of it that is its 'characteristic component' (Green, 2007, 87). Characteristic components of things are parts that, if seen, enable one to perceive the whole. For Green, certain static facial signatures – smiles, and frowns – are characteristic components of emotions.

Stout objects to this on the basis that Green's account is vulnerable to cases of pretence:

> Starting from the assumption that one can literally perceive someone's anger in their face, I argue that this would not be possible if what is perceived is a static facial signature of their anger. There is a product-process distinction in talk of facial expression, and I argue that one can see anger in someone's facial expression only if this is understood to be a process rather than a product. (Stout, 2010, 29)

Stout thinks that in order to perceive another's emotion, we need to perceive something that 'essentially involves' that emotion. Only if a facial expression is

understood as a process rather than a product can we be in a position to perceive anger on its basis. This is because parts that are just like products can be independent existences from wholes. A product does not essentially involve the thing of which it is part. As a result, Green's account is vulnerable to cases in which someone feigns an expression of some kind but is not feeling any corresponding emotion. In other words, we can have characteristic components without emotions. As such, we cannot guarantee the presence of emotion when we see these characteristic components, so seeing these characteristic components does not amount to perceiving the emotion.

For Stout, the problem is avoided if we think about processes rather than products. Take a sunburn, for example. We cannot know, by looking at a patch of red skin on a person, that it is a sunburn; after all, it could have been caused by something else. But watching a person go through the process of burning in the sun does give us the kind of guarantee we are after. By watching this process unfold, we cannot be mistaken about what is going on. The same can be said for emotions, according to Stout. The component that we see must be a process – the development of an expression – rather than a mere static facial expression (Stout, 2010, 35).

This proposal seems vulnerable to the kind of sceptical challenge it ventures to answer. If one is worried about the possibility that others are feigning static facial signatures, one might worry that they can also feign expressions under development. This is a problem special to the emotion case and not the sunburn case. Watching someone burn in the sun *just is* watching sunburn unfold. Stout has not given us a story that explains why watching some expression under development *just is* watching their emotion.

I leave this debate aside for now since my concerns are neither in securing knowledge nor responding to sceptical challenges. What the debate does do, however, is introduce an interesting distinction that can be made concerning what kind of things emotions and their parts are. For Stout, expressions (the parts of emotions we can see) must be dynamic processes rather than static products in order for the parthood proposal to get going. Discussions like this, at the level of ontology, will concern us for

the remainder of the chapter. In particular, focusing on the ontology of emotions and their expressions has been utilised as a major roadblock for arguments for the perceptibility of emotions.

3. The ontological objection

3.1. The objection and key terms

One reason to deny Componentialism that has been recently pursued in the literature on the question of the perceptibility of others' emotions is that if we think about the ontology of emotions and expressions we run into trouble. Parrott and Smith both raise this issue:

> the temporal character of expressive behaviour is not obviously of the right kind for it to be a proper part of a mental state (Parrott, 2017, 1409)

> The following line of argument can be mounted against the part-whole view: if something is part of a static entity, it is itself static. Emotions are static. Expressions, however, are not static, but dynamic. It follows that componentialism is false; expressions are not parts of emotions. (Smith, 2017, 137)

Each of these remarks makes reference to a particular kind of ontological distinction, one that has to do with an entity's temporal behaviour. Smith, in particular, references the difference between static and dynamic entities. These categories represent distinct ways that things can move through time. A static entity is one that exists over time as 'wholly present', while a dynamic entity is one that unfolds throughout a period of time and, unlike static entities, has temporal parts.[34] These groupings follow a series of

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[34] We can understand something's being 'wholly present' as its being homogeneous down to its instants. Something is homogeneous down to its instants if by predicating that it happened across a particular period of

distinctions philosophers have made between verb-types (Kenny, 1963; Mourelatos, 1978; Vendler, 1957). A brief taxonomy of terms will be helpful going forward:

Dynamic entities (occurrences)

Events

$\Rightarrow$ Accomplishments (walking to the shops, writing a poem)

$\Rightarrow$ Achievements (summiting a mountain, starting the race)

Processes

$\Rightarrow$ Activities (walking, writing, running)

Following Steward (Steward, 1997), we can understand dynamic entities as occurrences – things that occur in time. They do not exist in their entirety at any one time but unfold in time and in most cases over the course of distinct temporal parts. Vendler (1957) distinguished three dynamic verb-types: accomplishments, achievements and activities. Roughly, accomplishment verbs capture things that progress towards some terminal point, achievement verbs capture the point of completion of an accomplishment or the starting point. Activities are distinct in that, while they occur, they do not imply movement towards some terminal point, nor are they an instantaneous point like achievements.

For the most part, I will follow (Kenny, 1963) and (Mourelatos, 1978) in simplifying accomplishments and achievements into one category (Kenny and Mourelatos call this category 'performances'). Moreover, Mourelatos identifies the connection between these verb categories and more general ontological distinctions. Events are the topic-neutral category to which performances belong. Events are topic neutral in the sense that they do not imply the involvement of an agent. Performances

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time, one entails that it happened at any point within that time (Rothstein, 2004). If Tony believes he will lose the match for the first 30 minutes, then he believes he will lose the match in the first minute, in the second minute, and so on.

are a particular kind of event, an event that an agent does (Mourelatos, 1978). Processes are the topic-neutral category to which activities belong.

Static entities (continuants)

States

⇒ States (knowing, believing)

Static entities are like physical objects in how they move through time – they exist as wholly present and do not contain temporal parts. Both kinds of entities are therefore understood as continuants (Steward, 1997). Vendler identified one static verb-type: states such as knowing, believing, and loving. These belong to the topic-neutral grouping of the same name (Mourelatos, 1978).

To focus on the ontological objection as it has been raised, I will focus in this chapter just on the distinction between static and dynamic entities, between stative verbs and occurrence verbs. Until the next chapter, I will mostly ignore the nuance within the occurrence category and the distinction between events and processes. With these definitions in mind, we can spell out Smith's argument more explicitly:

(1) If something is a part of a static entity, it is itself static

(2) Emotions are static

(3) Expressions are not static, they are dynamic

(4) So, expressions are not part of emotions

Smith contends that emotions are states and therefore obtain over time as wholly present. Expressions are occurrences and therefore exist through time and have temporal parts. An occurrence cannot be part of a state, since if it were a part of a state it would also obtain over time as wholly present (and would not occur). In what follows

I put pressure on each of *(1)*, *(2)* and *(3)*, starting with a discussion of whether it must be the case that emotions are states rather than occurrences.

3.2.   Two assumptions

To raise the ontological objection in its strongest form, I have made two assumptions. The objection rests on an endurantist picture of how things persist in time. Endurantism is the view that objects or things like tables, houses, and mountains have spatial parts but not temporal parts. They endure through time as wholly present whenever they exist. (In support of endurantism, see: Chisholm, 1976; Fine, 2006; Geach, 1967; Haslanger, 1989; Mellor, 1981; Simons, 1987; Thomson, 1965, 1983).

Perdurantism, however, takes these objects to have both spatial and temporal parts – they unfold, or perdure, through time and do not exist in their entirety at any point within this time. (In support of perdurantism, see: Armstrong, 1980; Lewis, 1986; Lewis, 1971, 1976; Noonan, 1980; Quine, 1950; Taylor, 1955).

Most endurantists concede that occurrences like events have temporal parts, while objects do not. Perdurantists do not draw this distinction. For them, all things have temporal parts. Therefore, a perdurantist about persistence would not admit the contrast that is relevant to the ontological objection – if states were the ontological parallel of objects like tables, they too would purdure through time across successive temporal stages. As such, for the ontological objection to get going, we must endorse an endurantist picture.

The second assumption relates to those that accept the distinction between things that persist as wholly present and things that have temporal parts, yet suggest that some occurrences fall into the former category. Stout argues that, unlike events, we cannot naturally carve processes into temporal parts. We naturally think about events in terms of different stages – their beginnings and endings – but this is not so for processes. Understanding processes as things that take the imperfective aspect (things that are/were/will be happening), he notes 'There is something absurd about

saying that at any one time while something is happening only part of what is happening is present. What is happening at any moment during a process is the whole process, not just part of it' (Stout, 1997, 25). As such, processes obtain over time as states and physical objects do, as wholly present whenever they exist.[35]

Premises *(1)-(4)* will not make sense under perdurantism, since they would deny the relevant distinction between dynamic and static, and premise *(3)* might be in trouble under an account of processes as static, depending on whether arguments for the dynamic nature of expressions rely on connections drawn between expressions and processes. I will sideline these alternative means of responding to the ontological objection and go on to suggest that even if we assume an endurantist framework and that processes have temporal parts, the ontological objection can still be resisted and the parthood proposal defended.

4. Emotions: states or occurrences? The linguistic evidence

Premises *(2)* and *(3)* claim that emotions are static entities and expressions are dynamic entities. But how can this be determined? Smith follows Vendler (1957), Kenny (1963) and Mourelatos (1978) in distinguishing different ontological categories based on how various verbs operate. There are distinctive ways that stative verbs like *believe* and *know* operate in contrast to occurrence (process/event) verbs like *run*. If we assume that a stative verb picks out a static entity, a state, and that an occurrence verb picks out a dynamic entity, like a process or event, then by identifying which camp emotion verbs fall into we are on our way to determining what kind of ontological entity emotions might be. By emotion verbs, I mean verbal expressions such as 'being sad' and 'being happy'. There may be other ways in which we can express emotions in verb

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[35] For others who think processes are more like continuants than occurrences, see (Charles, 2018; Galton & Mizoguchi, 2009). For an alternative way to disrupt the distinctions drawn above, Soteriou argues that some states, whose obtaining depends on an occurrence which takes time, are not homogeneous down to their instants (Soteriou, 2010).

form – expressions like 'grieve', 'rejoice' and 'burst with pride' – which sound naturally less stative. For the sake of argument, I focus on the former examples.

Three key linguistic tests seemingly conform to premise *(2)* - that emotions are states. Firstly, stative verbs do not take the continuous tense, whereas occurrence verbs do (Vendler, 1957, 144). Emotions like anger linguistically conform with occurrences here. When asked the question of what Tony is currently doing, we get the following results:

Tony is *knowing* he will lose (stative verb)

Tony is *playing tennis* (occurrence verb)

Tony is *being angry* (emotion verb)

As is clear, only the occurrence verbs happily find a continuous present tense form here. Secondly, stative verbs do not serve as infinitival complements of perception verbs and nor do emotion verbs, whereas occurrence verbs do (Maienborn, 2005).

I saw Tony *knowing* he will lose (stative verb)

I saw Tony *playing tennis* (occurrence verb)

I saw Tony *being happy* (emotion verb)

Again, it is clear that whilst it works to say that I saw Tony playing tennis, the other two examples sound strange. However, it might be wondered whether the reason that 'I saw Tony being happy' sounds wrong may be down to the fact that, as we saw from

the previous case, emotion verbs do not seem to possess the continuous tense. So it could be because 'being happy' sounds wrong that 'I saw Tony being happy' sounds wrong.

Thirdly, Maienborn (2005, 297-298) observes that a difference between stative verbs and verbs that signify occurrences is that adding the phrase 'a little bit' to sentences involving each presents distinct kinds of modification. Adding an emotion verb into the mix shows emotion verbs to be akin to stative verbs in this way.

Tony *knew a little bit* about tennis (stative verb)

Tony *played tennis a little bit* (occurrence verb)

Tony was *a little bit angry* (emotion verb)

With the first sentence, changing 'Tony knew about tennis' to 'Tony knew a little bit about tennis' modifies the *degree* to which Tony knows about tennis. We can take it that he knows a small amount about said topic. The sentence containing the emotion verb is like this also – we learn that there was a small amount of anger present. The process verb operates differently; the sentence can be read as being modified both in terms of degree and in terms of *duration*. It makes sense to think of Tony's tennis playing as being modified in terms of degree here – perhaps understood as playing with less effort or less engagement than usual. The more obvious reading, however, is that the tennis playing went on for a short period of time. It expresses that the tennis playing went on *for* a little bit.

One final linguistic test seems to work the other way – where emotion verbs are more akin to occurrence verbs than to stative verbs. This test again takes inspiration from Maienborn (2005, 295) who points out that stative verbs do not work well with adverbials. Whereas, looking at occurrence and emotion verbs show that they both do.

Tony knew *wisely* that he would not win   (stative verb)

Tony *speedily* played tennis   (occurrence verb)

Tony was *hopelessly* sad about his loss   (emotion verb)

The latter two sentences here make sense. It is perfectly normal to describe the way in which a process goes on, or the way in which an event unfolds – we could describe the *slow* running, or how he *steadily* threads the needle. Likewise, we often describe the intensity of our emotions by using adverbs in sentences like these. We are sometimes *hopelessly* sad, sometimes *blissfully* happy. However, the same does not seem to apply so readily to stative verbs. It might sound right to say that knowledge of certain things can make one wise, but we cannot be said to know *wisely* – something seems to have gone wrong here.

One might respond that there are at least some cases of stative verbs that do fit well with adverbials. Take the example of *reluctantly believing*. We might say something like 'she reluctantly believes it's Monday today' – and this sounds like a perfectly plausible way of expressing the idea that she believes it's Monday, but she doesn't want to. However, note the difference between how the adverbial works with the stative verb here, as compared to the examples for the occurrence and emotion verbs. In the latter cases, it is the sadness and the tennis playing themselves that the adverb tells us about. That is, there can be speedy and slow kinds of tennis playing, and there can be hopeless and less hopeless kinds of sadness. The reluctance, however, is not so readily interpreted as being about the belief itself. We would not want to say we can have reluctant and less reluctant beliefs. Rather, it describes the circumstances in which the belief is held. It is a property of the agent who holds the belief - that they do not want to believe as they do.

To take stock, premise *(2)* is defended by Smith by pointing to linguistic evidence based on the operation of emotion verbs as stative verbs. As we can see from the above observations, although emotion verbs do sometimes act as stative verbs do, this is not conclusive. Given this, it may be useful to look not only at the linguistic evidence on offer, but also at philosophical accounts of what emotions are.

5. Emotions: states or occurrences? Grief as a process and a causal objection

5.1. Goldie on grief

Some recent accounts of emotions have treated them specifically as processes. One prominent example is Goldie's account of the emotion process as illustrated through grief (Goldie, 2011).[36] One feature of processes that Goldie highlights is that they persist through time in such a way that they are not 'wholly present' in each moment of their existence.[37] As has been described above, they unfold through time – at no singular instant of the process is it all there at once. This means that one temporal part of the process, taken alone, is not always sufficient to determine which particular process is taking place. For example, take the process of writing a cheque. It involves a pattern or complex of stages, one of which is a single drop of ink on the paper. But, taken out of context, this drop of ink does not alone determine that there is a writing of a cheque going on. Goldie describes emotion processes as these sorts of patterns:

> The pattern has certain features. It includes characteristic thoughts, judgements, feelings, imaginings, actions, expressive actions, habitual actions, and much else besides, unfolding over time, but not one which is essential at any particular time. (Goldie, 2011, 125)

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[36] For an alternative account of emotions as processes, see (Robinson, 2017).
[37] Goldie looks to (Velleman & Hofweber, 2011) for this account of how processes persist.

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These particular features are sometimes characteristic of a particular emotion such as grief.[38] We can recognise grief in ourselves and others according to the characteristic shape that its pattern takes. However, there is no particular mental event or action that can alone determine that grief is occurring. For imagine one's grief is onset by finding a photo of a late friend – this event alone is not sufficient to determine the presence of the proceeding grief. Note that this is an account of emotions that takes them to be processes, and also a componential account in claiming that the emotion is a complex of various elements. Given this, the following problem should be addressed:

> What components of an emotion episode are really essential to its being an instance of some particular emotion? The tempting answer is that all parts are essential. The problem of Plenty then asks: If all parts are essential, how do they hang together in a coherent whole? (Prinz, 2004, 18)

The above problem should be posed slightly differently to Goldie. It is not a question of how to account for the coherence of the parts given that *all* parts are essential, but rather, how to account for coherence given that *none* of them is. Rather, what's essential to the emotion being said emotion is a particular pattern. Nonetheless, the point remains – on this process component view, what explains the unity that we feel is possessed by the grief? Goldie's answer is to employ the notion of a narrative that is supposed to tie the various segments of the process together. The various segments – for example, the photo discovery, the nostalgia in the moments afterwards, the period of crying that follows, and the subsequent low energy – all make sense with respect to an overall story that explains these various occurrences.

It is hard to see how the notion of narrative helps to explain the phenomenon. If, on the one hand, it means that there are distinct ways in which a particular set of components must succeed one another to conform to a particular narrative then the

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[38] One may worry about generalising out from grief to other cases of emotional experience. Whether or not we want to call grief an emotion, we can at least locate differences between what it is like to grieve over many years, and a particular episode of, say, sadness.

account runs into problems. We might wonder why the way in which emotion narratives should unfold is not offered as a more informative way of characterising grief. Furthermore, given observations regarding cross-cultural variation in how emotions play out for various people, it seems unlikely that such a well-defined narrative could be given. We would be unable to explain any idiosyncratic demonstrations of particular emotions that fall outside the bounds of that narrative. On the other hand, if the narrative is responsive to the way that emotions happen to play out, then it is hard to see how this notion can distinguish them from any other series of events. We can narrate over various things that happened to Tony during his angry episode – his seeing the racket, his physiological changes, his scowl etc. But we can also attach a narrative, it would seem, to the tennis match as a whole. In this case, we group together, under a narrative arc, things like the ball being served, the first set tie-break, Tony's scowl (again) etc. Here we have two somewhat coinciding collections of things that can appear in distinct narratives. So, merely appealing to narrative cannot explain why we distinguish one collection into one narrative, and one into the other. Soteriou presents a similar concern:

> The assumption behind [Prinz's] challenge is that there must be a deeper story to be told about the relations between the various mental and bodily events and states that are associated with any given emotion. That is to say, it's implausible to think that when any given emotion occurs/obtains the unity that lies behind the different mental, bodily and behavioural phenomena associated with that emotion simply consists in the fact that they just so happen to accompany one another (or in the fact that they just so happen to occur successively), and that we just so happen to label such groupings using the vocabulary of the emotions. It should, rather, be possible to uncover dependency relations between the various mental, bodily and behavioural phenomena associated with any given emotion. (Soteriou, 2017, 74)

It seems that Goldie's narrative proposal is ill-equipped to satisfy Soteriou's worry. It is thought to be implausible that we group together the components of emotion on the basis that they just happen to occur together. It is more plausible that our groupings track dependency relations in some way.

However, we might think that there are alternative ways to capture the sense of unity without appealing to something deeper (such as dependency relations) at the level of the components of the emotion themselves. Barrett's work on a theory of constructed emotions, for example, takes emotion categories to be socially learned concepts. These concepts help us to categorise various stimuli and bodily sensations in conjunction with the memory of similar past experiences. This process of categorisation happens in order to aid the individual in implementing 'allostasis'. This is a process by which the brain regulates the body according to costs and benefits: 'efficiency requires the ability to anticipate the body's needs and satisfy them before they arise' (Barrett, 2017b, 4). Attaching various emotion concepts to certain characteristic experiences is useful to us in directing our behaviour in the most efficient way. Leaving aside the details of such an account, it goes to show that there would be good reason for agents to have developed a capacity to unify a series of successive bodily, behavioural and mental phenomena.

The above concern is also not special to emotion processes but could be asked of any process. Take the process of cycling. This process has various components – it involves pushing down the feet in an alternating rhythm, a particular bike, perhaps a bike helmet, a road to ride on etc. Two people's experience of riding a bike may involve little overlap; they may have different types of bike and different pedalling speeds or techniques. Nonetheless, both bike riding processes are understood as such. If it is a requirement on a component process account of emotions to explain how the components hang together, then the same is true of processes like cycling.

5.2.   Explanatory requirements

Soteriou raises a further explanatory concern for the account. He takes a condition on a theory of emotions that takes them to come in components to be that there is an explanatory link running not only from the components to the emotion itself, but also from the emotion to the components. As he puts it, we want to be able to say the whole because of the parts *and* the parts because of the whole (Soteriou, 2017, 77). Why is this? There's a sense in which we want to say that certain parts of the emotion, like the expression of it, are *because* of the emotion. I cry because I am sad, and I smile because I am happy. Any theory of the kind of thing that an emotion is needs to be able to accommodate this feature. Parrott raises a similar concern:

> First, if Angry Patrick Stewart is possible, then we know that someone can be angry without expressing anger, which means that the expression is not an *essential* part of being angry. So [proponents of the parthood proposal] must think that it is only in cases where a subject is actually expressing anger that the expression is a proper part of the subject's anger. However, this goes against the thought that expressions are *responses* to anger or are somehow *caused* by anger. The embodied perception theorist wants to reject this conception of the mental, but then it isn't clear how exactly we should understand everyday interactions that appear to presuppose it. When, for example, we ask our friend why she screamed at us and she replies 'because I was very angry about your being late to my recital', we naturally take her to be offering us a kind of causal or reason-giving explanation of her behavioural response. This type of response is perfectly natural but it would be more puzzling if the expression were simply a proper part of her anger. (Parrott, 2017)

It is unclear, from this passage, whether the conflict is between the non-essential nature of the expressive parts and the requirement that emotions cause their expressions, or merely between expressions as parts of emotions and expressions as caused by emotions. By non-essential, what is meant here is just that there can be an

emotion without an expression of it (as we saw in chapter 1, Parrott takes it as possible that one can be angry, act angrily, and yet not express one's anger). If this feature of the part-whole relation between emotions and expressions is the issue, then perhaps the concern with respect to causation is just that *only sometimes* do emotions cause expressions (when expressions are present). But this doesn't render anything mysterious about the cases in which expressions are present – there are plenty of things that cause other things but only sometimes.

More worrisome is the objection that expressions cannot be both parts of emotions and caused by emotions. It is often assumed that part-whole relations exclude the possibility that their relata are causally related and vice versa. Parts cannot cause their wholes, and wholes cannot cause their parts (Craver & Bechtel, 2007; Lewis, 1973, 2000). One influential consideration in favour of this assumption is to follow Hume's doctrine that we can observe no necessary connection between cause and effect – they are ontologically distinct from one another (Hume, 1904). Insofar as part-whole relations imply entities are *not* ontologically distinct, they cannot coincide with causal relations. With respect to causation, Hume's line of thought can be interpreted in terms of nonimplication (Friend, 2018, 5073). As Craver and Bechtel argue, a cause can exist independently of an effect and vice versa – neither implies the other's existence. This is not so for parts and wholes:

[In] the constitutive relation, a token instance of the property *A* is, in part, constituted by an instance of the property *B*; as such, the tokening of *B* is not logically independent of the tokening of *A*. At least since Hume, many philosophers have held that causes and effects must be logically independent. (Craver, 2007, 153)

If the incompatibility between cause and effect being part-whole related boils down to ontological dependency, then Parrott's objection to expressions being parts of emotions and caused by emotions does not work. As we saw, Parrott claims that

expressions, if proper parts, are non-essential proper parts. The emotion can exist without the expression; the whole without the part. He therefore denies that all things related by a part-whole relation imply one another – are ontologically dependent on one another. There are some entities, like emotions, that could have been constituted differently.

But let's imagine that Parrott isn't right about emotional expression; that Patrick Stewart does express his anger when angry and such an expression is ontologically dependent on the anger. If this is the case, then perhaps we do run into trouble in positing a causal relation between emotions and expressions.

There are two possible responses here. One is to deny that causal relations must indeed occur between ontologically independent existences. In denying the assumption that parts cannot cause their wholes, Friend offer a number of examples of causal relations that occur between ontologically dependent entities:

Consider, for example, the connection between a particular mutation in the genome of a hominid a very long time ago and the subsequent existence of the human species. It seems plausible that the latter was caused by the former, and moreover, that the latter event ontologically depends on the former. There is no world in which the human species exists but there was no mutation in the primate order. If one has any inclination to agree with the essential nature of some organisms' origin, then one will likely accept that causal relationships such as this also exhibit an ontological dependency of the effect on the cause. (Friend, 2018, 5075)

Another response is to grant that causal relata cannot ontologically depend on one another, but to suggest that the explanatory requirement pointed to does not imply a *causal* relation. That we talk in a way that implies some sort of explanatory connection running from emotions to expressions might capture a relation of a different kind. It might even capture the kind of dependency relations that are supposed to prohibit

causal relations. We often explain one thing whose existence depends on another in terms of the other. We may ask why the human species exists, and answer by describing the mutation of a genome that occurred a very long time ago.

Soteriou interprets our talk of emotions explaining their components and vice versa in this sort of way – as requiring us to posit dependency relations running both from the whole to the parts and the parts to the whole. But understanding the explanatory requirement in terms of ontological dependency raises a new problem for an account of emotions as processes. In particular, it raises a problem if we consider, as Goldie does, emotions to be heterogeneous processes.

To describe a process as heterogeneous is to analyse it as coming in distinct successive stages, none of which last for the duration of the whole process. This is contrasted with a homogeneous process like thinking. If one is thinking from t1-t10 then there is no point within this in which one is not thinking. As we saw above, Goldie takes emotions to be like the process of writing a cheque. It's not the case that any stage of this process is a stage in which the conditions for cheque-writing have been satisfied – the initial stage of picking up a pen is, alone, not a process of cheque-writing. The problem is then:

> For given that they are parts of a structurally heterogeneous process, they must occur/obtain *successively*. And if the constituents of the emotion occur/obtain successively, then that suggests a view on which there are parts of the emotion that are temporally prior, and hence ontologically prior, to the whole process (with its overall complex pattern) that they help constitute. So on this process view, while it will be true to say 'the whole because of the parts', it isn't clear that it will be true to say 'the parts because of the whole'. (Soteriou, 2017, 77-78)

One way to interpret this is to say that there are parts that occur before the overall process is underway. The process therefore cannot come before these parts, and so these parts cannot be said to be *because of* the process (that is, they cannot

ontologically depend on the overall process). But let's imagine there are five key components to a particular process of, say, writing a cheque. The first component is picking up the pen, the second component is the first drop of ink on the paper. The process of cheque writing is not yet underway at the end of these two components. However, by the third, the writing stage, we may say that the process of cheque writing is underway. In this case, there *are* components that occur after the process is said to occur. Given that the process is temporally prior to some components, we can at least talk about *some* parts being because of the whole. And why should we be inclined to think that all the parts of an emotion should be explained in terms of the emotion itself? It makes sense to talk about the ensuing tears as being because of or explained by the grief, but the same is not true of the event that triggers the grief. We do not want to say: 'I saw the photo of a late friend because I was grieving'.

Perhaps the point is rather that the process is not the process that it is until all of its parts have occurred. In this way, the overall process cannot be temporally prior to, and thus explain, any of the parts. However, this analysis doesn't seem in keeping with an intuitive understanding of processes. Take again playing tennis. This usually begins with, say, a serve, and usually ends with a handshake. Had the players chosen not to shake hands in a particular match, this would not make their prior activity a failed attempt at playing tennis. They could have chosen to do something else, and it still would have been a case of tennis playing. It still seems that there are at least some parts of successive processes like those under discussion upon which the processes they are part of do not ontologically depend.[39]

However, the following response is available. While there may be some parts of an emotion for which the emotion itself is ontologically prior, these may not be the parts that concern us. The 'parts because of the whole' requirement was motivated by considering the fact that we take emotions to explain expressions – she smiled because

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[39] It should be noted that these remarks do not meet the explanatory criterion all the way. Permitting that the emotion can be temporally prior to its parts doesn't tell us how it explains its parts. Rather, we have just shown that it is not conceptually impossible that the whole explains certain of its parts on a process view.

she was content. So, the question is not just whether there are some parts that are ontologically posterior to the emotion, but whether expressions are such parts. This is difficult to answer. On the one hand, it seems intuitive to cast expressions as late arrivals in the overall process. We have a triggering event, we turn our attention towards something, we feel a certain way, and we then begin to exhibit certain behaviours which are experienced as expressive of emotion by others. On the other hand, we often perceive expression in someone prior to their emotion developing fully. We may see the shock on their face before they've even gauged what's going on themselves, or a therapist may see the anxiety in a patient's hands before they have even delved into a particular topic. Given that in Chapter 3 we understood behaviours to be expressive on the basis of the (potential) responses of others to them as expressive under normal conditions, the points at which these behaviours begin and end their expressivity will be varied and circumstantial. It is therefore difficult to make any general claim about where expressions would fall in an account of emotion as a process of successive stages.

Finally, an alternative response to the problem Soteriou raises here is to take seriously a suggestion he briefly makes but does not himself exploit. If we want to maintain that the overall process cannot be ontologically prior to the parts of the emotion, then we can look elsewhere for how to account for the explanatory connection between emotions and their parts. In particular, we could explain parts in terms of other parts. It seems right to say that she smiled because she was happy, but it seems equally appropriate to say she smiled because she heard that she got the job, or that she smiled because she realised this meant she'd be working closer to home, or that she smiled because she was experiencing a positively valenced feeling. It is perhaps more plausible, in some cases, to say that the explanatory factor is another part of the emotion rather than the emotion whole itself.

Contemporary appraisal theories of emotion take seriously this idea in offering componential accounts that often assign special causal power to the appraisal component within the emotion. For the most part, appraisal theories like these take

emotions to be processes made up of various elements. The appraisal element is the part of the process that detects and assesses some environmental occurrence in relation to the wellbeing of the individual:

> Like several other emotion theories, appraisal theories include appraisal as a component in the emotional episode. Unlike these other theories, appraisal theories assign a central role to this component, suggesting that appraisal triggers and differentiates emotional episodes through synchronic changes in other components. Appraisal determines the intensity and quality of action tendencies, physiological responses, behaviour, and feelings. This is what is meant when appraisal theorists argue that appraisal elicits or causes emotions. (Moors et al., 2013)

This kind of account serves as an example of cases where emotions are taken to be processes, but where the explanatory criterion is met through appealing to the causal role of the parts.

In sum, we have pushed back against claims that the linguistic evidence predominantly supports the idea that emotions are states, and, in addition, existing accounts of emotions as occurrences remain compelling. Smith's premise *(2)* that emotions are always static states is by no means obvious – the most we can suggest is that emotions are *sometimes* states.

6. Expressions: states or occurrences?

The third premise in Smith's argument was that expressions are not static, but rather are dynamic entities: occurrences. As in §3, we can assess the truth of this claim with the use of various linguistic tests that are cited in the literature. Firstly, however, a brief note on what sort of things emotional expressions are.

In Chapter 3, I discussed what makes something expressive. I argued that for something to be expressive of, say, anger is for it to be disposed to look expressive of anger to normal observers under normal conditions. So, whether some instance of behaviour counts as expressive depends on the responses of others. The sorts of things that constitute the behaviour under discussion are varied. We can include the characteristic facial expressions – smiles, scowls, frowns etc. – with more dynamic patterns of behaviour including eye gazing, bodily movements or changes, the tone of our voice, actions etc. Any of these entities can be expressions just so long as the satisfy the above criterion. There is therefore no prescription with respect to the ontology of expressions – if a static entity satisfies the criterion, then the expression is static, if a dynamic entity satisfies it, then that expression is dynamic.

For the sake of argument, we can investigate the temporal ontology (using our linguistic evidence) of some key examples of expressive behaviours. These will be at least telling with respect to certain archetypal expressions.

When we consider the first two linguistic tests discussed in §3, Smith's assertion that expressions are occurrences finds support. Expression terms happily take the continuous tense: 'Tony is *scowling*', 'Tony is *smiling*', 'Tony is *expressing* discomfort'. These all sound perfectly fine. Expressive terms also serve as infinitival complements to perception verbs: 'I *saw* Tony scowling', 'I *saw* Tony smiling', 'I *heard* Tony expressing discomfort'.

The third linguistic test discussed in §3 is not so clear. In this test, adding 'a little bit' to sentences containing state or occurrence verbs varied the stative verbs in terms of degree, and the occurrence verbs in terms of degree *and* duration. When it comes to Tony's scowling, the verb seems to operate like stative verbs in this regard. We might say 'Tony was scowling a little bit', but here it is not at all obvious that the duration of time over which Tony is scowling is being affected. The more apparent reading is that there was a small amount of scowling present – the scowl was less obvious/less pronounced, not necessarily lasting for a shorter period of time. And as

with stative verbs, in order to render the duration of the scowling adjusted, one needs to change the sentence as follows: 'Tony was scowling *for* a little bit'.

A further linguistic test not yet cited produces an ambiguous result. Maienborn (2005, 285) differentiates occurrence verbs and stative verbs on the basis of their sub-interval properties. Stative verbs are said to be homogenous. If it is the case that Tony believes that he will lose the tennis match during and interval from t1-t10, then it will be the case that Tony believes that he will lose during any sub-interval within this period, regardless of how small. If Tony believes he will lose from t1-t10, then he believes he will lose from t2-t3. This is not necessarily the case for occurrences. Take the event of Tony's playing a tennis match, lasting from t1-t10. It is not the case that Tony played a tennis match from t2-t3, since at this point he had only warmed up and played a single game. If the playing ended at this point, it would have been deemed a forfeited game.

If Tony is scowling from t1-t10, then there is a sense in which he is scowling at any point within that period – for any sub-interval. The same seems to be true of things like crying, smiling, as well as the general term 'expressing'. As such, at first glance it seems as though expressions side with states as opposed to occurrences with respect to homogeneity. Smith acknowledges this point, admitting that both state and expression verbs pick out homogeneous entities in this sense. There is, however, a further distinction that can be made within the class of homogeneous entities, between ones that are strictly homogeneous and ones that are weakly homogeneous:

On this picture, however, even if smiling is homogeneous, it will not be *strictly* homogeneous. Let us say that an entity F is strictly homogeneous if and only if when an object o is F for the period t1-tn, then for any instant t falling within t1-tn, o is F at t and its being so is grounded in entities existing at t. I take it that smiling is not strictly homogeneous. (Smith, 2017, 144)

An entity like a smile is not strictly homogeneous unless its existence at a particular instant, t, is grounded in things that exist at t. We can understand grounded, here, as meaning that if x grounds y then y depends for its being the thing that it is on x. A particular smile is expressive because of things that go beyond a particular facial configuration at any instant. The initial stages of a smile on one person may look identical to the initial stages of a grimace on another. During this time, both faces may be physically indistinguishable, and yet only one is a smile. In support of Smith's claim, one might argue that what makes each smile count as expressive must be down to its development over time across the face and the context in which it came about.

The problem that Smith is raising here is that we cannot use the homogeneity of expressions to support their being states, since they are only weakly homogeneous, and weak homogeneity is a trait that is shared by some occurrences. As we will discuss in the next chapter, some processes are weakly homogeneous. Vendler's characterisation of processes like running is that they persist in a homogeneous way – there is a sense in which for the whole period in which one is on a run, one can be said to be running (Vendler, 1957, 146). However, at any instant t the grounds of the fact one is running extend beyond entities existing at t, since at t, say, we just have a leg raised some distance in the air, a motion compatible with all sorts of other actions.

Insofar as expressions are like this, their homogeneity is not distinctive of states. On the other hand, the secondary quality characterisation of expressions holds that behaviour is expressive when disposed to look expressive to normal observers under normal conditions. It is *this* that grounds the smile being the thing that it is, and a disposition to look expressive is the sort of thing an entity can have at every instant within the period of time over which it exists. Understanding expressions on the secondary quality account allows for an understanding of expressions as strictly homogeneous, a characterisation that *is* thought to be distinctive of states.

Finally, another area in which we can raise ambiguity with regards to the ontology of expressions is in a discussion of whether expressions are things that one *does*. States are typically understood as distinct from action:

We find indeed that one cannot know, believe, or love deliberately or carefully, and none of us can be accused of, or held responsible for, having "done" so either. We may conclude this digression by saying that states and some achievements cannot be qualified as actions at all. (Vendler, 1957, 149)

Vendler argues here that states cannot be actions for two reasons. They cannot be things we do for which the qualification can be that we did them *in a certain way* – either deliberately or carefully, to use his examples. Secondly, they cannot be things for which we assign responsibility. The flip side of this is that states are things that one can undergo *involuntarily*. This is usually unlike occurrences – one does not start running involuntarily (in the sense that they have no control over their action). Likewise, one can be held responsible for running (perhaps when one runs from a crime scene) and one can run in a particular way (perhaps running carefully to avoid the traffic).

As we saw in Chapter 3, expressions are often understood in terms of communication. They involve the intention to communicate something about one's emotion to another (Green, 2007; Sias & Bar-On, 2016). On these accounts, they are things that can be *done* voluntarily, deliberately and carefully. With a mind to how much I want other people to know about me, I might deliberately emphasise some of my emotions through my expressions, and carefully express others when I don't want to reveal too much. I can choose not to express my anger towards someone in order to protect their feelings, and as such, if I choose to express it, it's possible to be held responsible for such a choice. As such, on these accounts, expressions are like occurrences and not states.

However, as I have argued, the intention to communicate something does not exhaust our expressive interactions. In fact, the intention to communicate is part of what's expressed. Some of our expressions are involuntary, some are not, and those that are not are rendered different sorts of expressions as a result. On this analysis, there is no clear-cut answer when it comes to whether expressions are actions. Those

that involve intention will be the sorts of things that are done deliberately and one can be held responsible for – as when someone sneers at another in order to convey negative feelings towards them. Those that are involuntary will not be deliberate, or careful, or *done* in any particular way at all, nor will they be blameworthy. Again, the results for expressions here seem to straddle two different ontologies, and this reflects the diversity within the category itself.

But one needn't be sensitive to this picture of expressions in order to resist the conclusion that expressions are occurrences in virtue of their status as actions. We could instead push back at the initial claim that states like knowledge and belief fail to be actions for the two reasons spelt out by Vendler. It seems plausible to describe certain beliefs as being deliberately held. One wills oneself to believe something in spite of the evidence against it, such as my belief that Portsmouth FC will soon return to the Premier League. Likewise, our lack of knowledge is often described in this way – one remains wilfully ignorant of something when one intentionally maintains certain states of knowledge. And in qualifying one's ignorance as wilful, one opens it up as the sort of thing for which we can assign responsibility.

As was the case with emotions, it is far from clear that expressions are as Smith suggests. The linguistic evidence suggests that while expressions sometimes behave as occurrences, they do not always – they exhibit similar qualities to states on some occasions. We have so far resisted premises (2) and (3), opening up a line of resistance to the ontological objection by suggesting that it's possible that emotions and expressions are not of different ontological kinds after all. In the next section, I turn to Smith's premise (1).

7. Can states have occurrences as parts?

Smith's first premise was that if something is part of a static entity then it is itself static. Since occurrences are dynamic, not static like states, states cannot have occurrences as parts. This is a problem for the parthood proposal should we accept that emotions

are states and expressions are occurrences. The premise finds support in Steward's ontology:

> Physical objects, their parts, and the masses of matter which constitute them all share a temporal shape – they persist through time, last for a time, and may change; none occurs or happens. (Steward, 1997, 99)

The part-whole relation relevant to continuants is one that holds between things that obtain over time, rather than to things that occur through time. It is most easily understood in terms of spatial location (Hornsby, 1988). Some x is a part of y at t if x takes up some volume of space within y at time t. As Hornsby argues, this notion of part-whole relations will not be sufficient in classifying what makes one occurrence part of another. With events in particular, it is not sufficient for x to take up some volume of space in the area over which some event y takes place for x to be part of event y (Hornsby, 1988).

Smith provides two arguments for why states cannot have occurrences as parts. Firstly:

> Since a static entity is wholly present, there is no point during its existence at which some (part) of it has not yet happened. It follows that states cannot have dynamic entities as parts. (Smith, 2017, 140-141)

The claim here seems to be about temporal rather than spatial parts – states cannot have temporal parts, and therefore cannot have occurrences (or anything else) as temporal parts. For something to have temporal parts is for it to be divisible into various time-segments. If I bake a cake in the oven for 40 minutes then the first 5 minutes it is in the oven on a high temperature is a temporal part of the overall event. Given that states are 'wholly present' at each moment of their existence, there is no

part of them that is not happening at a particular time *t*. At *t*, there is no part of the state that has happened but is no longer happening, or has yet to happen.

Another way to bring out what is meant here by something existing as wholly present is to distinguish how these sorts of entities admit of change. In particular, that continuants admit of change whereas occurrents do not. Change can be thought of as something as a whole having first one property and then another (Simons, 2000, 134). For example, if I were to cut a leaf off the plant in front of me, the plant would change, for in the first instance it has the property of having the leaf, and in the next instance it lacks this property. Occurrents, however, do not behave like this – they possess their properties timelessly. We may talk of an event changing, for example the tennis match began friendly and became aggressive. But what we mean here is that the event was friendly in the first hour and unfriendly in the second hour – the property difference coincides with distinct temporal parts of the event. It is not a difference that the *whole* event incurs, and therefore does not constitute proper change.

Now, granting that states cannot have temporal parts, why does this mean that they cannot have occurrences as parts? The thought is something like this. The event of Tony losing the tennis match can be understood as having a final segment/time-slice in which the final point is played. *This* part has not been played or has not occurred within the first hour of the match. If this event were a part of a state, then at any time *t* within the first hour of the match it must be true that there is a part of the state that is yet to occur. This is because parthood is a transitive relation: if *x* is a part of *y*, and *y* is a part of *z*, then *x* is a part of *z*. This result is unacceptable on an ontology of states as wholly present at *t*.

One strategy we could employ in order to resist this argument is to distance ourselves from talk of temporal parts. When philosophers of emotion talk of emotions as having components, it is unclear what sense of composition or parthood is being alluded to. There are a range of ways we could think about something being a part of something else (Fine, 2010). As described above, we can think about spatial parts – when I draw a line through a square I see that it now has a left portion and a right

portion. We can think of parthood in the sense of a whole being an aggregate of its parts – if the wall in front of me is a sum total of 100 bricks, then each of these bricks is a part of the wall. We could also think of parts as things that are contained by or compose various wholes, like the members of s set. We say that the set is 'made up from' various members. This locution is important in helping us distinguish where talk of parthood is appropriate and where it is not:

> When parts are in question, it is also appropriate to talk of a given object being *composed of* or *made up from* the objects that it contains. Thus a storm may be composed of various occurrences of lightning and thunder, while an urn is not composed – even in part – of the marbles that it contains. (Fine, 2010, 560)

Another case in which we talk about members making up the whole is with various socially made collectives. Take the football club Arsenal for example. It contains a wide array of members: the fans (gooners), the players, the Emirates Stadium, the manager, various FA cup victories, the playing of football itself. Members will come and go – the club's current member, Mikel Arteta, replaced Unai Emery as manager not long ago. His departure, and the loss of that part, constituted genuine change to Arsenal, just as it did when Arsène Wenger left the club. As described above, when a race is run fast and then slow, the race does not *change* but was fast in the first portion of time and slow in the second – it has these properties endlessly. But when Wenger left Arsenal, Arsenal did change. Given this, Arsenal seems to persist as states do, as wholly present and lacking in temporal parts.

Perhaps we can understand socially made collectives like Arsenal to be something like Simons' collective continuants:

> 'John is one of the Directors' may be uttered falsely before John's election to the Board, and truly after. The expression 'the Directors' thus designates those who are *now* Directors in this case (it need not, but can and often does work like this).

So the group designated by 'the Directors' is a collective *continuant*: it persists over time and its membership may fluctuate. (Simons, 1987, 168-169)

Returning to Arsenal, some of the members I described it being composed of were various FA cup victories. Take the 2017 FA cup victory against Chelsea. It is very plausible that fans of Arsenal will think of this event as part of Arsenal. Arsenal is *made up from* this win, and various others in its history. Likewise with the sport itself – if no one were playing football, Arsenal would not exist. But events like the FA cup win, and processes like playing football are occurrences. Occurrences have temporal parts.

Let's use part(c) for the kind of compositional parthood Fine describes, and part(t) for temporal parts. The part(c)-whole relation is not transitive. While a football may be part(c) of Arsenal, this does not entail that the leather that is part(c) of the football is therefore part(c) of Arsenal. There is no obvious sense in which Arsenal is made up of leather. Therefore, just because some occurrence is part(c) of some continuant, this does not entail that any part of the occurrence, compositional or temporal, need be part(c) of the continuant. Therefore, Arsenal can have football playing as a part, in the compositional sense, without implying that it must have a temporal part. Dividing things between more and less strict notions of parthood renders it consistent that continuants have occurrences as parts.

Under our extended notion of parthood, we can look at Smith's second argument for why static entities cannot have dynamic entities as parts. He writes:

The fact that static and dynamic entities occupy time differently suggests a constraint on what can count as a part of a state. If a part *p* of a whole *w* occurs, then it follows that *w* occurs, for it must take, or go on for, at least as much time as does *p*. Since static entities do not occur, it follows that no part of any static entity occurs. Thus, all the parts of a static entity are themselves static, or, at least, non-occurring entities. (Smith, 2017, 140)

I take this to run as follows:

(a) *p* occurs

(b) If *p* occurs and is part of *w*, then *w* must occur for at least as long as *p*

(c) *p* is a part of *w*

(d) So, *w* occurs

(e) Static entities do not occur

(f) So, *w* is not a static entity

What's doing the work here is (b), and yet this premise seems too strong. It tells us that if a part occurs, then the whole must occur for at least as long as that part. This doesn't always seem to be true. Again, take Arsenal which contains the process of playing football. This process is an occurrence, and one that pre-dates the whole in question. Think also of Tony's tennis game. Let's imagine it's a very windy day and a part of the tennis game is the blowing wind – in this instance, the game is completely characterised by it. The wind blowing is also an occurrence and one that lasts for several hours after the game's conclusion.

For a final example, take the conductor of an orchestra which transitions from playing one piece of music to another. Here we have two events, the playing of Mozart's Symphony 38 and the playing of Mozart's Symphony 39, of which the conducting is a continuous part. Here we have an occurrence whose duration is the sum of the durations of its two component occurrences. Given these examples, we might want to drop the stipulation that the occurrence must occur for at least as long as any of its parts. But then we are left just with the claim that occurrences can only have other occurrences as parts – and this is just the claim that Smith is trying to motivate.

We have so far seen how, with reference to a loosened notion of part-whole relations, static entities can be composed of dynamic entities. This possibility is reflected in a recent proposal for how the ontology of emotions might work. Soteriou

suggests 'a model according to which our emotions are conscious states that are constituted, at least in part, by various events and/or processes' (Soteriou, 2017, 80).

The model starts by analogy with other mental states like pain (Soteriou, 2017, 81-84). In discussing pain we talk about a variety of things. We talk about the state of being in pain, but we also talk about the feelings of pain or pain sensations, like the feeling of stomach ache. This pain sensation, the feeling of pain, seems naturally characterised as an occurrence. It takes the continuous tense – 'My stomach *is aching* '. But now we have two things, the state of being in pain, and the occurrence of feeling pain, seemingly related in a particular way.

When it comes to non-mental objects, we find clear dependency relations between occurrences and states. Take the temperature of liquid. The temperature (a state of liquid) depends on the occurrence of the motion of molecules in that liquid – that is, the state of the liquid is the way that it is in virtue of the occurrence of the event of the movement of the molecules. So, too, for mental occurrences – we can think of a subject's being modified in such a way that their psychological state obtains in virtue of some mental occurrence. What makes the mental occurrence the sort of thing that psychologically modifies the subject is its phenomenal character. There is something it is like to have a pain sensation. And to fully specify this phenomenal experience, we need to reference the way it changes the psychological state of the subject – its nature is dependent on the modified state that obtains in virtue of it.

This dependency also works the other way around. The state of being in pain also has a phenomenology – there is something it is like to be in a state of pain. But again, to fully specify this experience, we must make reference to the phenomenology of the occurrences that the state obtains in virtue of. As such, there is an interdependency between states and occurrences with regards to pain experience. Moreover, this interdependency is said to be constitutive.

In such a case, the subject is in her modified state while, and because, the event occurs, hence the idea that some psychological state of the subject (the way in

which she is psychologically modified) obtains in virtue of, and for the duration of, the occurrence of the event. Here the relation between the event and the psychological state isn't simply causal, but constitutive. (Soteriou, 2017, 62)

For emotions, as in the case of pain, when someone experiences an episode of anger, there are different things going on. There is a psychological state of anger, we might say, and various occurrences we can point to – neurological events or processes with a particular phenomenology. Neither the phenomenology of the state of anger, nor the phenomenology of the occurrence associated with the anger can be fully specified in isolation from one another. As such, they are constitutively interdependent. On Soteriou's account, therefore, states can be constituted by occurrences – where constitution is understood in terms of dependency relations. The emotion is a state (the state of anger), which is constituted by an occurrence or occurrences (what it is like to be in this state of anger). These may include emotional expression.

Note that this proposal accommodates Soteriou's explanatory condition on emotions addressed earlier. We want an account of how emotions relate to their parts that is sensitive to the explanatory link that runs between them – that emotions *explain* their parts, their expressions. Given the constitutive relation understood in terms of dependency, we can capture the sense in which the parts are explained with reference to the whole.

With an account like this in mind, we can push back at Smith's first premise and denial of Componentialism. Not only can occurrences be part of emotions, being in an emotional state constitutively depends on one's undergoing certain occurrences. Before moving on, however, there are a couple of things to say about the account.

Firstly, one might wonder about an analogy between pain states and feelings of pain on the one hand, and emotion states and *expressions* on the other. Recent research indicates that there may be more similarity between pain and emotion than we currently think. The pain and emotion sensations we experience arise from the same neural pathways and primary sensory region of cortex – 'the body sensations

that are categorized as pain, stress, and emotions are fundamentally the same, even at the level of neurons in the brain and spinal cord. Distinguishing between pain, stress, and emotion is a form of emotional granularity' (Barrett, 2017, 206-207). However, we may still think that there are disanalogies pertinent to the question of whether *expressions* can be components of emotions. Soteriou's account explores how occurrences can partly constitute pain states, given that the pain state cannot be understood without reference to what it's like to undergo such pain. On the analogy with emotions, if expressions are to be understood as a constitutive occurrence, then there must be something it is like to express emotion. There must be something that it's like to express one's anger. This doesn't necessarily equate to what it is like to undergo the emotion, since it feels different to be in an unexpressed state of anger than to be in an expressive state of anger – the latter may feel more satisfying, say. So, even if the emotion state enters into a constitutive dependency relation with an occurrence – the what it's like to undergo the emotion – this occurrence is not necessarily the *expression*. When emotions *are* expressed, it is an open question regarding just how they fit into this picture.

Secondly, one might worry about the lack of asymmetry in the account. Given that the account is one of constitutive *inter*dependency between emotional states and the occurrences, we can say not only that the occurrences partly constitute the emotional states, but also that the states partly constitute the occurrences. If we are taking expressions to be examples of these occurrences, then we must make room in our account of expressions for the state of anger to be part of the scowl. Not only this, but that the emotion is *because of* the scowl. This may seem counterintuitive to some. While it's certainly plausible that there's an explanatory link running from expressions to emotions in some cases – sitting in a dominant manner can make one feel more confident – we naturally take these to be deviations from the norm.[40] We want to capture the sense in which emotions have more explanatory power.

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[40] Smith (2017) takes it to be a condition on any account of the perceptibility of emotion that they should enable emotions to explain/cause expressions but not the other way around. He suggests that such asymmetry should be built into any plausible model.

Moreover, if the occurrence of a scowl has an interdependent relation to the state of anger, what is it that privileges the state over the occurrence such that we should identify *it alone* with the emotion? Given this, and the ambiguous linguistic results we looked at earlier, I see no reason why the state should take precedence in the overall complex that goes on and/or obtains when one is in the grips of an emotion.

Finally, there is a significant problem for *my* use of an account like Soteriou's, as well as the preceding discussion in general. Componentialism, the claim that expressions can be parts of emotions, was introduced in aid of the parthood proposal – that we perceive emotions by perceiving their expressive parts. While we may defend the plausibility of Componentialism with reference to more diverse ways in which things can be parts of other things, one might worry that these are not the sort of constitutive relations that are relevant to part-whole perception. We might be said to perceive the table by perceiving the facing surface of the table, but we don't usually perceive the football club by perceiving its manager, nor perceive the tennis match by perceiving the wind. So, while Componentialism may be true, the indirect realist about emotion perception will presumably remain sceptical. What we need is an account of how, in our perception of emotion, expressions play the same role as parts of objects in ordinary part-whole object-perception.

8. A plural ontology

We have so far drawn two ways out of Smith's puzzle in order to maintain that expressions can be parts of emotions. One was to deny premises *(2)* and *(3)* and maintain that expressions and emotions are in fact of the same ontological kind. The other was to deny premise *(1)* and maintain that states can have occurrences as parts. We encountered issues with both strategies. While it seemed that the linguistic evidence did not support the idea that emotions were always states, it did not suggest that they never were. The same went for expressions. And while an example of an

account of how states could have processes as constituents was given, the broadened notion of parthood that was appealed to fell short of the kind of relation invoked in ordinary part-whole perception.

In this section, I sketch another option that builds on the ambiguity with regards to the linguistic conventions of emotion verbs. I focus in this section just on emotions, but we could say similar things about expressions. I suggest that instead of thinking about emotions as falling into one of the two ontological categories (static or dynamic), we can think of them as falling into both. It is possible to have emotion states and emotion occurrences.

There are two ways we could understand this plural claim. The first is to suggest that within the group of things we call emotions, like anger, happiness, fear, and grief, some are states and others are occurrences. This suggestion reflects the diversity amongst emotions. For example, Goldie's account of grief treated it as an occurrence consisting in various stages tied together through a narrative arc. Grief, more than certain other emotions, is often discussed as being under development – moving through stages towards some terminal point. It is quite plausible that grief better fits a dynamic analysis than certain other emotions that progress more steadily.

Examples of emotions that persist in a steady manner may be certain moods. The feeling of loneliness or irritability can be something that pervades the background of our experience of other things. Loneliness does not seem to admit of the continuous tense – one is not *being lonely*. In this sense, it persists more like a state or disposition. It is, however, an open question whether moods such as these should be classified as emotions (Tappolet, 2017). There are also those who explicitly describe moods as occurrences (Mitchell, 2019).

The second and my preferred way to draw out the plural claim is to understand emotions as complexes that can involve both states and occurrences. When in the grips of an emotion, we can undergo an emotional experience, and we can be in an emotional state. In some cases, one will be more pronounced than the other, reflecting broad differences between different kinds of emotions. But often, both static and

dynamic emotional entities will be going on or obtaining. Anger is complex, there can be states of anger and occurrences of anger. This is similar to Soteriou's picture, the main difference being that anger is not identified with the state of anger alone.

When we pick out emotions with verbs, we run into difficulties because we can either pick out the state or the occurrence. This is what leads to the ambiguous results we saw earlier. That emotion verbs have this plural reference is not without precedence, given other categories of verbs that behave the same way. Verbs like to sit, to stand, to sleep, to wait and to gleam belong to a category ignored in Vendler's initial discussion (Maienborn, 2005). These verbs produce similarly conflicting results when it comes to our linguistic tests. For example, if we look back to the earlier test where occurrence verbs combine well with adverbials and stative verbs do not, we see this class of verbs to side with the occurrences. For example, we may happily say things like 'so-and-so was sitting restlessly' or 'so-and-so was calmly sleeping'. Whereas, if we look to the test involving sub-interval properties, we get the opposite result. Here, we saw how stative verbs that hold true of a particular period of time will also hold true of any sub-interval of that time, and not so with occurrence verbs. If I am sleeping from t1-t10 then it seems that I must be sleeping from t1-t2 or any other sub-interval of that period. As such, this class of verbs act like states on this count.

Vendler, too, is aware of other verbs that possess both a state sense and an occurrence sense. He analyses smoking and thinking this way. One can be a smoker, and this state can have particular instantiations of smoking processes or events that are involved whenever one smokes. Similarly, 'she is thinking that Tony is tall' and 'she thinks Tony is tall' would convey an occurrence and state sense respectively (Vendler, 1957, 151-153). Qualities like yellowness and hardness also possess static and dynamic elements: 'Indeed, something is hard, hot, or yellow for a time, yet to be yellow, for instance, does not mean that a process of yellowing is going on. Similarly, although hardening is a process (activity or accomplishment), being hard is a state' (Vendler, 1957).

So there is plenty of room for the idea that there is both a state sense and an occurrence sense for certain verbs. This linguistic ambiguity can be explained on an account of there being different things one is trying to refer to with the same verb.

We can now apply this plural ontology to the topic of emotion perception. If we have both emotion occurrences and emotion states, then there is no ontological disharmony in deeming expressive occurrences to be part of emotion occurrences, nor in deeming expressive states (if there are such things) to be part of emotion states. That is, whenever we discuss expressions as parts of emotions, pursuant to an account of perceiving emotions by perceiving their parts, we *pick out* emotions and expressions of corresponding ontologies from the different options that are available. This restricts the account in a sense. We cannot perceive just any emotional entity by perceiving an expressive entity, it has to be an emotional entity of a corresponding ontological kind. But, at the very least, with the plural claim we can resist the objection that emotions cannot have expressions as parts given their ontological differences. This is because we can find instances of emotional entities which are ontologically homogeneous with expressions, even if not all of them are.

9. Conclusion

Three ways of defending Componentialism have been pursued. One was to deny that emotions and expressions are of different ontological categories. This, however, came at a cost which is that it seems wrong to maintain that emotions are never states, or that expressions are never occurrences. The second was to develop an understanding of parts and wholes that is friendly to the notion that states can have occurrences as parts. This comes at the cost of the perceptibility of wholes by their parts. The third option was to draw upon the conflicting linguistic results and suggest that cases of emotions are ontologically complex – there are emotion states and emotion occurrences. It is the latter that are in play when we discuss perceiving emotions by perceiving expressive occurrences. We can therefore resist the conclusion that the

temporal profiles of expressions and occurrences prevent cases of part-whole emotion perception.

Focusing on the ontology of emotion has been tangential to the overall discussion of whether emotions can be directly perceived. It has been discussed with respect to an objection to the proposal that we perceive emotions by perceiving parts of those emotions. However, the result that emotions are ontologically complex, and in particular the consequence that they have occurrent forms, can be drawn upon to develop a new account of *how* we directly perceive emotions. For the most part, this thesis has responded to objections to the possibility of our direct awareness of emotions, without putting forward a positive proposal for what that perception may be like. In the next chapter, I seek to do this – offering *one* way in which we may develop a direct perceptual account with respect to occurrences of emotion.

Chapter 6

Perceiving the event of emotion

In the last chapter, I promoted a plural ontology of emotions; I argued that they exhibit both static and dynamic ontological forms. In this chapter, I explore what kind of

dynamic entities emotions may be and think about the consequences of this ontology for the question of perceptibility.

1. Introduction

To exhibit a static temporal ontology is to move through time in a particular way. It is for something to obtain, wholly present, over the time in which it exists. In contrast, to exhibit a dynamic temporal ontology is to persist by unfolding throughout the time in which it exists. Dynamic entities can be distinguished further into either events or processes.

I have argued that emotions can exist as both static and dynamic in form and that this means we need not accept that their ontology prevents their having expressions as parts. If this is to help us with the question of perceptibility, we need to explain how we can perceive the emotion by perceiving its expressive part *with respect* to these new ontological findings. One way in which we could do this is to suggest that we perceive states by perceiving their static parts.

In this chapter, I explore a different option. So far, we have been discussing the perception of emotion by analogy with the perception of middle-sized objects in our environment. But not all things that we perceive are like this. Some argue that we perceive dynamic entities as well (Crowther, 2014; Dretske, 1969; Soteriou, 2010). Given that, in the previous chapter, we made room for emotions to be dynamic as well as static, perhaps we can explore the perception of emotion by analogy with dynamic entities rather than middle-sized objects.

In particular, I sketch an account of the perception of emotion by considering existing accounts of the perception of events. At least when emotions present as events, we can capture our awareness of them in terms of the perception of the activity that makes them up. Understanding expressions as part of the activity that fills out the emotion event can be understood as an alternative way of developing a part-whole account whereby we perceive emotions by perceiving their expressive parts.

In §2 I distinguish between two different kinds of dynamic entities – events and processes – and determine where it is that emotions fall. In §3 I explore Crowther's account of event perception and apply it to emotions.

2. Events and processes

2.1. Recap of terms

Dynamic entities (occurrences):

Events

⟹ Accomplishments (walking to the shops, writing a poem, getting over a cold)

⟹ Achievements (summiting a mountain, starting the race)

⟹ Chunks of activity (a walk, a run, a climb)

Processes

⟹ Activities (walking, writing, running, tanning)

There are two general categories of occurrence – events and processes. Accomplishments and achievements are types of events, ones done or undergone by agents. As discussed in the previous chapter, Mourelatos (1978) calls these 'performances'. In this chapter I introduce an additional type of event: chunks of activity. I will discuss these in more detail later, but in short, chunks of activity are events done or undergone by agents which fall short of being accomplishments or achievements. As in the previous chapter, activities are a type of process; they are processes that are done or undergone by agents.

Since the examples used in this chapter relate to things done by agents, I will for the most part use the agent-relative terms: accomplishments for events and

activities for processes. Again, these are merely species of the event-genus and process-genus respectively.

2.2. Distinguishing activities and accomplishments

Dynamic and occurrent goings-on include things like the following: walking, running, musing, dancing, dancing the waltz, climbing the stairs, building a house, running a mile, fixing a dishwasher, running the London marathon, burning in the sun etc. But not all of these are the same with respect to how they unfold. Aristotle sought to carve up these doings as either kinesis (movements) or energeia (actualities):

> Since of the actions which have a limit none is an end but all are relative to the end, e.g. the process of making thin is of this sort, and the things themselves when one is making them thin are in movement in this way (i.e. without being already that at which the movement aims), this is not an action or at least not a complete one (for it is not an end); but that in which the end is present is an action. E.g. at the same time we are seeing and have seen, are understanding and have understood, are thinking and have thought: but it is not true that at the same time we are learning and have learnt, or are being cured and have been cured. At the same time we are living well and have lived well, and are happy and have been happy. If not, the process would have had somewhere to cease, as the process of making thin ceases: but, as it is, it does not cease; we are living and have lived. Of these processes, then, we must call the one set movements, and the other actualities. (Aristotle, Metaphysics, Book 9 Chapter 6)

For Aristotle, some actions are complete at every moment. If ϕ-ing from t1-t10, then each moment of t1-t10 is a ϕ-ing. Thinking is like this. If one is thinking for a time, then any moment within this there has been thought. There are no further conditions on the completeness of thinking for thought to have taken place if it is occurring. Being

cured is different; it is not sufficient that one is being cured in order to have been cured. Being cured implies the success of something that only comes at a certain point of the 'being cured' getting underway. This sets the stage for a distinction between what we can call events (kinesis), things like being cured, and processes (energeia), things like thinking.

We can then apply this test to different occurrences to determine whether they are events or processes. Running the London marathon, on this account, is an event, since running the London marathon doesn't entail that you have run the London marathon – you may fail to finish it before it is complete.[41] Musing, however, is a process, since if one is musing then one has mused. What about emotions? The answer will depend on how we present the emotion. If, on the one hand, we talk about feeling sadness, such an experience may come out as a process. If one is feeling sad then one has felt sad. If one is feeling surprised then one has felt surprised. This conforms with the quotation above, in which it is stated that if one is happy then one has been happy.[42] If, on the other hand, we talk about an episode of sadness, or an episode of surprise, things may be different. If one is having an episode of sadness, then one hasn't had an episode of sadness. In the way that being cured implies the movement towards a particular goal, so does an episode of sadness. An episode of sadness isn't what it is unless it comes to a close – the episodic nature of things implies a beginning and an end, the appropriate extension of which being relative to the situation.

Vendler builds on this distinction, separating occurrences like running from running a mile, and pushing from pushing a cart to the top of a hill (Vendler, 1957, 145). While the former of these occur indefinitely, the latter move towards a terminal point. If they fail to reach that point, then the occurrence itself fails. If one pushes the cart only part of the way up the hill, one hasn't pushed the cart to the top of the hill.

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[41] As such, event verbs exhibit what is called the 'imperfective paradox'. In the imperfective form, event verbs do not entail their perfective counterparts.

[42] It is interesting that Aristotle takes being happy to be an action alongside things like running and making thin – this suggests further support for the treatment of emotions as ontologically complex: exhibiting both static and occurrent forms.

But whenever one stops pushing, one has successfully been pushing. Vendler suggests the following linguistic test in order to distinguish activities (kinds of processes) like pushing from accomplishments (kinds of events) like pushing a cart to the top of a hill. When it comes to activities, it makes sense to ask 'for how long did they do x?', while for accomplishments it makes sense to ask 'how long did it take for them to do x?' The former are occurrences that go on, while the latter are occurrences that take time. We might say that it took two hours for Jerry to push the cart to the top of the hill, but the day before he was pushing it for even longer.

If we were to apply this test to emotions, emotions seem to come out as activities. We would ask someone, 'for how long did you feel sad?' or 'were you surprised for long?' but we would not ask 'how long did your feeling sad take?' or 'how long did it take you to feel surprised?'

An exception here may be falling in love. It makes sense to ask someone how long it took them to fall in love. Falling in love, like pushing a cart to the top of a hill, implies a natural end point (actually being in love). By describing how long it takes, we describe how long it takes to reach this end point. Grief is also sometimes understood in this way, although the language of 'grieving' unlike 'falling in love' does not in and of itself imply a terminal point. However, we do sometimes ask people how long it took them to grieve something. Goldie's narrative account of grief that we looked at in the previous chapter, as coming in a distinct set of stages, implies an end point – it can be something that is or isn't complete (Goldie, 2011).

But leaving aside these exceptions, we might be wary of carving up the distinction in this way. For Vendler, a consequence of the above distinction is to say that activities go on in a homogeneous way, while accomplishments do not (Vendler, 1957, 146). Someone's ϕ-ing is homogeneous if by predicating that one is ϕ-ing over a given time, one entails that one has ϕ-ed during any sub-interval of that time. Running goes on in a homogeneous way because if someone is running for five minutes, then they were running for any subinterval, say, from the second to the third minute. Running a marathon is non-homogeneous, since if it takes two hours to run a

marathon, one hasn't run a marathon in the first hour: 'Accomplishments also go on in time, but they proceed toward a terminus which is logically necessary to their being what they are. Somehow this climax casts its shadow backward, giving a new color to all that went before' (Vendler, 1957,146).

A number of writers have suggested that activities, as well as accomplishments, are non-homogeneous (see Dowty, 1982; Taylor, 1977). Take the following example from Taylor:

Consider the case of Rod, a hirsute barman, who pulls a pint, taking all the time in some period P to do so, and chuckles all the while. Then it is reasonable to say, of any moment m within P, that m is a time of Rod's being hirsute; indeed, P, counts as a time of Rod's being hirsute, it seems, just because each moment within P is such a time. On the other hand, although at each moment m within P it is true to say that Rod is *chuckling* and *is pulling a pint*, it is plausible to hold that no moment within P can be a time *of* Rod's chuckling or of his pulling a pint; for both pulling pints and chuckling take time in a way in which being hirsute does not. (Taylor, 1977, 206)

Being hirsute is a state, chuckling is an activity and pulling a pint is an accomplishment. While we can distinguish the state verb from the other two in virtue of its homogeneity, it is not so clear we can use homogeneity to distinguish between activities and accomplishments. It takes time to successfully chuckle. One hasn't chuckled when one has merely opened one's mouth in preparation to chuckle, but opening one's mouth in preparation to chuckle is part of the time it takes to chuckle and part of the time in which one is chuckling. At the point at which Rod has merely opened his mouth, within the overall activity of his chuckling, there is a very real sense in which he has not chuckled. As noted by Crowther, this also renders Vendler's distinction between occurrences that go on for time rather than take time questionable (Crowther, 2011, 13). Chuckling takes time just as pushing a cart to the top of a hill takes time – both

require the success of certain steps in order to succeed. The same can be said of many of the things we un-controversially treat as activities. Running and dancing, for instance – we are not running or dancing if we merely lift one leg since there are times in which we lift a leg and neither run nor dance.

We can get clearer on the difference between homogeneous and heterogeneous activities by thinking about an analogy with spatial notions (Taylor, 1977). Spatial stuff, like gold, is spatially homogeneous given that, within a lump of gold, any smaller lump is also a lump of gold. A spatial substance like a table, however, is heterogeneous, since it is not the case that any smaller space within the table is also a table. Stuffs and substances are distinct in that substances are countable but not mass quantifiable, and stuffs are mass quantifiable but not countable. There can be more or less gold, but not many golds, and many tables but not more or less table. Spatial stuff, like gold, is therefore similar to homogeneous activities like thinking – wherein any temporal part of a period of thinking counts as thinking. But within spatial stuffs, there are some that are not like gold, and are heterogeneous like substances. Take fruit cake for example (Taylor, 1977, 211). If you were to cut a piece of fruit cake in half, you would have less fruit cake – but you would still have a piece of fruit cake. This is probably also true if you cut the half into half, giving you an even smaller piece of fruit cake. But, unlike gold, this cannot go on indefinitely. Say you cut a piece so small, it ended up being a single raisin. A singular raisin is not a small lump of fruit cake, it is merely a raisin. As such, not all smaller portions of fruit cake are themselves fruit cake, and so some spatial stuffs are not homogeneous.

Back to how things fill time, rather than space. If emotions are activities, then it seems that they too would be non-homogeneous ones. Take surprise again. The temporal dynamics of surprise are important in capturing the emotion, with many offering a sequential analysis. For example, Noordewier, Topolinski and Van Dijk highlight four distinct stages of surprise: the detection of an unexpected stimulus, an initial cognitive interruption that is negatively valenced, a process of making sense of this interruption, and finally, cognitively mastering the interruption. The initial negative

valence associated with all surprises will give way to the valence of the outcome (Noordewier et al., 2016). While this sequence is a sequence of feeling surprised, there are periods within this that are, in and of themselves, not a period of feeling surprise. If one detects an unexpected stimulus, but fails to be moved by it, and therefore graduates to the second phase, one isn't feeling surprise during the detection.

Furthermore, emotions can be *gappy* in a way that other activities cannot. If I were to go for a run in the morning and in the evening, and someone were to then ask me for how long I was running, if I were to answer 'all day' then there would be something false about what I had said. There was not one long running, but two occurrences of running spaced out. Emotions are less well defined. Say you're having a good day; from the time you get up until the time you go to bed, you're in good spirits. But no doubt there were a couple of moments throughout the day in which your happiness was interrupted – you were upset for an hour while watching something on the news. If someone were to ask you for how long you were happy, it doesn't feel false to say 'all day' in the same way it did for the running. In this sense, there are times within a period of feeling happy in which one is not feeling happy. In this way, happiness is non-homogeneous.

On the other hand, some emotions may exhibit a more homogeneous form than others. Certain moods, for example, may be more like thinking than chuckling in how they unfold. We can't seem to break down a period of melancholy into a range of smaller actions that together are sufficient for melancholy to be taking place. There is no equivalent of the raisin of a fruit cake, or the step of a run, in the case of melancholy, such that we can point to its occurrence as distinct from the overall activity.

Either way, it seems like homogeneity will not help us determine whether emotions are mostly like activities or mostly like accomplishments, and thus whether they are mostly like processes or mostly like events, since while emotions and events are often heterogeneous, so are many processes.

2.3.   The spatial analogy and two kinds of event

A more fruitful route in drawing the distinction between processes and events has already been introduced in the analogy with spatial notions. This analogy, initially drawn by Taylor and Mourelatos (Mourelatos, 1978; Taylor, 1977) has more recently been developed in Crowther (2011).

We can distinguish between spatial stuff and spatial particulars. Spatial stuff, as described above, like gold or paper, is mass but not count-quantifiable. We can have more or less paper, but not many or few papers (understood as the material rather than a piece of writing). We also have count-quantifiable spatial particulars, like pieces of paper or paper aeroplanes. Spatial particulars are made up of, or constituted by, spatial stuffs (Crowther, 2011, 18). A paper aeroplane, a spatial particular, is made up of paper, spatial stuff.

Whenever we have some spatial stuff, it fills out some space until we reach the boundary at which point there is no more of that stuff. Each lump of spatial stuff fills out a corresponding spatial particular. An A4 piece of paper is a particular made up of paper, and if we were to rip the A4 piece in two, we would have another particular, an A5 piece of paper, made up of a smaller amount of paper. In general, the boundaries of pieces of paper are promiscuous. We can cut off any size of the stuff, the paper, and render a particular piece of paper. It could have jagged edges, be of a non-standardised size, and still be a piece of paper. Cut off a corner, we still have a particular piece of paper. But paper aeroplanes are not like this. The stuff that makes up a paper aeroplane needs to be arranged in a particular way such that it satisfies the 'completeness conditions' placed on things that count as paper aeroplanes (Crowther, 2011). In this case, the completeness conditions may relate to the way in which the paper is folded, and that it serves the function of moving through the air. So we have three kinds of things. Spatial stuff, which fills out the space of two kinds of particular. Particulars that are just lumps of such stuff, and particulars that have completeness conditions attached to their boundaries.

We can now draw the analogy with respect to the temporal notions in full. Events are temporal particulars, constituted by processes, the temporal stuffs. With respect to agents, the temporal stuffs are the activities they do or undergo. For every event, there is temporal stuff filling out the time frame of that event. So for every event, there is a process (or activity) that composes it. And for every process (or activity) that starts at t1 and ends at t2, there is an event – the event of that particular process – that starts at t1 and ends at t2.

In addition, we have events of two kinds. We have events that temporally correspond to spatial lumps of stuff. If I go running and my running ends at some random point, there is a corresponding event of that run. The particular run could have ended sometime before or after it did, and yet it would have still been an event of that type. This kind of event, which is analogous to lumps of stuff, I call a chunk of activity. The other kind of event is not so accommodating – these are our accomplishments:

> But where ϕing is an accomplishment, the completion of a ϕ requires not just that there are temporal boundaries which are starts and stops of ϕing, but requires that the period of ϕing has a particular set of temporal boundaries. If S starts walking to the shops at t and stops walking to the shops at tn, it is not necessarily the case that there is a complete walk to the shops that S has walked such that t1 and tn are the temporal boundaries of an event that is a walk to the shops. What may have been completed is only an event that is part of a walk to the shops; an event that is constituted by a process or an accomplishment that is a subprocess or subaccomplishment of a walk to the shops. Accomplishments, then, are the temporal analogues of sortally governed spatial particulars, like gold medals or gold statues of Venus pulling on a slipper. (Crowther, 2011, 24)

Accomplishments are particular kinds of events: like chunks of activity, they are agent-relative events, but unlike chunks of activity, they have specific completeness conditions. These completeness conditions impact the temporal nature of the events

– they place restrictions on when the beginnings and ends of such events must occur. With the walk to the shops, the end of the event must coincide with the arrival at the shops – if it falls short of this, it is not a complete walk to the shops.

2.4. Completeness conditions and emotional accomplishments

We can now apply the above picture to emotions. For every amount of gold, there is a particular lump of gold it makes up. For every process that begins and ends, there is a corresponding event made up from it. We might say, then, that for every process of undergoing an emotion that begins and ends, there is a corresponding emotion event – or emotional episode – that is constituted by (filled out by) the emotion process. This emotion process is the activity of undergoing an emotion. We undergo the activity of sadness, and this makes up a particular episode of sadness. Episodes of anger are constituted by the activity of anger. So, again, we have support for a plural ontology of emotions. Not only do they exist as both static and dynamic entities, but they also have both event-like and processive forms. Emotion events capture emotions as temporal particulars, and emotion processes capture emotions as temporal fillers. The emotion process constitutes an event of emotion in the sense that it is the activity that fills it out in time.

Episode of sadness

constituted by

t1   tn
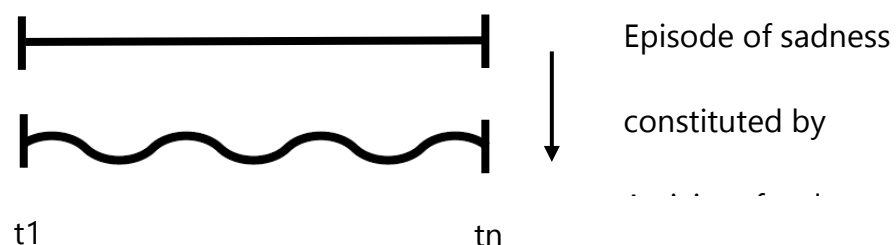
Are the emotion events like chunks of activity or accomplishments? As has been said, chunks of activity correspond with mere lumps of stuff, and accomplishments correspond to sortally governed spatial particulars. The notion of completeness conditions intrinsic to accomplishments is instructive here. We have focused on two emotions in particular for which there are specific rules governing their temporal structure. Grief and surprise both unfold in a characteristic way, such that if the experience were terminated before a certain point (before a sufficient number of the stages were complete), it may not be an instance of grief proper, or surprise proper. One can be grieving, and this grieving come to an end without one having fully grieved. A sub-event of grief, an episode of incomplete grief, has occurred – but this falls short of the accomplishment.

Again, falling in love is an example that corresponds particularly well with accomplishments. Here we have an event whose endpoint is governed by the achievement of something specific. To be a case of falling in love proper, the temporal boundary must be set by one's being in love. Anything short of this will produce a mere chunk of activity (one's almost falling in love).

Furthermore, what is it that makes something an event of anger rather than an event of sadness, of shame rather than embarrassment? When philosophers of emotion discuss what distinguishes the different emotions, they often point to certain rules governing the kind of occurrence that instigates a particular emotion, and the kind of appraisal it is appropriate for the agent to form with respect to this occurrence. For fear, for example, we are afraid of something that we appraise to be dangerous. For desire, to desire something we need to appraise some object as desirable. The rules that govern the distinctions between different emotions – what makes something count as fear rather than desire – determine also *when* it is appropriate to have a particular emotion. It is appropriate for fear to begin once the appropriate appraisal has been made of the appropriate object. We can therefore think of them as being governed by the kinds of rules that govern accomplishments – they are not as loosely

defined as chunks of activity such as a run are. Rather, they are more akin to the running of a marathon.

Another means by which we can distinguish emotion categories is functionally. One of Darwin's insights in *On the Origin of Species* was to suggest that each species was not to be distinguished by any essential trait or biological feature, given intra-species variation, but in terms of the goals of the organisms (Mayr, 2004). Emotion categories may be thought of similarly. What unifies responses of surprise is the function of directing the agent to cognitively master a schematic disruption; what unifies responses of fear is the function of directing the agent toward the danger; guilt has the function of making the agent aware of their wrongdoing; etc. This proposes another way of drawing out the completeness conditions of particular emotion categories, and as such, proposing emotions to be like accomplishments.

An issue here, with regards to our current project, is that completeness conditions derived from the functional role of emotions do not directly bear on the temporal nature of the emotions. Remember, an event is an accomplishment if it has rules governing its temporal nature – specifically when it begins and ends. That our experiences of guilt must conform to certain functional rules does not determine when it is appropriate for guilt to terminate, in the way that the rules governing a walk to the shops determine when the walk must terminate (when the shops are reached).

But the rules governing certain spatial particulars, like watches, which are the spatial analogues of accomplishments, are functionally drawn; they do not bear on where the particular begins and ends in space. The rules governing what makes something a watch, rather than a mere lump of stuff, are functional. Many watches have entirely different shapes and mechanisms that enable them to tell the time – whether smart watches, analogical or digital (Deonna & Teroni, 2012, 22). But so long as they perform this function, they satisfy the rules that determine what it is to be a watch. If function can act to specify the completeness of certain complex particulars in the spatial realm, then following our analogy, it should be sufficient to specify the

completeness of certain accomplishments in the temporal realm. Emotions distinguished functionally, therefore, can qualify as accomplishments.

The particular conditions applicable to an accomplishment can be determined naturally or artificially:

There are some accomplishments, like the fall of some particular cherry stone to the ground at some date and time, the temporal form of which is determined by temporal sortals which are nonartifactual or natural; the completion conditions for such occurrences are determined by what occurrences are necessary for the satisfaction of the reproductive functions which are constitutive of a cherry tree being the type of thing it is. There are other accomplishments, say, the convoluted flight of a heat-seeking missile that eventually achieves its proper destructive end, that are a kind of accomplishment the principle of identity of which is artifactual; involving essential reference to the intentions or aims of the designers of the missile and its software. It is facts about the programmers of the software that controls the flight of such missiles that determines how the flight of such missiles ought to begin, and how it ought to terminate. (Crowther, 2011, 25)

This allowance leaves room for competing views about the nature of emotions. On the side of *natural* completeness conditions will be those that argue emotion categories – like sadness, anger and fear – have biological essences that individuate them. These researchers argue that emotion categories are natural kinds, each distinguished by a correlative neural basis (Izard, 2007; Panksepp, 2000). The idea that the completeness conditions for the nature of accomplishments are sometimes non-natural, but rather malleable to agential influence, leaves scope for those that argue against the natural kind view of emotions. These researchers promote the neural and behavioural variations within each emotion category and emphasise the role the agent plays in attaching an emotion concept, like happiness, to a range of instances of different kinds.

On this view, we play a fundamental role in the construction of emotions (Barrett, 2017b; Nelson & Russell, 2013).

Understanding emotions as accomplishments is plausible on either of these competing views. Each view emphasises the importance of certain rules – natural or non-natural – which determine the particular emotional episode an agent is undergoing. To sum up the ontological picture presented so far: emotional episodes are a complex kind of event, accomplishments, that are constituted by a corresponding emotion process, which is the activity that goes on throughout the period of time in which such episodes occur.

3. Emotion-perception as event-perception

3.1. Event-perception

An upshot of the preceding discussion relates to the perceptibility of emotion. Our experience of the world around us includes not just our perception of things like tables, trees and chairs, but also our perception of things like someone playing a tennis match, running a marathon or crossing the road. That is, some of the objects of our perceptual experience are events:

> introspection of one's experience seems to reveal (at least often) not only objects
> and their properties, but also events. (Soteriou, 2010, 226)

The above examples are events of a particular kind: accomplishments. They are temporal particulars, done by agents, and governed by certain completeness conditions. We have no trouble representing our perception of these in language: 'I saw them playing the tennis match', 'I watched her crossing the road', and 'I saw them running the London Marathon' all sound good. Since we have argued that there are

emotion-accomplishments, then perhaps our perception of them is analogous not to object perception, but to event perception.

Crowther raises a concern, however. While we perceive events, such perception may not be direct (Crowther, 2014). The concern goes as follows. On one interpretation of what it is to directly perceive something, it is for that thing to be responsible for the perceptual experience one is having (Martin, 1998). In having a visual perceptual experience of some object, say, the fox in front of one, one has an experience with a particular character. One experiences something as looking a certain way – it's reddish-brown, short-haired and looks to be staring straight back at one. The fox is directly perceived if it is itself amongst the things responsible for this overall look. [Note that this conception of direct perception is distinct from the kind of directness we are trying to defend – see Chapter 1. If event perception is indirect in this new sense and emotion perception is *a fortiori* indirect, this would not in and of itself threaten my formulation of DP which is concerned with symmetry rather than directness *per se*. Nonetheless, given we are in the market of defending the direct perception of emotion, it is worth considering.]

This conception of direct perception allows us to directly perceive things even when we do not see all of those things. For any middle-sized object, like a table, we directly perceive the table, even though we only lay eyes on a portion of the facing surface of that table, because the table is responsible for our experience. However, there is a hitch when we try to give an analogous account of event perception. We might think that the event of the fox crossing the road is directly perceptible, even if we see just the second half of the fox's journey (we see the fox from t5 to t10, but the crossing of the road began at t1). This is because the fox's journey from t1 to t10 is responsible for how things look to one. But this isn't the case, since what is actually responsible for how things look is just the temporal part of t5 to t10. Imagine that, unbeknownst to you, the fox hadn't been crossing the road from one side to the other, but from t1-t5, had darted out from behind a car in the middle of the road. In this scenario, things would still look the same to you as in the case of the fox crossing the

road. As such, the fox crossing the road cannot be responsible for how things look to you from t5-t10. At best, you directly perceive a temporal part of the event, not the event itself.

We can therefore propose an analogous worry concerning emotion perception. Let's say that some temporal part of a particular episode of anger involves an agent's scowl. In this particular instance, Tom catches Jerry scowling from t6 to t7, even though Jerry's angry episode lasts from t1 to t10. We might think that Jerry's angry episode is responsible for how things look to Tom, but in fact, it can only be what occurs from t6 to t7 that is responsible for how things look to Tom – only some sub-event of the episode of anger (a chunk of activity). This is because it is possible that Jerry produced this expression of anger without the preceding parts of the episode of anger. In fact, Jerry has been known to scowl mockingly and on cue, producing something that looks the same but in entirely different circumstances than in t1 to 10. The episode of anger from t1 to t10, the whole event, cannot be responsible for how things look to Tom from t6 to t7. It is rather just some temporal part, the part of the expression that Tom catches, that is responsible for how things look, so the argument goes. We are back in the position the naïve realist about emotion perception does not want to be in, whereby emotions (understood as accomplishments) are not directly perceived, only their expressions.[43]

One response here is to deny that things could look the same from t6 to t7 under different circumstances from t1 to t5 and from t7 to t10. The scowl from t6 to t7 has the particular look and character that it has *only because* of the larger temporal whole of which it is part. We might think that scowls, and expressions in general, adopt their character from the episodes of emotion they express. This explains why the same

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[43] One might wonder whether this analysis is so bad for the proponent of the direct perception of emotion theorist. Remember, in chapter 1 I argued that what should be concerning for such an account are charges of asymmetry between our ordinary perceptual experiences, and our perceptual experiences of emotion. If we take our perception of events to be instances of our ordinary perceptual experiences, then their supposed indirectness, if mirrored by emotion-perception, does not render emotion perception indirect in the asymmetry sense. As with accounts of part-whole perception as indirect, the perception of emotion is rendered indirect only insofar as its counterpart in ordinary perception.

flash of a scowl can look to one as a scowl of anger, or can look to one as a mocking scowl, betraying that the agent isn't too bothered by something. What's responsible for the difference in each case are things that occur before and after the temporal part that is seen. The character of some things cannot be determined in 'temporal isolation' (Crowther, 2014, 447).[44]

But we don't need this response, according to Crowther. It assumes that what it should be to directly perceive an event is to perceive all of its temporal parts, rather than some temporal part. This is a mistake for two reasons. Firstly, the direct perception of objects doesn't require that we perceive every part of the object. If the fox I see passes behind a tree such that I only catch its tail, it is still the fox that is responsible for the way things look to me – I don't need to perceive more than the tail for this to be a case of direct perception. Secondly, our intuitive grasp of event perception doesn't require it. I can felicitously say that I saw Mary run the London marathon, even though I watched her run past me for approximately 100 meters of the 26-mile race. In fact, in most cases, at the point at which we begin perceiving an event, it is necessarily incomplete. At the point at which I start watching the house being built, it hasn't been fully built. Seeing an event unfolding for any period of extended time implies that one began perceiving the event before its completion. It would be strange to say that I only perceive the house being built once it was completed. The relevant change, before and after completion, would be to say that while before I was seeing the house being built, now I have seen the house be built. It is not a matter of perceiving two different things (one incomplete building of a house and one complete building of a house), but perceiving the same thing at two different times (see Bacharach, 2021 for discussion).

So if the direct perception of events doesn't require that we perceive the whole of events, what does it require? Let's return to the ontology of events described in the previous section. We have accomplishments, like Mary running the London marathon,

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[44] Stout, although not discussing event perception, gives an account of this kind. Expressions do not exist in isolation, but are processes that essentially involve the whole emotion (Stout, 2010). See also Chapter 5 of this thesis.

that are constituted by the activity of Mary running. On Crowther's account of event perception, all it is to perceive an event directly is to perceive the activity that constitutes that event – to perceive the activity of the event *unfolding* and *in progress*. To perceive Mary running the London marathon is to perceive Mary running. And Mary's running is what composes the event of her running the marathon (Crowther, 2014, 456). It composes it in the sense that it *fills* the time in the way spatial stuff fills the space of an object. Given this notion of constitution, we can call this a part-whole model of the perception of events. We perceive events by perceiving the processes that constitute them. This captures the direct nature of the perception since what we clap our eyes on is the event unfolding – and events are responsible for how they unfold. To directly perceive an event is to perceive an event in progress.

Back to emotions. Emotional episodes are events, and we perceive these by perceiving the activity of an agent undergoing them: the emotion in progress. Jerry's episode of anger is constituted by the activity of Jerry undergoing that anger – it fills out the time in which Jerry is angry.

How does this relate to expression? Jerry's activity, during this time, has various sub-activities that may or may not last the full duration of the activity of undergoing anger. This runs parallel to the claim that a spatial particular can be filled out by a range of distinct spatial stuffs. A gold-plated necklace is made out of both sterling silver and gold – each kind of stuff filling out some portion of the space taken up by the necklace. So, too, can distinct sub-processes make up the activity of undergoing anger. One of these, I suggest, is the expression – in this case a scowl. The expression fills out part of the time of the episode of emotion, just like the gold fills up part of the space of the necklace. What it is to directly perceive an episode of emotion *just is* to perceive the activity of undergoing it; what it is for Tom to directly perceive Jerry's episode of anger just is to perceive Jerry expressing his anger. Jerry's expressing his anger is the unfolding of his episode of anger. The figure below represents this picture for an episode of sadness.

Episode of sadness

(filled out by)

Activity of sadness

(which is, for a period of time)

Expression of sadness
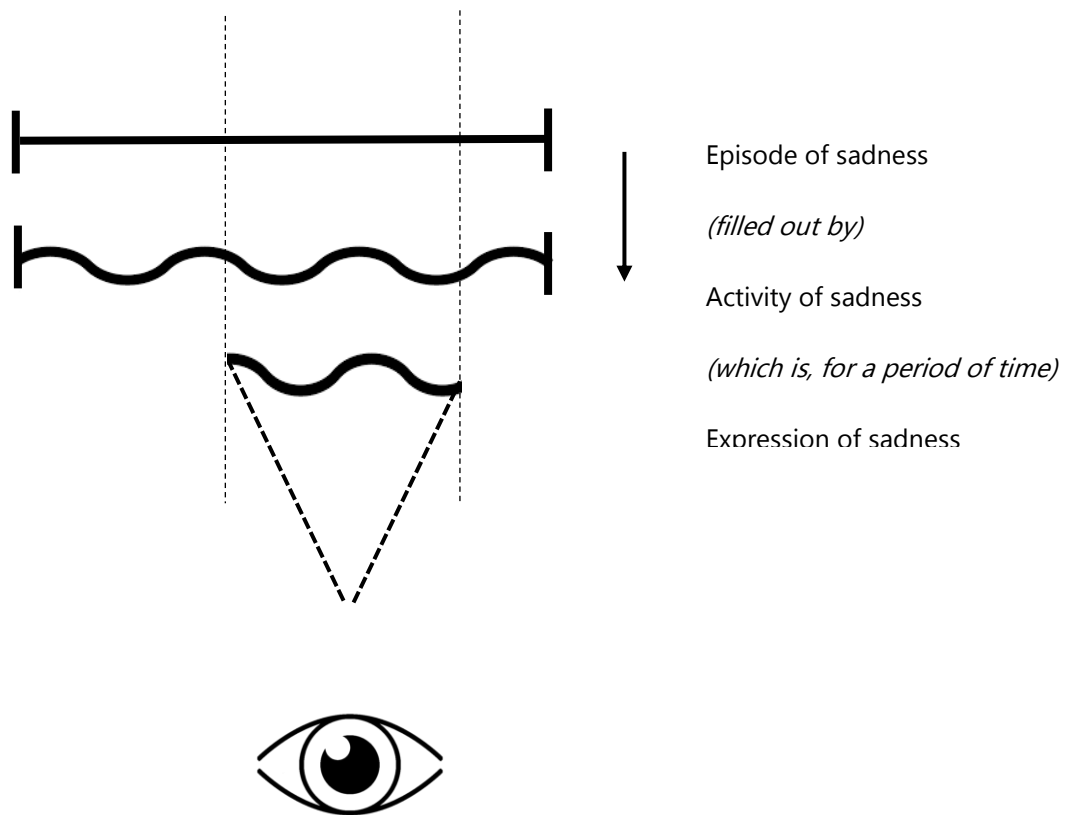
Finally, it is useful to highlight exactly what work activity is doing here. To do so, consider an alternative way of accounting for the perception of accomplishments. Imagine that instead of perceiving the fox crossing the road from t1-t10 by perceiving the fox's activity from t7-t8, we perceive the fox crossing the road by perceiving some sub-event (some chunk of activity) from t7-t8. But since all events, chunks of activity included, are complete temporal particulars, this sub-event from t7-t8 is also its own temporal particular. But then we can ask, how is it that we perceive this particular? Two answers could be offered. One is to suggest that we perceive it by again perceiving some sub-event – some smaller complete particular. But then we are left asking the same question about that event, and so on. The other option is to suggest that we

perceive *this* sub-event because we were looking from t7-t8, while we were not looking the whole time during the overall accomplishment. But this is also unsatisfactory because what we are looking for is an account of how we perceive events without perceiving the complete event.

Activities, unlike events, are ongoing – they are not bounded particulars. As Crowther puts it: 'When Lily perceives the walk that Isaac took but not the complete walk, what she directly perceives is not something finished or over – something 'dead' from the temporal point of view– but something ongoing' (Crowther, 2014). What it is to directly perceive a spatial particular is not to perceive some smaller spatial particular, but to perceive what the particular is made of. To perceive the gold necklace is to perceive some of the gold that it is made from. Likewise, to perceive a temporal particular is to perceive the temporal stuff that fills it out. To perceive the episode of sadness is not to perceive some smaller particular within it, but to perceive the sadness as it goes on – it is to perceive its unfolding, its activity. Expressive behaviour, I contend, is one of the activities that make up emotional episodes.

3.2. Implications

The fact that this account of what it is to directly perceive an emotion is compatible with not perceiving the whole of the emotion is important. One of the claims driving current theories of the perception of emotion is the idea that there is an inner/outer divide when it comes to emotions (Sias & Bar-On, 2016). While there are expressive elements in emotional phenomena, there are elements that are not readily available to the senses: the psychological, affective and evaluative components. The incomplete access we have to emotions is part of the phenomenology of our experience of others. As Duddington writes:

Perceiving a mind certainly does not lay bare before us all its thoughts, feelings, wishes, and so on, but neither does perceiving a table reveal to us the atoms and

molecules that compose it. What however is perceived in both cases is a certain measure of the reality, in the one case mental and in the other case physical, which may become a starting point for further acts of discrimination. There is probably no single thing in nature, of which we can be confidently said to have a complete and exhaustive knowledge, but this is not a reason for refusing to admit that we can directly apprehend physical things. (Duddington, 1918, 170)

In perceiving emotional episodes through perceiving their expressive activity over some temporal interval, we capture the sense in which our access is incomplete, without compromising its directness. While our perception of objects is spatially incomplete in most cases (we do not see every spatial part), our perception of events is temporally incomplete in most cases (we do not see every temporal part). We catch the emotions of others *in progress*.

Not only is it part of the phenomenology of perceiving events that we do not perceive every part, but that the part we perceive is extended in time. On what it's like to introspect a previous perceptual experience of an event, Soteriou writes:

in such cases, the occurrences one thereby seems to be attending to seem to one to have temporal extension. In a given case, it may be that it does not seem to one as though one is thereby attending to all of the temporal parts of that occurrence, however, it seems to one as though one cannot attend to the occurrence without attending to some temporal part of it and, moreover, some temporal part of the occurrence that has temporal extension. If one tries just to attend to an instantaneous temporal part of the occurrence, without attending to a temporal part of the occurrence that has a temporal extension, then one will fail. (Soteriou, 2010, 226)

We can say something similar about what it's like to perceive a live event: it requires the perception of something with temporal extension. This is just like how the

perception of a middle-sized object requires the perception of something with at least some degree of spatial extension. The activity we perceive in directly perceiving the event must be seen as unfolding. This has implications with respect to how we think about emotion perception. In particular, it rules out that we can directly perceive emotions through the perception of a mere static expression. We cannot catch another's emotion instantaneously, and insofar as one may be able to directly perceive something in a photograph of it, one cannot directly perceive an emotion in a photograph (for discussion of the transparency of photographs, see Walton, 1984).

In the debate discussed in Chapter 5 between Green and Stout, Green argued that we can directly perceive an emotion by perceiving a characteristic component of that emotion (a static facial expression of a special kind), while Stout argued that the perception of some characteristic component wasn't sufficient to guarantee perceptual knowledge – instead, we must perceive an extended expressive process in which the emotion inheres (Green, 2010; Stout, 2010). With the assertion that to directly perceive an emotion we must perceive its constitutive activity extended in time, we chart a middle ground between these two views. On Green's side, we promote an account of emotion perception in terms of the perception of a component of the emotion. But we reject that this component can be instantaneously experienced. Albeit through a different route, we agree with Stout that our experience must be of something extended in time.

Two final points. Our account benefits from explaining the direct perception of emotion in non-mystical terms. To perceive an event by perceiving the activity of undergoing it is just to perceive agents engaging in activity. It's to perceive someone running, walking, dancing, drawing, pushing a cart, playing a sport, etc. An agent engaging in an activity is something located in time and space and as such, it is readily available to the senses. The same goes for the activity that constitutes emotional episodes. An agent undergoing the activity of expressing their emotion.

Finally, Crowther raises a potential problem for this account of event perception. It commits one to the view that we can only directly perceive events involving agents

since event perception is cashed out in terms of the perception of an agent engaging in the activity that constitutes it (Crowther, 2014, 460). Insofar as some events do not involve agents, we cannot model their perception in this way. Candidates for agentless events will depend on how inclusive one's notion of an agent. If an agent is merely something capable of action, understood as a mere movement, then a leaf blowing in the wind can qualify as an event involving an agent. On this kind of picture, we would not miss out on much if we could only perceive events involving agents. On another kind of definition, which attributes intentions to agents, we may render a greater number of events as imperceptible. But while this may be an issue for event perception generally, it doesn't present a problem for emotion perception as a sub-species. The fact that the perception of emotional episodes requires the perception of an agent engaging in activity is unproblematic since we tend to exclusively attribute emotions to agents. The picture of emotions we have been working under puts the agent at the centre of several psychological, behavioural and physiological changes. So, even if agentless events exist, agentless emotions are a harder sell.

4. Conclusion

In this chapter, I have sketched a new option for the proponent of the direct perception of emotion to pursue. This has been to abandon the analogy between our perception of objects like trees and houses on the one hand, and the perception of emotions on the other. Instead, we can capture the sense in which our perception of emotion is like our perception of ordinary things in our environment by thinking about our perception of events. In particular, I draw on a recent account of event-perception from Crowther.

Emotions take multiple ontological forms. I have suggested that they can occur as events occur – in particular, they can be accomplishments: temporal particulars, undergone by agents, and governed by particular completeness conditions. These emotional accomplishments are made up of emotional activity. We perceive this activity – the emotion in progress – and thereby perceive the emotion. Perceiving the

activity of emotion is what it is to directly perceive an emotional accomplishment, in the same way that perceiving some gold is what it is to perceive the gold statue is constitutes.

Concluding remarks

I started this thesis by suggesting that what the direct perception of emotion should entail is a perceptual experience analogous to that of ordinary things in our environment. The asymmetry objection was then raised. It contends that this analogy cannot hold, since our perception of emotions is mediated by expressions. This renders such perception indirect in a sense not applicable to ordinary perception.

In response to this, I have shown that it is possible for our perception of emotion to rely on expression, without then rendering such perception indirect. In fact, our reliance on some things in order to perceive others is a common feature of our everyday perceptual experiences. For example, we see and hear things through perceptual media like illumination and sound, and we perceive events by perceiving the activities that constitute them. By thinking about the nature of emotions, expressions, and how they relate, I have proposed the following two roles for expressions in the perception of emotion:

(i) Expressions behave as the perceptual media through which we perceive emotions
(ii) Expressions are the activity of an emotion in progress

Are these solutions competing or complementary? Let's remind ourselves of what (i) involves. Our direct perception of various objects and their properties, like the colour of the fox in front of us, is mediated by perceptual media. We see the colour of the fox through illumination. Three key features of perceptual media were identified. These were variation within the media, their role in perceptual constancy and their transparency. Expressions exhibit variation in a number of respects. Just as the perceptual medium of sound can be more or less loud, expressions can be more or less pronounced. Sounds can vary according to tone, pitch and timbre, and an expression of anger can take the form of a range of distinct behaviours – the banging of a fist, a scowl, a raging rant. Such variation, in the case of media and in the case of expressions, is agent and context relative. Who it is that is expressing, and the particular interpersonal situation, will affect the perceptual qualities of the expression.

Expressions play a particular role in emotional constancy, just as media do in certain cases of perceptual constancy. As noticed by Heider (1958, 28) and McNeil (2019, 176), our perception of emotion exhibits constancy just as our perception of colours sometimes do. Despite a wide variation in the expressions presented to a

perceiver, the perceived emotion remains relatively stable. The stability of the perceived emotion is not without *any* change – the different expressions affect the way the emotion appears. We concluded that our capacity to recognise emotions involves a phenomenon with three key elements: stability *and* variation in emotion appearance, mediated by variation in expression.

Finally, to understand expressions by analogy with perceptual media, I argued expressions are transparent. Something was understood to be transparent if we can see through it to something else, and that it gets any perceptual character it has from what is seen through it. This is the sense in which the transparent thing is seen but not seen in and of itself. Important to our discussion of transparency was the idea that it comes in degrees. With respect to expression, the expressions through which we perceive emotions can recede in the background or be more pronounced in our perception – this renders the emotion more or less obscured, respectively.

Involved in (ii) is a constitutive claim. In Crowther's ontology of events, events are constituted by activity (Crowther, 2011, 2014). Activity is the stuff that fills events temporally, just as gold is the stuff that fills a gold necklace spatially. Understanding expression as the activity that constitutes the event of emotion, I develop an account of emotion perception in which expressions are parts of emotions.

On the face of it, there is a conflict between claiming that expressions are parts of emotions and claiming that expressions are the media through which we perceive emotions. In ordinary cases of our perception of things by their parts, the perceived parts are not transparent. Take the standard cases that are supposed to motivate part-whole perception. When we perceive something like a sofa or a tree, what catches our eye is not the whole sofa or the whole tree, but merely some portion of its surface (Moore, 1918, 10). The portion of its surface is the part of the sofa which is visible – let's say the other parts of it are covered by people, or on the underside and backside of the sofa, such that they are occluded from vision. What does the work, in being able to perceive the whole, is the visual awareness one has of the part. This awareness is not like that of media, which we describe as being seen but not in and of itself. To see

this, imagine cutting off the branch of a tree, the part of the tree that enabled your perception of it moments ago. Once cut off, the branch would retain the same visual properties for some time – it would appear the same colour, the same size, the same shape, and so on. The only difference is that it is now not attached to the tree. But one cannot separate the perceptual medium through which we perceive some object and expect the medium to retain all the same properties. Take a sunset, for example. At the point at which the sun becomes entirely occluded, the light through which you were watching it changes. Imagine also the sound of one person talking to be replaced by the sound of another person talking. Here, the change in the object of perception brings with it qualitative change to the medium. The qualities of the media through which we perceive things stand in relation to the objects of perception in a way that the parts invoked in part-whole perception do not. Parts are not transparent, perceptual media are. We can present the argument more formally as follows:

1) Expressions behave as the perceptual media through which we perceive emotions
2) Things that behave as perceptual media are transparent
3) If we perceive an event by perceiving its activity, we perceive it by part-whole perception, where the activity is the part and the event is the whole
4) The parts in part-whole perception are not transparent
5) Activities are not transparent
6) Expressions are not activities

We could accept this tension and present each account as a competing solution to the asymmetry worry. This would still be worthwhile for the direct perception of emotion theorist. But with respect to presenting a positive proposal regarding how expressions and emotions relate in emotion perception, there may be more we can say in order to retain *both* (i) and (ii) without contradiction.

To remind ourselves, (ii) is a claim relative to emotion events. The discussion of the perception of events followed naturally from arguments for a plural ontology of emotion. I suggested that emotions have both static and dynamic forms – they can be both states and occurrences. This opens up one potential resolution to the conflict. We could suggest that, in our perception of emotional occurrences, expressions behave as the activity of the emotion in progress; in our perception of emotional states, expressions behave as perceptual media. This raises a number of interesting thoughts that would need further exploration. Firstly, we would need an account of what it is like to perceive states. States are continuants, like objects, since both obtain over time as wholly present. It is natural, therefore, to treat the perception of states by analogy with the perception of objects. We perceive objects through perceptual media; so too for states. We perceive the state of motion of the record spinning on a turntable through illumination.

Secondly, we would need to motivate the idea that there are two perceptual experiences happening at once. The ontological plurality was seen to be both inter-emotional and intra-emotional. One can be in a state of anger while the event of their anger is occurring. If we perceive *both*, then we need to explain how this is possible. This is a challenge since it doesn't feel like we have two kinds of perceptual experience happening at once when we perceive another's anger.

An alternative response is to accept (6). In Chapter 6 I suggested how expressions could fit into the perception of emotion events. This was to suggest that expressions are the activities of undergoing emotions (or, at least, sub-activities). But we need not. We could instead maintain that expressions are the perceptual media through which we perceive the activity of emotion. It is the activity that constitutes the event of emotion, not the media through which we perceive this.

A final response to the above argument is to take issue with (3) and (4). While it might be the case that the parts in part-whole object perception are not transparent, this was not the kind of part-whole perception appealed to in chapter 6. Activities are not parts of events in the same way the surface of a sofa is part of the sofa. Activities

constitute events by being their temporal filler – they are the events *in progress*. Perceiving the event by perceiving it in progress across some temporal part is a relatively new way to characterise the experience of temporally extended events. There is still a lot to be said about the phenomenology of this kind of perception (for other discussions of the character of our perceptual experiences of things extended in time, see O'Shaughnessy (2000) and Soteriou (2010, 2011)).

One investigation is to the phenomenal character of the relationship between the activity and the event that it enables us direct perceptual access to. If our perceptual awareness of the activity of events exhibits some of the same features as perceptual media – the variation, role in perceptual constancy and transparency – then perhaps activities behave analogously to perceptual media. As such, claims (i) and (ii), that expressions are the activity of emotion and behave as the media through which we perceive emotion are complementary solutions, rather than alternatives.

This deserves its own discussion, but a few brief observations can be made. Regarding our first condition, on variation, activities conform with perceptual media. Across time, the activity filling an event can (and often does) vary. Take the event of Tanya racing in a triathlon. The activity filling this event – Tanya's racing – is marked by a series of sub-activities. In other words, it is marked by variation. The activity of Tanya racing is at one stage Tanya swimming, at another stage, Tanya cycling, and finally, Tanya running. The activity by which (or through which, on this interpretation) we perceive the event is characterised by change across time.

Furthermore, the activity that fills out different events of the same type will vary. Compare my playing a tennis match with Roger Federer playing a tennis match. These are events of the same type in the sense that they are both the playing of a tennis match. While they both involve the activity of playing tennis, they will look entirely different. The things that constitute my playing tennis involve next to no similarity to the things that constitute Federer's playing tennis. This is similar to how two instances of anger, split between two different individuals, will often look entirely different – they will express their respective anger in different ways. In both cases, as we saw with

perceptual media like sound and illumination, the character of activities and expressions is agent-relative.

What of perceptual constancy? Events, as with colours and emotions, sometimes exhibit constancy. In the phenomenon of colour constancy, one's vision can range over two spatial areas of some object, say, a table, and perceive varying shades of brown. Nonetheless, one's experience is characterised by a sense in which the table has the same overall colour. Take the event of Tanya racing in the triathlon. A spectator might attend to two different temporal phases of this event – once during the swimming phase and once during the cycling phase. While these phases certainly look different, being characterised by varied activity, there is a sense in which the spectator will feel they are perceiving uniformity – in each instance, they are perceiving the event of Tanya's race. There is something it is like to perceive Tanya's racing in the triathlon, that is distinct from the experience of watching Tanya swim or cycle on other occasions. Recall the visual metaphor used in Vendler's characterisation of events in which he states that they 'go on in time, but they proceed toward a terminus which is logically necessary to their being what they are. Somehow this climax casts its shadow backward, giving a new color to all that went before' (1957, 146).

Most importantly, are activities transparent with respect to events? When they enable our perception of events, do they do so by being opaque and in the foreground of our awareness, or do they recede away, qualitatively characterised by the events perceived through them? In arguing that expressions sometimes behave in this latter way in social perception, I drew on Heider's remarks: 'In social perception, too, there are some instances in which the mediating factors are very obscure, and others in which we are or can be quite cognizant of the cues for the perception of *o*. For instance, we may see that a person is displeased, without being able to say just what about his appearance or behavior gave us that impression' (Heider, 1958, 26).

There are many cases in which we successfully perceive an event, but for which it is unclear just what it is about the actions of an agent that enabled this perception. Imagine, while on a walk, witnessing two people end a relationship. Tanya's breaking

up with Tony is certainly an event. It proceeds towards a terminal point in which the relationship is over. When you look over at the pair, it is clear to you what's happening. On our account of event perception, what you see is the activity of Tanya breaking up with Tony – the unfolding of the event. But if questioned later, it would be very hard to explain what it was about Tanya's activity that made you think it was *this* activity she was engaged in. What might explain this is that it is the event you perceive – Tanya's breaking-up with Tony – that lends its character to the activity you perceive it through.

In sum, expressions behave as perceptual media insofar as our experience of them exhibits the three qualities discussed above. The above remarks should show that it is not out of the question that activities exhibit these qualities also. It is therefore not out of the question that expressions behave as perceptual media *and* are activities of emotion.

I end with a separate point. In Chapter 3 I argued that expression is not best understood as it is by existing accounts of what it is for some behaviour to be expressive. These accounts treat expression as a primary quality, where something is expressive based on certain features of the putatively expressive agent and their behaviour. I argued instead that expression should be understood on a secondary quality model, where what it is for some behaviour to be expressive is for it to be disposed to be perceived as expressive by normal observers under normal conditions.

But my account of expression left open exactly what it is to be perceived as expressive of emotion. Given the discussion that followed Chapter 3, we have two options for how to develop what it is to be perceived as expressive and thereby develop the secondary quality account. The first way we could develop the account is as follows. We can say that for some agent's behaviour to be expressive is for it to be disposed to be perceived as the perceptual medium that enables an emotion to be perceived. More simply we could say that what it is for an agent's behaviour to be expressive is for it to be disposed to be perceived as that through which an emotion is perceived. The second way we could develop the account is as follows. We can say

that for some agent's behaviour to be expressive is for it to be disposed to be perceived as the activity of emotion.

Each of these answers tells us that expressions come to life in the role they play in our perception of emotion. While there may be a range of other relations in play between expressions and emotions (we have discussed expressions as *effects* or as *proper parts*), it is expressions' role in emotion perception – being that which enables emotions to be available to the senses – that best reflects the nature of the relation and the phenomenon of expression.

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