

Face Value. Perception and Knowledge of Other People's Happiness

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Happiness, like other basic emotions, has visual properties that create the conditions for happiness to be perceived in others. This is to say that happiness is perceivable. Its visual properties are to be identified with those facial expressions that are characteristic of happiness. Yet saying that something is perceivable does not suffice for us to conclude that it is perceived. We therefore need to show that happiness is perceived. Empirical evidence suggests that the visual system functions to perceive happiness as well as other basic emotions. Experiences that can be had simply by virtue of how the perceptual system functions are known as observations. I will thus argue that visual experiences in which we become aware of others' happiness are observations. This approach will provide the necessary conceptual framework to show that we have perceptual knowledge of others' happiness.

Introduction

Sometimes I know when another person is happy. When this is the case, I say things like "She is happy today", and my claim may be not only confirmed by the person's behaviour¹ but also accepted by her as true. How do I acquire such knowledge? In the discussion that follows, I will refer to this as the *knowledge question*. A natural answer is that I see happiness in the person's behaviour and, in particular, in her facial expression. This suggests that visual perception can be a source of knowledge of another person's happiness.² I will refer to this as a *perceptual claim* about happiness.³ Although my discussion will be concerned solely with happiness, I believe that most claims I will make can be generalised for other emotions. The kind of happiness I am interested in is not the enduring state that lasts over time and makes us say that people have or have had happy lives, happy childhoods, or happy marriages; I am interested in episodic happiness. We see this emotion in others when we look at them, especially at their faces, and we catch a glimpse of what they are feeling in that moment. The perceptual claim does not explain *how* we see happiness in others; it simply states an intuition that most people share. We therefore need an explanation of how we can have visual experiences whose object is the happiness of others. The explanation will provide the conceptual framework necessary to answer the knowledge question.

Happiness and Expression

The first stage of my argument will be a discussion of the nature of facial expressions⁴ and of the role they play in perception of happiness. There is at least one main account of

expressions.⁵ It says that expressions are bodily and behavioural modifications that we see as signs,⁶ expressions, or manifestations⁷ of happiness. I will refer to this as the *seeing-as view*. Most philosophers (Strawson 1954, Peacocke 1984) agree that, once we have mastered the relevant concept, we see something as something else or, more precisely, we see something as a specific kind of thing. For example, I see a certain thing as an apple once I have mastered the concept of apple. In this case, concept mastery involves rudimentary knowledge of what kinds of things apples are and what they normally look like. This suggests that the ability to see something as a specific kind of thing rests on the perceiver's having background knowledge of what she is seeing.

The seeing-as view of happiness puts forward a similar argument. Expressions can be described as patterns of bodily changes brought about by emotions (James 1884). Empirical evidence (Zajonc *et al.* 1989) suggests that specific changes or patterns of changes are peculiar to specific emotions. Humans are phylogenetically endowed with what psychologists have called 'affect programmes'. These are automatic responses involving characteristic facial and bodily expressions, changes in the tone of voice, and so on (Darwin 1872, Ekman 1992). Smiles, for example, are patterns of changes characteristic of happiness; scowls, by contrast, are characteristic of anger, and so on. We see specific changes as expressions of happiness once we have mastered the concept of happiness, which is a psychological concept like that of thought, desire, or perception. Mastery of psychological concepts involves knowledge of how to use the corresponding psychological predicates both in the first and in the third person (Strawson 1958, Peacocke 1992). Someone thus masters the concept of happiness when she knows in what circumstances it is correct to think or say (i) that she is or feels happy,⁸ and (ii) that someone else is or feels happy. The sort of knowledge necessary to make correct ascriptions and self-ascriptions of happiness covers a great deal of information about happiness. It is plausible to think that, when it comes to ascriptions such as "She is happy today", the most important piece of information is a notion of how people typically behave when they are or feel happy. This knowledge enables us to see some specific bodily and behavioural modifications as expressions of happiness.

The problem with this view is that, although it may seem perfectly intuitive, it does not provide a good explanation of the perceptual claim. I take a good explanation to be one that accounts for as many aspects of a given phenomenon as possible. As a matter of fact, the seeing-as view proves inadequate when it comes to accounting for two important aspects of perception of happiness. One of these is the empirical and anecdotal evidence that infants see and respond to facial expressions of emotions in adults.⁹ For example, infants often respond to smiles by smiling in return.¹⁰ The other is empirical evidence (Ekman, Sorenson *et al.* 1969; Izard 1971; Ekman and Friesen 1986) that individuals with totally different background knowledge make converging judgments as to the kinds of emotions they see when they are shown pictures of people expressing emotions in their faces. I will examine the significance of the latter aspect later in my discussion. For now, I would like to focus on evidence from infants. How does the seeing-as view account for this aspect of perception of happiness? The view maintains that we are in a position to see

happiness in others only when we know how people typically behave when they are or feel happy. The problem is that the acquisition of this sort of knowledge takes time, as it requires repeated exposure to expressions of happiness. It is therefore unlikely that infants possess such knowledge. If this reasoning is correct, then the seeing-as view leads to the conclusion that infants do not see bodily and behavioural modifications as expressions of happiness, because they lack the relevant background knowledge; all they see are emotionless modifications in a person's face. This conclusion is problematic because it dismisses what seems to be a fundamental aspect of emotion perception – that is evidence that infants seem to respond, not just to emotionless changes, but to expressions of emotions.

At this stage, we should probably ask whether there is any reason to accept the conclusion that infants do not see bodily and behavioural modifications as expressions of happiness because they lack the relevant background knowledge. The only reason for holding on to the seeing-as view is that it provides an explanation of how we perceive happiness. The problem is that the explanation relies so much on background knowledge that it becomes extremely difficult to account for the evidence from the case of infants. Although problematic and subject to different interpretations, such evidence seems to be an important aspect of emotion perception. It follows that the seeing-as view fails to account for a significant aspect of the phenomenon in question. This leaves us with two options: either we hold on to the seeing as-view and reject the evidence from infants, or we hold on to the evidence from infants and reject the seeing-as view. I see the latter option as more promising, for it seeks an explanation that accounts for the evidence from infants. What should this explanation be like? As we have seen, the seeing-as view fails because of its reliance on background knowledge. This suggests that an alternative explanation should account for the perceptual claim in a way that does not rely on background knowledge.

Here, one may wonder precisely when knowledge is not a factor in perception. Most philosophers agree that knowledge pervades the content of perception and structures it by means of concepts.¹¹ If we want to explain the perceptual claim I cited at the outset without having to rely on knowledge, we need to consider those perceptual episodes that can be had independently of background knowledge. These are experiences whose occurrence depends solely on how the visual system works, regardless of whether the perceiver knows or does not know what she is perceiving. Research into the visual system has shown that the ability to see specific properties, such as colours for example, is already present at birth and therefore does not require prior mastery of colour concepts.¹² This is to say that an experience of, say, something red can be had even though the perceiver does not know anything about the colour red. Similarly, we may suppose that the ability to see emotions in others also depends on how the visual system works. This view has the advantage of accounting for evidence from infants. It is, in fact, plausible to think that the ability to see emotions in others is present at a time when infants could not have acquired background knowledge of emotions. These considerations suggest that any explanation of

the perceptual claim that does not rely on background knowledge will have to show that the visual system functions to detect happiness in others.

Before addressing this issue, we need to devote a little more discussion to the relationship between happiness and its expression. If we accept that evidence from infants is an important aspect of emotion perception and that background knowledge is not necessary for being able to see happiness in others, we need to explain what makes a mental state such as happiness *perceivable* in the first place. A way to approach this task is to consider visual perception of ordinary physical objects, such as tables and chairs, and ask: Is visual perception of happiness in any way similar to visual perception of objects? We can think of visual perception as the result of the interaction between two elements. One is the object of perception, the other the visual system. This object may have all sorts of different physical properties, only some of which are picked out in visual perception. I will refer to these as *visual properties*. Visual perception occurs when an object's visual properties impinge upon the perceiver's visual system. These considerations suggest that, if the perceptual claim is true and the seeing-as view is false, happiness must have visual properties to which the visual system is sensitive. The challenge is to identify the properties involved in visual perception of happiness.

I have been suggesting that expressions are, in some way, involved in visual perception of happiness. An immediate problem, however, is that we do not seem to be clear about the very nature of expressions. People generally agree that expressions are movements in the face. This view, however, does not account for expressions that do not literally occur in the face (such as sighs, screams, or tremors of the voice). This suggests that expressions are not limited to movements in the face. One might, then, say that expressions are movements that occur all over the body. Of course, this is not true either as most voluntary movements are not expressions. One might, then, try to say that, unlike actions, emotions are involuntary movements that occur in any part of the body. Yet this view has two undesirable consequences. First, it includes all involuntary movements in the class of expressions. This is not plausible, as there are involuntary movements (such as twitches, for example) that are not expressions. Second, it eliminates voluntary movements like crossing the arms or drumming the fingers from the class of expressions. This is not plausible either, as, in some cases, these movements do express emotions. The only point of agreement seems to be the idea that expressions are movements. But this is also questionable. Emotions can be expressed by bodily changes that do not involve moving any body part (such as going pale, having a dry mouth, having cold hands, and having goose pimples). This suggests that the best way of characterising expressions may be as bodily changes, broadly conceived. This is consistent with the view that emotions produce modifications in the body. This view too has a downside, however, for it pays too much attention to what goes on *inside* the body.

All these different descriptions seem to overlook what is probably the most important aspect of expressions – that is, the fact something is an emotional expression, first and foremost, for someone *other than* the person who makes the expression.¹³ It is this aspect of expressions that may help us clarify the role of expressions in visual

perception of happiness.¹⁴ Suppose we describe expressions as phenomena that relate others to the emotions that I experience and display. How, then, is the relationship going to be established? Here is a possible explanation. An expression of happiness is something that, on some occasions, others *perceive* in my face and demeanour. Perception is often described as a kind of state that relates the perceiver to the perceived object – where the relationship is established through how the object appears to the perceiver (Crane 1994). For example, when I see the sun high in the sky, I relate to it through how the sun appears to me, namely as a small yellow circle. In a similar vein, we can describe expressions as the ways happiness appears to us when it affects another person. Expressions can thus be described as visual properties of happiness.¹⁵ This view answers the question as to what makes a mental entity such as happiness perceivable. The answer is that happiness (like other emotions) has characteristic visual properties that create the conditions for happiness to be perceived in others. This is to say that happiness is *perceivable*. Its visual properties are to be identified with those facial expressions that are characteristic of happiness. In this view, when we look at someone's expression of happiness, what we see is something more than just a modification in her face; we see her happiness. This is possible because what we call an 'expression' is not just a physical change brought about by happiness; it is a property characteristic of happiness that creates the conditions for the emotion to be perceived.

Happiness, Expression, and the Visual System

Saying that something is perceivable, however, does not suffice for us to conclude that it is *perceived*. Infrared light, for example, can only be perceived by creatures endowed with a suitably sensitive visual system. If a given kind of creature lacks the ability to perceive ultrasounds (as humans do), it follows that, although ultrasounds are perceivable, they are not perceived by that specific kind of creature. On the basis of this reasoning we need to show that emotions are not only perceivable, but also perceived. Empirical evidence concerning the function of the perceptual system will support this argument. Unfortunately, although current research into the visual brain backs up the idea that the perceptual system functions to detect emotions, we know more about the mechanisms involved in perception of negative emotions than of happiness. For this reason, I will draw upon evidence regarding negative emotions to outline a model of the sort of brain mechanisms that are likely to be involved in perception of happiness.

Behavioural studies suggest that subjects with autism spectrum disorder are insensitive to other people's emotions.¹⁶ One study in particular (Weeks and Hobson 1987) compared the performance of autistic and non-autistic children in a sorting task where various photographs of people could be sorted on the basis of age, gender, emotional facial expression, and type of hat. While non-autistic children sorted the pictures by types of expressions, autistic children sorted them by types of hats. Moreover, when asked to sort the photographs by facial expressions, almost half of the autistic children could not do

so. Although these findings suggest that autistic children have problems in detecting other people's emotions, it is not clear whether the deficit is cognitive or perceptual. The study above shows that subjects with autism can perform sorting tasks as well as non-autistic children. The difference is that the properties to which they responded were not facial expressions but items of clothing. There is no reason to think that the ability to sort pictures by expressions is more demanding, in cognitive terms, than the ability to sort pictures by types of hats.

These considerations suggest that there is little room for arguing that the deficit in question is entirely cognitive. Moreover, recent studies (Dakin and Frith 2005; Behrmann *et al.* 2006) on perception in subjects with autism lend support to the idea that the deficit is likely to be perceptual. Evidence has shown that autistic subjects often suffer from widespread perceptual problems. These subjects are particularly attentive to local details and, concurrently, fail to perceive the overall stimulus. The impairment in the perception of faces in autism might thus result from the tendency to process information locally rather than holistically. Further evidence concerns impairments in processing human motion. Facial expressions are movements whose production is extremely fast. There is evidence (Gepner *et al.* 2001) that autistic children perform relatively well in recognition of emotional and non-emotional expressions when the expressions are displayed slowly on video, but less well when they observe expressions displayed at normal speed. These findings suggest that the deficit in question is likely to be perceptual.

Recent fMRI studies (Schultz 2005) have shown that poor activity in the amygdala may be the origin of this deficit, and that the deficit mainly affects perception of negative emotions.¹⁷ Similar results come from subjects with bilateral amygdala damage. These subjects become unable to recognise facial expressions of fear after suffering damage to the amygdala (Adolphs *et al.* 2005). Although these findings confirm the role of the amygdala in the recognition of negative emotions, they do not give direct support to the claim that the visual system functions to detect emotions, for the amygdala is not part of the visual brain. Yet we can speculate that the amygdala is part of a complex brain structure whose function is to detect emotions in others. The speculation is supported by recent studies on macaque monkeys that have shown a relationship between activation in the amygdala and vision. In particular, one study speculates that feedback projections from the amygdala may modulate perception so as to direct attention to those aspects of the environment that are relevant for dealing with threatening stimuli (Amaral *et al.* 2003). These and other studies suggest that there is a brain area – the amygdala – that activates in response to presentations of negative emotions in others. As we know from other studies, the amygdala appears to be inactive in autistic people when they are presented with expressions of negative emotions; this seems to be at the root of their poor sensitivity to these emotions. This body of evidence indicates that the amygdala is likely to be part of a complex brain structure which functions to detect negative emotions in others. We may speculate that a similar mechanism, probably involving different brain areas, may underpin the ability to detect happiness and other positive emotions. Our speculation receives

support from studies showing activation in the basal ganglia, including the ventral striatum and putamen, in response to expressions of happiness (Phan *et al.* 2002).

What I have so far described suggests that there is evidence of a complex brain structure which seems to play a key role in visual perception of negative emotions. Unfortunately, it is still unclear what brain structure or structures may be involved in perception of happiness. The lack of adequate evidential support may lend room to the objection that the view that the perceptual system functions to detect happiness is nothing more than a speculation, and that the seeing-as view remains the best explanation available. I will reject this objection by considering evidence from another research field, that of anthropological studies. Between the mid 1960s and early 70s, American psychologists Ekman and colleagues (1969) and Carol Izard (1971) carried out independent studies in which they interviewed members of 21 Western and non-Western literate cultures. The subjects were asked to choose the emotion terms which, in their language, corresponded to pictures of Caucasian individuals who were expressing emotions in their faces. Izard and Ekman each showed different sets of pictures, gave the subjects different lists of emotion terms, and examined people in different cultures. Surprisingly, they obtained evidence of agreement in the labelling of the facial expressions of six emotions – anger, disgust, fear, surprise, sadness, and joy – which became known as ‘basic emotions’. To rule out the possibility that such agreement could result from cultural contamination, Ekman extended the research to the South Fore culture in New Guinea. These people had had limited contact with outsiders apart from neighbouring cultural groups. When shown pictures of Caucasian individuals expressing basic emotions, the South Fore people chose the same expressions for each emotion as had the people in the 21 Western and non-Western literate cultures. The only exception was that they failed to distinguish expressions of fear from expressions of surprise, although both of these were distinguished from expressions of anger, happiness, sadness and disgust.¹⁸

These findings are surprising in the light of the following considerations. What defines a culture is the body of knowledge shared by its members. Different cultures have different background knowledge. This influences the way people understand objects and events, including mental states. It is plausible to think that background knowledge also affects the way people understand emotions.¹⁹ In particular, we may expect that individuals from different cultures will have different background knowledge about how people typically behave when they have or feel certain emotions. Along these lines, it is conceivable that individuals from different cultures will disagree as to the kinds of emotions they see when they are shown pictures like the ones used by Ekman and Izard. Yet the studies carried out by Ekman and Izard on literate cultures, and the further investigations done by Ekman and his colleagues on the South Fore people, had a different outcome. They showed that individuals from different cultures agreed as to the kinds of emotions they saw in the pictures. On the basis of these and other similar findings, Ekman *et al.* concluded that there is a connection between particular facial configurations and specific emotions, and that such a connection is universal. They suppose that this universal

connection became established by natural selection; however, they did not rule out the possibility that some expressions are acquired through learning (Ekman 1979, 1999).

There is, however, something unsatisfying about this conclusion. Saying that some emotional expressions are universal does not explain the agreement reported in the studies, unless we suppose that knowledge of how specific expressions correlate with specific emotions is also universal. However, I am not aware of any research supporting this supposition. Moreover, we should ask whether the appeal to universals provides us with the best explanation for the phenomenon in question. The studies involved the following simple procedure: the subjects were shown pictures of people expressing basic emotions in their faces and were asked to judge what kinds of emotions they saw. This suggests that the judgements on the basis of which the agreement was measured were perceptual judgements. One may thus suppose that perception, rather than universal knowledge, explains the agreement. This view is supported by the following reasoning. It is a fact that all individuals of the same species have the same perceptual system. It is thus plausible to think that individuals of the same species will see the same things when they are presented with the same stimuli (Fodor 1980). If this is correct, the agreement in judgement is explained by the fact that all humans have the same perceptual system and can therefore see the same kinds of emotions expressed in others. This leads to two conclusions. One is that the ability to see basic emotions in others is independent of background knowledge. The other is that this ability is likely to originate from the fact that the visual system functions to detect basic emotions.

What I have so far observed must not lead to the conclusion that background knowledge is irrelevant to perception of emotions. A number of studies have reported that the recognition of emotional expressions improves with age. Children's abilities emerge gradually over time, with happiness recognised earliest and with the greatest accuracy, followed by sad or angry expressions, then by expressions of surprise or fear (Herba and Phillips 2004). These considerations suggest that we build a certain degree of expertise on top of a basic ability to detect emotions in others. This ability is essential for explaining how perceivers with different background knowledge can arrive at converging judgements about the kinds of emotions they see expressed in others. This, in turn, lends support to the idea that the visual system plays a key role in perception of happiness and other basic emotions.

The argument I have so far developed can be viewed in terms of the distinction, familiar in the philosophy of perception, between perceptual experiences of observational properties (also known as observations) and perceptual experiences of non-observational properties (Peacocke 1983). Observations are experiences that can be had simply by virtue of how the perceptual system works. More precisely, observations are experiences of properties that the perceptual system functions to detect. Paradigmatic examples of observational properties are shapes, sizes, colours, location, motion, orientation, depth, distance, and so on. An experience of something red is thus an instance of observation because the only necessary condition for this experience to occur is that the perceiver is endowed with a visual system which is sensitive to red. This means that mastery of the

concept 'red' is not a condition for having experiences of something as being red. Perceptual experiences that are not observations, by contrast, can only be had by perceivers who have acquired the relevant concepts. For example, I can perceive something as an apple only when I know what apples are and what they normally look like.

The discussion above has shown two important aspects of visual perception of happiness. One is that background knowledge is not a necessary condition for perceiving happiness in others. The other is that there is reason to believe that the visual system functions to detect happiness. As we have seen, observations are perceptual experiences that can be had solely by virtue of how the perceptual system works, regardless of what the perceiver does or does not know. In line with this account of observation, we can conclude that visual perceptions of happiness are instances of observation. In the next section, I will show that this conclusion provides us with the conceptual framework necessary for answering the knowledge question.

Perceptual Knowledge of Happiness

Only veridical perception yields knowledge. It follows from this that, as a type of perception, only veridical observation is a source of knowledge. The problem is to determine in what circumstances observation of happiness is veridical. Consider an experience such as of a red patch on the wall. My experience is veridical when (i) my perceptual system is operating properly, and (ii) the circumstances of observation (such as lighting for example) are normal. I will refer to these as *basic conditions* for veridical observations. When these conditions are met, something that looks red to me *is* also red. This is all I need in order to know the colour of the patch. Knowledge by observation can thus be described as the epistemic relationship that occurs when one perceives a given observational property and the basic conditions for veridical observations are met. Of course, this is not sufficient for the perceiver to express her knowledge in the form of beliefs or judgements, the formation of which requires mastery of the relevant observational concepts. The transition from veridical observations to true observational judgements requires the perceiver to apply the right concepts to what she is observing. This, in turn, makes a demand on her to master the relevant concepts. I will confine my discussion to the conditions for veridical observations, and leave aside the problem of veridical observational judgements.

One may be tempted to conclude that the same considerations apply to observations of happiness as to observations of colours. The conclusion is, however, false. Everyday experience teaches that observations of happiness (and of other basic emotions) can be non-veridical even when the basic conditions for veridical observations are met. This is the case with pretence, where people pretend to look happy when they are not.²⁰ This suggests that perception of colours and perception of emotions are not as similar as we supposed. It is, in fact, clear that while there are fake expressions of happiness, there is no such thing as a fake red. Of course, it is perfectly possible that things look red when

they are not. The point is that non-veridical observations of colours occur when something goes wrong in the process that produces the experience. This may be because the perceptual system is not operating properly, or the circumstances of observation are not favourable. The case of fake expressions of happiness is entirely different, for one may have a non-veridical experience of someone as looking happy even when the basic conditions are met. What makes the experience non-veridical is not a flaw in the process that yields the experience but the fact that the stimulus that triggers the experience – namely the expression – is ambiguous because fake expressions of happiness resemble genuine ones.

Given the scenario described above, in what circumstances are observations of happiness veridical? I will answer this question by considering the case of hallucination. The reason for doing so is that I am interested in the argument that some philosophers have devised to distinguish hallucination from veridical perception. I believe that a similar argument may be used to explain what distinguishes veridical observations of happiness from observations of stimuli that only resemble expressions of happiness. A natural way of thinking of veridical perception is as a source of knowledge about objects and events in the world. Hallucination is a conscious experience that is totally indistinguishable from veridical perception, the difference being that nothing of what we seem to perceive in hallucination is actually there. This is to say that there are conscious experiences that look or feel like veridical perceptions yet do not provide knowledge. It follows from this that, if we want to hold on to the claim that perception is a source of knowledge, we then need a way to tell veridical perception apart from hallucination. Some philosophers (Martin 2003, 2004) have argued that veridical perception and hallucination are different kinds of conscious experiences, with the difference residing in the fact that veridical perceptions are states that relate to objects in the world, while hallucinations are states that do not relate to anything. This suggests that a perceptual episode is veridical if and only if there is an object of which the episode is a form of awareness and the object has the properties that it appears to have. Some philosophers (Martin 2002) have fleshed out this idea by means of a constitutive claim about perception. Generally speaking, something *a* is constitutive of something *b* when there cannot be *b* without there being *a*. So, according to the constitutive claim about perception, objects are constitutive of veridical perception because there cannot be a veridical perception of, say, a red apple on the table if there is no red apple on the table.

How do these considerations bear upon the knowledge question? As we have seen, the possibility of fake expressions confronts us with a sceptical scenario in which we are presented with different kinds of stimuli from those we would be presented with if we were looking at genuine expressions. But how are we to characterise this difference, given that the two kinds of stimuli – the fake expression and the genuine one – look alike? It is in relation to this question that a constitutive claim about expressions of happiness may help us identify the conditions under which observations of happiness are veridical. The idea is that we can define a genuine expression of happiness in terms of the emotion being a constitutive part of the expression, so that the expression could not occur without

happiness being a property of the person who makes the expression. This means that if a similar expression occurred without happiness being a property of the person who makes it, we would not be looking at an expression of happiness, but at something that only resembles an expression of happiness. This account allows us to answer the knowledge question. We have knowledge of happiness when our observations are veridical. Observations, in turn, are veridical when they meet two sets of conditions. One set of conditions concerns the production of the observation and requires that (i) the observer's visual system is operating properly, and (ii) the circumstances of perception are normal or sufficiently favourable. The other concerns the stimulus that causes the observation and requires it to be partly constituted by the emotion it expresses. When these conditions are met, observation yields knowledge of happiness as well as of other basic emotions.

The constitutive claim gives us a way of further clarifying what it means to say that the perceptual system functions to detect happiness and other emotions. The advocate of the seeing-as view contends that the perceptual system only detects bodily and behavioural modifications that, later, we learn to interpret as expressions of emotions. The interpretation is made possible by the acquisition of information about emotions. As I have shown, this view leads to the conclusion that infants do not see emotions in others because they lack the necessary background knowledge and see only emotionless modifications in other people's bodies. This view seems to run counter to the intuition that when infants respond to expressions in adults, they do something more than reacting to emotionless modifications in others. Yet my opponent is likely to reply that there is nothing wrong with the idea that infants only see modifications that they later learn to interpret in the right way. In this respect, the opponent insists upon explaining perception of happiness in terms of the additional information that perceivers build into the content of perception as their learning progresses. The constitutive claim, by contrast, offers an alternative view according to which the explanatory job is done not by additional information acquired through learning, but by the richness of the stimulus itself. The idea is that when we see other people's expressive behaviour, emotions are already part of what we see; they are constituents of the expressions. In this respect, an expression is a richer stimulus than the emotionless pattern of change that the seeing-as view posits. It is this richer kind of stimulus that the perceptual system functions to detect. So when infants look at expressions of happiness in adults, they do not see mere emotionless modifications, they see modifications that have emotions as their constitutive parts. This is not to say that infants are also aware of the emotions that the stimuli present. Awareness will come later with the acquisition of the relevant emotion concepts. The point is that infants see stimuli that have emotions as their constituents so that, by seeing the stimuli, they also see the emotions. These stimuli are richer than any stimuli that resemble them but which do not have emotions as their constituents.

Perceptual Knowledge of Happiness and its Object

Some philosophers contend that it is a characteristic of mental states that they are directed at objects.²¹ These objects may or may not exist. For example, I may have thoughts about horses and about unicorns. While horses are real, unicorns are fictitious. In order to distinguish real objects from the objects of mental states, philosophers have introduced the notion of the intentional object. Intentional objects are the objects at which mental states are directed. Emotions are mental states and, as such, they have intentional objects. This view has some important consequences for the knowledge question. One may argue that we have full knowledge of another person's emotion when we are aware not only of the emotion *kind* (whether it is happiness rather than sadness, for example) but also of the emotion *object*.

Before addressing this problem, some remarks on the intentionality of emotions are necessary. For the record, the claim that emotions have intentional objects is far from uncontroversial. Some philosophers (Lamb 1987) contend that emotions (unlike beliefs) are or may be objectless. They support the claim by drawing on cases of objectless depression and anxiety. There are at least three arguments against this view. First, it is dubious that depression and anxiety are emotions. Psychologists usually describe them as moods. However, for the sake of argument, I will grant that they are emotions. Second, the claim that emotions are objectless rests on the idea that emotion objects must be definite and concrete entities. The natural consequence of this view is that if an emotion fails to have a definite object, it must have no object at all. This does not take into account that emotions are often directed at abstract entities. When suffering from anxiety, people become alarmed; they worry about trivial things; they fear changes and novelties. This state of mind is sometime described as existential anxiety, namely anxiety about life. When we characterise anxiety in this way, we take life – with all its complexity and indeterminacy – to be the object of anxiety. The point is that the object is not something tangible; it is an abstract entity such as life. In this view, emotions that seem objectless may, instead, be directed at objects that are so abstract that they may be difficult to describe. The third argument contends that there is a difference between an emotion being directed at an object and knowing what that object is. In this respect, it is perfectly possible that someone may have an emotion without knowing what her emotion is about. Although this seems a remote possibility in the case of happiness, since we normally know what we are happy about, it is conceivable that someone may not know the object of her anxiety or depression.²²

These considerations suggest that the objection that holds that emotions are or may be objectless is unfounded. It is thus plausible to think that emotions, like any other mental state, have intentional objects. This lends room to the view that, in order to be credited with full knowledge of happiness, we need to know not only the emotion kind but also the emotion object. The next stage in my argument will be an explanation of how perception can provide knowledge of the object of happiness. We have seen that a common way of conceiving intentional objects is as entities that may or may not exist. When they exist, they are objects in the world; when they do not, they are representations in the mind. It is plausible to assume that we cannot perceive – and thereby know – objects

that are representations in other people's minds. Yet this must not lead to the conclusion that we can *never* know the object of another person's happiness, as it is clear that, on some occasions, we do know what someone is happy about. The problem is to identify in what circumstances we have such knowledge.

A possible way to approach this problem is to consider again the relationship between knowledge and perception. We have seen that perception may be a source of knowledge. This suggests that we may know the object of another person's happiness when the object is something we can perceive. This is the case when the emotion object is something located in the person's immediate surroundings. In these circumstances, the object of happiness is likely to be something which people other than the emotion subject can perceive. Yet this does not rule out the possibility of misidentifying the object. This means that, to the end of acquiring knowledge of an emotion object, it is not sufficient that the object be located in the emotion subject's immediate surroundings. So, in what circumstances does perception yield knowledge of the object of another person's happiness? The most natural answer is: when we have a way of binding happiness to its object through perception. This sort of perceptual binding is provided by joint attention. Joint attention is a phenomenon whereby someone perceives the objects of another person's mental states by jointly attending to the movement of her eyes and face and to the objects at which the eyes and face are pointing. Joint attention is thus a source of information not only about the mental states of others but also about the objects of these states. This also applies to emotions. It is conceivable that a way of knowing both happiness and its object is by jointly attending to the expression and the object at which features of expression (such as the eyes, for example) are directed.²³ When the observation meets the basic conditions for veridicality, the emotion is a constitutive part of the expression, and the expression provides clues as to the emotion object, full knowledge of another person's happiness can be acquired.

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¹ I am only concerned with bodily and, in particular, facial expressions of emotions. Therefore, I will not discuss linguistic expressions of emotions. For a detailed philosophical analysis of linguistic expressions and the role they play in self-knowledge see Bar-On 2004. A discussion of verbal and non-verbal expressions of emotions from the point of view of linguistics can be found in the work of Anna Wierzbicka, see Wierzbicka 1995a, 1995b, 1998.

² This is not to say that sight is the only sense involved in perception of happiness or other emotions. Just as we can see another person's joy in her face, we can also hear the same emotion in her voice and feel it in her trembling hands. It may, prima facie, seem that two senses – taste and smell – are not involved in the perception of other people's emotions. This is not entirely correct. The sense of smell, for example, is involved in perception of chemical signals that humans and animals produce when they have certain emotions. On the other hand, the fact that taste and smell are not as prominent as other senses in perception of emotions can be viewed as the result of our evolutionary history as well as of our cultural and social conventions. It is thus plausible to claim that we perceive other people's emotions through the senses, even though some senses are more prominent than others. The idea that emotions can be seen and heard in others is developed by Perkins in his 1966 paper "Seeing and Hearing Emotions".

³ The word 'happiness' here always refers to the happiness of others.

⁴ The following expressions will be used interchangeably throughout the paper: 'expression' and 'facial expression', 'perception' and 'visual perception', 'visual system' and 'perceptual system'.

⁵ Expressions of emotions have been discussed by several philosophers and psychologists. Among the most important contributions are: Darwin 1872, Austin 1946, Hampshire 1960, Alston 1965, Wollheim 1967, Goldie 2000, Pickard 2003, Bar-On 2004, and Griffiths 2004.

⁶ The idea that emotions express or manifest themselves in bodily changes can be found in the work of William James (1884).

⁷ Paul Grice suggests that expressions of emotions are what he calls 'natural signs' of emotions in the same sense as smoke is a natural sign of fire. He writes: "For consider now, say, frowning. If I frown spontaneously, in the ordinary course of events, someone looking at me may well treat the frown as a natural sign of displeasure." (Grice 1957, 383).

⁸ In everyday psychological explanations we use emotion terms in two ways. We say that we *are* happy, and we also say that we *feel* happy. While it is clear that the second usage refers to bodily feelings and sensations, the same does not seem to be true of the first usage. This fits the intuition that we may have emotions that we do not feel. For example, we may be upset about a certain event without feeling upset all the time. The two usages may thus be interpreted as referring to two different aspects of emotions. One is that emotions have often an experiential component that consists of bodily feelings and sensations. We know from experience that specific bodily feelings are peculiar to specific emotions; a feeling of joy, for example, is the kind of bodily feeling we typically experience when we are in a state of joy. The other aspect is that emotions are states that need not give rise to bodily feelings and sensations in order to play a role in our psychological life. This appears in the fact that we may behave in a manner that expresses or manifests joy without feeling joyful. Happiness is, therefore, a state we may perceive in others whether they are happy or they also feel happy. For this reason I will talk of happiness as an emotion that we may perceive in either case. The relationship between emotions and emotional feelings is discussed by Richard Wollheim (1999).

⁹ There is evidence that infants begin to recognize emotional expressions after 6 months of age; some reports have even observed recognition in neonates. For discussion see Nelson (1987).

¹⁰ Of course, this phenomenon is open to different interpretations. The most plausible one is that very young children do not actually smile in return but rather imitate the expressions they see in adults. This is certainly a possibility given the importance that imitation plays in early development. However, I am reluctant to accept that emotional expressions in children are nothing more than mere imitations. That infants mimic expressions, especially in very early stages of their life, does not rule out the possibility that they also form emotions in response to the expressions they see in adults.

¹¹ This account of perception is championed by John McDowell (1994).

¹² Evidence to this effect is discussed by Adams and colleagues (1994). Cohen and Cashon (2003) provide a detailed discussion of perception in infancy.

¹³ This is not to say that expressions only occur when we are in public, as we often smile, laugh, or cry when we are on our own. Alan Fridlund (1991), for example, argues that private occurrences of emotional expressions are extremely common, and they should be explained as reactions to fictitious interactions that people imagine when they are on their own.

¹⁴ An interesting view of the relationship between perception and faces is developed by Robert Oakes (1982).

¹⁵ A version of this view is discussed by Pickard (2003).

¹⁶ Researchers often describe the deficit as the inability to see or recognise facial expressions of emotions. However, as I have shown in the previous section, expressions are properties by virtue of which emotions become perceivable. This is to say that a deficit that affects the ability to perceive or recognise facial expressions of emotions is a deficit in the perception of emotions.

¹⁷ Phillips (2004) provides a critical review of this and other related deficits in subjects with autism.

¹⁸ This may be explained by the fact that the expressions of fear and surprise look similar because they involve similar changes in the face.

¹⁹ Wierzbicka (1982) argues that differences in the way cultures conceptualise emotions show up in the specific emotion vocabulary that each culture possesses.

²⁰ There are also some rare pathological cases where the arrangement of facial muscles makes people look happy, although they are not necessarily. For example, facial spasms produced by cerebral palsy or stroke may cause changes in the face that, at first glance, resemble expressions of happiness.

²¹ For discussion see Crane (1998).

²² This view is stressed by Crane (1998).

²³ The fact that joint visual attention is essential to obtaining full knowledge of emotions may provide a further explanation for the fact that subjects with autism spectrum disorder do not detect other people's emotions. For children with autism, joint-attention behaviours are very limited or absent altogether. This suggests that the inability to understand other people's emotions characteristic of autism may result from a lack of information on two levels. One is the level of the emotion kind, as autistic subjects do not seem to perceive emotions. The other is the level of the emotion object. This suggests that, because of the deficit in joint visual attention, autistic subjects do not perceive the relation between a given object and the emotion the object may produce in other people. For discussion see Osterling and Dawson (1994).