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Consciousness and the Varieties of Emotion Experience: A Theoretical Framework

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Abstract

This paper proposes an account of the content, form and nature of emotion experience. Data reviewed suggest that previous theories are too narrow in scope and that lack of consensus among them is due to the fact that emotion experience can take various forms. The content of emotion experience, the underlying nonconscious correspondences, and the processes contributing to conscious emotion experience are treated separately. We classify the nature and content of emotion experience and propose that it depends on three aspects of attention: mode (analytic or synthetic; detached or immersed), direction (self or world), and focus (evaluation or action). Our account is informed by a two-level view of consciousness, in which phenomenology (1st-order) is distinguished from awareness (2nd-order). These distinctions enable us to distinguish and account for cases of 'unconscious' emotion where there is an apparent lack of phenomenology or awareness.

While it is acknowledged that the conscious experience of different emotions differs, it is not so widely recognized explicitly that the experience of each emotion can take different forms. For example, the experience of anger can consist in feeling tense or hot and feeling a faster heartbeat, feeling an urge to attack, being aware of someone as offensive or as 'to-be-attacked' or as 'a bastard', having conscious thoughts that one has been offended and of how one has, or simply having an integrated experience of 'anger'. Although one may have several such different experiences during an episode of anger, one may have only one which varies between occasions and individuals. These experiences differ phenomenologically, and their different content inherently informs one about different things, e.g. one's bodily state as opposed to who has done what to one. This paper develops a conceptualization of emotion experience that gives a phenomenological characterisation of these differences and their relationship, and relates this to underlying information processing. This conceptualization clarifies different ways in which one can be aware and unaware of one's emotion. Our central topic is emotion experience, the content, form and nature of conscious states accompanying and related to emotion in ways defined and discussed below. However we cannot deal with emotion experience without bringing to bear a particular approach to consciousness in general. We also need to put forward a definition and characterisation of emotion states apart from conscious emotion experience, since an adequate treatment requires dealing with the relation between the two.

Why should psychologists be concerned with emotion experience? Some recent theorists do not seem to think that emotion experience is particularly important to an understanding of emotion. For example, LeDoux (1998) writes, "The conscious feelings that we know and love (or hate) our emotions by are red herrings, detours, in the scientific study of emotions" (p. 18). In our view emotion experience is of legitimate interest in its own right and is important to people: study of it needs no functionalist justification. However, many theorists of emotion might be induced to concede that emotion experience is more important functionally than they have acknowledged. For example, some robots and aliens in science fiction (e.g. Data and Spock, respectively, in the TV series *Star Trek*) are often taken by lay people and theorists alike to lack

a certain essential human type of understanding, especially regarding the social domain, because they lack "emotions". Having emotions means that the way things are, were, or will be matters to one, such that it unavoidably affects one physically and hedonically. However, robots would still lack that capacity of understanding if they had emotions as states or as affecting action but had no phenomenal counterpart of them or lacked reflexive awareness of such phenomenology. That is, what people really mean is that one will fail to empathize, even sympathize, or understand others' experiences and motives if one does not have similar experiences oneself. What is meant here by 'experience' is that which is conscious in the direct phenomenal way that a pain is paradigmatically conscious — acquaintance with "what it's like". Even if what is being referred to is a second-order introspective awareness or appreciation of one's emotions, it is nonetheless hard to see how one could have that without having first-order phenomenal experience of a kind that people characterize as 'emotional'. If one's knowledge of the existence and nature of one's emotions were not of either of the two above kinds of acquaintance, then one's knowledge of them would merely be of an entirely third-person kind, identical to outside observation. Indeed, to return to social understanding, it has been argued (Hoffman, 1982) that empathy based on one's own emotion phenomenology is one of the bases of social intersubjectivity, value systems and morality. Thus at least some theorists could probably be persuaded of the causal importance to human affairs of emotion experience. Moreover, the time course and regulation of emotions are often dependent on awareness, or its absence, of emotion experience. Indeed the regulation of certain emotions in therapy, such as in anger management (Kassinove, 1995), which will be discussed in the final section, and depression (Teasdale, 1999) is crucially dependent on the presence and kind of conscious experience of the person.

Finally, it can be argued that at least some emotions in humans do not exist as processes or states independently of phenomenology. It is not just that the occurrence of an emotion inevitably has phenomenology, unless severe neuropathology prevents the phenomenal experience of autonomic and bodily changes. More importantly, to be in an emotion state is to be in a particular phenomenological state, since emotion states are personal level attitudes that

themselves are essentially something it is like to be in or have. In this sense, quite apart from second-order awareness or interpretation, it would be bizarre to talk of most human emotions, at least for the nonpathological and paradigmatic cases, as separate from phenomenal experience. However, several kinds of "unawareness" of genuine concurrent emotion, reviewed in the penultimate section here, do appear to occur. Their existence, their consequences and the issue of how they come about are major motivations of this paper. Regarding such cases, many of which occur in normal individuals in unremarkable circumstances, those theorists for whom an emotion is defined (in part) by its being conscious have to either discount the state as not being an emotion, or insist the person is lying, or alter their definition. When ordinary people are apparently unaware of their anger, it is important to clarify whether they have any anger experience at all, and if so, what form it takes.

Since this paper involves theoretical discussion at different levels and introduces several concepts, it will help to give an overview of the contents. In the first section, we summarise the main accounts of emotion experience. A brief review of relevant data indicates the variable nature and content of emotion experience, and points to what the existing accounts fail to deal with. We suggest that the diversity of theoretical descriptions of emotion experience are due to (a) attempts to give unitary characterisations when there is a variety in emotion experience, and (b) theorists giving answers to what turn out to be different kinds of question that get confused with each other. We separate and try to answer three questions. The main one is: "what is the content of emotion experience as it is experienced?" The two other questions are: "to what nonconscious processes and representations does emotion experience correspond?"; and "what is it that leads to the transformation of these into emotion experience?".

In the second section we try to clarify our conceptual distinctions. We distinguish phenomenal experience (1st-order) from awareness (2nd-order), and separate both from that which is nonconscious and nonphenomenal. We separately define emotion state and emotion experience, the latter of which covers both phenomenal experience and awareness.

The third section contains our theoretical proposal, which has three components (corresponding to the three questions above): (1) a brief statement of the composition and microgenesis of emotion state; (2) the roles of three aspects of attention in variations in experience and awareness; (3) the varieties of emotion experience consequent upon the first two components. Emotion experience is divided into 1st-order phenomenology and 2nd-order awareness, both of which can be directed to either self or world. We try to give some account of the hedonic aspect of emotion experience. We then discuss determinants of focus of attention in emotion experience, and suggest what it is that constitutes phenomenal states and 2nd-order states.

In the fourth section we apply the conceptualisation to account for various kinds of unawareness of emotion, which the scheme allows us to differentiate. We conclude by relating our analysis to the previous accounts, to the conceptual distinctions we draw, and to predictions.

PREVIOUS ACCOUNTS OF EMOTION EXPERIENCE

The principal theoretical question regarding emotion experience (as opposed to emotion *per se*) in psychology has been the following: what is the content of our experience in emotion ?¹ A full answer to this question should allow one to answer two more specific questions: (a) What is it about the content of emotion experience that might distinguish it from non-emotion experience?; (b) What is it about the content of emotion experience that distinguishes between the experiences associated with different emotions? However, our main concern is with the general question. Previous answers to it are summarized in Table 1, showing what each theorist has held to be the essential content of emotion experience. For these theorists, differences between emotion experiences of anger, fear, sadness, etc. are either different specific qualities of or different patternings of the essential content.

Insert Table 1 about here

The most influential and paradigmatic accounts of emotion experience in psychology have been those of James (1884; 1890/1981), Cannon (1927), Arnold and Gasson (1954),

Schachter and Singer (1962), Tomkins (1962; 1963), and recently, Mandler (1984), Frijda (1986), Oatley and Johnson-Laird (1987), and Damasio (1994). We shall briefly outline these theories, since consideration of their variation and conceptual problems motivates this paper.

James's view is summed up by two much-quoted statements: "My theory... is that the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur IS the emotion" (1890/1981, p. 1065, emphasis in original); "If we fancy some strong emotion, and then try to abstract from our consciousness of it all the feelings of its bodily symptoms, we find we have nothing left behind" (p. 1067). These quotations illustrate not only James's identification of emotion with emotion experience, but also his view that the content of emotion experience is nothing more than bodily feelings. In criticizing James's theory, Cannon (1927) argued that peripheral bodily feeling, which is "pale, colourless and destitute of emotional warmth" (p. 121), is not sufficient for emotion experience. Instead Cannon claimed that the essential component of emotion experience — what makes it "emotional" — is a feeling, one which is produced centrally in the thalamus.

Schachter and Singer's (1962) theory retains some elements of the 'peripheral' Jamesian approach but rejects the Jamesian hypothesis that bodily awareness is sufficient to distinguish between different emotion experiences. Rather bodily awareness in emotion experience is merely awareness of 'general' arousal, and emotion experience is based crucially on the cognitive attribution of the cause of bodily arousal: in sum, emotion experience consists only of those bodily feelings which are attributed to something the person takes to be a cause of emotion, plus attributional perception. Mandler (1984) expands on this position by arguing that emotion experience is actually a unified construction that combines an 'arousal structure' and an 'evaluative structure'. The arousal is non-specific and awareness of it provides the intensity of the emotion experience. The 'evaluative structure' is the result of meaning analysis (i.e. cognitive interpretation of the situation) and it provides the particular content and 'quality' of emotion experience.

According to Tomkins (1962, pp. 243-4), emotions are sets of motor and glandular responses, mainly located in the face, but also distributed around the whole body, which are triggered by innate, subcortical 'affect programs'. There is a different affect program and a different set of responses for each discrete emotion. These motor and glandular responses supply sensory feedback to the brain — mainly 'facial feedback' — which includes information from the tongue and facial muscles and changes in the blood-flow and temperature of the face. Emotion experience, on Tomkins' theory, is awareness of this facial feedback. It is not entirely clear whether this theory proposes that the content of emotion experience is a 'feeling' derived from these changes in the face but not explicitly of the face or whether, in Izard's (1977) words, "a specific emotion is a specific facial expression, and our awareness of that facial expression is the... subjective experience of emotion" (p. 58).

Arnold and Gasson (1954) suggested that emotion experience consists of "the felt tendency toward an object judged suitable, or away from an object judged unsuitable, reinforced by specific bodily changes according to the type of emotion" (p. 294). These latter bodily changes, they made clear, also form part of the emotion experience. Frijda (1986) expanded upon this notion of felt action tendency and argued that the core of emotion experience is awareness of action readiness (e.g. awareness of an urge to attack, run, or embrace), which includes a sense of urgency or impulse that is derived from "the place of action tendencies in the general action control structure" (p. 78). Frijda also included four other components of emotion experience: awareness of autonomic arousal, of a hedonic feeling of pleasure or pain, of an appraised situation, and awareness of the emotion's significance (the meaning the emotion itself has for the subject). According to Frijda (1986), emotion experience is "usually made up of all these [five components]" (p. 193). Whether any or all of these, other than action readiness, is essential or not to emotion experience in his view is unclear, as is their integration or even simultaneity.

Oatley and Johnson-Laird's (1987) account of emotion experience (as opposed to their account of emotion) is essentially a computational version of Cannon's (1927) central feeling theory. The core of emotion experience for Oatley and Johnson-Laird is a characteristic

phenomenological tone (a different tone for each of five basic emotions) which is non-propositional and hence for them has no analyzable 'meaning'.

According to Damasio (1994, pp. 145-7), the content of emotion experience consists of bodily changes (chemical, visceral, and musculoskeletal) juxtaposed to a mental image of what caused the emotion, and changes in one's "mode of thinking" (e.g. speed and style of reasoning).

We shall discuss the adequacy of these theories first in terms of the research data which bear upon them, and second with regard to certain conceptual problems regarding the theories themselves.

Research Data on Emotion Experience

We will here review data on emotion experience to assess what needs accounting for. Several things will be mentioned that are not accounted for satisfactorily by the theories mentioned above: a distinction between self-focused and world-focused experience, the immersed phenomenology of emotion, the experience of emotions as categories and how this relates to whether they are experienced as 'pure feelings', the question of cultural differences in emotion experience, and the effect of conceptualization of emotion on its experience.

Data on emotion experience from nonclinical research typically come from subjects' self-reports (usually via a checklist of putative aspects of emotion experience) based on recollections of particular emotions of the recent past. Sometimes subjects are asked to imagine they are having a specific emotion and report on the feeling, or else diaries are issued and people are asked to record their emotion experiences as soon as possible after having them. None of these methods is ideal and some of the problems with them are discussed at the end of this section. However, we shall outline here some of the principal findings.

Subjects can characterize their emotion experiences such that it appears that different emotions can be distinguished on the basis of what are treated as three different things: (a) "appraisal dimensions" (Smith & Ellsworth, 1985), (b) felt action urges (Frijda, Kuipers, & ter Schure, 1989), and (c) bodily experiences (Scherer & Wallbott, 1994; Roseman, Wiest & Swartz, 1994). (a) Smith and Ellsworth (1985) found that the experiences of different emotions could be

differentiated on the basis of six dimensions along which people later consciously evaluate their relation with the environment during those (earlier) emotion experiences. These are pleasantness (how pleasant/unpleasant the experience was), anticipated effort (how much effort the subject felt the emotional situation required them to expend), certainty (how certain/uncertain the subject was about events), attentional activity (whether they were attending towards or away from the cause of the emotion), self-other responsibility (whether the subjects felt themselves or another agent to be responsible for the emotion-causing events), and situational control (whether the emotion-causing events were regarded as beyond the control of any agent). (b) Frijda, Kuipers, and ter Schure (1989) showed that different emotion experiences can be differentiated on the basis of different felt action urges, described later as, for example, 'I wanted to approach, to make contact', 'I wanted to oppose, to assault; hurt or insult', 'I wanted to move, be exuberant, sing, jump, undertake things', 'I wanted to protect myself from someone or something'. (c) Scherer and Wallbott (1994) found that bodily experiences were a similar differentiating factor, specifically awareness of the following: breathing change, faster heart beat, muscles tensing, perspiring, lump in throat, stomach sensation, crying/sobbing, and felt temperature (cold/warm/hot).

In summary, there is evidence that there are several aspects or components of emotion experience. For example, Roseman, Wiest and Swartz (1994) found that bodily feelings, conscious thoughts and felt action urges each distinguished between different emotion experiences, and Oatley and Duncan (1992), in a diary study, found that, according to subjects' reports, 77% of all emotion experiences included a bodily sensation, 81% included conscious thoughts, and 90% included a felt action urge.

With regard to theories of emotion experience, the felt action urge data are consistent with Frijda's (1986) and Arnold and Gasson's (1954) theories and the bodily awareness data with James's (1884) theory. With regard specifically to awareness of the face (Tomkins', 1962, theory), Ross and Mesulam (1979) report stroke patients who have lost the ability to make facial expressions but have no loss in emotion experience; and Moebius patients with congenital loss of facial movement have no apparent deficit in emotion experience (Cole, 1997). This suggests that

feedback from facial expression is not an essential component of emotion experience. In addition, although there is some consistency in the findings on the components of emotion experience (i.e. felt action urges, bodily sensations, conscious appraisals), there are very few attempts to account for this variation in content of emotion experience. For example, there is little discussion in the literature as to whether any or all of the components are essential to emotion experience, nor of how they relate to one another.

One comment that can be made about these data is that they are concerned mainly with awareness of self as opposed to awareness of the world. Two aspects of awareness of self are reflected in the data. First, there is awareness of one's bodily state — for example feelings of muscle tension and faster heartbeat in fear and anger (Scherer & Wallbott, 1994). These are not experiences of just any body; they are experiences of one's own physical state, felt as such and unavailable to anyone else. Second, there is awareness of what might be called 'the subjective self' and 'the agentive self' — the self as the subject of experience and as the agent of action. In terms of subject, feeling offended is an experience of the self, whereas experiencing someone else as offensive is an experience of an other. In terms of agent, one is aware, in emotion, of feeling like doing certain kinds of things, or feeling like doing nothing (Davitz, 1969), of feeling in command (Frijda, et al., 1989), of feeling responsible or not in control (Smith & Ellsworth, 1985). Since these feelings are experienced as the subject's own states of 'action readiness' (Frijda, 1986), they are experiences of the self as agent.

That most of the data mentioned above concerns experiences of the self is brought out by the contrast with one type of emotion experience that emerges from the research data but is not discussed by any of the theorists except Frijda. Consider the accounts of grief experience collected by Parkes (1996). These included reports of experiencing the world as devoid of objects of interest and of "the feeling that the world is a dangerous, insecure place". Rowe (1978) recorded a depressed individual reporting: "At that time ordinary objects — chairs, tables, and the like — possessed a frightening, menacing quality... Time itself changed. The day went on for ever; the nights lasted for centuries" (pp. 269-70). In Davitz's (1969) study, 66% of subjects'

reports of happiness experience included "the world seems basically good and beautiful" and "people seem essentially kind", and 40% reported that "everything seems more beautiful, natural, and desirable". In the same study 42% of subjects described the experience of depression as including the experience that "everything seems useless, absurd, meaningless", and 38% described hate as including the experience that "the world seems no good, hostile, unfair". These experiences are about the world (including the social world) and not the self. Sartre (1939/1962) was the first to argue that such experiences (of the world) are a central kind of emotion experience and crucial to its understanding. No recent theory of emotion experience (with the exception of Frijda, 1986) deals with or gives an account of such experiences, and almost all the recent research concentrates on aspects of emotion experience which we would call self-focused rather than world-focused. Although Damasio (1994) includes 'mental images' of what caused one's emotion, much of his account (especially Damasio, 2000) emphasizes experience of the body and of one's 'mode of cognitive processing'. The former is self-focused and the latter highly reflective. Recent research on emotion experience concentrates on awareness of one's bodily state, action urges, thoughts or appraisals; and none of these includes world-focused experience. Therefore theories that deal with only these aspects of emotion experience are incomplete in that they deal only with experience of self. However, as will be discussed below, in such experiences (of bodily state, action urges, thoughts, appraisals) the self is implicit². By contrast, in those emotions often called 'self-conscious' or 'reflexive' (shame, pride, etc.) the self in experience is explicit and constitutive of such emotions. This contrast in itself emphasizes that in the simple or non-reflexive emotions self is not necessarily central to their content and is not necessarily the explicit focus of conscious experience. This will indeed be part of one of the central proposals of this paper.

It might be thought that the concept of 'appraisal awareness' deals with world-focused experience — with the experience of frightening tigers, disgusting slugs, offensive people; but it does not. It is necessary to clarify why 'appraisal awareness' is conceptually different from 'world-focused' experience. World-focused emotion experience is awareness of the world (or a

portion of the world such as a person or an animal)³ under an emotional description. In the simplest terms a person, or animal, or the world in general may be experienced as 'frightening', 'hateful', 'empty and barren', 'welcoming', or 'cute', for example. Data concerning the 'appraisal' component of emotion experience (e.g. Smith & Ellsworth, 1985; Frijda, Kuipers & ter Schure, 1989) do not adequately address 'the world as it is experienced in emotion'. At least three concepts need to be distinguished. First, there are what Scherer (1999) calls 'emotion-antecedent appraisals'. These are processes of evaluation, whether conscious or not, that are causal to emotion. Second, there are 'appraisal aspects of emotion experience'. These are those aspects of emotion experience in which the subject is aware of appraisals or judgements about either him/herself or some aspect of the social or physical environment (e.g., being aware that one has thought oneself stupid to have done something). Third, there is 'the world as experienced in emotion'. This is awareness, in emotion experience, of a portion of the environment external to oneself under an appraised or emotional description; e.g., awareness of a "frightening spider".

There are two reasons why the appraisal aspect of emotion experience is not coextensive with the world as it is experienced in emotion. First, the object of appraisal may be the self and not the world, as in reflexive emotions such as shame. Second, awareness of appraisals as appraisals is a reflective or detached consideration and not an immersed world-focused experience. This raises the distinction between detached and immersed experience. In Smith & Ellsworth's (1985) study, subjects rated their emotion experiences against various appraisal items in a questionnaire. However, even when these appraisal items were concerned with the world rather than the self, they were not descriptions of immediate experiences of the world, but rather were of explicitly reflective considerations and evaluations of events (e.g. "When you were feeling happy, how responsible did you think someone or something other than yourself was for having brought about the events that were making you happy in this situation?", p. 882). Such awareness of appraisal as appraisal, though undoubtedly a part of some emotion experiences, is a step removed from immediate world-focused emotion experience. This distinction is important since it is well known from cognitive therapy (see e.g. Beck, 1976) that emotion experiences (at

least before the therapy) have phenomenological 'truth': anger experience consists not in 'I judge him to be a bastard', but in 'he is a bastard'; panic anxiety experience is not 'I interpret these bodily symptoms to mean I am dying', but 'I am having a heart attack'. The very point of cognitive therapy is to help people to take a reflective stance to their emotion experiences, which before therapy are experienced as just 'how the world is', and to recognise that they are having emotion thoughts. (In fact we argue below that insofar as it is effective, a reflective or detached stance is an attentional modulation that converts "experiences" into "thoughts".)

There are few phenomenological characterizations of world-focused emotion experience probably because of the paucity of research data explicitly highlighting it (other than the data of Davitz, 1969, Parkes, 1996, and Rowe, 1978, mentioned earlier). Researchers have apparently overlooked it conceptually and therefore have failed to specifically look for it. In a diary study that did examine the distinction between self- and world-focus, Lambie (2000) found that in 74% of emotion experiences subjects reported being aware of the "world in an emotional light". For example, anger experiences included reports of awareness of a person as annoying or hateful; love experiences: of awareness of a person as beautiful or attractive; and sadness experiences: of awareness of the world in general as empty/depressing/boring. Below (under Second-Order Emotion Experience) we provide a conceptualization in phenomenological terms of being aware, for example, of someone as 'hateful' or of the world as 'empty, depressing, boring'.

None of the accounts in Table 1, with the exception of Frijda's (1986), acknowledges world-focused aspects of emotion experience. This omission is serious since, as argued above, the concept of 'appraisal awareness', included in several theories, does not cover the non-bodily, non-self aspects of emotion experience. Frijda's (1986) account of emotion experience is comprehensive but does not include a principled account of the varied forms of emotion experience, i.e. of the conditions under which emotion experience is, for example, at one time awareness of body, at another time awareness of the world under an emotional description. The present paper attempts such an account (see below, A Conceptualization of Emotion Experience).

All the data on emotion experience so far mentioned have been of an analytic kind. In other words, they reflect attempts to break down emotion experience into components — bodily sensations, action urges, etc. But there are two kinds of non-analytic emotion experience. First there is evidence that people often experience emotion categorically; that is, that they can be aware just of 'anger' or 'sadness', pure and simple (in non-linguistic terms). In Lambie's (2000) diary study, many participants reported experiencing emotions holistically, i.e. they felt "anger" or "fear" as a totality. Not only were there emotion episodes that they did not immediately experience analytically (in terms of bodily sensations, thoughts, etc.) until having had some practice; but these participants were also unable to break down these experiences into such components when they noticed them. (Note that there were also subjects whose experience was the converse: their emotion experience was typically in terms of components which they were often unable to categorize.)

When the content of experience is an emotion category, we shall call this 'categorical-emotion experience'. It might be argued that such categories are not experiential but only linguistic or that the experience is only categorical when the person is asked to categorize it. We reject these arguments because people often unhesitatingly and without reflection know what emotion they are undergoing (even if they are mistaken) and because they can often do so with no awareness of the cause (Oatley & Duncan, 1992). Further, there are people who apparently do not experience certain emotions while experiencing the appropriate components, and whose difficulty in recognizing such emotions appears to lie in their failure to experience the components as an integrated whole (see discussion of alexithymia below in Applying the Conceptualization).

The experiences known as 'free-floating emotions' might be considered further examples of categorical-emotion experiences. These are emotion experiences which seem to the subject unattached to any situation or object, for example fear which is not fear of any particular thing, or sadness which is not sadness about any particular thing. Oatley and Jenkins (1996) seem to reason that if such experiences genuinely exist and are recognizable by the subject as fear or

sadness experiences, then it implies that fear and sadness, etc. can exist phenomenologically as 'pure feelings', each with a different distinctive 'phenomenological tone'. But what is the evidence that such 'pure feelings' exist? MacLean (1993) writes that the feelings experienced at the beginning of a psychomotor epileptic storm (which he categorizes as desire, fear, anger, dejection, affection and 'gratulence', i.e. joy) are "free-floating, being completely unattached to any particular thing, situation, or idea" (p. 79). Unfortunately, despite MacLean's claim, his description of these feelings seems to show that they are not genuinely 'free-floating' in the sense he intends. For example, he writes that 'gratulant feelings' (joy) include "feelings of enhanced reality; convictions that what is being experienced is of the utmost importance, that it's the absolute truth, that it's what the world is all about" (p. 79). Such feelings, in being about certain things, clearly have content beyond mere phenomenological tone and therefore are not free-floating in the sense of being completely unattached to any object or idea. Nonetheless, we do not reject the idea of people experiencing a categorical emotion without an object.

However, we do regard the notion of an 'unanalyzable emotion feeling' as problematic. Undoubtedly different emotions have different 'qualitative feels': but this does not mean that 'qualitative feel' or 'subjective feeling' is yet another component of emotion experience (alongside experience of bodily arousal, of action readiness, of appraisal, and of the 'emotional world'). There may be specific experiences produced directly by activation of limbic structures or directly by specific autonomic feedback to the cortex. However at present there is little or no good evidence for this. Even if it turns out to be the case, while such qualitative states may differentiate euphoria, sadness, fear and anxiety (Servan-Schreiber and Perlstein, 1997, cited in Elster, 1999, p.248), it is implausible that any more subtle or complex emotions can be experientially differentiated thus. Two kinds of argument for "pure emotions" and "pure emotion experiences" are weak and dubious. Emotions can be induced by music, but consistent experiential differentiability is limited to a small set of broad categories of simple emotions. Direct stimulation of brain structures by electrical or pharmacological means does lead to consistently described emotion experiences, but again of a small number of broad emotion

categories. In both cases subjects tend to describe the experiences by analogy with emotional situations. Note that we are not denying that different emotions have qualitatively unique experiences. But, rather, the distinctive qualitative feel may be precisely an experience of a particular combination of arousal, action readiness, emotional world and appraisal, and in this sense not be 'unanalyzable' at all, even if experienced categorically. In any case, even though such combinations may exist, first, their role is qualified by the fact that people can be mistaken and influenced by attribution, and by the fact that lexical categories differ across history and culture; and second, clinical cases we review at the end of this paper indicate that people's accurate sensitivity to such combinations is a matter of attention and learning.

There is a second kind of non-analytic emotion experience, but one that rarely appears in the psychological research data. It is non-analytic in that it does not focus on particular sensations or body parts, but on the functioning of the whole body in its relationships with the world or itself. However it does appear in the literature of psychotherapy, anthropology and phenomenology, as well as in novels and poetry. Examples that do come from the psychological research literature are provided by Davitz (1969): "I feel empty, drained, hollow", "A feeling of a certain distance from others; everyone seems far away", "A sense of lightness, buoyancy and upsurge of the body". Gestalt therapy, which emphasizes the body, also provides many examples, as in Kepner's (1987, p. 9) illustrations of different kinds of experiences of tension — "compressing", "holding on", "tightening", "binding", "bracing". Earlier we mentioned that appraisal awareness is a step removed from immediate experience. Sartre (1939/1962) noted that much emotion experience is "non-reflective". This refers to experience that is immersed rather than detached. This kind of experience consists in the immediate phenomenology of one's physicality and bodily relation with the world (Merleau-Ponty, 1961). The question of its truth versus seemingness does not arise: it just 'is'. As will be seen in the section on 1st-order emotion experience, there are good reasons why this kind of experience is rarely reported (at least faithfully) or reportable. It is often said to be ineffable. It has Gestalt properties and is that aspect of emotion experience which people describe using what seem to be metaphors: 'coiled like a

spring', 'ready to snap', 'floating on air', 'an inviting/ empty/ overwhelming world'. We see this as characteristic of what we call 1st-order phenomenology and will introduce and deal with it in the section below on that topic.

The question of universality is addressed by the many studies that have compared emotion and emotion experience across cultures. In an extensive review, Mesquita and Frijda (1992) concluded that cross-cultural similarities as well as differences can be identified in each phase of the emotion process (event coding, appraisal, physiology, action readiness, emotion behaviour and regulation) and that global statements about cultural universality or relativity of emotion are inappropriate. Regarding emotion experience itself, we shall briefly mention some similarities and differences. In a forced-choice questionnaire study in 37 countries, Scherer and Walbott (1994) found considerable similarity in self-reports of emotion experience. On the whole the degree of variance in the reports due to kind of emotion was greater than the variance due to country (for example participants from almost all countries reported 'feeling warm' and 'relaxed muscles' in joy but not in other emotions). On the other hand, many studies have observed striking cross-cultural differences in the experience of depression and in everyday emotions. Marsella (1980) concluded that many non-Western people(s) have a more somatic experience of depression than Westerners, and that this is related to a tacit conception of self, which is more somatic than in the West. This effect has also been observed by Kleinman (1980) who reported (p. 141) that, in direct contrast to middle-class Caucasian North Americans, Chinese experiences of fear, anxiety and sadness are described more in terms of bodily sensations and interpersonal concomitants and hardly at all in terms of "intrapsychic characteristics" such as thoughts or 'mental' feelings⁴. Interestingly, the Scherer and Walbott study nominated emotions and asked for descriptions of the experiences, whereas the data discussed by Kleinman and by Marsella relied more on spontaneous discourse and behaviour (such as seeing a medical practitioner for a pain where the subsequent diagnosis is of an emotion). The former technique is more open to stereotypical responses or those derived from general conceptual knowledge than is the latter. It is true that in many cases of cultural difference in emotion experience the main difference is one

of manner of description or lexical terms. But in the cases discussed by Kleinman and by Marsella it does appear that the experience itself differs, and does so because of concepts that underlie conscious experience rather than concepts used purely to describe it. Evidence exists that emotion experience is also affected by the conceptual availability and the legitimization/illegitimization of specific emotions within a culture, and will be discussed in the section on categorical-emotion experience.

It is clear that while much of the relevant data is consistent with different accounts, there are problems. (a) Some data indicate an omission in the accounts, i.e. of world-focused experience, and this itself suggests a self/world distinction in the content of emotion experience. (b) Certain considerations indicate that the immersed phenomenology of emotion has been relatively ignored. (c) Emotions can be experienced as categories. (d) The notion of emotion experiences as 'pure feelings' requires further examination (e) Real cultural differences in emotion experience need accounting for. (f) Conceptualizations of emotion, which may differ between cultures and between individuals, influence the nature and content of emotion experience.

Methodological Problems with the Data

How accurate are subjects' retrospective accounts of emotion experience? Oatley and Duncan (1992) argue that emotion diaries are more accurate than retrospective questionnaires, citing evidence (Nickerson & Adams, 1979) that pre-intended noting down of experiences as they occur (as used by the diaries) is more reliable than retrospective memory for incidents. Even emotion diaries, however, usually use checklists and thus inevitably lead the subjects toward certain aspects of experience. An even more serious problem is that subjects' reports of emotion experiences may not truly reflect the experiences themselves but may be due primarily to schematizing effects. For example, Rimé, Philippot, and Cisamolo (1990) argue that reports of bodily awareness in emotion merely reflect 'social schemata', such that if a culture has a folk psychological stereotype that people are 'hot' with anger or 'cold' with fear, then they will retrospectively report feeling hot with anger whether or not they really felt hot at the time of the

experience. Some aspects of emotion experience reports may be more prone to this kind of stereotyping than others. Although for bodily experience these effects are plausible, there are other aspects of experience for which they are unlikely. For example, when Lambie (2000) asked subjects to report in diaries whether each emotion experience they had was primarily 'self-focused' or 'world-focused', different specific emotions differed in the reported degrees of self- or world-focus (e.g., anger experience was more world-focused than fear experience). But these differences cannot be explained simply in terms of folk psychology because there is no folk-psychology about the different world- or self-focus of different emotions. That is, lay people do not spontaneously use such a distinction. Even if schematizing effects of memory do influence reports of emotion experience, this does not necessarily mean that the reports are distortions of the original emotion experiences. Rather, it may be the case that the schematizing effects which influence memory are the very same as those which influence emotion experience itself — or at least what is directly reportable and noticeable about emotion experience. The way people notice and report on emotion experience (which relies upon 2nd-order awareness — see sections on Awareness and Mode of Attention and on 1st-Order Emotion Experience, below) is likely to be influenced to a degree by effects of categorization and schematization. The existence of linguistically marked categories undoubtedly influences perceptual learning and discrimination; but it would be bizarre to argue that, in reports of perceptual experience of such categories, the categories exist only in the reports, since this begs the question of what caused or justified them.

Conceptual Problems with the Theories

Something strikes one immediately as curious about the theoretical characterisations of emotion experience listed in Table 1 above: namely their diversity! How can the theorists experience such different things that they all call by a common name? Indeed, are they describing the experience or something else by the term 'emotion experience'? If they were all giving an analytic description of what is, for each of them, common to their own phenomenology when experiencing emotions (or even if they were relying on third-party respondents doing the same thing) then either (a) they each have a different kind of experience which, for some other

reason, they all call an emotion, or (b) their introspection differs in some way to yield different experiences. Alternatively, (c) the theorists are not in fact all doing what they might appear to be doing in answering the question of the content of emotion experience.

The first option is that the writers (or their experimental subjects) indeed differ among themselves in the kinds of experience they have which are all called "emotional". This is entirely possible. Individuals may differ in the kind of experience they have when in a common state and behaving in common ways that others have called emotion. One source of such difference is attentional habits (I may be predisposed to attend either to my thoughts or to my body, either to the world or to myself). Alternatively, if there really are differences between cultures in emotion experience, as has been suggested (e.g. Kleinman, 1980), then whatever is responsible for such differences may equally yield differences between individuals within a culture. The second option is that when the writers recognize themselves to be having an emotion, they differ in their manner of introspection. They may be more or less analytic or synthetic, or more or less detached (see below, Awareness and Mode of Attention). One's experience is not independent of how one attends to it. This relates to the approach to consciousness that takes its content to be qualitatively different from whatever is the relevant nonconscious counterpart (Marcel, 1983), whereby the same nonconscious state can give rise to quite different experience depending on the process that constructs the latter from the former.

Consider now the third option, that the question is understood differently or that different kinds of answers are being given to the question by different theorists. There are at least three ways in which answers can be understood to the question of what we are aware of in emotion experience. One kind of answer is to give a characterisation of the experience in terms of what is explicitly available in one's phenomenology. This itself permits of different answers. For example, if asked to give a description of my current visual experience, I might say that I see a red office chair in front of a bookcase, etc. Alternatively I might say that I see a red parallelogram somewhat brighter than the surrounding rectangular multicoloured field, etc. The difference may be thought of as a difference in the degree of analyticism and is certainly a

manifestation of 'perceptual' attitude or the way one attends. Another kind of answer is to give an account that goes beyond what is explicit within the phenomenology and that deals with what is implicit. This might treat what is assumed to be irrelevant to the question, e.g. taking account of the pragmatics of descriptions; or it might involve a technical decomposition or meta-analysis of the experience or might deal with what the phenomenology itself relies upon and entails, as in a technical phenomenological analysis. However this second kind of answer does not seem to be what any of the authors above are in fact attempting (except possibly Frijda when he discusses emotion experience as always relational). The third kind of answer might not be any kind of report of phenomenology, but an attempt to specify what one is "really experiencing" (as opposed to what one takes oneself to be experiencing on the face of it), or an attempt to say what underlies the experience as opposed to the experience itself. Indeed this does seem to be what some of the writers above are doing. For example, the facial feedback theory of emotion experience (e.g. Tomkins 1962) appears to be not that one is explicitly aware, in emotion experience, of facial feedback as facial feedback, but rather that one is aware of an emotion feeling and that this feeling is due to feedback from one's facial expression, i.e. that facial feedback underlies emotion experience.

The relevance of pragmatics is illustrated by an omission made by some theorists and by many subjects reporting their experience. If one asks explicitly, almost everyone will agree that hedonic tone is a pervasive feature of emotion experience. Yet, although it typically appears in dimensional accounts (e.g., Block, 1957; Davitz, 1969; Russell, 1980) and sometimes in component ones (Frijda, 1986), many other accounts simply fail to mention it as a feature of emotion experience (e.g. James, 1890/1981; Mandler, 1984; Schachter & Singer, 1962), and in diary studies very few respondents spontaneously mention it, though they will do so if later probed specifically. It seems that sometimes hedonic tone is taken to be too obvious to report or to be an entailed property of the emotion reported or that the assumed task demand is to report only substantive or discrete objects of experience.

A further factor that may explain why theorists disagree so much is that different theorists may have tacitly taken the experiences associated with different specific emotions as paradigmatic of emotion experience in general. There is evidence that different emotions may have different characteristic experiential forms. For example, fear is found to be the emotion most likely to be reported as a bodily experience (Oatley & Duncan, 1992; Scherer & Wallbott, 1994), happiness is found to be the emotion least likely to be reported as a bodily experience, and anger is found to be the emotion most likely to be reported in terms of awareness of the world under an emotional description (Lambie, 2000). Thus, it may be the case that William James's theory, for example, was influenced by the fact that one of his chief examples — an encounter with a bear — illustrates fear experience and therefore is more likely to support the intuition that emotion experience is awareness of one's body. Of course if the kind of experience in different emotions differed totally consistently in ways that precluded them being grouped together by the experiencer, not only would it undermine the unifying force of the notion of "emotion", but it would also undermine the present suggestion that different theorists could have taken different emotions as paradigmatic of a set whose boundaries are held roughly in common or even of instances bound only by family resemblance. In reality, first, the difference in the experiential form of different emotions is a statistical tendency both across and within individuals rather than being absolute; and, second, there are several kinds of information that can lead to awareness of the presence and particularity of one's emotions other than one's immediate phenomenology, whether it is the most salient kind of information or not, and which lead one to group certain states together as "emotion".

Whether individual theorists have not, as far as they know, had one or more of our proposed kinds of emotion experience (e.g. categorical-emotion experience) is no reason to discount its existence. Clients in cognitive therapy deny having emotion thoughts until they are helped to notice them as such. As we and others (e.g. Dennett, 1991) argue, people are not authoritative or incorrigible as to their experience.

The interpretational uncertainty about the theories discussed here serves to emphasise three things. First, one needs to be sure that the enterprise is understood in the same way. Two apparently different answers to the question of the content of emotion experience may in fact be answers to different questions. Second, the very experience that is called the same thing may differ between individuals even within a culture because phenomenal experience is not independent of concepts or of variable processes. Third, within an individual and across emotions, emotion experience may be variable.

Different kinds of question about emotion experience

Sometimes the question of the exact content of experience gets confused with that of what underlies the experience. Such a confusion is exemplified by Zajonc and McIntosh (1992). They ask "what is it that we feel when we feel happy, sad, or disgusted?" (p. 70), and reply that it is changes in brain blood temperature (in the hypothalamus) caused by facial action. In this case the question posed seems to be the one about experienced content, but the answer given is appropriate to the question of what underlies it. While it may be fruitful to investigate how hypothalamic temperature facilitates the release of certain neurotransmitters and how such release is associated with changes in emotion experience, such an investigation can never provide the answer to the question 'what is it that we feel when we feel happy, sad, or disgusted?'. Our own brain temperature, qua brain temperature, is simply not one of the possible contents of consciousness (we are not aware of our brain states as such), and any answer to the question of what we are aware of when we experience emotion must be in terms of the content of consciousness. Zajonc and McIntosh (1992) may mean that what we are aware of are 'feelings' of emotion, and that these feelings are "in reality" equivalent to perceptions of brain blood temperature, but this answer again is inappropriate to the question of the content of experience. Answers to this question must fulfil the criterion that they be in terms of the description under which the awareness occurs, and on this interpretation of Zajonc and McIntosh's claim, this description might be, for example, feeling hot or flushed, 'anger' or 'anger feeling', but not 'high brain temperature'.

This critique of Zajonc and McIntosh's paper illustrates that there are in fact three questions. The first is the phenomenological question of emotion experience: what is the content of emotion experience as it is experienced? The second is the underlying correspondence question: to what nonconscious process or representation does emotion experience correspond? The third is the contributory processes question: what processes or differences in content lead to and contribute to emotion experience? (That is, what transforms the underlying nonconscious and/or nonphenomenological content into the experienced content?)⁵. These last two questions obviously overlap in their answers. The present paper is mainly concerned with the first question, but aspects of the other two questions are also addressed.

DEFINITIONS AND CONCEPTUAL DISTINCTIONS

The definitions and distinctions in this section are mostly stipulative, in order to be clear about what is being referred to. We later sketch the composition of emotion states only as a basis for an account of emotion experience and how it comes about. In offering stipulative definitions that refer to phenomena, we respect folk psychology to some extent since, however fuzzily they do it, the terms refer sufficiently discriminatively in natural language to enable mutual comprehension in discourse. However in offering a theoretical account, we do not respect folk psychology (a) because it is inconsistent in treating emotions as conscious yet often treating people as unaware of their emotion, and (b) since we draw distinctions rare in folk psychology between phenomenal experience and awareness and between self- and world-focused experience.

This paper draws a conceptual distinction between 'emotion experience' and 'emotion states'. Its focus is on emotion experience, by which is meant both the phenomenology of emotion and the content of awareness in emotion. Although phenomenology ('what it's like') is often taken to be equivalent to the content of awareness, one is usually not aware of all aspects of one's occurrent phenomenology (in the sense that one could acknowledge or report its presence), for example due to attentional selectivity. Therefore the term "emotion experience" here covers both that experience of which we are explicitly aware and that of which we are not. Both of these are distinct from those representations and processes which do not per se form part of one's

experience. In the case of emotion these constitute what we call "emotion state". In this section we make conceptual and theoretical distinctions regarding consciousness in general and emotion experience in particular, on which our account relies.

When we discuss emotion, emotion state and emotion experience, we are concerned only with occurrent emotion, as opposed to dispositional states. "She fears X" or "he is jealous of Y" may refer to long time periods, during much of which the subjects are not in the relevant emotion state. This is important for our present purposes because we hold that being in an emotion state is almost always to be in a phenomenal state. This is not true for dispositional states.

Whereas lay people frequently equate 'emotion' with emotion experience, it is in fact rare for psychologists to do so. Although Freud (1915/1984) wrote: "It is surely of the essence of an emotion that we should be aware of it" (p. 179), this is a minority view in the history of the psychology of emotion. Plutchik (1980) lists twenty-eight definitions of emotion from the psychological literature spanning the years 1884-1977: only five identify emotion with a conscious experience; three include conscious experience as one of several components of emotion; and twenty define emotion with no reference to consciousness whatever⁶. Since Plutchik drew up his list a rough consensus on this matter has been achieved. Most contemporary theorists (e.g. Frijda, 1986; Scherer, 1984; Lazarus, 1991; Ortony, Clore & Collins, 1988) hold some version of the 'component' view of emotion — that emotion experience is one of several components of emotion. A typical list of these includes emotion experience (often called the 'subjective feeling'), appraisal, readiness for action, autonomic arousal, and expressive behaviour⁷. Component theorists do not usually mention whether any or all of the components are essential to emotion or optional.

Consciousness and Experience

When psychologists refer to nonconscious versus conscious mental states, we suggest that two distinctions are being made that are blurred by this single dichotomy: one between states with and without experiential phenomenology and another between whether one is explicitly aware of something or not.

Suppose you are asked to report all the feeling in your left foot. Until the moment that the phrase "your left foot" was mentioned, was there any such thing as "the feeling in your left foot"? If you were not already attending to it, then you were probably not aware of it until that moment. If so, then either the act of attending to your left foot brought about the phenomenology that you are aware of and can (imperfectly) report, or the phenomenology pre-existed the act of attention and your awareness of it. A pain in a bodypart attracts attention. But what is it that attracts attention to the pain – the pain as such or some subpersonal information? If it is the former, then the pain (which has a phenomenology, one that includes hedonics) pre-exists the attentional focus on it and the full awareness of it. If it is the latter, then it is attention which creates the painfulness — the conscious sensation and the hedonic quality of pain. It is true that the way in which we attend, to our bodies or to anything else, affects the hedonic quality of what is attended, and it also affects other aspects of its phenomenology, such as the way it which it appears to us, how much it matters to us, our sense of ownership of it, etc. However, not only is it implausible to assume that attention brings into being all aspects of phenomenal experience, there is evidence that it does not (Marcel, 1993), i.e. there is evidence that the existence of the phenomenology is independent of attention and of awareness, though the precise nature of the phenomenology is not independent of attention (see below, Attention and Consciousness).

This highlights a problem of what is being referred to by the term 'consciousness'. It is used by psychologists to refer to (at least) two things, awareness (a kind of knowing — by acquaintance) and phenomenology (what it's like). Certainly you could not know about your phenomenology unless you were directly aware of it. And whatever you know when you are aware of it has some kind of phenomenology. Further, being aware itself, of anything at all, always has its own phenomenology. But this does not mean that they are the same thing. Also, the way that one goes about attending to and becoming aware of something affects what it is like in experience; but even this fact that they are not independent does not mean that they are the same thing.

This illustrates the distinction between 1st-order phenomenal experience and 2nd-order awareness (sometimes referred to as "reflexive consciousness"). This kind of distinction has been variously made by, among others, Nelkin (1989), Farthing (1992), Marcel (1993), and Lane (2000). However it is not the only or the main reason for drawing the distinction. Marcel (1993) has briefly reviewed a variety of normal, experimental, neurological, and clinical dissociative evidence that invites the distinction. For example, in the acute phase after stroke, many patients with hemiplegia are unaware of their inability to move the affected limb (anosognosia for plegia). Some of these appear to have the proprioceptive phenomenology of passive or active movement or its lack but also to have split awareness (i.e. are simultaneously aware and unaware) of such occurrent experience, where awareness is dependent on the way they attend (Marcel and Tegner, 1995; Marcel, Tegner and Nimmo-Smith, 2000). This appears to be true also of the "hidden observer" phenomenon in hypnosis (Hilgard, 1977) and of the awareness of pain with centrally acting analgesics in general anaesthesia, especially where patients later remember a pain or sensation that they were unaware of at the time. In all such cases the characterization entails a distinction between the presence of 1st-order phenomenal experience and 2nd-order awareness of it. This distinction can also be illustrated by the separate existence of Blindsight (loss of conscious visual experience with preserved nonconscious vision), of Anton's syndrome (unawareness of blindness), and of a case of Anton's syndrome with bilateral Blindsight (Marcel, 1995). The way we know that we can or cannot see is primarily by access to our visual experience (what it's like to see, as opposed to hear). Presumably blindsight patients have normal access to their visual experience, which in their case is absent in the scotomic area, which is why they deny seeing in that part of the field; yet they are shown to have nonconscious vision (Weiskrantz, 1990; Marcel, 1998). In Anton's syndrome unawareness of blindness is plausibly due to lack of access to absent visual experience. Recently (Marcel, 1995) a patient who was assessed as being totally bilaterally blind exhibited unawareness of his blindness (but not of other sensory and motor deficits) for seven months. Yet during this time and after remission of the unawareness of blindness, he was shown by indirect tests and guessing to have

Blindsight, i.e. nonconscious vision. It would seem that he had nonconscious vision without visual phenomenology, but for seven months lacked access to the absence of visual phenomenology. The difference between blindsight and unawareness of blindness appears to be in one's awareness of visual phenomenology rather than in the phenomenology itself. That is, blindsight is a 1st-order problem and Anton's Syndrome, or unawareness of a sensory deficit, is a 2nd-order problem. With regard to emotion, Lane (2000) discusses evidence for a neural basis for the present distinction, arguing that the dorsal anterior cingulate cortex is involved in the phenomenal experience of emotion and the rostral anterior cingulate cortex/medial prefrontal cortex is involved in reflective awareness of emotion.

Phenomenal experience (what it's like) theoretically presupposes a subject of that experience (Nagel, 1974). That is, since experience is necessarily "what it is like", it is like something for someone or something. It thus exists as such only at the 'personal level' (Dennett, 1969). However psychologists in recent years, especially cognitivists, have treated conscious perception as underlain by nonconscious representations that are 'subpersonal'. Such representations are treated as existing both without awareness and without phenomenology (since they are without a subject). This is not merely a philosophical problem of little relevance to psychology, since in the case of emotion it cannot be ignored. A major disagreement among theorists is whether occurrent emotions can be treated, qua emotions, as nonconscious. (This is a separate point from whether we usually happen to be aware of them for contingent reasons, such as the salience of our bodily reactions). If something causes an emotion because it matters, i.e. is relevant to a concern⁸, then that kind of causation depends on the kind of thing that has concerns, namely an agent, and is thus inescapably at the personal level. Further, to the extent that at least some emotions can be conceived of as attitudes of an impelling character, as we will suggest below, then at least those emotions by definition have intrinsic phenomenology⁹, since an impelling character is part of 'what it's like'. In addition, if an essential aspect of the experiential attitude in emotions is its hedonicity, this also places emotions in the domain of phenomenology. Hedonicity consists of pleasure and displeasure, as opposed to merely positive or negative

vectors. Pleasure involves qualitative experience; vectors do not and are entirely functional, e.g. lines of magnetic force. There are then two issues: (a) the existence of emotions without concurrent 2nd-order awareness of them, (b) what aspects of emotion (if any) can exist, as emotion, without phenomenal experience. (We return to these issues below, see Applying the Conceptualization: Varieties of Unawareness of Emotion).

Thus, regarding consciousness in emotion, a logical separation can be made between (a) nonconscious informational or neurophysiological states of a purely functional kind, (b) experiential phenomenal states, and (c) 2nd-order states of awareness, including awareness of (b)¹⁰. The empirically separate existence of these three kinds of mental state is proposed on the basis of the data and arguments presented by Marcel (1993) and others, as discussed above. These states have certain properties that not only distinguish them but can also be used to assay their presence. These properties are cumulative, in that states of awareness have three such properties, phenomenological states have two, and occurrent states that are neither of these have one such property. Rosenthal (1993) distinguishes between expressing and reporting mental states (although our treatment here differs from his). Phenomenal states can be expressible without being reportable. Normally it is only the content, or its presence, of second-order states of awareness that can be acknowledged or reported (Marcel, 1993). Phenomenology can be directly expressed not only in what one says but also in behaviour, by facial and bodily expression and by manner; but neither it nor any other representational content can be referred to explicitly or described unless one is aware of it, in which case it can be both expressed and reported. Things said can unwittingly express what it is like for the speaker, even if the speaker is unable to report her state. The utterance "nothing is safe; everyone is against me" expresses an aspect of the phenomenology of anxiety even though the speaker may not be able to report anxiety. In the case of occurrent nonconscious states that are nonphenomenological and outside of awareness, although they can have effects, they are not expressible. They or their content are indexible by their effects in 'indirect measures' such as priming or interference or biases, e.g. in guessing. An example of such a measure in emotion is the use of the Emotional Stroop test

(Williams, Mathews, & MacLeod, 1996). Phenomenology and what one is aware of will also show such effects, but states that are neither of these will not be expressible nor reportable. These distinctions are important for the present theoretical position and for our later interpretation of unawareness of emotion.

The differential properties of report, expression and effects in indirect measures, outlined above, serve as empirical criteria for distinguishing the three states. First, the criterion for an entirely nonconscious emotion state as opposed to emotion phenomenology is the requirement of deliberate probing by indirect measures as opposed to manifest expressive behaviour. Second, the criterion for the existence of 1st-order phenomenology in the absence of 2nd-order awareness of the content is a discrepancy between bodily or other expression and self-report (also invoked by Lazarus, 1995). One can potentially discriminate the status of something of which someone is unaware and thus the kind of reason for its unawareness.

Emotion State and Emotion Experience

A definition of what is being referred to by "emotion state" is needed. Unfortunately, most theorists either give a constitutive definition of emotion or omit a definition altogether. What is required is a demonstrative definition that picks out the referent and does not violate everyday usage. It might be thought unnecessary to respect everyday usage in scientific discourse. However, we are concerned here with what lay people refer to when they give reports which comprise data. While phenomena of behaviour, physiology and experience all evoke the term emotion, one can distinguish between 'emotion states', a set of primarily bodily, behavioural, and cognitive attitudinal states; and 'emotion experience', a set of phenomenal states and contents of awareness. The justification for this distinction as conceptual is that while some theorists treat emotion in purely subpersonal functional terms, others (taking emotions to essentially involve what matters to the organism) are impelled to treat emotion as necessarily personal level and involving a phenomenology that makes it what it is. However, evidence exists that the distinction is also empirically real, in that emotion states can occur without full emotion experience, and comes from psychiatric case histories, treatment of clients with 'anger disorders', research on

individuals termed 'repressors', cases of brain damage, as well as from instances of normal nonpathological emotion. These examples are all discussed below in the penultimate section, *Applying the Conceptualization: Varieties of Unawareness of Emotion*.

An 'emotion state', if one is to give neither an operational definition nor a behavioural reduction, we define stipulatively as what is common to a certain set of evaluative representations, 'attitudinal' behaviours and physical states. First, these behaviours and states are attitudinal in that (a) they are non-neutral, with regard either to (a part or whole of) the world or to the self, and so imply that something is of concern to the organism and is evaluated, and (b) they express how one is positioned in relation to something (e.g. being prepared to avoid or attack it). Since a particular emotion state is common to a set of behaviours, it may be attributed to be an intension of, or as underlying, these behavioural extensions¹¹. For example the attitude of 'escape' may underlie or be an intension of, what is common to, the behavioural extensions of 'watching for an exit', 'running away from', 'walking carefully to the side of', and so on. Thus, by definition, the behaviours are seen to be 'expressive' of something; for example, they may be expressive of 'the state of readiness to escape from something', or of 'the desire to escape from something', or more simply of 'the emotion state of fear of something'. Exactly what they are seen to express is a matter of actual debate. Since the kinds of behaviours referred to are attitudinal it is easy to see why Frijda (1986) makes the smallest theoretical intensional attribution from the behaviours, namely of defining the underlying state of 'emotion' as one of 'action readiness'. Other psychologists make a larger step of theoretical attribution from the behaviours, in attributing the intensionality to that which supposedly lies behind the action readiness, namely an evaluation, e.g. Mandler (1984).

The second thing that is common to the class of emotion behaviours, which follows from their attitudinal nature and which differentiates them from non-emotion behaviours, is their character or quality. Indeed, that a situation matters to the person or organism is taken to be shown normally by the manner of the behaviour, such that behaviour that shows no change in manner is deemed 'unemotional', and if an inferred attitude is not shown facially or in behaviour

the person is often said to be 'hiding' their emotion. This character or quality is a recognizable departure from neutrality in (a) intensity and (b) dynamics. Thus, first, the behaviour may be more or less intense than some norm. (Behaviourally, there are both individual and cultural differences in the greater or lesser intensity of behavioural expression; physiologically, emotions include, among other things, a mixture of sympathetic arousal and parasympathetic de-arousal.) An important point is that this departure in intensity is involuntary and overrides other behavioural goals, and is not at the detached discretion of the agent, except in her ability to control it reactively. The intensity of behaviour seems what is often taken to require a physiological explanation of arousal and the behavioural generalization of 'disturbance' or change. However, intensity per se is not a mark of emotion, especially if voluntary. Speed of running, e.g. in a race, does not mark the running as emotional. The difference in duration and behavioural intensity between, say, an emotion and a mood may well be an empirical consequence of physiology rather than a categorical difference between natural kinds. However, although some writers (e.g. Oatley & Jenkins, 1996) associate emotions with shorter duration, some emotions can last continuously over a long period without being a mood or disposition. Sexual jealousy or thirst for revenge can last for days, except for distractions or interruptions, possibly because the eliciting object or thought is ever-present. Love or lust are counted as emotions as opposed to dispositions on most criteria, including bodily state; they too can last over very long periods even without the presence in imagination of the object or cause, as is the case with anxiety. In this paper we do not make a rigid distinction between emotion and mood, since the difference is mainly quantitative rather than qualitative.

With regard to the second aspect of quality, their dynamics, emotion behaviours are characterized by 'prosodic' qualities such as rhythm, explosiveness, hesitancy, tremor, surge, crescendo, fading, etc. (Werner, 1948; Stern, 1985). The physiological substrate of these characteristics is moot, but may be traced to tonic activation of the motor or motivational system or to the balance between activation and inhibition. The definition used here to pick out emotion, of evaluative attitude and manner, seems to us to be the bare minimum to capture what people

are referring to in mutually understood discourse that uses the term 'emotion'¹². What may be inescapable is that the term, and the picking out of certain behavioural phenomena by it, is culturally relative, in categorical, normative and ideological senses. That is, although there may be biological roots and bases for the class of behaviours, attempts to naturalize the phenomena may violate the full human manifestation, in the sense that while sex is biological, the erotic is inextricably cultural in essence and in form (Paz, 1996).

We stipulatively define 'emotion experience' as referring to and including (a) the phenomenological aspect of an emotion state, and (b) 2nd-order awareness of this experience, though the latter is not always present. The first encompasses the experience of or due to one's evaluative and attitudinal state. The second encompasses: (i) awareness of such experiences, (ii) conscious emotion thoughts (e.g. I hate him), and (iii) awareness of these experiences as 'fear', 'anger', 'sadness', etc. Only in the last case is one aware of fear experience categorized as such. We use the term 'emotion experience' to cover all the experiences described above. To avoid ambiguity, we prefer to reserve the term "emotional experience" for those experiences that provoke emotion (experiencing a beloved's death) and for those phenomenal states that have a relatively intense and disturbing character. The phrase 'emotion experience' avoids such denotation and connotation.

Many theorists separate emotion experience from those things that we call emotion state. It might be asked why emotion experience is not just one of the components of what is referred to as an emotion, or indeed of an emotion state (e.g. arousal, appraisal result, action readiness, etc.). The reason is that emotion experience manifestly is experience of at least some of those other components, whereas none of the other components consist in or are about each other.

Self, Physicality, and the Content of Emotion Experience

In what follows two features deserve highlighting and clarifying. Like other authors (e.g. Solomon, 1993), we give an important role to the self in emotion and especially in emotion experience. Our treatment also emphasizes physicality, particularly in what we call 1st-order emotion experience.

Regarding self, we are primarily discussing the content of experience, i.e. a phenomenal object, rather than either (a) something external to experience (whether or not it really exists), or (b) what underlies or causes the content of experience. One point about this is that we propose that there are different kinds of experiences of self; but to say that self is experienced in different forms does not imply that there is a single real thing that has different aspects. The extent to which self-experiences are unified is an interesting psychological question but one that cannot concern us here. Further, when one invokes a process of evaluation of the self that may lead to an experience of self-worth, the two "selves" clearly do not refer to the same thing. The first refers to a concept or representation that may be nonconscious; the second refers to the content of a phenomenal experience. One important difference is between immersed experience of self and detached self awareness. In the first case, such as where perspectival perceptual content provides self-location (e.g. "ecological self-awareness", Neisser, 1993), one's attention may be elsewhere and the experienced self is fairly implicit and perceptually recessive. In the extreme of the second case, such as thoughts about one's worth or one's behaviour, the self may be experienced as a distinct perceptual or conceptual object, and as such is explicit.

This relates to the issue of physicality. We lay emphasis on physicality of emotion and emotion experience partly as a corrective to overly psychological and abstract treatments, but also because our proposal is that it is basic. By a physical experience we mean an experience whose content is spatial in the full sense, i.e. 3-dimensional with solid bodies that interact and are subject to dynamic forces. Our thesis is that some forms of emotion experience are of an embodied self in spatial relationship to a physical world. We make no claim that all emotion experiences or experiences of self are physical. Indeed we propose that several of the contents of

what we call 2nd-order awareness of emotion are non-physical. Nonetheless we do emphasise the centrality of physical experience of emotion and of self for several reasons. We are exploring a possible minimalist conception and one that we see as developmentally (and phylogenetically) basic. As others do, we see emotion and emotion experience as essentially relational and, except for reflexive emotions, always involving a self-world relationship. The evaluative nature of these is embodied and in spatial terms, and the primary experience of self is embodied. Note that to say that a negative evaluation of one's own worth can lead to an experience in terms of physical diminishment is not to say that the self that is evaluated is physical nor to say that it is the only kind of resultant experience. The spatially dynamic character we give to emotion and emotion experience is informed by Gestalt psychology (see Köhler, 1937) and phenomenology, but is one that we see as not only appropriate to that level of biology that deals with organisms and their ecological relationships, but as basic to cognition as a whole. It is not antagonistic to more analytic and reductive treatments in psychology and neuroscience, but hopefully complements and encompasses them.

A CONCEPTUALIZATION OF EMOTION EXPERIENCE

The varied and variable nature of emotion experience indicated by the data reviewed requires an account to characterize and explain these differences in form and content. There are several parts to our account of emotion experience: the microgenesis of emotion states; different kinds of attention and their relation to phenomenology; the alternative focuses of two such kinds of attention; and, most importantly, the varieties of emotion experience associated with this apparatus. In this section we shall deal first with the microgenesis and content of emotion states, second with the roles of attention, and then with the varieties of emotion experience. These correspond to the three central questions of emotion experience as proposed above: the underlying correspondence question, the contributory processes question, and the phenomenological question. We will finally return to other aspects of the contributory processes question.

The theoretical framework in this section is fleshed out with examples of the content of emotion experience which should be taken as speculative. They serve only as illustrations and are not intended to be definitive descriptions of the content of emotion experience. What is important is the framework's broad explanatory and unificatory power, in its application in the section on Varieties of Unawareness of Emotion, and in that it allows a common approach to varieties of emotion experience, normal cognition and clinical neuropsychology.

Microgenesis and Content of Emotion State

Emotion state refers to the functional aspects of emotion apart from conscious experience. Our conception of it is largely uncontroversial, but we need to outline it in order to contextualize emotion experience and what it relates to, and to introduce some technical terminology. The main features of an emotion state are sketched in Figure 1. The initial cause of an emotion state is in most cases a primary appraisal (sometimes conscious, more frequently nonconscious and automatic) of an event or circumstance (either remembered, imagined or actual) in terms of its relevance to or implication for one or more of the organism's concerns (Frijda, 1986; Lazarus, 1991). A concern is something that matters to the individual such that states of it are welcomed or rejected. This is behaviourally manifested as a disposition to maintain, seek or avoid a given kind of situation or self-state. These include basic biological concerns such as freedom from pain and homeostatically driven needs e.g. for food and water, and socially-derived ones such as for self-esteem. There are two direct consequences of the result of appraisal. One is that certain bodily and brain systems are activated (chiefly the limbic system, the autonomic nervous system, the hormonal system, and aspects of the skeletal nervous system). Such physical and physiological changes put the organism in one of several general states, each of which not only consists in differential emotional expression and species-specific behaviour, but also is selectively conducive to certain kinds of action (or inaction). We call this Primary Action Readiness.

Insert Figure 1 about here

The second direct consequence of primary appraisal is that the appraisal result usually leaves a record of itself, in other words a description of how one's concerns or one's self have been affected by the event. We call this the Evaluative Description (ED) of the relationship between the self and the world, or of the state of the self. We should note that not all appraisals leave a record of their result. As LeDoux (1998) has pointed out, immediate appraisals which merely detect the presence of a "natural trigger" (such as the typical perceptual configuration of a species-specific predator) operate on the basis of very crude information to activate bodily and behavioural action readiness. In these cases no record of the result of appraisal (ED) is left and emotion experience consists in awareness of bodily/behavioural responses and may seem "objectless". However, even in these cases it is usual in humans for more detailed perceptual processing to occur subsequently, and further appraisal based on this more detailed perceptual processing does leave an evaluative description with an attributed cause or object.

What is appraised in relation to a concern can be either something external to oneself or an aspect of the self, e.g. one's actions. The process of appraisal does not stop with merely a description of that event or action in relation to a concern but involves both (a) derivation of implications and (b) symbolic interpretation. An example of (a) is an appraisal of an event as frustrating my aim, which is further transformed into the implication that I have failed. An example of (b) is a teacher giving a helpful correction which is seen in terms of a reproach from one's father and all that one's father signifies to one. Both the level and kinds of implications derived and interpretations made will depend upon individual and context. The ED will be in terms of one of these levels of description; which one will again be a matter of individual and context.

Normally the primary appraisal is followed by a secondary appraisal (Lazarus, 1991). In many human cases the triggering situation will not fit the perceptual specifications of primary appraisal. Where the assimilation of such situations to a category of event eliciting an emotion requires inference, it will depend on secondary appraisal. Secondary appraisal also serves to re-

appraise what has already elicited an emotion via primary appraisal. The direct consequence of the result of secondary appraisal is also a record in the form of an ED, which may be a modification of an initial ED produced by primary appraisal. Insofar as secondary appraisal leads to interpretations in terms of primary appraisal categories (concerns), it will also trigger bodily systems constituting action readiness. However, insofar as secondary appraisal is less temporally immediate and curtailed, it leads to a different kind of action. This is more strategic and coping; it is less immediately causal and is more intentional and rational, e.g. "what can I or should I do in this encounter?". But secondary appraisal can also lead to a more analytic representation of the eliciting circumstance (e.g. "He has humiliated me by exposing my weakness to those others").

We refer to the totality of the action aspect of emotion states consequent on appraisal or triggering as the Action Attitude (AA). Readiness to fight, for example, is a literal, physically embodied attitude, but which in emotion demands consummation. The AA is something which has a temporal extension and dynamic. It initially consists in the primary action readiness, but is modulated by secondary appraisal, by rational coping strategies, and indeed by awareness of emotion. Secondary appraisal is conscious more frequently than is primary appraisal, both in terms of its content and as process. Certainly in the human case, an emotion state as triggered by a single elicitor is often not a single unchanging state over time, but is dynamic, both in having a prosodic contour and in changing as a result of microgenetic aspects of perception and of awareness and consideration.

It is important to note a difference between the Evaluative Description and the Action Attitude. The former is a representation (either of an event relative to a concern or of the state of the self). The latter is the bodily state itself (musculoskeletal, autonomic and hormonal), and not a representation of it, nor a plan. However, in itself, action, and readiness for it, is directed and relational: it has an agent or source and an object. In addition, we suppose that there is a nonconscious representation of the Action Attitude, which mediates its phenomenology and through which one is aware of it.

Specific emotion states (anger, fear, sadness, etc.) are constituted by and differ in virtue of particular classes of EDs (by dint of particular concerns) and particular classes of AAs (e.g., X has committed a demeaning offence against me — readiness to attack X; X is a present serious danger to me — readiness to escape X). However, a single ED is not inevitably associated with any one AA. Complementarily, a single AA may be common to more than one evaluation. Any one emotion state is defined by the combination of the ED and the AA.

With regard to appraisal, an event or state will be appraised at the level of both (a) its relevance to a concern and (b) implication of the relevance to a concern for the whole self. The content of the ED can reflect either of these levels of description of evaluation. Where someone or something is lost that has become a part of oneself (a partner leaves or dies), the ED may not be so much in terms of the lost object as in terms of one's incomplete self. Where one gains someone or something that is needed or keenly desired, the ED may be in terms of a completed or enhanced self. Where one is deeply offended or humiliated, the ED may be in terms of oneself as damaged or wounded. Danger may be evaluated as the self under threat. Failure or rejection by an important other can be evaluated as diminished agency or diminished self worth. These descriptions apply respectively to grief or sadness, to joy, to anger or humiliation, to fear, and to depression. Disgust can be an evaluation of an object (including oneself) or can be a feeling of oneself as containing something improper or which makes one impure. But the same can apply to reflexive emotions, where shame is an evaluation of the self as stained or where pride is an evaluation of the self as augmented or more beautiful.

These different kinds of ED have different consequences in terms of representational possibilities and for phenomenology. An event or state in relation to a concern is represented as a relational structure. The evaluated self is represented in subject-predicate form. Neither of these in themselves is propositional. A couple of examples will illustrate this — X: a present danger to me (relational structure) versus I: in danger (subject-predicate), Event X: the failure of my plan versus I: diminished.

Note that the evaluated self can take different representational forms. It can be mental or physical or interpersonal, varying between individuals and cultures (Marsella, 1985). It is only to be expected then that, quite apart from the somatic consequences of appraisal in the AA, an ED in terms of the self can be realized in phenomenology as bodily experience. Bodily experience (as distinct from 2nd-order awareness of it) is underlain by a representation of the bodily state. Such a representation can be fed in two ways, first as proprioceptive afferent projections from the body itself, and second from representations of the body that themselves do not come from the body. A putative example of the latter is that which underlies phantom limbs, especially in the congenitally aplastic. Another example is of a bodily representation that is a realization or symbolization of the physical self (as distinct from one's actual spatial extension), which plausibly underlies somatization or conversion symptoms (e.g. a psychological incapacity experienced as a physical paralysis).

There are cases where emotion is induced neither by appraisal nor by a perceptual trigger, and these bear on both the nature of emotion experience and what underlies it. First music can induce emotions. Second, certain kinds of bodily movements or postures induce emotions (Stepper & Strack, 1993). Third, in emotional contagion the emotion of one or more individuals induces it in another. Even if the range of emotions inducible in these ways is limited and even if there is a reduction in arousal, physiological expression and action tendencies (Elster, 1999), we classify such states as emotion as opposed to mood. They predispose one to certain evaluations and reactions, their duration and temporal dynamics are characteristic of emotions, and they are described as emotions by those experiencing them. If such affective states are emotions, then appraisal and the resulting Evaluative Description are not essential components of emotion state. There are three implications for emotion experience. First, what underlies emotion experience in these cases must be primarily the physical state of the AA, since there is no ED. Second, the content of emotion experience can lack an intentional object and be restricted to the phenomenology of one's state. Third, emotion experience can be at least somewhat differentiable on the basis of the latter alone. However, it is possible that such states may not be experienced or

interpreted as emotion, either for cultural reasons (e.g., what counts as an emotion) or for individual reasons (e.g., the lack of plausible attribution).

Relations Between Evaluative Description and Action Attitude

In essence we see the basic relation between primary appraisal result and specific action attitudes as automatic and causal. The selection of coping strategies and action attitudes based on secondary appraisal and on meta-emotions (e.g. culture-based guilt at feeling envy) we see as rational and inference-based.

The centrality of the relation between the components of appraisal and of action attitude can be seen in how it defines different classes of emotion. In the microgenesis of an emotion state the result of appraisal generates an ED and an AA. The content of the Evaluative Description is either an event or state in relation to a concern or the (implied) evaluated self and the Action Attitude consists of an agentive self, action and object. In the nonreflexive emotions the world or the self is appraised, and the world is the object of the action attitude. In the reflexive emotions (shame, pride, etc.) the self is appraised, and the self is the object of the action attitude. For example, in shame (as opposed to anger) it is not the world that has failed to meet a concern, but myself that has failed to do so; and it is not the world that is to be acted on, but myself (I feel like hiding myself away).

In reflexive emotions it is not just that the self is the object of evaluation. It is the self evaluated 'in the eyes of others'. In some cases the evaluation is perceived to be by others (e.g. in embarrassment), in other cases it is internalized as one's own (e.g. in guilt). But the very reason that such evaluations produce emotions is (a) that others' views of me are one of my concerns and (b) that often the evaluations are in reality my evaluations based on my concerns. That is, the subject identifies with the "evaluating others", or rather "the others imagined as evaluating" since it is the subject's own evaluation. This 'social' characteristic will be reflected in the content of the ED and the AA, and will also influence the content of experience. That is, in reflexive emotions: (a) the self will be an explicit component of the experiential content and it will tend to be the primary focus of experience, but also (b) the reflexive aspect of the evaluation or action attitude

will be present in that one is aware of a dyadic relationship where in many cases one is both partners of the dyad (e.g. I hate myself).

Regarding the object of appraisal and the object of the action attitude, it is logically possible for one of them to be the self and the other to be the world. However, it turns out that this is rarely the case. It mainly occurs in cases of offence or blame where the self is appraised as offender but the action attitude is directed to an object in the world, or vice versa – cases of 'displacement' or 'projection'. (A classic example is where in a hierarchical social system chastisement by a superior yields self-blame but the individual is aggressive toward an inferior). Indeed one reason why such disparities of self/world are infrequent is that in many cases the kind of action produced by the particular appraisal can, by its nature, only take one or other of the self or the world as its object (e.g. the literal spatial object of physical readiness to escape from, or withdraw from, can hardly be the self).

Emotion State and Phenomenology.

Although the processes and representations that comprise emotion states are almost all essentially nonconscious (secondary appraisal can be conscious), some of them are entirely without phenomenology and others are normally inevitably phenomenological (i.e. there is something it is like to have or be in those states). In some cases the phenomenology depends on intact proprioception, in other cases it does not. Appraisal as a nonconscious process has no phenomenology. Likewise, the representational record of appraisal, the ED, if it is in terms of an event or state in relation to a specific concern, has no phenomenology per se, though the hedonic tone of such an evaluative description is obviously phenomenological. However, if the ED is in terms of the self, especially when it is in terms of a somatic realization of self, it is necessarily phenomenological, in addition to its hedonic tone. It is like something to be (evaluated as) worthless or fulfilled. The phenomenology of the evaluative state of self does not depend on proprioception, since it is not perceptual but intrinsic to self evaluation. The bodily attitudinal consequence of appraisal, the AA, is phenomenological: it is like something to be ready for action of one sort or another, to tremble or have a slower or faster heartrate, and for limbic

activity to alter one's affective tone. The phenomenology of the AA does depend on proprioception, and is inevitable except for extreme neural pathology. One's physiology and behaviour, as well as other experiential content and hedonics, contribute to the total phenomenology. Whether or not one is aware of the phenomenology of the emotion state or which component(s) of it one is aware of depends on aspects of what underlies and modulates such awareness, for example attention.

Attention and Consciousness

Central to our proposal are three aspects of attention. The first two are general aspects of attention and its relation to phenomenology, and not specific to emotion; the third is specific to different features of emotion.

There is a simple point to be made about the selectivity and capacity of attention and consciousness. One should not expect a person to be equally conscious at any moment of all that they could be conscious of in emotion, or in any other state. In visual perception one is conscious of the visual field (though the accuracy of this is in doubt), but only fully aware of the perceptual content where one is focally attending. This awareness is even more constricted if what is attended is salient or cognitively demanding. In emotion the situation is more like that of multimodality, since there will usually be sensations from different parts of the body and those of a nonlocalisable nature, thoughts, evaluative external perceptions, and one's actions and action urges. This is akin to, but more complex than, polyphonic music, where attentional streaming into simultaneous melodies occurs (Dowling, 1973). Thus the type of thing that one is conscious of over the course of an emotion, on different occasions, and between individuals is going to be partial, inconsistent and changing. That is, in a simple sense, there will be much associated with emotion of which one will be unaware or at best dimly aware, and what one will be unaware of will differ between occasions and individuals.

Awareness and Mode of Attention

We distinguished above between phenomenal experience and awareness, and referred to these as 1st- and 2nd-order consciousness respectively. We associate the difference with the operation of focal attention. While 1st-order phenomenology as such exists independently and prior to focal attention, it is nonetheless subject to two aspects of attention: what we call General Directedness and Mode. Phenomenal experience is articulated in terms of Gestalt laws of organization. One of these, central to our present account, is figure-ground articulation. One kind of figure-ground articulation, which will be enlarged on below, is self versus world. This is determined by what we call General Directedness. The immediacy of one's experience, the

degree to which it is felt as part of oneself, and its hedonicity are a function of one aspect of what we call the Mode of attention: the degree of immersion or detachment of one's attentional attitude. These are the senses in which 1st-order phenomenology is subject to attention. Second-order awareness which supports reflection, report and purposive recall is underlain by focal attention, which is associated more with voluntary control. In our view, focal attention is not necessary for 1st-order phenomenology, though it affects it; but focal attention is what creates 2nd-order awareness. Its operation synthesizes different kinds of representation. What these are in emotion experience will be dealt with below (see Further Comments on Processes Contributing to Emotion Experience).

Focal attention, and thus 2nd-order awareness, is not an invariant or even permanent mental feature. One can attend focally to varying degrees, at one extreme not at all. The latter is characteristic of relaxation and of hypnagogic states. In such states, although one's perceptual or other experience is articulated, it is unfocused. Kinsbourne (1988) characterises this as "diffuse" attention yielding a "panoramic perceptual field"; on Kahneman's (1973) model, perceptual attention can be allocated to be "thinly but widely spread".

A feature of focal attention itself is its 'mode'. This refers to two related but distinct dimensions of the way that we attend. The first is the degree to which one is attending analytically or synthetically, i.e. the extent to which attention is directed to components or to a whole, to a lower- or higher-level description or category, or to significance. The more analytic one's attention, the more one's experience is abstracted and decontextualised. The second dimension is the extent to which one is detached from or immersed in the object of attention. Total engrossment in an activity or in one's perceptual world (Csikszentmihalyi, 1978) reduces or removes second-order awareness, such that in extreme one is in an almost trance-like state of immersion and non-observation. One example of detachment is reflective observation of oneself engaged in whatever one is doing. Another example is observation of the world as something separate from oneself, unaffected and unaffected by oneself. This is often termed being "cool". Analyticism and detachment tend to go together as do immersion and syntheticism, but the two

dimensions are logically and empirically distinct. The more analytic one's focal attention, the more separated and piecemeal are the components of one's experience. The more detached one's stance, the less meaningful and hedonically charged is one's experience. But one can obviously attend in an engrossed fashion and at the same time analytically; and conversely one can attend detachedly to global or high-level descriptions. Such states can be chosen voluntarily, with varying degrees of difficulty. They can also be induced. For example, repeating a word or phrase eventually leads to both semantic satiation (experienced loss of meaning) and phonological disintegration. The same is true of continued gazing at an object. Plausibly meditation techniques work equivalently. Certain neurological patients (most obviously agnosics) can be restricted to either analytic or synthetic modes of attention (see Marcel, 1983, for discussion), and others (primarily frontal cases) can be restricted to either detached or immersed modes. Those restricted to immersion, are at the mercy of emotional reaction and are unable to abstract themselves from the specific situation; those restricted to detachment show the opposite, not reacting to or caring about what would seem to be of personal relevance. Attentional mode plays a central role in phenomenology and in hedonics, which we discuss later.

First-order phenomenology can be taken by focal attention as the content of 2nd-order awareness. Usually, but not always, unless there is 2nd-order awareness of a 1st-order experiential content, one cannot report that content nor will one have an intentionally recoverable episodic memory of it (Marcel, 1993). Thus, even though one is conscious of one's actions and environment, one may be unable to remember or report them if either one was totally immersed or one's (2nd-order) thoughts were elsewhere. (Driving a familiar route permits focal attention to be otherwise occupied, and even though one was conscious of all moments of the journey itself at the time, one fails to remember it later.) If one is focally attending to a certain content of 1st-order phenomenology, its phenomenal and informational character is altered according to how analytically or synthetically one is attending to it. This is as true of one's internal states and sensations as it is of one's world-directed perception. The more analytically one attends to a painful sensation, the less its painfulness: the more one attends to the sensations themselves and

the less one's attention encompasses its signification, the less its hedonicity (Ahles, Blanchard and Leventhal, 1983; Dar and Leventhal, 1993). The more one attends synthetically (the normal default of attention to higher levels of description; see Marcel, 1983), the more one experiences categorical perception, be it of speech sounds, perceptible objects or otherwise decomposable emotions.

Thus the operation of focal attention not only creates awareness of 1st-order experience. By its selectivity it creates focus on only some aspects of experience. More importantly, although focal attention is not necessary for the phenomenology of the ED or the AA, the current mode of attention modulates their particular phenomenology, and it usually transforms such experience in taking it as the content of 2nd-order awareness. How it does so and the different resulting transformations are dealt with below (see The Varieties of Emotion Experience).

General Directedness: Self versus World

One general aspect of attention that permits of alternative focuses is the distinction between directedness to the self and directedness to the world. Such attention or directedness yields what we refer to as self-focused and world-focused experience. This distinction differs in several substantive ways from other similar distinctions (e.g. Blascovich, 1992; Duval & Wicklund, 1972; Hull & Levy, 1979; Lewis, 1999, Pennebaker & Roberts, 1992; see Palfai & Salovey, 1992, for a review). But we lack the space to specify all these differences here. Sartre (1939/1962) does make a roughly similar distinction to our own. Unfortunately he conflates it with that between 1st-order and 2nd-order consciousness, distinguishing only 'non-reflective' and 'reflective consciousness'.

Our present distinction between self- and world-focused experience is one of content, but relies particularly on experienced location and locational directedness. With regard to conscious thoughts, we distinguish between thoughts of which the focal content is the self and thoughts of which the focal content is the world. But with regard to perceptual experience, we distinguish between internal and external experienced locations of conscious perceptual content, where internal refers to the space of the body, the bodily experience being an experience of self (see

Bermúdez, Marcel and Eilan, 1995). Consider Parkes' (1996) comments about the experience of grief often being in physical terms: " 'It's a horrible feeling here [pointing to her chest]', said a sixty-five-year-old widow.... On the face of it there appears to be empirical justification for Grinberg's belief (1964) that the pain of grief, like physical pain, is the experience of damage to the self." (p. 99).

A basic point is that all perceptual experience is spatial and always includes one's own bodily spatiality within the total egocentric space specified at any moment by the various sensory modalities including proprioception. As Gibson (1979) has pointed out, exteroception simultaneously specifies the egocentric spatiality of the world and one's own location and spatiality. Location in such a space is primarily indexical: "here". Within such a spatial field one's own body is segmented from all else by various informational sources, but particularly by internal somatic information. Given this, the self or world can be either figure or ground for one another. Experientially which one is figure is a matter of attentional focus. A pre-eminent way of focusing on the self is to attend to (among other information) perceptual modalities or information concerning one's bodily state. Therefore, in regard to self-focused experience, the self is a spatial object defined by focus of attention. In world-focused experience the self is the ground, present but perceptually recessive. In experience, self and world are always in some particular kind of relation. In emotion experience the relation is either an evaluative or an attitudinal one.

This is illustrated by an example of perceptual experience resulting from bodily contact. Consider the situation of pressure contact between the pad of your forefinger and the horizontal edge of a table. Simply through a shift in attention you can experience either of two things: (a) the sensation, in the inner end of your finger, of indentation and pressure which has a shape and orientation; (b) the perception of the edge of an external object which has a shape, texture, orientation, mass and location. The single informational state due to receptors in your finger in mechanical contact with another object can lead to awareness of either of the above. These two experiential contents may not strictly be mutually exclusive — the bodily sensation may not

entirely disappear when you attend to the object and vice versa — but their relation is (at least) that of alternative figure and ground. Even though the same receptors and the same nonconscious informational state underlie both of the two alternative conscious experiences, what is attended to is different and the consequences are different. Attention to the world yields haptic perceptual experience (the table edge), attention to one's body yields tactile sensation (felt pressure in the finger). In attending, either the external world or body becomes figure.

These alternative experiences differ in two interesting ways. First, they differ in the way they are experientially located. The perceived table edge is located with respect to an egocentric or geocentric frame of reference. Such spatial frames of reference are defined by points of origin or stability. Bodily sensation is located egocentrically, such that we can point to it. However, in addition it is located either topologically within a structural description of body space, or somatotopically, e.g. by local sign. The spatial difference between these kinds of description is illustrated by the fact that the perceived egocentric location of the table edge is unaffected by which part of the body is in contact with it, whereas conversely the bodily sensation moves in egocentric space with its bodypart, but its somatotopic location (in the forefinger) is unaffected by the external egocentric location of the bodypart or its geometric relation to other bodyparts. The perceived orientations of the haptic percept and the tactile sensation differ in the same way: the former is independent of the orientation of bodyparts, the latter is not. The location of bodily sensation might be thought to be no different from that in an object-centred description of an externally perceived object. However there are three further differences. First, bodily sensations move with one's own movement, while externally perceived object features do not. Second, they are known uniquely through proprioceptive awareness. Third, they have hedonic qualities of a different kind from externally perceived objects or features. These differences in spatial reference frame, spatial properties and epistemic properties emphasise that, even though one's body is experienced as located in the world, the two are not homogeneous parts of the same experiential "world". This is why the following syllogism is invalid: "There is a pain in my hand; my hand is on the table; therefore the pain is on the table".

Obviously these distinctions are not per se what implies that the body is experienced as self. However, the second interesting and more relevant difference between the experiences is in ownership of the experiential content. The contents of bodily sensations are experienced as owned in a way that the contents of haptic perception (a surface, edge, object) are not. Tactile pressure, pain, itch or nausea is "mine" or "yours", and "I am hot or in pain". The haptic perception of the table edge is mine or yours, but the perceived table edge is not. Such a distinction in experience could only obtain if one's body and its states were experienced as one's (physical) self. Ownership of the body and its parts and of bodily sensations is not the kind of ownership of disposable goods where owner and owned are separate entities. It is the kind of ownership that underpins such statements as "he touches me" (my arm) or "he sees me" (my body). In fact "ownership" is an ambiguous term. The genitive case in Indo-European languages expresses both ownership of disposables and the relationship of 'part of'. The ship's prow is an essential part of the ship; my hand and my pain are parts of me; my sensations and experienced states of action readiness are part of the experienced state of the body that is me. (See Gallagher and Marcel, 1999; Marcel, 2000.)

This illustration of self-/world-focus is most paradigmatic of touch, applying less to audition and hardly at all to vision. Further, when one attends to self, say with regard to bodily state or thoughts, one is still visually conscious of the world, but this aspect of experience will be in the background of one's consciousness. Thus, in emotion one may be focally aware of one's self (bodily or in thought), but be ambiently aware of a non-emotional visual world.

Voluntary control of attentional directedness to self or world requires that these alternative foci must be able to figure in intentions. For this to be the case there must be distinct representations in some form of self and world. This is not to say that attenders consciously intend to focus on 'self' or 'world' in those terms. These representations of self and world which enable voluntary attention are quite separate from the self and world content of experience.

Evaluation versus Action Focus

One aspect of attention particularly relevant to emotion experience is the focus on the evaluative aspects versus the behavioural and bodily aspects (AA) of an emotion. This difference is illustrated in the literature on coping with emotion (Lazarus, 1991) where different coping strategies involve focusing on either evaluative aspects (e.g. negative thoughts) or on bodily responses (e.g. one's breathing). Insofar as 1st-order emotion experience is physical, attention to the ED applies only to evaluative somatic representations of the self, and attention to the AA yields experiences of the body (when self-focused) or spatial experiences of aspects of the world that afford action (when world-focused). This will be expanded on below.

With regard to 2nd-order emotion experience, research using diaries and other methodologies shows that subjects can certainly be aware of both the evaluative (ED) and bodily/behavioural (AA) aspects of emotion within a single emotion experience episode. However, we assume that, since an emotion experience episode changes dynamically over time, at any one instant there is a difference in degree of focus on the ED or AA. A single specific emotion episode (e.g. of sadness) may vary over time in the degree to which its experience is of the ED or the AA.

As we said above, there is not a one-to-one determinate relation between a particular ED and a particular AA, and an emotion state is defined by a combination of the two. However, even though a single emotion state may be determined by the combination, there can be an indeterminacy in the kind of emotion experience one has in a given state, for the following reason. (a) Focal attention can be directed to either the ED or the AA, and (b) particular examples of each of these can be proper to different emotions — the ED of perceived humiliation can be proper to both anger and shame; the AA of hiding oneself can be proper to both shame and fear. Clearly not just any emotion can be experienced given a particular emotion state, objectively defined; there are constraints not only in the ED and the AA, but also in the external situation. However, the fact that the emotion one experiences is underdetermined by the underlying state for the above reasons is important. One's experience can be 'mistaken': emotion experience is not incorrigible.

The Varieties of Emotion Experience: Kinds of Content

First-order phenomenal experience and 2nd-order awareness are determined by the apparatus outlined above. Their content depends, in the 1st-order case, mainly on directedness to self or world, and, in the 2nd-order case, on (a) mode of attending, (b) directedness to self or world, and (c) focus on evaluation or action. An important aspect of 1st- and 2nd-order emotion experience is hedonic tone. This will be discussed after the other kinds of content.

First-order and second-order emotion experience differ in certain ways. 1st-order emotion experience consists in the immediate aspects of what it's like to be in an emotion state, an experience of an articulated phenomenology of the attitudinal relationship between the body and the world or a bodily experience of an evaluated self. 2nd-order emotion experience can be (a) an awareness of either of those primary phenomenologies, varying in the analyticism - syntheticism of their presentation, or (b) conscious emotion thoughts (about cause or consequence in self or world), which can correspondingly vary in the analyticism - syntheticism of their substantive components. Depending on mode of attention, 2nd-order emotion experience can be more detached as opposed to immersed, allowing awareness of one's emotion as emotion. When one is world-focused, as far as the subject is concerned, 1st-order phenomenology presents the way the world is, whereas 2nd-order awareness presents the way the world seems. This is matched in thoughts by their propositional structure permitting all the possible "stances" to one's experience that the mood of verbs reflects (e.g. degree of certainty, hypotheticality or necessity expressed by indicative, conditional, subjunctive or imperative moods), as well as negation. In 1st-order phenomenology one can only have an experience of , but in 2nd-order awareness one can be aware either of or that. This division between awareness of and awareness that is illustrated in Table 6 (see below).

First-Order Emotion Experience

There would seem to be a problem in accurately characterizing 1st-order phenomenology, given our general position that normally we can only know it via 2nd-order awareness, which usually transforms it. When we deliberately attend to it we tend to adopt an analytic

observational attitude which disintegrates its 1st-order holistic nature. Our response is twofold. First, there are states, e.g. of immersion, where 2nd-order awareness is minimal. In such states the content of one's conscious experience approximates 1st-order phenomenology. One's memory of such states is via episodic reinstatement (i.e. the phenomenology is produced by remembering the eliciting situation rather than being directly recallable). Thus one can catch it out of the corner of one's eye, so to speak, or by memorial reinstatement. Second, we can be veridically aware of 1st-order phenomenology to the extent that we attend highly synthetically at the time. Paradoxical though it seems, we are sometimes in states both of detached awareness and of immersion, in which we are aware of our concurrently immersed phenomenology. Sometimes this is by an act of will; at other times it is in states of heightened sensibility, such as during intense emotional experiences, including accidents, or during "flow states" in highly practised activities such as sport or theatrical performance.

Further difficulties exist for accurate awareness and communication of 1st-order phenomenology. We suppose that its very nature makes it relatively unamenable to linguistic description. Indeed this may be why some psychologists include an "unanalyzable feeling" in their accounts of emotion and why novelists and laypeople capture it by what seem to be analogy and metaphor (Lakoff and Johnson, 1980), though we believe their descriptions to be less metaphorical than often supposed. However, even if a certain phenomenology is unanalyzable, this only means that it is nondecomposable, and does not mean that it is indescribable. In addition to ineffability of 1st-order phenomenology, we view 2nd-order awareness and focal attention as subject to one's conceptual structure, tending to coherence and logicity; whereas we suppose that 1st-order phenomenology can be non-coherent, non-logical and less subject to concepts. For these reasons reports of phenomenology tend to distort it. To be accurately aware of one's 1st-order phenomenology one has to avoid what we normally bring to the act of attending to it (see Gallagher and Marcel, 1999).

In spite of these difficulties, it is possible to give some characterization of 1st-order emotion phenomenology. We do so on the basis of (a) some of the existing research data (e.g.

Davitz, 1969; Parkes, 1996), (b) attempts to capture it by writers of fiction and poetry and by authors within the psychoanalytic and phenomenological traditions (e.g. Stern, 1985; Merleau-Ponty, 1961), and (c) our own phenomenological sorties and reflection. See examples given above in 'Research Data on Emotion Experience'.

First-order emotion experience consists of the phenomenology of the Evaluative Description (ED) and of the Action Attitude (AA). Insofar as it reflects the ED, the phenomenology is of the evaluated self. This is necessarily in bodily form on the present approach, because the content of 1st-order phenomenology is physical. Such experiences of the evaluated self are of one's body as 'diminished', 'augmented', 'compressed', 'overwhelmed'. First-order phenomenology reflects the evaluated self only when one is self-focused. Since events in relation to concerns are analytic descriptions and analytic descriptions cannot on our view form a part of 1st-order phenomenology, EDs in such terms do not enter into 1st-order phenomenology but only enter into 2nd-order awareness.

In reflecting the AA, the phenomenology is of the physical relationship between the body and the world. The experience consists of the unification of two components: an impulsion or force (which is part of the attitudinal component), and differential action or potentiality for action (the action component). The experience differs according to self- or world-directedness.

If directed to the self, the figural component of 1st-order emotion experience reflects, other than the evaluated self, the representation of the bodily physicality of the AA, indexically located "here". If focused on the world, the figural component is of what we call, following Lewin (1952), hodological space, a phenomenal 'path' space of possibilities/impossibilities and imminences of action. In both cases the experience is spatial, topological and in terms of 'dynamics', i.e. force and direction, including starting point and aim. For example, in the self-focused case, one may experience impulsion to move from:- from contact, enveloping/envelopment, displacement, support; impulsion to move to:- to contact, envelop/be enveloped, displace; impulsion to give/receive support; impulsively growing/shrinking, and so on. In addition one will experience the ease or difficulty of such movement.

In the corresponding world-focused case, 1st-order emotion experience is of the world (out there) in terms of a 'hodological space'. This experience consists in what it is like to perceive the world when one is in an Action Attitude state; and thus is a perception of the world in terms of action — more specifically in terms of its attracting or forbidding one's actions towards or away from it. To give some examples, one may experience 'paths' to or from objects in the world that are 'blocked', 'open', 'closed off', 'inviting', 'uninviting', etc. Experience of hodological space (world) is a complementary alternative to the experience of bodily space and its possibilities (self) in 1st-order emotion experience.

Thus, for example, in anger the self-experience may be of being impeded, pushed back, or like that of a spring that is compressed, or an impulsion to push out (against). The corresponding world-experience would be either of an impeding or compressing agent, or of an object which draws one's expansion and antagonism to itself. In joy the self-experience might be of one's body buoyant and ready to interact with things; the world-experience might be of a world as supportive, or open, inviting, to-be-interacted-with. Table 2 shows examples of both the 'evaluative' and 'action' aspects of 1st-order emotion experience.

Insert Table 2 about here

When focused on the self aspect of the AA the experienced directedness of self is of an active, agentive kind (which in 2nd-order experience is experienced as "an urge to..."). When focused on the world aspect of the AA, the experienced "drawing to itself" or "pushing from itself" of the object is of a passive kind (which in 2nd-order emotion experience is experienced as a gerundival property of the object - e.g. a "to-be-attacked-object"; this will be explicated below under 2nd-order Emotion Experience).

Since the AA is relational (self-world), the difference in figure-ground between self- and world-focus is a directed bodily state versus a portion of the world toward or from which that bodily state is directed. Although the AA itself consists of all the bodily changes, the associated 1st-order phenomenology is holistic. That is, the bodily changes are not available in experience

as separate components (e.g. as heartbeat, temperature, tenseness, etc.) unless analytically attended in 2nd-order awareness. Note that the sense of urgency or compellingness is derived directly from the AA itself. That is, if one is poised for an action, especially when caused passively, it has its own pull to consummation.

In the case of reflexive emotions, since the object of the action attitude is the self (rather than the world), they are more typically self-focused than non-reflexive emotions. Nonetheless, for most reflexive emotions 1st-order emotion experience can also be world-focused (the world in this case is specifically the social world). Although the object of the action attitude is the self, for most reflexive emotions the action implies others. In pride, displaying oneself or one's achievements implies observers; in shame, hiding oneself implies the gaze of others. Hence there is a hodological space associated with these emotions — a social hodological space (see Table 2).

We suppose that there are some nonconscious representations which have propositional form. (Indeed one such representation, the ED, is a consequence of appraisal in emotion). But 1st-order phenomenology, as we conceive of it, does not have propositional structure. Therefore nonconscious propositional representations have no 1st-order phenomenology which matches their structure. First-order phenomenological content may approximate subject-predicate structure; i.e. a red ball may be experienced with the focus on the ball as "topic" and the colour as a variable "comment". However this has none of the determinateness of propositional structure, where the verb form expresses the propositional attitude, aspect and mood of verb, and much else. Therefore one type of conscious content that is restricted to 2nd-order awareness are conscious thoughts, which have propositional structure.

Second-Order Emotion Experience

The specific content of 2nd-order emotion experience depends on mode of focal attention (analytic - synthetic), on directedness to self or world, and focus on ED or AA. Since this last distinction in focus is a function of focal attention, it is restricted to 2nd-order emotion experience. When focused on evaluation, the content of 2nd-order emotion experience is either in

the form of propositional thoughts which correspond to EDs of the evaluated self or of an event or state in relation to a concern, or in the form of nonpropositional awareness of the evaluated self. See Tables 3 and 4 for some illustrations of the content of 2nd-order emotion experience. As noted earlier, a major distinction in the form of 2nd-order emotion experience is between non-propositional awareness of 1st-order phenomenology and propositional awareness in the form of emotion thoughts.

Insert Tables 3 and 4 about here

Non-propositional awareness

Non-propositional awareness is one of the two kinds of awareness that are possible when focused on the evaluated self or on the AA (the other kind is conscious emotion thoughts, dealt with below). When focused on the evaluated self, one may be aware of either the state of the self in mental terms, as subject-predicate (offended, threatened, fulfilled), or the state of the self in physical terms (in pain, diminished, augmented). When focused on action, one is aware of the 1st-order phenomenology of the AA in various forms. If directed to the self, the experience is either in a more analytic form as bodily sensations or in a more synthetic form as one's urge to act. If directed to the world, the experience of hodological space is in the form of "gerundival descriptions" of objects, i.e. as to-be-acted-upon in specific ways (see below). In all of these cases the experience of self or world is nonpropositional, i.e. of sensations or objects. The synthetic forms of the AA phenomenology can also be experienced as propositional thoughts, e.g. 'I want to hit him', 'he deserves hitting' (see below). We will now expand on self- and world-focused awareness of the AA.

Self focus. The experience of action urges as such is a function of a synthetic mode of attention on the agentive self. If one's self-focused 2nd-order awareness is more analytic, then one may be aware more of individual bodily sensations, such as heart beating, fists clenched, etc. Some theorists might view conscious experience of bodily states such as body temperature, muscular tension, abdominal sensation, lump in throat, tears welling up, etc., as 1st-order

emotion experiences. We see these experiences, however, as part of 2nd-order emotion experience. They are the result of analytic attention to aspects of the bodily self. There is no doubt that people report different bodily sensations for different emotions (see for example, Scherer & Wallbot, 1994). However, although many such sensations are surely veridical (for example feeling tears in one's eyes when there really are tears in one's eyes), evidence suggests that some such sensations are cultural constructions. For example Kleinman (1980) describes a sensation unique to Chinese culture of suan (literally, sourness) in limbs and joints, writing "I have not come across this symptom among non-Chinese patients" (p. 143). Furthermore, experience of bodily sensations in emotion is notoriously dependent on analytic attention, particularly in cases such as anxiety in which a significant component of anxiety experience often consists in over-analytic attention to the body. It is arguable that if immediate action is taken, for example running away from a tiger, one would have no awareness of bodily sensations whatsoever. It is only when one does not take immediate action (e.g. in anxiety) or after an action, that one's attention is free to focus analytically on one's bodily sensations. See Table 5 for an illustration of how the mode of focal attention influences anger experience.

Insert Table 5 about here

World focus (gerundival perception). The difference between 1st- and 2nd-order world-focused experience corresponds to the equivalent difference between 1st- and 2nd-order self-focused experience. As indicated above, 1st-order world-focused emotion experience, being non-analytic, is of a hodological space. We propose that (when it is not an emotion thought) 2nd-order world-focused emotion experience, while varying in its analyticism, is of a figural object with a phenomenological property of impellingness that is the world-counterpart of a self-focused felt action urge. This property we call "gerundival". Thus 2nd-order world focused emotion experiences are "gerundival perceptions" in which gerundival object descriptions constitute the focal content of awareness. A grammatical gerundive is a form of a verb functioning as an adjective and meaning 'that should or must or is appropriate to be done'. A

gerundival perception is defined as an experience a subject has of an object whereby the object strongly implies or 'impels' an action that should be performed with regard to itself. Examples are awareness of a cake-to-be-eaten, a kitten-to-be-stroked, a man-to-be-punched, a woman-to-be-kissed. However, a purely gerundival perceptual content would not specify by whom the action is to be performed. We suggest that, although the focus is on the object in the world, the perceptual content specifies that the action is to be performed by the perceiver. This is a typical characteristic of emotion experience, and is so because the self is involved and because the frame of reference of the perceptual content is egocentric. While perceiving someone as a 'bastard' or a danger entails the treatment appropriate to bastards or dangers, unless the percept specifies oneself as the agent it will remain merely an evaluative judgement. Indeed, empirically, people in world-focused emotional states are usually frustrated unless they themselves are the agent satisfying the gerundival imperative.¹³ Exceptions to this general rule apply in some emotions. For example, in *schadenfreude* it is not necessary that I myself cause the other's misfortune in which I take pleasure; it suffices that the misfortune simply occurs. However, if someone is experienced as 'to-be-kissed' (love) or 'to-be-run-away-from' (fear), my urge is certainly not satisfied in either case if someone else kisses or runs away from the object. Thus in Table 4 gerundival attitudinal descriptions include the parenthetic 'by me'. Both aspects of the gerundival nature of world-focused emotional experience are sensitive to cultural variation. Cultures differ as to the actions considered appropriate to an eliciting event and as to the person considered appropriate to experience the emotion and perform the action. Van Sommers (1988) gives good examples for jealousy, but they can easily be seen for other emotions. Note that in this respect, culture does not affect the experience directly, but via appraisal and actions implied by it.

Gerundival perception is similar to Koffka's (1935) notion of physiognomic characters. He gives examples of physiognomic characters such as the sex appeal of a person or the gruesomeness of a corpse. The similarity is that Koffka regarded these features as phenomenological. But physiognomic characters are apparently defined in terms of an analogy with facial expressions rather than in terms of implied actions. Gerundival perception is not to be

confused with Gibson's (1979) notion of affordances (which represent possibilities for, rather than imperatives to, action). Gibson's (1979; chapter 8) conception of affordances is emphatically not a phenomenological one: for him they are invariant features of the ecological world, but not of the experienced world. Yet, contra Gibson himself, affordances can be seen as phenomenological features, since they are "for" the perceiver in that what is afforded is specific to the perceiving creature and its needs or intentions: a chair affords sitting on only to a creature which can articulate its body appropriately and is of an appropriate weight and size. However, gerundival perceptions are typically determined by events and are short-lived relative to affordances. More importantly, the present notion of gerundival perception is concerned with a phenomenal world that is more extended than the body and immediate needs of the organism (sitting to a tired animal may be pleasant, but without an extended temporal perspective, it cannot be a 'relief'), and is subject to interpretation (immediate objects and situations often symbolize others). The most important difference between affordances and gerundival perceptions is that the former are possibilities while the latter are imperatives.

In one sense gerundival perception is an experience of the affective property of the object to which there is an attitude. In other words a 'frightening' object is one to-be-run-away-from; a 'hateful' person is one to-be-attacked or disposed of; a 'loveable' baby is one to-be-cuddled; and so on. But remember that this is one of the forms of 2nd-order emotion experience, i.e. a more analytic version of hodological space. Affective properties of experienced objects, on this view, are not unanalyzable primitives but derive their meaning from their implications for the organism and from their 'action-content'.

Propositional Awareness – Conscious Emotion Thoughts

The preceding has dealt with that content of 2nd-order emotion experience which is non-propositional awareness. Propositional awareness consists of emotion thoughts. There are two sources of conscious emotion thoughts (other than when an emotional circumstance is remembered or imagined): Evaluative Descriptions (EDs) and Secondary Appraisal. Focal attention to the ED yields thoughts corresponding to it, i.e. about the eliciting circumstance

relative a concern, or about the state of the self. Examples of the self- versus world-focused content of the eliciting circumstance relative to a concern are: oneself as offended versus someone as offending one, or how; one's plan as fulfilled/frustrated versus something as fulfilling/frustrating one's plan, or how; oneself as being threatened versus what threat is posed, or how; oneself as being disappointed versus what is disappointing one, or how; oneself as caring versus someone's dependence or need to be cared for. Examples of the self-state are: I am worthless/ humiliated/ loved. Secondary appraisal is the source of three other kinds of emotion thought. Secondary appraisal of the AA provides an awareness of it, e.g. the realization that "I want to hit him". Secondary appraisal also leads to more elaborated or rational thoughts about evaluation or action: (a) redescription of the eliciting circumstance (e.g. "It was not an intended insult."), (b) thoughts about appropriate action or coping, as opposed to the impulsive primary action readiness caused by primary appraisal.

As noted at the beginning of this section, emotion thoughts are part of 2nd-order emotion experience and have propositional structure. They can be linguistic or non-linguistic in form. But their non-linguistic form and structure is commensurable with language, smoothly translatable to it. The referential components of such propositions (subjects, objects and verbs/action component) vary in the analyticism – syntheticism of their presentation in a manner corresponding to the intentional objects of 2nd-order non-propositional awareness. The following thoughts vary in how analytic they are, the latter variation unpacking the first form — self-focused: "I feel aggressive" <—> "I want to hit him"; world-focused: "he is a bastard" <—> "he is to be hit". The immersed – detached dimension of 2nd-order awareness is captured by the mood of verb components in such thoughts – "I will / would / could do x"; or by the syntax – "I am worthless" versus "Am I worthless?". The mood or mode of a verb concerns the way a person regards an action or state, their stance towards it: indicative, conditional, subjunctive and imperative. This can reflect the person's degree of certainty or commitment as opposed to the here-and-now factuality of 1st-order phenomenology. Most influential of all, especially in depression and negative emotions is the difference between "I am / he is x" and "I seem / he

seems to be x." We suppose that a person cannot deal with such aspects of language unless they are capable of taking the stances and having the experiences that correspond to the above linguistic variations, and that this capability depends on the ability to modulate the mode of focal attention. Thus modulation of attentional mode yields variation in experience that in turn determines the phenomenology of emotion experience and underpins verb mood in language. See Table 6 for an illustration of how the mode of focal attention influences the content of propositional anger awareness.

Insert Table 6 about here

Teasdale (1999) and Beck (1976) make the point that not only can such thoughts be persistently intrusive in awareness, but that they act themselves as stimuli of emotion, usually to increase the prevailing emotion. Teasdale has concentrated on depression, appropriately since the effect of such thoughts is progressively disabling. But the same effects can be discerned in other emotions, positive as well as negative. Not only fear and anxiety, but also happiness and love are subject to the same effects, the conscious thoughts prolonging and increasing the emotion. Indeed perhaps the most marked effects are in the self-reflexive emotions – pride, shame, guilt, etc., where the thoughts amplify and enlarge the emotion, i.e. the consequence of appraisal. Teasdale (1999) has proposed his own model of the mechanism involved. In the present account we suppose that conscious emotion thoughts can act as input to secondary appraisal, whose output feeds into the same consequences as primary appraisal, the AA. As we noted earlier, secondary appraisal itself can be conscious, and to that extent can be part of emotion experience. Obviously one result of secondary appraisal is conscious thought.

While Teasdale has emphasised the amplificatory effect of such thoughts on the pre-existing emotion, we would note that they can also be the primary means by which one can be reflexively aware of one's attitudinal state and thus take steps to change it. Just as categorical-emotion experience is explicit, so can conscious emotion thoughts make one's attitudinal state explicit to oneself. But this depends on self-/world-focus, or on mode of attention (how detached

one is or the mood of the action-component). "He is a bastard" experienced in an immersed way with intensity is of less practical use to the subject than "he has offended me by doing x", "he seems a bastard", or "I am wounded by his action". In addition, one's conscious emotion thoughts can be the input to secondary appraisal and in this way lead to meta-emotions such as shame at feeling envy or pride at feeling compassion. We maintain Marcel's (1983) suggestion that conscious content tends by default to high-level, synthetic or categorical descriptions. In this light, it is no accident that people are frequently unaware of the analytic nature of their own emotion experience and that they need the help of (detached) others, friends or therapists, to rescale or modulate their mode of attention such that their emotion experience is more analytic or detached. This will be taken up below in the section on Varieties of Unawareness of Emotion.

Categorical-Emotion Experience

For both propositional and non-propositional 2nd-order emotion experience, their objects can be non-categorical or categorical. The latter corresponds to the synthetic extreme of mode of focal attention and refers to awareness of one's anger as anger, one's fear as fear, etc. Categorical-emotion experience is only possible if one is self-focused. Awareness of the world is not categorizable as my 'anger', 'fear', etc.

The empirical distinction between awareness of an affecting world or affected self and awareness of an experience under the description of an emotion implies that sometimes we are not aware of our emotion experiences as emotions, and sometimes we are. Note that this distinction is not between being in an emotion state and having an emotion experience (the issue of non-phenomenal aspects of emotion), but rather between having an emotion experience and experiencing it as a specific emotion. This is also distinct from having a non-categorical-emotion experience and then reflectively realizing that one is angry, sad, etc. Given this variation in emotion experience, we suggest: (a) that some individuals are less aware of their experiences as emotions than others; (b) that there is variation both within and between individuals as to precisely which categorical-emotion experiences one is more prone to having. These suggestions will play a part in our discussion of unawareness of emotion in the final section. Having

categorical-emotion experience depends on possessing the relevant category. The extent to which emotion categories emerge from 1st-order experiences developmentally, or from the culture or the language (see Harris, 1989), is beyond our present scope. However, even if linguistic terms play a causal role in acquisition of emotion categories, such categories are not reducible to words. Thus categorisation and "labelling" are different. Emotion categories are analogous to phonemic or colour categories that mediate categorical perception of speech or hue. We propose that categorical-emotion experience is the result of a highly non-analytic mode of focal attention. If one possesses the relevant categories it may be the default form of the experience, but, just as in perception of speech and hue, one can change one's experience by changing one's mode of attention.

In the extreme synthetic case, to have a categorical-emotion experience requires that, in terms of Marcel's (1983) model, a particular emotion category be synthesized with (fitted to) the records of more analytic 1st-order experience. This process depends on one's emotion categories and self-concepts, as well as on beliefs and representations concerning emotion in general. Indeed in this process people can be 'mistaken', in having one kind of emotion state and 1st-order experience but fitting another category to it, their awareness being of the latter (e.g. anxiety experienced as depression). The relatively non-distinctive, non-categorical nature of autonomic arousal (Cacioppo, Klein, Berntson & Hatfield, 1993) permits this to occur, thus allowing for the effects recorded by Schachter and Singer (1962). In this way 2nd-order emotion experience is subject to cultural variation.

Differences between individuals and cultures at the level of categorical-emotion experience will depend on several things. First, there is the availability of emotion categories in the culture. One often-repeated example is that Westerners do not have the explicit emotion category of 'amae' which in Japan refers to a feeling of comfort in another person's acceptance. This emotion is recognizable but has no strong significance and no special word in cultures other than Japanese. Another example is the emotion category 'fago', which is unique to Ifaluk (Lutz, 1988), meaning roughly 'compassion/love/sadness'. As Oatley and Jenkins write (1996, p. 54),

"you cannot experience the Ifaluk emotion fago unless you are a member of that society". Similarly, Kleinman (1980) noted differences in categorical-emotion experience between North Americans and Taiwanese, reporting that Taiwanese individuals "lump together emotions that contemporary Westerners readily differentiate" (p. 135)¹⁴. For an emotion to be consciously acknowledged as such it has to belong to the conceptual repertoire of the culture. Elster (1999) gives a number of examples, historical and synchronous, of societies where modern Western concepts of love, guilt, depression and boredom did not or do not exist. Even if all other aspects of such emotions are the same in such societies, they will not be experienced as emotion or as those particular emotions. But as Elster points out (p. 262), when an emotion is conceptualised and acknowledged, it may become more strongly, frequently and widely felt. Second, there is the legitimization or illegitimization of certain emotion categories, e.g. the Utku eskimos are not 'allowed' in their culture to experience anger (Briggs, 1970). At the individual level categorical-emotion experience is affected in those who do not think of themselves as people who ever experience happiness, or who do not think they have negative emotions (e.g. 'repressors' discussed below). These people appear to be sincere in their reports denying such emotions. They may avoid acknowledging certain emotions, suppress or "repress" them, or transform them into more acceptable ones. A less radical effect of legitimization and illegitimization in a culture is that an individual has the emotion and has a consequent meta-emotion, e.g. pride or shame in having the emotion. Such meta-emotions in a sense amount to being super-aware of one's emotion. Third, there is a person's tacit conceptualization of mental life. The conceptualization of emotions as possible mental states seems necessary for categorical-emotion experience.

It turns out that normal people in Western culture are often aware of bodily sensations that are part of an emotion without being aware of them as an emotion. This is found when people consult physicians for somatic complaints which are actually symptoms of anxiety or depression. In one study as many as 18% of all consultations with a general medical practitioner were found to be cases of anxiety or depression in which the person complained of bodily symptoms but was not aware of affective or cognitive symptoms, and had no recognition of their

emotional state (Bridges and Goldberg (1992). This can become a clinical problem in panic attacks (Clark, 1986). These are anxiety experiences that consist of symptoms such as shortness of breath, dizziness, palpitations, trembling, sweating, choking, nausea and chest pain (DSM IV). Panic attacks are not usually recognized as such; that is, initially, they are not categorical-emotion experiences. On the contrary, what makes a panic attack terrifying for the subject is the catastrophic misinterpretation of these bodily sensations as signifying a heart attack or impending death (Clark 1986). Through cognitive therapy panic sufferers can learn to recognize a panic attack as an anxiety experience and not as, for example, an experience of an impending heart attack. In this case the initial "non-reflective experience" (i.e. of shortness of breath, palpitations, etc.) has not changed, but it is reinterpreted in terms of emotion rather than illness: in short it becomes a categorical-emotion experience.

Cultural Variation in Bodily and Mental Emotion Experience

Some of Kleinman's (1980) cross-cultural observations are relevant to the various forms emotion experience can take. He noted two important differences (for our present concerns) between Chinese and North American emotion experiences. First, emotions are located and experienced in the body much more frequently by Chinese and Taiwanese than by North Americans. For example anger in Chinese individuals is frequently located and experienced in the chest and heart (p. 140), depression is often experienced in terms of something pressing into the chest or down on the head, and grief may be experienced in terms of a kind of back pain. Second, Chinese, in contrast to North Americans, very rarely describe emotion experiences in terms of "intrapsychic feelings" such as personal thoughts. Rather they connect an emotion experience only to a causal situation and to its somatic and interpersonal effects, and not to personal cognitions. Indeed people in traditional rural China often experience their emotion reactions not as emotion but purely as a medical symptom (though as the culture changes this is decreasing).

We interpret these differences as follows. First, Chinese emotion experiences are highly focused on the bodily self. As Marsella (1985) and others have pointed out, the tacit conception

of self in China is much more somatic than that of modern Westerners. As a consequence, where Evaluative Descriptions are of the evaluated self, the 1st-order emotion experience of Chinese is likely to be of the bodily self. Since self is not as somatized in Westerners, their experience of the evaluated self is more likely to be restricted to 2nd-order awareness in terms of thoughts about the self. However, somatic experiences of the evaluated self are still a frequent phenomenon in the West, as exemplified by the descriptions of grief collected by Parkes (1996). This cultural difference may also be manifested in Chinese in the 1st-order experience of the Action Attitude of bodily physicality rather than of hodological space. In 2nd-order awareness, Chinese individuals would appear to be highly analytically self-focused on the AA (analytic bodily sensations).

Second, Chinese and Taiwanese individuals appear to focus hardly at all on EDs of events in relation to concerns. According to Kleinman's descriptions, they very rarely report emotion experience as their individual appraisals in propositional terms. Since the major source of conscious emotion thoughts is attention to EDs of events in relation to concerns, Chinese and Taiwanese are less likely to experience emotion thoughts in emotion experience. Thus, an individual's or a culture's tacit folk model of self or of emotion will influence the form of their emotion experience.

Hedonic Tone

The contents of emotion experience dealt with so far are valenced (positive or negative evaluations; the direction and positive or negative nature of specific action urges), but they are neither constitutively nor in themselves affectively valenced. The most markedly affectively valenced aspect of emotion experience is hedonic tone or quality – pleasure and displeasure. This is irreducibly phenomenological and at the personal level (Dennett, 1969). While it is a pervasive aspect of most situations and mental states, it is an obvious and central feature of emotion.

Despite its frequent lack of mention, as noted earlier, it might be thought that hedonic tone is a necessary aspect of emotion experience, that an experience is not an emotion experience unless there is a hedonic tone of which we are aware. However, while this may be true of what

we called at the start an emotional experience, it is not true of emotion experience, i.e. the conscious content accompanying an emotion state episode. Hedonic quality depends on attentional mode. If one attends to one's bodily sensations and feelings in a sufficiently analytic and detached manner, hedonic tone may be distanced, diminished and disappear. An analytic observational attitude is a good, though not always effective, remedy for all but the most intense and persistent of acute pains (Ahles, Blanchard and Leventhal, 1983; Dar and Leventhal, 1993). The painfulness of the pain is often reduced and sometimes vanishes. It can also reduce pleasure. Thus in states of detached 2nd-order awareness the hedonic tone of an emotion experience can be changed or be absent. This depends on the emotion. In anxiety, analytic attention to bodily sensations often increases the unpleasantness. In addition, Marcel (1993) has suggested that detachment may sufficiently distance hedonic states from the self so as to render them split off from 2nd-order awareness, as exemplified by dissociative states in hypnosis. Subjects unaware of pain by hypnotic analgesia can be shown by an attentional modulation to be also aware of it, but they talk of the sufferer in the third person as if someone else (Hilgard, 1977). The influence of attentional mode contextualises Frijda's (1986, p. 243) comment: "Pleasantness and unpleasantness in [the introspectionist account] are represented as "feelings", that is as mental elements rather than as apparent states of the world or of the subject as seen by himself. Reflexive reduction destroyed the true nature of experience, here more than anywhere else." However one of our main points is that both characterisations are true, the nature of experience depending on one's attentional stance. In an immersed stance what one experiences is an affected self or an affecting world, i.e. one's 1st-order phenomenology; in a more detached and analytic stance of 2nd-order awareness one experiences the separate elements as seemings or feelings. However, other than these effects of detachment, hedonic tone is part of what it is to have an emotion experience.

There are several relevant questions concerning hedonic tone: what it is, whether it is a single thing, and how it is related to different components of an emotion state. These are not independent issues. Of course hedonic states are not intrinsic only to emotion. They can be

produced directly neurally or pharmacologically via neurotransmitter systems, and particular objects and situations (foods, external bodily stimulations) induce their own species-specific hedonic states. However, one's relations with such reinforcers in terms of appraisal (anticipation, frustration, etc.) do produce emotions, where the hedonics are intrinsic to the emotion state.

Hedonicity may be underlain and caused by different components. (a) It may arise from or be an aspect of the appraisal result itself: the fulfilment and violation of a concern are intrinsically pleasant and unpleasant. (However, Frijda, 1986, points out the asymmetry of this: pleasure disappears under persistent satisfaction, whereas pain does not disappear under persistent dissatisfaction.) (b) It may lie in the object or situation as appraised (as fulfilling or violating a concern), and be experienced as such. (c) Alternatively it may be the subject's state as produced by the result of appraisal that is pleasant or unpleasant. The distinction between b and c is whether the taste of ice-cream is pleasant or whether ice-cream puts me into a pleasant state. (d) Equally the disposition or action attitude may be what we experience as pleasant or unpleasant. Hedonicity both is intrinsic to bodily states, movements and rhythms, and depends on the interpretation placed on them (as in Schachter and Singer's, 1962, account). Furthermore secondary appraisal influences hedonics. Judging that one can change the situation or that nothing can be done has a large effect. The pain of torture is increased by knowledge of helplessness. The significance and context of bodily states have similar effects. Equivalent severe bodily damage in wounded soldiers removed from the battlefield and in civilians in accidents produce reliable differences in rated pain and required analgesic (Beecher, 1956; Melzack, Wall and Ty, 1982). We will discuss the possibilities referred to in (b), (c) and (d) above, and relate these to aspects of 2nd-order awareness and whether hedonicity is a single dimension.

We have two responses to whether hedonic tone is primarily an aspect of the perceived object as appraised or of the subject's state. Our first response is that it varies for different emotions. In the case of that kind of disgust which is a phobic fear (e.g. of certain insects) what is primarily unpleasant is the perceived object. In the case of clinical depression and free-floating

anxiety what is primarily unpleasant is the state one is in. In the latter cases it is one's consciousness itself which is unbearable.

Our second response is initially that whether hedonicity lies in what I like or dislike or in my state depends on my attentional attitude, both self-/world-focus and degree of immersion-detachment. But this cannot be entirely the case. If it were, then, when one is in an immersed state experiencing states of the self, separate concurrent pleasures or displeasures should add, subtract or interact. As Frijda (1986, p. 243) points out, they do not always do so. Simultaneous experiences of pleasure or pain (from eating a favourite food, listening to favoured music, hearing bad news) are often kept distinct in experience, whatever one's attentional state. The pleasure of eating a favoured food can be increased by a pleasurable situation; but this may be due more to a case of removing incongruent hedonic distractors. Increasing or decreasing the totality of pleasure or displeasure does not imply that the totality consists of a single entity. This separateness suggests that at least one kind of hedonicity is tied to the event. Frijda's conclusion, that hedonicity is a comment on the event concerned, i.e. the experiential correspondence of significance, is one that we endorse. (However, we do not assume that this is true of all hedonicity: as we shall suggest, hedonicity may be of different kinds.)

The importance of this is twofold. First, although one can diminish or banish hedonicity by one's attentional stance while leaving intact other aspects of emotion experience, this does not mean that this kind of hedonicity is a separate, dissociable component of experience. Rather, this kind of hedonicity is a feature of 2nd-order consciousness and is the result of integrating (a) the positive or negative significance of the appraisal result (fulfilment or violation of a concern) with (b) either the perceptual description of the affecting object or affected self, or a representation of the AA. This is part of the attentional mechanism that constructs the contents of 2nd-order awareness (See 'Constitution of (a) Phenomenal and (b) 2nd-Order States' below). Such attentional binding is the basis of how intentional objects of experience come to be experienced as themselves pleasant or unpleasant (see Dickinson and Balleine, 2000). Second, in so far as hedonicity in emotion is (at least in part) the experiential correspondence of the significance of

the situation or the action, it follows that the hedonic tone is not a single simple dimension but differs according to the specific intentionality of the emotion. The pleasure in relief is different from that in simply satisfying an unhindered concern. In the former the experience of pleasure, quite apart from cognitive awareness of the appraisal result in the ED, itself contains the past from which one has escaped, whereas in the latter it does not. The pain of grief is different from that of frustration, in that the former contains the lost object, whereas the latter contains the envisaged unachieved goal. More specifically, the difference in the hedonic quality of yearning in the cases of a lost love and one not yet achieved is that between regret and hope, between sorrow and desire. The hedonicity of nostalgia is itself a complex mixture. In all these cases the hedonic tone itself differs. (The alternative would be where the hedonic tone per se does not differ but the total phenomenology differs due to the hedonic tone co-occurring separately with different analytic appraisals).

However, this cannot be the whole story. We mentioned the AA as a source of hedonics. Bodily actions and postures themselves have their own hedonicity, whether they are the consequence of appraisal or not (states such as being energetic and joyful or its opposite are not necessarily caused by situational appraisal). It is not the case that I dance energetically only because I am happy or as an expression of happiness; dancing energetically itself makes me happy; and it does so not in causing happiness in the sense of a separable following event, but in inducing it as a concomitant. Different postures and kinds of movement themselves induce hedonics. In a sense, dancing the Charleston is to be happy and dancing the Flamenco is to be proud. You cannot do such dances properly and not be in the corresponding state (even though actors may learn to decouple posture from facial expression, or the content of an utterance from its vocal manner). Once actors adopt certain emotional postures or movements, they are not "pretending": once one is beyond the most superficial physical simulations, one is inevitably to some extent in the state that is 'expressed' by the body. Bodily postures are differentially conducive to and induce different mental states and modes (Stepper and Strack, 1993),

something recognised by both meditation techniques and psychotherapy, and have different hedonics.

The point of this is that in emotion experience the different sources of hedonics do not contribute to a single hedonic tone but to different hedonic tones coexisting at one moment. Mixed hedonicity is not due only to ambivalence of attitude or to multiple events, but also to different components of a single emotion state. An illustration of the simultaneous presence of separate hedonic components is a type of passionate love in which the object of desire is extremely pleasant but the state one is in is unpleasant. This is captured well by the Elvis Presley song "All Shook Up" in which every time the singer meets the woman he loves he is simultaneously euphoric at her presence and scared by his bodily reaction. This is also true of occasions when we voluntarily put ourselves in situations that provoke fear but which we suppose to be safe such as fairground rides or gothic horror narratives (consider children's pleasure in as well as anxiety at unbowdlerised fairy tales). Further, the different hedonic components can change in their relative experiential prominence over the time of a single short emotion episode. Anger is not only unpleasant; the aggressive action component can be pleasant (and not just as a discharge of pent-up energy, as Freud suggested) as is attested by the unpalatably honest testimony of teenage gangs and soldiers, both male and female (Ferguson, 1998). Indeed many emotion episodes contain changing prominences of different hedonic tones, deriving from separate concurrent hedonic tones and from dynamic changes of the emotion state itself, and from changes in attentional focus. Thus, all four possibilities initially mentioned are sources of hedonics. Hedonicity can lie in the appraisal result per se, the object as appraised, the subjective state resulting from appraisal, and the experience of the action attitude. Its experienced location depends on what it is synthesised with in focal attention, which in turn depends on attentional focus and mode.

Further Comments on Processes Contributing to Emotion Experience

The phenomenological question (what is the content of emotion experience as it is experienced?) was differentiated above from two other questions, the underlying correspondence

question (to what nonconscious process or representation does emotion experience correspond?) and the contributory processes question (what processes lead to and contribute to emotion experience?). The first part of this section dealt with the underlying correspondence question (the microgenesis and content of emotion state); the second part dealt with some aspects of the contributory processes question (the kinds and focuses of attention); the third part of this section dealt with the phenomenological question (the varieties of emotion experience). This last part returns to the contributory processes question. It deals with the relation between general directedness and focal attention, factors determining self-/world-focus, and what it takes to transform a nonphenomenal state into a phenomenal state and into a 2nd-order state.

General Directedness and Focal Attention

General directedness to world or self will determine whether 1st- and 2nd-order emotion experience is focused on the world or on the self, with the differential consequences outlined above. The effect of such directionality is to alter the figure-ground relation of self and world, since emotion phenomenology is always relational. Figure-ground articulation is generally conceived of as pre-attentional. Indeed, in Duncan and Humphreys' (1989) theory of attention and search it is a stage preceding focal attention. Yet it is itself an attentional process (Hochberg, 1970; Marcel, 1998, p.1585), certainly subject to both voluntary and involuntary shifts. It is probably more productive to think of the relation of general directedness (figure-ground articulation) and focal attention as interactive than as independent stages. Such directedness may be due to immediately prior directionality, to individual dispositional biases toward world- or self-focus (see below), or to occurrent aspects of the emotion state: intensity of evaluative attitude, intensity of somatic effects of arousal, salience of environmental objects, intrinsic intentionality of the specific emotion. In addition, individuals may voluntarily focus their attentional direction. Indeed they may voluntarily and involuntarily attend away from salient emotion-related focuses (Eysenck, 1997).

This last point is related to an aspect of attention and awareness in emotion, different from self-/world-focus, which is dealt with by Mathews and MacLeod (1994). Depending on an

individual's proneness to certain emotions (primarily anxiety), their attention tends to be drawn automatically to the eliciting stimulus (e.g. a threat), increasing the awareness of that object. Individuals who are vulnerable to certain emotional disorders may also attempt voluntarily to attend away from distressing or threatening information, decreasing awareness of it. Mathews and MacLeod's speculation that such voluntary attempts can be successful is consistent with the evidence they review. We suppose that motivated attending away from distressing stimuli may be conscious or not, and when it is not conscious it would amount to "perceptual defence". These modulations would be of focal attention and this in our conception affects 2nd-order awareness. Thus voluntary and involuntary shifts of attention will affect both self-/world-focus and the focus of awareness within world-directedness.

Being in a state of 2nd-order awareness is itself a focal attentional state. The selectivity of focus and the mode of the attending each determine the content of 2nd-order awareness. While the same factors operate on focal attention as on general directionality, voluntary control pertains more to attention. (However, intrusive thoughts, e.g. in depression or anxiety, and the measures necessary to evade them bear witness to the relative power and passivity of such executive functioning; Teasdale, 1999). If one focally attends analytically, one can attend to either the self or the world. If one attends focally in a more synthetic way, what one is aware of, irrespective of directional focus, is a categorical emotion, provided that one has an appropriate emotion category.

Factors Determining Directional Focus of Emotion Experience

Apart from volition, what factors determine the directional focuses in emotion state and in emotion experience? Regarding self-/world-focus, candidates for putative determinants include: attractors such as degree of bodily arousal and perceptual salience of aspects of the environment; 'intensity' of the emotion (which can vary over a single emotion episode); the intentionality of the specific emotion concerned; and individual differences. There is evidence for the importance of some of these factors. Wegner and Giuliano (1980) found that an increase in general bodily arousal (caused by exercise) can induce self-focus. Evidence for salience comes

from two sources. First, studies examining attentional bias in emotion show that people's attention is drawn to objects in their environment that are novel, threatening, or related to an emotional concern (Williams, Watts, MacLeod, & Mathews, 1988). Second, in panic disorders, some patients' worries about illness makes them hypervigilant for bodily sensations. In these cases the salience of bodily symptoms (as putative signs of illness) itself induces focus on the body, slight bodily sensations being noticed relatively more (Hibbert, 1984)

Regarding the influence of the intentionality of the specific emotion, Wood, Saltzberg and Goldsamt (1990) found that sadness induces self-focus but happiness does not. Thus, there may be something intrinsic to the intentionality of sadness relative to that of happiness that implicates the self. Clinical accounts of 'anger disorders' (Kassinove, 1995) suggest that the intentionality of anger is typically world-focused. Lambie's (2000) diary study found no significant relation between focus (self/world) of emotion experience and its intensity or duration, or the number of bodily sensations. However, there was a significant interaction between experiential focus and emotion category. Anger was the most world-focused emotion experience, whereas fear was the most self-focused. It is unlikely that these differences are due simply to 'folk psychology' about emotions, since there does not appear to be any folk psychology (within Western culture at least) about the relative self- or world-focus of experience of different emotions (though cultures differ in locating emotion in general in the world or self). Thus there does seem to be something intrinsic to the intentionality of particular emotions, such that experience of some is typically more world-focused than that of others. In addition to such differences in nonreflexive emotions, the predominant self-focus of experience in the reflexive emotions is largely accounted for by their intentionality (their primary reference to self), as we indicated above.

Sex differences in self-/world-focus have been found under some conditions. Pennebaker and Roberts (1992) argued that the research shows that, for conscious experience of their emotion state, men rely more on internal, physiological cues, whereas women rely more on external, situational cues. Using a similar conceptual scheme, Blascovich (1992) argued that

hypochondriacs are highly self-focused (and we would argue that they are also highly analytic in attending to particular bodily symptoms). Further evidence for individual dispositional differences in self-/world-focus is found in the developmental literature and one account of them is provided by attachment theory (Bowlby, 1969). According to Bowlby, a one-year-old infant's behaviour in separation-reunion interactions with its primary caregiver depends upon the nature of the infant's 'internal working model' of its caregiver's availability for attending to its needs. Three main styles of infant attachment behaviour are typically observed in such interactions (Ainsworth, Blehar, Waters, & Wall, 1978), and these appear to be based upon three different internal models: secure attachment behaviour (based on a model of an available caregiver), avoidant attachment behaviour (based on a model of an unavailable caregiver), and ambivalent behaviour (based on a model of an inconsistently available caregiver). These three kinds of model are remarkably stable into adulthood (Waters, Merrick, Albersheim, & Treboux, 1995) and are connected with different emotional and attentional styles.

Main (1991) found that one-year-old infants classified as having 'ambivalent' attachment were more preoccupied with their own emotions at age ten than the other attachment types; and those classified as 'avoidant' at age one had the poorest self-awareness at age ten. Individuals with the former attachment history seem to have a more self-focused attentional style in emotion, and those with the latter a more world-focused style (with 'secure' attachment corresponding to a more balanced self-/world-focused style). Indeed Crittenden (1992) envisages the following differences. Avoidant infants (who have caregivers who are relatively unresponsive to the child's emotions; Goldberg, MacKay & Rochester, 1994) learn to ignore their distress and therefore display less emotion. Interaction with the environment may actually be enhanced in these circumstances according to Crittenden since, by cutting themselves off from distressing emotions, these infants are free to interact with and to focus on the environment. They would therefore have a more world-focused attentional style. Ambivalent infants, whose caregivers are inconsistent, initially attempt to summon the caregiver by intensifying their cries of distress. This escalation serves to focus the infant's attention on her own feelings at the expense of focusing

and interacting with the environment. They would therefore have a more self-focused style.

Finally, secure infants, who do not experience the disorganizing effects of one's needs being met inconsistently, or of not being met at all, are free both to explore the environment and to notice and express their emotions. Such infants would have a balanced self-/ world-focused style.

Constitution of (a) Phenomenal and (b) 2nd-Order States.

In making conceptual distinctions earlier, we proposed that in emotion there exist nonphenomenal informational and/or neurophysiological states distinct from phenomenal states and awareness of the latter. The hardest part of the contributory processes question is to explicate (a) what the relation between nonphenomenal and phenomenal states consists in, and (b) how 1st- and 2nd-order consciousness arise.

One of the only authors to have so far broached this question for emotion is Mandler (1984). He adapted Marcel's (1983) model of perceptual consciousness to emotion, and in doing so, following that model, he acknowledged only a single distinction regarding consciousness, that between conscious and nonconscious. There are two kinds of problem with Mandler's proposal. The first is that in following Marcel's earlier model and acknowledging only a single distinction, (a) he implicitly treated phenomenal experience and awareness as coextensive, failing to consider that not all phenomenology is either explicit or reportable, and (b) he failed to consider that self-evaluation and the bodily consequences of appraisal can themselves be phenomenal in constituting "what it's like", i.e. they do not require any further process in order to be phenomenal. We consider that the constructive process involving synthesis in Marcel's model is appropriately applicable to 2nd-order awareness but not to 1st-order phenomenal experience. The second problem arises from Mandler's proposal (1984, p 129) that consciousness of emotion is produced by a synthesis of appraisals ("evaluative schemas") with arousal ("arousal schemas"). This predicts that the content of a conscious emotion experience can only be self-focused, since arousal is a property of bodily self. Indeed Mandler's proposed components of synthesis could not account for an experiential state in emotion such as that where an angry individual sincerely asserts "I am not angry!", except by recourse to repression. It is true that Mandler envisages conscious experience of an appraised world. However, it is hard to see how this can occur if it is integrated with an awareness of arousal, since the two require incompatible foci of attention. We concur that arousal contributes to the experienced intensity of an emotion experience, in our account via the AA. However, our account differs from Mandler's in that, although we concur

that emotion states involve both evaluation and the products of arousal, we do not agree that both of these need be simultaneously present in experience or awareness, certainly not experienced as such.

According to the present proposal there are two relevant points at issue. The first is what it is that makes something informational or neurophysiological into something phenomenological. The present answer is that it is the addition of the "for me" that is crucial; not a detached or conceptual "for me", but its existence as both a stance toward and a part of perceptual content, where the experience is either of my bodily physicality or of the-world-for-me (i.e. hodological space). Thus, the processes and representations involved in initial appraisal are nonconscious and nonphenomenal. But the consequences of that appraisal result, (a) an ED in terms of the self and (b) the AA, articulated into figure and ground, are phenomenological. That is, what constitutes phenomenology is not a stage of processing or of representation, but a kind of content with a structured articulation. The kind of perspectival content here is not just that determined by an egocentric frame of reference, i.e. "from this viewpoint". It is "for me" and "for my concerns", where the 1st-person subject is crucial and is more than a geometric point of origin (though not necessarily experientially explicit). Indeed this is what makes such content personal level. This is precisely the point raised by Nagel (1974) when he says that the difficulty in imagining what something is like for another person is to fully have the experience as that other person, with all that constitutes their identity (presumably including their physicality, their past and their concerns). In 1st-order emotion experience such phenomenological quality is an immediate result of evaluative descriptions in terms of the self and of the AA, since it is exactly one's body that is involved and since these reflect the "for-me-ness" of the appraisal. In 2nd-order awareness, added to this is the phenomenology of the attentional state of the attending agent. As we have indicated, hedonic tone is related both to whatever is attended and to the extent of immersion or detachment of that attention; the more immersed, the more it is "for me". Thus, while the process of appraisal itself has no phenomenology, there are two components of an emotion state where the issue of "for me" arises: the results of appraisal (a) in perception of an

affecting world and (b) in all the bodily aspects of the ED and AA. In both of these the emotion phenomenology can be reduced by a detached stance, distancing the purely cognitive apprehension from one's self. Such detachment renders the mental state an evaluative judgement or a self-observation rather than an emotion (though it will have its own phenomenology proper to the experienced ownership of conscious judgements and observations).

The second point at issue is what leads to 2nd-order awareness. This we do think can be dealt with in information-processing terms. The present answer is that 2nd-order awareness relies on the existence and operation of focal attention (as briefly discussed under Awareness and Mode of Attention) and what that involves. One thing that this involves is synthesis or binding (see Marcel, 1983), but here is where we differ in detail from Mandler. Our contention is that one constant component of synthesis is some representation of self or world. As indicated earlier, in order to focus intentionally on self or world one has to have not merely a self/world discriminative capacity, but a representation of self and of world as distinct. Either of these representations is integrated with the corresponding self/world aspect of either the ED or the AA; and the level of description of either of these latter two is a matter of the degree of analyticism-syntheticism of focal attention. A synthetic mode of attending leads to a particular emotion category being synthesized with (fitted to) the records of a more synthetic level of description of 1st-order experience; and this process depends on one's emotion categories and self-representation, as well as on beliefs and representations concerning emotion in general. Hedonic tone will also be integrated; and whether it is integrated with self or world will determine the experiential locus of hedonic tone.

There are five ways in which such a contributory process could be compromised while leaving intact the essentials of the emotion state processes. First, a record of the result of appraisal, the ED, could fail to be left or could be inaccessible to focal attention. The consequence of either of these would be unawareness of the cause of emotion. Second, bodily states (musculoskeletal, visceral, internal milieu, affected by autonomic, limbic and hormonal systems) could be inaccessible to focal attention. It is arguable that in some cases of anosognosia

for plegia or for somatosensory loss this happens for musculoskeletal states (Levine, 1990) where specific nonconscious knowledge seems dissociated from specific awareness, and that in cases of ventromedial prefrontal damage this happens for musculoskeletal and other autonomically produced states (Damasio, 1996). Third, there can be a problem with attention to the representation of self, for example a dissociative avoidance making self-representation inaccessible for synthesis. This would result in a lack of self-focused 2nd-order emotion experience, and thus an unawareness of oneself as having an emotion. Fourth, focal attention itself could be compromised, most obviously in modulation of mode. This could be due to developmental failure or to damage to control systems. We offer below several pathologies in emotion experience that might correspond to this. Fifth, lack of emotion categories (of specific emotions) would preclude their synthesis with records of 1st-order experience. This consideration of impairments to what underlies emotion experience leads naturally to examination of cases of deficient awareness of emotion.

APPLYING THE CONCEPTUALIZATION: VARIETIES OF UNAWARENESS OF EMOTION

So far the empirical data we have discussed have been illustrations of different forms of emotion experience supporting our conceptual distinctions. We must now consider putative examples of lack of emotion experience. In this section we apply the conceptualization of emotion experience outlined above to some of the existing literature regarding 'unawareness of emotion'.

When explaining the distinction between 1st-order phenomenology and 2nd-order awareness, we considered that logically someone could be unaware of their emotion either by dint of there being no relevant accessible phenomenology or by dint of whatever relevant phenomenology or other content not being within the explicit content of second-order awareness. In this section we will discuss ways in which each of these can come about. We remarked that, when someone is apparently unaware of their emotion, although it is difficult to decide which of these states or reasons for unawareness obtains, there are empirical criteria to

distinguish them in principle. Even though, for the reasons we gave, it will be only in rare and extraordinary circumstances that someone will be in an emotion state without any relevant phenomenology, there are cases described in such a way that they are ambiguous. We will therefore restate the criteria, because they are relevant to the cases discussed below, but also in order to clarify why researchers have seldom applied the criteria and the practical difficulties in doing so.

That of which one is aware is in one or other way reportable. That which is phenomenological but of which one is unaware is expressible – in what one says and in behaviour and manner. That which is neither of the above but is nonconscious is neither reportable nor expressible but is indexible by indirect techniques. One reason that clinicians and researchers have not applied these criteria is that they rarely make the conceptual distinction made here between different senses of consciousness. Further, many of them are unaware of the indirect techniques used by experimental cognitive psychology in recent years. But even if one wants to use such techniques, it is often difficult to do so. They require experimental procedures, controls and sometimes apparatus that are unusual in the clinical setting. In addition, although such techniques have been used successfully with anxious and phobic populations, they may be unsuitable for several kinds of clients or patients. Two examples spring to mind. First, many emotion episodes in people who are apparently unaware of them are short-lived and unpredictable: unless the tests in question are given at the time, they are pointless. This does not apply to phobic or trait-anxiety groups. Second, in some clinical groups their very state may make the tests unfeasible. For example, some kinds of neurological patients (e.g. after stroke) cannot be validly given standard experimental procedures because their state precludes the necessary duration of the session or because their state changes the nature of the data, e.g. they are insufficiently alert, their latencies are too long or they make too many errors. The same kind of problem may obtain in some clinical groups showing apparent unawareness of emotion.

Our conceptualization provides a framework to discuss putative cases of unawareness of emotion. There are three clear senses in which one may be 'unaware' of an emotion: (a) an

individual is in an emotion state which is accompanied, in the extreme, by no experiential phenomenology; (b) an individual has emotion phenomenology but lacks awareness of this; and (c) an individual has emotion phenomenology of which he is aware, or has conscious emotion thoughts, but is not aware of it as 'emotion' or as the specific emotion. This last includes cases where a person is world-focused, such that they are unaware of themselves as having an emotion. Are there examples in the literature of cases that demonstrate any of these three senses of 'nonconscious emotion'? Although these three dissociations are conceptually distinct, it will be seen that some of the cases discussed below are ambiguous as to which of the dissociations they illustrate or fail to illustrate. Regarding the cases that we discuss, the ideal is some lack of awareness of emotion where the relevant occurrent emotion state is intact and normal. In fact this is rarely entirely the case because, as we said, emotions occur over time and it is quite normal, in the human case, that their course is affected by one's concurrent experience and awareness of them. This fact in itself makes a nonsense of LeDoux's statement with which this paper opened.

In what follows we shall first discuss whether there are phenomena that meet the criteria for each of the three senses of nonconscious emotion above. We shall then briefly discuss psychodynamically postulated defence mechanisms (motivated prevention of awareness) in terms of what they might correspond to and summarise different forms of "somatization".

(a) Emotion States with no Accompanying 1st-Order Phenomenology?

We have already mentioned that, on our scheme, some but not all aspects of the emotion state can exist without any accompanying phenomenology. Appraisal as a process normally occurs completely nonconsciously. When the ED, the record of the results of appraisal, is in terms of an event relative to a concern it is also fully nonconscious and has no phenomenology per se, though any hedonics associated with it are obviously phenomenological. When the ED is in terms of the self, especially when it is realized somatically, it does have phenomenology. The other main result of appraisal, the AA, always has some 1st-order phenomenology associated with it (except in cases of very severe neurological damage). There is always something it is like to be in an Action Attitude. Therefore, since on our account emotion states proper usually consist

of both an ED and an AA, the presence of the latter makes the existence of emotion states lacking any phenomenology virtually impossible, unless there is an impairment to proprioceptive or visceral feedback or some kind of 'repression' of it. Even in such exceptional cases, there is still something it is like to be in an evaluative or attitudinal state. One's awareness of such phenomenology is another matter. There are several examples in the literature of putative cases of emotion states lacking phenomenology, but these are usually referred to as either 'unconscious emotions' or 'emotions without awareness'. On our account these phrasings are ambiguous since they do not specify whether the lack of consciousness is 1st- or 2nd-order. However, we shall discuss here a case which seems to have claim to the status of emotion states deficient in phenomenology. Although the hedonic tone of aspects of nonconscious emotion states is phenomenological, to experience this without awareness of any of its sources is not per se to be conscious of one's emotion; it amounts purely to one's feeling of well-being.

One apparent example of emotion without emotion experience comes from certain cases of brain damage. According to Damasio (1994), patients with ventromedial prefrontal damage tend to lack "emotional feelings", although they still have emotions. He writes, "their affect may appear to be intact at first glance (they would show fear if someone screamed unexpectedly right behind them, or if their houses shook in an earthquake)", (pp. 138-9), but they have "an impairment in their experience of emotion" (p. 208) and say that they have an absence of emotional feeling. These cases are hard to judge without knowing the experiential reports of these individuals given at the time when they have emotions but without 'emotional feeling'. For example, whether they are aware of their bodily state and movements in a detached way or whether they simply feel 'nothing' is not clear. Damasio's evidence suggests to him that such individuals cannot conjoin emotional bodystate experience to cognitive aspects of awareness because the former cannot be made conscious as (in our terms) 1st-order phenomenology. However, in our framework, we do not find Damasio's evidence suggestive of a complete absence of 1st-order emotion phenomenology in these individuals. Rather we interpret the cases in terms of two impairments. First, an impairment in emotion state, whereby the individuals lack

some emotion states because the threshold to activate certain concerns is raised or the number of their concerns is reduced. Second, and more importantly, there is a failure to become immersed because the individuals are restricted to a 2nd-order awareness that is detached and analytic. We find this plausible because of the evidence suggestive of the role of prefrontal cortex in modulation of focal attention. This failure to become immersed results in a less full 1st-order phenomenology. Although some 1st-order phenomenology is still intact, it takes a different form from normal. As a result of the subject's detachment, it lacks some hedonicity and "for-me-ness". Flatness of affect is frequently noticed in extensive right hemisphere stroke cases. But Damasio's cases are more reminiscent of a characteristic of a subset of patients with anosognosia for left hemiplegia after right hemisphere stroke with frontal involvement, with which the present second author is familiar (Marcel and Tegnèr, 1995; Marcel, Tegnèr and Nimmo-Smith, 2000).

Although such patients at first seem unaware of their paralysis, on closer inspection they do show an awareness of it; but they seem more to be unconcerned about their plegic limbs as part of themselves while being distressed by them as entities separate from themselves. In both Damasio's and these cases detachment and thus lack of impingement on oneself yield a reduced emotional phenomenology and in that sense a reduced awareness (of emotion or of the plegia).

(b) Lack of or Reduced 2nd-Order Awareness of Emotion Experience?

Some of the reported cases of 'lack of emotion experience' which might be interpreted as a lack of 1st-order phenomenology, in fact seem to exhibit the features of what our framework would describe as lack of awareness of 1st-order emotion phenomenology.

Fenz and Epstein (1967, 1969) conducted a number of interesting studies of fear and anxiety in novice and experienced parachutists. They noted several different kinds of coping. Two such kinds of reaction are pertinent here. The first was exemplified by a novice reporting that on the day of his first jump he was amazed at how calm he was until he looked down and saw his knees knocking together. This would seem to be a case either of an absence of phenomenal experience of proprioception from one's musculoskeletal and possibly other bodily systems, or of unawareness of such phenomenology, due to inattention or something else. We

think the former possibility unlikely and suggest that this kind of reaction may reflect a highly detached attitude and distance from one's phenomenology, which is one kind of coping. The second kind of reaction, more carefully studied, was seen only in experienced jumpers but widely among them. Self-ratings of fear and several physiological indices (GSR, heart and respiration rate) were recorded at a large number of moments prior to and during the jump and at landing. For novices both self ratings and physiological indices rose in parallel until the jump. For experienced jumpers both kinds of measure rose early but then declined toward the moment of the jump. However, their self-ratings of anxiety peaked and then declined much earlier than their physiological arousal (several hours before boarding the plane compared to taxiing and take-off). Fenz and Epstein give evidence that the decline in both measures of fear is due to psychological inhibition. Whatever the explanation, the temporal dissociation between the measures is an example of fear or anxiety without awareness of it. Since the experienced jumpers had learnt to accept their emotional reactions and deal with them adaptively, it seems unlikely that they were just attending away from their bodily phenomenology because they preferred not to know about it. Janis (1958) found similar effects in patients about to undergo surgery. Both he and Fenz and Epstein conclude that early conscious thoughts and anxiety about the imminent event, based on awareness of early physiological effects, can free the person from later disruptive levels of anxiety and from later conscious anxiety, i.e. that at the later stages somatic manifestations of anxiety do not reach a threshold for awareness, due either to their own lower level of activation or to a raised criterion for awareness of them.

Another putative case of unawareness of emotion phenomenology is that of individuals termed "repressors". Weinberger (1990) has summarized the literature on 'repressors', who are described as individuals who "fail to recognize their own affective responses" (p. 338). The operational definition of a repressor is someone who scores low on a measure of trait anxiety but high on a measure of defensiveness (i.e. the Marlowe-Crowne Social Desirability Scale). The Marlowe-Crowne scale contains items such as 'I never hesitate to go out of my way to help

someone in trouble' and 'I sometimes feel resentful when I don't get my way', and is claimed to measure defensiveness, self-control, and protection of self-esteem.

Repressors, as defined above, have been found to be more emotionally reactive in terms of physiological measures than subjects who are low anxious and low defensive, and at least as emotionally reactive as high anxious subjects (e.g. Lazarus & Alfert, 1964; Weinberger, Schwartz, & Davidson 1979). In other words, repressors are individuals who say they have little or no anxiety, but who, in anxiety-provoking tests, show physiological and behavioural emotional responses (e.g. heart rate, skin conductance, forehead muscle tension) at least as strong as subjects who report high levels of anxiety. In reviewing the literature on repressors, Weinberger (1990) concludes that such individuals regard maintaining low levels of negative emotion as central to their self-concept, and thus employ a variety of strategies to avoid consciously experiencing their "genuine [emotional] reactions" (p. 338). He argues that repressors, in the case of anxiety, in fact have no anxiety experience, as opposed to having anxiety experience that they avoid reporting or deliberately ignore. He writes that they do not report that they "are upset but prefer not to think about it" (p. 373) — they simply report low anxiety. Moreover, repressors have difficulty in overcoming the discrepancy between their self-reports of experience and objective indices of their emotion state (and this discrepancy is much greater than that of 'normal' individuals). Jamner and Schwartz (1985) report that it took ninth months of treatment before a repressive client began to have positive correlations between his subjective experience and his physiological responses as assessed on a daily basis. Weinberger (1990) points out that "under no circumstances (e.g. psychotherapy, anonymous questionnaire, lie detection, disclosure to intimates) have repressors as a group remotely indicated conscious beliefs that they experience relatively high levels of negative affect" (p. 353).

Furthermore, there is positive evidence that repressors are not simply trying to deceive others, but are 'honestly' reporting an awareness of low anxiety (Derakshan & Eysenck, 1999). They do have anxiety states according to physiological and behavioural measures. But while they explicitly recognise anxiety in others, they are unaware of it in themselves (Derakshan &

Eysenck, 1997). Certainly the fact that they show no more interference in high working-memory load tasks than genuine low anxiety individuals, compared to the interference shown by high anxiety groups, suggests that they have low levels or frequency of worrying or anxiety-related task-irrelevant thoughts. The question that remains, on the present account, is whether they: (a) simply have no (or very few) anxiety experiences, (b) have anxiety experiences but lack 2nd-order awareness of them, or (c) are aware of anxiety experiences but fail to categorize them as anxiety. These distinctions have not been previously considered in the literature on repressors. Although answer (a) seems to be favoured by Weinberger (1990) and Derakshan and Eysenck (1999), we rule it out for the following reason. Importantly, repressors are rated by judges to be behaviourally anxious in stressful situations, even when their self-reported anxiety is very low (Derakshan & Eysenck, 1997). As we argued above, it is implausible that, for someone who is exhibiting emotional body states and behaviour, there is "nothing it is like" to be and behave in such a way. Given their relatively high levels of behavioural and physiological anxiety, repressors are unlikely to lack 1st-order anxiety experience per se. Indeed, even though they cannot report it, the expression of their anxiety phenomenology is what produces judges' ratings of anxiety. Instead we propose the deficit to be at the level of either 2nd-order awareness (answer b) or categorical experience (answer c). In fact Weinberger's specific view, that repressors do not have "experiencing anxiety" as part of their self concept, would on our scheme be a kind of lack of categorical-emotion experience, namely "category not applicable to self". It is only by making the present distinctions that the ambiguity of Weinberger's characterization becomes evident.

Although it is difficult to decide between (b) and (c), we favour answer (b), i.e. repressors lack 2nd-order awareness of their anxiety experiences. It is unlikely that those individuals who had undergone psychotherapy did not understand or know what the experience of anxiety is. Yet in spite of this they failed to indicate "conscious beliefs that they experience relatively high levels of negative affect" (Weinberger, 1990, p. 353). This seems to imply that repressors do not lack only categorical-anxiety experience; rather they have a lack of awareness of the experience itself. Indeed, given that these individuals have high trait anxiety, it is possible that they have

developed a coping strategy, like the experienced parachutists, of avoiding awareness of anxiety experience, although in the repressors' case the strategy is perhaps dysfunctional. It thus seems that repressors may be coping on the basis of secondary appraisal, either by attending away from the experience or by re-interpreting it. It could well be that when they initially minimize their level of experienced anxiety it is strategic, they know what they are doing and they are veridically aware of their anxiety level, but that later when the process has become habitual they are no longer aware of what they are doing or of their anxiety level.

We have discussed lack of 2nd-order awareness of emotion experience above as a total lack of awareness of the particular experience. However, it is plausible to discuss lack of awareness of something as lack of awareness of it as a discrete experiential entity. Marcel (1983, 1998) has appealed to restricted attentional selectivity or analyticism and to restricted attentional capacity to characterise cases of perceptual unawareness in both normal people in experimental situations and in neurological cases such as Blindsight and Simultanagnosia. For example, in backward pattern masking where one is unaware of a brief stimulus if followed quickly enough by a spatially related stimulus, the problem is to attend sufficiently analytically in time to segment the first from the second pattern; over the course of many trials subjects often become aware of the masked pattern by learning to modulate their attention in time, i.e. to become more temporally analytic. A spatial analogue of this is to be found in perception of embedded figures (Witkin et al., 1954), which requires an analytic attitude. In the theory of focal attention that we propose, analyticism of attentional mode is required in order to be aware of experiential entities as distinct, and, as in Marcel's (1983) model, relies on the existence of relevant conceptual categorical distinctions for selectivity to the corresponding perceptual or experiential segmentations. If one lacks such categorical distinctions one cannot become aware of certain experiences as such. If one lacks phonemes as perceptual categories, one cannot attend to phonemes. If one lacks emotion as a category or specific emotions as categories, one cannot attend to emotion or specific emotions respectively and become aware of them as discrete

categories. This is akin to Lane, Ahern, Schwartz and Kaszniak's (1997) proposed model of alexithymia.

The term "alexithymia" was introduced by Sifneos (1972, p.81) and used to refer to individuals who are "unable to describe their feelings" (Nemiah, Freyberger & Sifneos, 1976, p. 430). The original alexithymia hypothesis held that some individuals cannot describe their emotions because they cannot feel them, while still reacting normally to emotionally provoking events. These individuals have been described as being limited in imagination, especially of emotional situations, and fantasy (Lesser, 1981) and as having difficulty in distinguishing their emotions from physical sensations of a nonemotional kind. The reported propensity for psychosomatic disturbances in such patients was supposed to be either due to the inability for conscious mental experience of emotion or due to a motivated somatic displacement from experiences they were unable to cope with (Lesser, 1981). Unfortunately there is no consensus and little clear data. First, it is dubious that there is a single homogeneous group, or even that there are subgroups any of whose diagnosis is stable or reliable. Second, the integrality or dissociability of the symptoms is unknown. Third, it is not clear to what extent the supposed symptom-complex is different from being non-emotional per se, since it is still not established that the relevant emotional reactions themselves are normal in the individuals in question. Nonetheless the existence of a psychiatric diagnostic category, however it may be modified in future, seems justified.

In a recent review, Lane, Ahern, Schwartz and Kaszniak (1997) indicate that the individuals in question have flattened affect and are emotionally bland, but also exhibit brief, intense outbursts of emotion, about which the individual can say little. Lane et al. speculate that alexithymia is indeed a deficit in awareness of emotion, but one that follows from a conceptual-linguistic problem. Following an analogy with perceptual learning in wine-tasting, they point out that acquiring linguistic categories and the discriminative categories to which they refer is an interactive process. Alexithymics on this model do have emotional experience but it remains inchoate to them, because their limited conceptual capability specifically concerning emotion

prevents (in our terms) 2nd-order awareness of their emotion experience or limits its differentiability (the records of 1st-order emotion experience cannot be attended analytically or synthesized with appropriate categories since they are absent).

We speculate that such a lack of categorical distinctions will also apply developmentally. Modulation of focal attention on the analytic-synthetic dimension will depend not only on emergence of frontal structures as a substrate for this, but also on the acquisition of conceptual categories that can be applied in the process of attentional synthesis. Both attentional analyticism and possession of appropriate applicable categories will contribute to perceptual learning. One sense of unawareness of emotion, therefore, is a relatively undifferentiated experience due to restricted modulation of 2nd-order awareness. Another consequence of a lack of appropriate conceptual categories is an experience where one does not know what one is experiencing. This is tantamount to Associative Agnosia. For such neurological patients in whom high-level ("semantic") descriptions or conceptual representations of objects are lost or inaccessible to consciousness, their perceptual experience is of a perceptual field that is segmented only by lower-level (e.g. Gestalt) principles, and which is meaningless (see Marcel, 1983). We speculate that the equivalent can be the case for emotion or at least for specific emotions (a kind of emotion agnosia). Both developmentally and pathologically, people may experience emotion but not know it as such. This of course applies to cultural differences as well. Some disputes between culturally relativist accounts (Lutz, 1988) and transcultural universalist accounts (Panksepp, 1994) of emotion experience may well devolve on the difference between 1st-order emotion experience and 2nd-order categorical-emotion experience, where the former may be universal but not the latter. In terms of our discriminative criteria, this seems to us to be exactly why expressions of "basic" emotions are deemed universal (Ekman, 1994), while reports of experience usually are not. This brings us to and anticipates the third sense of unawareness of emotion, lack or reduction in categorical-emotion experience.

(c) Failures in Categorical-Emotion Experience?

Some apparent cases of 'unawareness of emotion' seem to be examples of a failure in some individuals for their emotion experience to be categorically experienced as emotion experience (we are concerned here with fairly extreme or persistent failures and not with the common, everyday phenomenon of not noticing or not labelling all one's emotions). A case described by Grinker and Spiegel (1945), and once cited as a classic example of 'unconscious emotion' (White, 1964) falls into this category. Pearson Brack, an airforce bombardier who, while on his ninth mission, received a jolt in the chest when his plane unexpectedly rolled causing him to cough up blood. On subsequent missions he fainted when the plane reached an altitude of 10,000 feet. In several psychiatric interviews, Brack denied that he experienced fear during these flights, and attributed his fainting to an organic cause. When a psychiatrist accompanied him on a practice flight, Brack showed no signs of fear until the plane reached 10,000 feet. Then Brack began to tremble, became pale, and his breathing became rapid. However, he reported that he experienced no fear, merely that he felt sleepy and wished to close his eyes.

In this case, if Brack is not lying, we have an example of fear behaviour accompanied perhaps by fear experience, but certainly without fear experience being explicitly categorized as such. It is unlikely that this is a case of fear without any corresponding phenomenology, since it feels like something to tremble and breath rapidly. Given that Brack fainted, it is reasonable to suppose that his report of feeling sleepy was a faithful description of the pre-fainting phenomenology. Pallor and fainting are consequences of lowered blood-pressure, and this is part of the parasympathetically induced freeze response. Although they are part of one kind of fear reaction, the phenomenology is not prototypical of fear, and easily miscategorized. Most probably Brack failed to categorize a real instance of 1st-order fear phenomenology as fear. Thus, the lack of appropriate emotion experience in this case seems likely to be at the level of 2nd-order categorical-emotion experience rather than at the level of 1st-order phenomenology.

Clark's (1986) account of panic attacks, described earlier, is similar to our account of the case of Pearson Brack. Panic sufferers appear to experience the bodily effects of their anxiety as

heart attack or illness and not as emotion. That is, they fail to experience them in terms of a categorical emotion. As pointed out earlier, this also happens to normal people if they have not learnt to experience the relevant sensations as an emotion category.

Certain features of the clinical conditions known as 'anger disorders' (Kassinove, 1995) are amenable to explanation by the present account. Clients referred for treatment of anger problems (by for example 'anger management'; Novaco, 1977) typically show high or chronic levels of anger accompanied sometimes by very aggressive behaviour (Eckhardt & Deffenbacher, 1995). The point is that some of these people seem to lack awareness of their anger. It is not that they fail to appreciate the degree of intensity of their anger, its inappropriateness or its consequences; they seem to be unaware of it as such. Two features of anger problems that are described repeatedly in the literature are: (a) that clients often feel in some sense that "the world is against them", and (b) that many of them lack awareness of their anger (Deffenbacher, 1995), and are having treatment only because employers or loved ones have encouraged them to do so. DiGiuseppe (1995) writes "angry clients are rarely willing to examine their own role in an interpersonal conflict, and rigidly adhere to the correctness of their behaviour and the folly or immorality of their enemies" (p. 134). It is unlikely that such people merely attribute the cause of their anger to others, since they deny their anger itself; nor that they experience anger but guiltily deny it, since they fail to acknowledge it as anger even when it is socially justified. In sum, many anger disorder clients do not believe they have an anger problem: for them, it is just that the world is full of bad, irresponsible, difficult, or annoying people. These cases are a particularly good illustration of a state whose phenomenology is expressed but whose intentional source (anger) is unreportable.

These aspects of anger disorders can be explained, on the present scheme, as being due to anger experience, for these clients, (a) being limited to its world-focused form, and/or (b) not being experienced as the category 'anger'. Anger is found to be the most world-focused of all the emotions (Lambie, 2000). If the clients' anger experience is primarily world-focused then it follows that they are typically aware in such states of other people as hateful, as annoying, as to-

be-attacked, but are not aware of themselves as having urges to attack or of the intensity of their feelings. In addition, categorical-emotion experience is a possible form of only self-focused experience. Therefore if the anger experience of these individuals is limited to its world-focused form, then they also lack categorical-emotion experience and so do not experience their state and behaviour as anger.

This interpretation receives support from two stages of the treatment of anger disorders that are described by Deffenbacher (1995). In the first stage, clients are encouraged to improve their self-monitoring skills. This is because "many angry individuals are relatively out of touch with their feelings" (p. 153). The self-monitoring programme includes regularly recording "self-talk", behavioural reactions, and bodily sensations, filling in scales such as the Anger Inventory (Novaco, 1975), and using mirrors and video-recordings in role-playing sessions. All these techniques are designed to increase the degree of self-focused anger experience. What is interesting from the present point of view, is that, although some individuals are helped by the self-monitoring process and have increased self-awareness as a result, for many the process is not sufficient to enable them to become aware of their anger (Deffenbacher, 1995, p. 157). A second stage of intervention, therefore has the goal of "getting clients to experience and own the emotion of anger, and assisting them in changing dysfunctional elements" (p. 157). One of the strategies for helping clients to become aware of their anger is for the therapist to legitimize and normalize anger as an appropriate emotion, because for many cultures (and some sub-cultures in American society) anger is a taboo emotion. Such legitimization is one of the necessary conditions for actually having categorical-anger experience. Even if after self-monitoring training the clients experience 'urges to attack' rather than 'hateful people', they are not aware of such experiences as anger. The insufficiency of self-monitoring per se to produce anger awareness itself illustrates the distinction between self-focused emotion experience and categorical-emotion experience. No matter how much self-monitoring clients do, if they do not apply the category of 'anger' to their experiences (perhaps because it is considered taboo or inappropriate), then they will fail to have categorical anger experience. The culturally-defined category of 'anger' is unavailable to these

individuals as an ownable part of themselves. There is every reason to suppose that the same occurs for a range of other emotions as for anger. The only reason that unrecognized anger is highlighted is that its effects cause other people to make the individual see a therapist.

Unrecognized happiness or love does not have the same effect.

(d) Defence Mechanisms

We have examined how putative cases of unawareness of emotion can be dealt with by the present scheme, which is essentially a cognitive approach to phenomenology. It is also of interest to assess how certain terms used to account for apparent unawareness of emotion might correspond with this scheme, especially since some of these terms imply motivated unawareness. We will deal briefly with two topics which overlap: defence mechanisms postulated in psychodynamic psychology and concepts of somatization.

Psychodynamic psychology deals with forms of unawareness of emotion in terms of defence mechanisms (Freud, 1914-17/1963; Horowitz, 1988). In all such hypothesised cases what one is unaware of is by definition unwanted or unacceptable to the individual, i.e. the unawareness is motivated and the result of an active, motivated process. What is kept at bay is obviously what is potentially unpleasant; but what would normally be thought of as pleasant can also be conceived of as defended against if it is thought to suit the person's purposes: that is, a rational account is given of the perverse. Horowitz outlines 30 such mechanisms, but for reasons of space and relevance we shall focus on just four: denial, repression, intellectualization and projection. Defence mechanisms in psychodynamic psychology are hypothetical explanatory concepts. However, the phenomena they seek to explain are observable and well documented (see Vaillant, 1987; Lazarus & Lazarus, 1994), though they are usually in the form of personal-level narrative descriptions. In addition, the phenomena are often taken to merit such explanation because they seem to lack a rational intentional coherence, and postulation of defence mechanisms restores such intelligibility. First we shall outline what the phenomena are that are referred to by denial, repression, intellectualization and projection, and then interpret them within the terms of the present framework.

Denial, which is the "most frequent defence" according to Horowitz (p. 191), is the avoidance of awareness of the painful meaning or implications of what is perceived or of one's own state; for example, telling oneself that the early warning signs of cancer in oneself "mean nothing" (see Lazarus and Lazarus, 1994, for a review of research regarding the positive and negative effects of such denial for the course of illnesses or bereavements). Repression is the nonconscious withholding from awareness of an idea or feeling or state before it becomes conscious (whereas suppression is the conscious withholding or expulsion from awareness of something after it has been consciously recognised as anxiety provoking). An example given by Horowitz is the repression of "erotic arousal by a person [regarded as] inappropriate for love" (p. 195). What is repressed can be an event or percept or one's own state, which may be either anxiety provoking or unpleasant in itself. Thus what can be (theoretically) repressed can be one's own emotion state or its experiential counterparts. Intellectualization is the avoidance of the emotional implications of a topic or event by dealing with it at a detached, abstract level rather than an involved, personal one. As an example, consider the following train of thought: "Do I love her? Well, I don't really know what 'love' means. Isn't 'love' merely an invention of certain mediaeval poets?..." Finally, projection is avoiding one's own emotion or idea by nonconsciously attributing it to another person or to the external world in general such that one perceives it there. For example, one's own hatred of others is not acknowledged and instead others are seen as having the hatred (for example they are seen as 'out to get me').

One thing to be said about defence mechanisms concerns appraisal. As a matter of logic, defence mechanisms must involve two distinct levels or stages of appraisal, for the following reason. By definition, an event or the emotion produced must have an emotional implication for the person in order to be defended against. But in order for an event or emotion to have an emotional implication for someone it must first have been appraised against one or more of that person's concerns. The subsequent, second stage of defending against these emotional implications cannot be one and the same process as that in the first stage, because the generation of an emotional implication and 'disliking' that emotional implication are clearly distinct.

Furthermore, defence mechanisms must involve a motivated avoidance of something; otherwise how is denial, for example, to be distinguished from simply 'not happening to think of X at time t'? This motivated avoidance implies that the 'defending' stage, like the previous stage, also involves the person's concerns. Hence, both stages are part of the emotion process as we conceive it: they map onto what we call primary and secondary appraisal.

On our scheme denial involves preventing or reducing the frequency of 2nd-order awareness of something either by secondary reappraisal or by attentional avoidance. Attentional avoidance or "neglect" avoids awareness of whatever is itself unpleasant. However in the case of denial we take such attentional avoidance to operate after initial awareness of what is unpleasant. Secondary reappraisal reinterprets the unpleasant significance or implication of the thing itself as one that is less threatening. Predominantly, by providing an alternative ED, this affects conscious emotion thoughts. However, a new appraisal of something does not necessarily remove the results of the original one. Therefore the continued presence of the original appraisal result, even though it may not give rise to an intrusive thought (Teasdale, 1999) can continue to cause an emotion state of anxiety with the psychosomatic consequences of stress (Lazarus and Lazarus, 1994).

In psychodynamic theories, both repression and suppression are occurrent short-term processes which may have long-term effects but which may need to be repeated. In this sense repression is to be distinguished from the dispositional characterisation that Weinberger uses when he talks about individuals as "repressors" (see above). Given that we distinguish between 1st-order phenomenology and 2nd-order awareness, repression could operate on entirely nonconscious states or to preclude only 2nd-order awareness of something. We suppose it to operate mainly either by avoidance of focal attention or by positive attention away from its object. Regarding the latter, much experimental research on attention shows that, when there is competition for attention, rejected representations receive "negative priming" which impedes their subsequent accessibility for awareness (Tipper & Cranston, 1985; Fox, 1995). If this is the mechanism, we suppose repression to operate mainly to preclude 2nd-order awareness. In

contrast to denial, repression can operate prior to 2nd-order awareness of what is in question. However, we see both denial and repression as able to be realised by "dissociation". In the case of dissociation what is dissociated remains conscious in status, but is kept apart from those contents of 2nd-order awareness which become part of one's episodic autobiographical memory, by being detached from or unintegrated with one's self-structure (Marcel, 1993).

Intellectualization corresponds to a relatively high degree of 2nd-order detachment. In many cases (e.g. in the example of love given above) it results in preventing categorical emotion experience. But more importantly, as we have discussed, detachment diminishes the experience of 1st-order phenomenology and diminishes particularly hedonics. In intellectualization one is aware of something as a concept, but one avoids full personal immersed experience of the phenomenology, yielding what is often termed a "cold cognition".

Projection might seem to be a kind of unawareness of emotion in the way that world-focused emotion experience is unawareness of emotion, i.e. one is focally aware of others rather than oneself. However, it is a different phenomenon and involves a different process from world-focused emotion experience. Rather than being aware of the affecting world as opposed to the affected self by an attentional shift that reverses figure and ground, one is aware of one's own particular affective state or attitude but only in others. Although one is focally aware of others rather than oneself, one is aware of one's emotion but as displaced onto the others. This is important because it emphasises that what is fully meant by awareness of emotion is awareness of it as part of oneself. In our scheme projection is a process of deliberately false attribution in which secondary appraisal attributes one's emotion state to another, leading to the relevant 'projective' 2nd-order thoughts or evaluative perception of another.

In all the above cases and of other defence mechanisms the question has always arisen of the extent to which the process or at least the intention is conscious. This is not entirely a separate issue from whether the result is unawareness, because to the extent that the intent is conscious the agent cannot be said to be completely unaware of what is defended against, unless the memory of such intent is also debarred. All that we wish to say of this is that however one

thinks of "self-deception", it does appear to be successful. People who are consensually judged to be projecting their emotion seem genuinely unaware of it. Indeed our concept of the attentional mode of detachment-immersion is relevant to Freud's observation, continually reaffirmed in therapy, that insight in the sense of becoming fully conscious of what has been unconscious consists in affectively feeling something as true as opposed to intellectual acknowledgement of it. This is also recognised in Cognitive Behaviour Therapy (Beck, 1976; Teasdale, 1999): depressed patients' acknowledgement of their worth is ineffective so long as they are affectively committed to their worthlessness. This is exactly what we referred to as the phenomenological truth of 1st-order experience.

The importance of considering defence mechanisms lies in their motivated and purposive nature. In dealing with the mechanisms of emotion experience we have left largely unspecified the extent to which they are involuntary or under voluntary control. (Whether something is voluntary is separate from whether it is conscious.) And, apart from the work of Fenz and Epstein and of Weinberger, most cases of unawareness of emotion we have discussed are definitely not due to motivation. Two points are to be made. First, while emotion state is on the whole involuntarily caused (although it can be modulated by secondary appraisal), 2nd-order awareness of emotion experience can be under voluntary control. Second, this can occur in two ways: (a) all the attentional mechanisms of focus and mode are subject to both involuntary and voluntary control; (b) secondary appraisal is what permits coping strategies and it is this aspect of emotion that is subject to voluntariness and individual rationality. Indeed this is a further reason why we see defence mechanisms as the product of secondary appraisal.

Many bodily effects and experiences have nothing to do with emotion and are appropriately experienced as non-emotional. However in some cases bodily phenomenology that is genuinely an aspect of emotion is not experienced as such. Where a tacit schema of the self is somatic, certain states may issue in terms of a somatic rather than mental phenomenology (bodily vs. mental suffering or pleasure). More simply, someone may experience bodily effects of emotion but not interpret them as associated with emotion (e.g. in panic attacks and possibly

alexithymia). However this can be seen as a defence, where one selectively attends to bodily rather than cognitive or affective symptoms. Other versions of somatization are more directly proposed as defences. (a) There may be a form of "conversion" whereby what would otherwise be experienced as a mental attitude or reaction is transformed into a bodily symptom. This has been viewed as motivated, and classically it is conceived of not as the physiological result of stress but the physical symbolisation of the mental. Showalter (1997) among others has speculated that Neurasthenia in the late nineteenth century, contemporary Chronic Fatigue Syndrome and other physical disorders are examples (see Abbey, 1993). Its existence and nature is much debated, due to the question of the mechanism and to whether the physical symptom is treated as "real" (Hacking, 1995). In addition, (b) there is the hydraulic, psychodynamic idea that if emotion cannot issue into consciousness, due to active repression or passive inaccessibility, it will manifest itself in physical symptoms. Lesser (1981) has applied this to the apparently psychosomatic symptoms of those classified as alexithymic. In so far as these last two phenomena exist as such, our present scheme treats them as follows. (a) Conversion is the somatic realization of the state of the evaluated self (e.g. in grief and depression). We do not see why in principle alternative realizations should not be subject to motivation. (b) The "hydraulic" phenomenon we see as a stress reaction that is not dealt with. As Lazarus and Lazarus (1994) indicate, if stress is acknowledged and coped with its physiological effects are greatly reduced; if not, they will persist.

To summarize this section, none of the examples discussed is best characterized as demonstrating 'emotion with no emotion experience' (position [a]). However, there are five kinds of phenomenon which are describable as 'unawareness of emotion experience', and which are summarized in Table 7. The discussions above serve to illustrate that psychologists' distinctions need to be sharpened (along lines drawn in this paper, we would argue) in considering the appropriate interpretation of cases of 'impaired' emotion experience, both in pathological examples and in everyday life.

Insert Table 7 about here

CONCLUDING COMMENTS

We have provided empirical data and conceptual analyses which indicate that emotion experience does not have a single form or content. At least two distinctions can be made. First, world-focused emotion experiences can be separated from self-focused ones. One example of this occurs in anger disorders where the individual's attentional style in anger experience appears to be highly world-focused. Another example is the emotion diary studies which show that 'normal' everyday emotion experiences also vary significantly in the degree to which they are self- or world-focused. Second, 1st-order emotion experience can be distinguished from 2nd-order awareness. An example of this difference occurs in the anxiety experiences of 'repressors' which, we argued above, are 1st-order emotion experiences of which the individual lacks 2nd-order awareness. These two important distinctions in emotion experience (self/world and 1st-/2nd-order) are frequently conflated by other authors. In addition to these distinctions, we indicated that focal attention (a) can vary in both analyticism/syntheticism and in degree of immersion/detachment, with consequences for the content of experience and for hedonics, and (b) can focus, in emotion, on either the ED or the AA, yielding respectively emotion thoughts or bodily phenomenology.

Empirical predictions. Although our account is intended as a theoretical framework rather than a model, it does yield empirical predictions. We shall restrict ourselves to two examples. First, if an emotion is induced then the manipulation of attentional focus (to world or self, to evaluation or action) or of mode of attention will affect whether or not an emotion is reported and, if so, the kind of description given. Self- versus world-focused attention can be manipulated using a version of Lane, Fink, Chau, and Dolan's (1997) procedure, where participants view a series of emotion-inducing pictures while attending either to the location of each scene (e.g. indoors/outdoors) or to their own bodily sensations. If asked to report on their emotion experience after a block of such pictures, participants should be more able to do so in the self-

focused condition, though women may be relatively better than men in knowing and reporting their own (appropriate) emotion state in the world-focused condition (see Pennebaker & Roberts, 1992).

Second, we endorse Dickinson and Balleine's (2000) position that intentional or instrumental behaviour depends on phenomenal emotion experience: specifically, hedonics coupled with experience of a representation of the object or cause of such experience. Desires and distastes are grounded in and based on affective phenomenological reactions to potential goal objects. Avoidance of anxiety-provoking situations requires at least a certain kind of 1st-order emotion phenomenology, namely world-focused experience of 'hodological space'. However, for the individual to explain and predict their own emotion behaviour it is necessary that they have 2nd-order awareness of their emotion phenomenology. On our view, repressors have phenomenal anxiety experience in virtue of the bodily and behavioural effects that they manifest, but lack 2nd-order awareness of their anxiety. In our terminology they have the Action Attitude of anxiety along with the experience of bodily physicality and/or hodological space that this entails. Therefore our account predicts that repressors will avoid anxiety-provoking situations, but will be impaired in appropriate explanations of such behaviour. Data from a recent study on repressors showed exactly this pattern of results (Lambie & Baker, 2001).

The three questions of emotion experience. We distinguished three questions: the questions of phenomenological content, of underlying correspondence, and of contributory processes in emotion experience. Our answer to the question of phenomenological content is that it is varied (the variation being determined by direction, focus, and mode of attention) and includes the following: bodily physicality, hodological space, conscious emotion thoughts, gerundival perceptions, and action urges (see Tables 2, 3, 4, 5 and 6). Our answer to the underlying correspondence question consists in what we call the Evaluative Description and the Action Attitude. Our answer to the contributory processes question is (a) that attentional processes are responsible for awareness and the forms of emotion experience, and (b) that

phenomenology is determined by the role of the self in content, and is modulated by how immersed or detached is the mode of attention.

To what extent does neuroscience research on emotion shed light on our three questions? In regard to these questions, generally activation studies alone are inherently less informative than the dissociations and deficits produced by lesions. Insofar as many studies are concerned with identifying the neural vehicles of emotion experience they are not relevant to any of our specific questions. However, in three respects they may be relevant. To the extent that they are concerned with the content of emotion experience as revealed by lesion or activation of neural structures, they bear on the phenomenological question. For example, Damasio et al. (2000) asked subjects to recall and re-experience emotions under PET imaging. They concluded that "the subjective process of feeling emotions is partly grounded in dynamic neural maps, which represent several aspects of the organism's continuously changing internal state" (p. 1049), supporting Damasio's (1994) view that the content of emotion experience is chiefly one's current bodily state. However, emotion states, as well as emotion experiences, were induced (e.g. SCRs were significantly different from the neutral condition). Therefore, although they write that representations "in hypothalamus and brain stem tegmentum... and in cerebral cortex... constitute a critical aspect of the neural basis of feelings" (p. 1049), one cannot distinguish whether these areas of brain activation are specific to emotion experience (feelings) or whether they are part of nonconscious emotion states or processes.

Similar problems occur in trying to relate the neuroscience data to the underlying correspondence question. In many accounts of emotion and emotion experience, representations of body state play a role. However, differential activation of somatosensory cortex in studies such as Damasio et al.'s is ambiguous. As yet we cannot be sure whether activation of somatosensory cortex per se corresponds to nonconscious representation of body state, bodily phenomenology, or awareness of bodily phenomenology. In our account, there are two sources of bodily phenomenology: (a) somatic representation of evaluated self, and (b) the physical action

attitude. How these can be differentiated neurally is moot, but we suppose the first might be related more to sensory, the second to motoric brain structures.

Regarding the contributory processes question, Lane, Fink, Chau and Dolan's (1997) study is relevant to the role of attention in 2nd-order awareness. Selective attention to emotion experience was associated with increased activity in the rostral anterior cingulate/ medial prefrontal cortex. Although Lane (2000) argues this region is associated with 2nd-order representation of emotion experience, it could equally reflect the process per se of attending to emotion experience. The blunting of emotion experience associated with lesions to this area (Hoffman, 1949) as yet does not disambiguate this. Such blunting could be due to deficient generation of the experience, deficient awareness of it, or a deficit in its normal intensification by attention to it.

Previous accounts of emotion experience reassessed. The three most influential and paradigmatic accounts of emotion experience in Psychology have been those of James (1884), Cannon (1927) and Schachter and Singer (1962). According to the present conceptualization, we interpret these three accounts as follows. First, bodily awareness, both of sensations associated with arousal and of musculoskeletal adjustments and actions, can indeed constitute emotion experience, as James argued; but it is only one aspect of emotion experience. Bodily experience is self-focused emotion experience, so long as the bodily state experienced is brought about in the appropriate way: i.e. by a perceptual emotion-trigger, appraisal of a stimulus as impinging on one's concerns, or induction by music, posture or social contagion. A pain in the foot due to kicking a stone is not emotion experience because it is not part of a bodily state caused by any of the above (though the pain can be increased by anger at having kicked the stone). However, the back pain experienced in grief in Taiwan (Kleinman, 1980) is indeed an emotion experience because it results from appraisal of a situation as a loss, even though the Taiwanese experiencing the pain may not classify it as an emotion experience. Second, as Cannon (1927) claimed, awareness of a non-bodily 'feeling' of emotion is also an emotion experience. Such awareness, on the present account, is categorical-emotion experience: awareness of one's state as a specific

emotion, where attention is at a categorical rather than an analytic level. Such 'feelings' can also relate to hedonic tone, though hedonic tone per se is not an emotion. Third, as argued by Schachter and Singer (1962), awareness of bodily arousal as an emotion (depending on situational context, and in the absence of a non-emotional attributional explanation for the cause of the arousal) is also an emotion experience. Again, such awareness, on the present theory is categorical-emotion experience: awareness of arousal that has been categorized as a specific emotion. None of these three classic theories is complete, however. For example, they all neglect world-focused emotion experience. Most other theories mentioned in Table 1 are also incomplete. For example, the action tendency (Arnold & Gasson, 1954) and the facial expression (Tomkins, 1962) theories both account only for self-focused emotion experience. The 'phenomenological tone' theory of Oatley and Johnson-Laird (1987) deals only with a kind of categorical-emotion experience.

Our position can be summarised as follows. The content of a single emotion experience can vary as a whole or over its timecourse (and between emotions and individuals) depending on the directional focus and mode of focal attention of the individual. Directional focus can be on the self or the world and on Evaluative Description or Action Attitude, and consciousness can be only 1st-order or also 2nd-order, and in the latter can vary in attentional mode. The phenomena of emotion state, emotion experience, and awareness of emotion are in principle separable, and the processes that account for emotion (e.g. appraisal) are not the same as those that account for emotion experience (e.g. attentional processes including synthesis, focus and mode of attention). The attractions of the present conceptualization, involving (a) different kinds of emotion experience and (b) contributory processes, are twofold. First, it accounts, in a principled way, for certain peculiarities of clinical and normal emotion experiences, especially for certain kinds of unawareness of emotion. Second, the theory explains why there has been so much disagreement in the literature as to the content of emotion experience. Theorists rightly but spuriously disagree, because there is no one essential type of content of emotion experience (be it sensations, feelings, thoughts or something else). Almost all theorists are each correct in their characterisation of the

content of emotion experience, but their disagreement arises because some of them assume that there is one essential type of such content. Rather the content of emotion experience is varied and variable.

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Footnotes

¹ We are using the term 'content' to refer to what a mental state consists of, as opposed to what carries or mediates that state – its vehicle. We are not restricting its usage to reference or intentionality, to what something is about. Thus sensations, which in experience do not refer to anything, are treated as comprising one kind of phenomenal content.

² By 'implicit' we do not mean nonconscious. We mean, whether conscious or not, something that is present but recessive in a representation or mental state, either by being entailed by what is explicit or by being subsidiary, as in ownership, or by being in the ground rather than figure of experience.

³ Henceforth, when we refer to "the world", we are referring to either a portion of the world, e.g. a person, animal, thing or group of them, or the whole of what is 'not self'.

⁴ Cultures may vary on a continuum regarding the degree of bodily awareness typical of their members. Though middle-class Americans have less bodily emotion experience than rural Chinese, Gerber's (1985) evidence indicates that Samoans have even less bodily awareness than Americans.

⁵ This question is not the same as: "what processes cause or underlie emotions?". We are focusing specifically on emotion experience as opposed to all other aspects of emotion; see below, Definitions and Conceptual Distinctions.

⁶ Paradigmatic examples of the three kinds of definitions referred to here are: James (1884) - '...our feeling of the... [bodily] changes as they occur IS the emotion'; Young (1943) - 'Emotion is an acute disturbance of the individual as a whole, psychological in origin, involving behaviour, conscious experience, and visceral functioning'; and Watson (1924) - 'An emotion is an hereditary 'pattern-reaction' involving profound changes of the bodily mechanism as a whole, but particularly of the visceral and glandular systems'. All quotes in Plutchik (1980, p. 81).

⁷ 'Two-component' theorists of emotion include: Mandler (1984) — autonomic arousal and evaluative cognitions; and Oatley (1992) — readiness for action and phenomenological tone.

Oatley identifies emotion with a mental state of which only a part is conscious. Mandler (1984) declines to define emotion but seems in parts of his book to identify emotion with emotion experience, as did James (1884) and Freud (1915/1984).

⁸ 'Concerns' cover all that matters to an organism, a subset of which are goals, which are explicitly represented end-states (Frijda, 1986).

⁹ In fact, to the extent that we always have concerns, immediate or long-term, it can be argued that all perception is inevitably phenomenological. Normally all aspects of the world are perceived in terms of both 'affordances' and implications for the perceiver, and to perceive something purely in terms of its identity is an abstraction and amounts to being detached.

¹⁰ We are not proposing that all domains of consciousness involve phenomenology independent of 2nd-order awareness. For example many thoughts and beliefs have only two states, nonconscious and in awareness, the latter having its own kind of phenomenology. This does not concern us here, since in emotion we treat 1st-order states as phenomenal.

¹¹ The term intension with an s refers to 'the sum of attributes or objects comprehended in a concept or set', and is the opposite of its extension which refers to 'the range or enumeration of encompassed objects'. The term intention with a t refers to content, reference, or indication - what something is about.

¹² Note that Mandler in avoiding the term 'emotion' is explicitly avoiding the natural language term that belongs to folk psychology and is relative to culture. By contrast, we use the term in order to respect the folk psychology since we allow that it may determine the experience.

¹³ We thank George Mandler and Nico Frijda for discussion of this point. Where the person concerned is not the agent of gerundival implementation, the satisfaction is usually vicarious, i.e. via identification with the agent.

¹⁴ Note that no evaluation of culture is implied here; only that cultures differ in the domains where greater or lesser categorical differentiation is shown. This is analagous to the case of speech: while one set of phonemes is categorically differentiated by Europeans but not

Japanese (/l/r/), Arabic languages categorically differentiate other phonemes that Europeans do not (/d/).

Table 1

Previous Proposals as to the Content of Emotion Experience

Theorist	Content of Emotion experience
James (1884)	a certain pattern of bodily changes (i.e. bodily sensations and awareness of posture/movement)
Cannon (1927); Oatley & Johnson-Laird (1987)	a 'central' feeling or 'phenomenological tone' (i.e. a feeling that is produced directly by the brain, and is not a bodily sensation)
Arnold & Gasson (1954)	a felt action tendency
Tomkins (1962); Izard (1977)	one's facial expression (or feedback from facial expression)
Schachter & Singer (1962)	one's general autonomic arousal together with attributions regarding the emotion's cause
Mandler (1984)	a concatenation of autonomic arousal and evaluative cognitions
Smith & Ellsworth (1985)	cognitive appraisals of the current environment varying across a set of dimensions
Frijda (1986)	principally action readiness, plus: autonomic arousal or de-arousal; 'situational meaning structure'; pleasure or pain; 'significance'.
Damasio (1994)	bodily changes juxtaposed to an image of what caused the emotion + changes in 'mode of thinking'

Table 2

Illustrations of the Content of 1st-Order Emotion Experience

	First-Order Emotion Experience		
	Self-Focused (Bodily Physicality)		World-Focused
	Evaluation	Action	(Hodological Space)
Joy	Enhanced	Buoyant; light, easy to move, able	Open, inviting, welcoming, nonresistant, supportive
Sadness	Diminished	Heavy, unable/weak	Empty, closed, burdening, lacking in attractiveness
Anger	Impeded, compressed, pushed back	Ready to push out	Impeding, compressing, requiring force to remove blocking agent
Fear	About to be overwhelmed/ pierced/destroyed	Self-protecting	Overwhelming/piercing/ disintegrative
Shame Stained		Shrinking, self-occluding	The impinging gaze of others
Pride	Augmented	Increasing the exposed self	The welcoming gaze of others

Table 3

Illustrations of the Content of 2nd-Order Emotion Experience: (a) Focus on EvaluativeDescription

Emotion	General Directedness	
	Self	World
Anger	I am offended	X is offensive, blameworthy, a 'bastard'
Fear	I am in danger	X is dangerous
Joy	I am fulfilled	The world is fulfilling
Sadness	I have failed/ been diminished	The world is unfulfilling
Shame	Me visibly flawed	Others' perception of my flaw
Pride	My worth enhanced	Others' admiration of me

Table 4

Illustrations of the Content of 2nd-Order Emotion Experience: (b) Focus on Action Attitude

Emotion	General Directedness	
	Self (Action Urges) ^a	World (Gerundival Perceptions)
Anger	My urge to attack (X)	X to-be-attacked (by me)
Fear	My urge to escape from (X)	X to-be-escaped from (by me)
Joy	My urge to interact with (the world)	World to-be-interacted-with (by me)
Sadness	My urge to withdraw from interaction (with the world)	World not-to-be-interacted-with (by me)
Shame	My urge to hide myself away (from others)	Others' gaze to-be-avoided (by me)
Pride	My urge to display myself (to others)	Others to-be-displayed-to (by me)

^aIn all cases action urge experience depends on degree of analytic/synthetic attention. In the highest degree of analytic attention one experiences individual bodily sensations. In the highest degree of synthetic attention, one has categorical emotion experience, i.e. 'anger', 'fear', etc.

Table 5

Illustration of the Variation in Content and Form of a 2nd-Order Emotion Experience (of Anger)
According to Mode of Attention: (a) Focus on Evaluative Description

Mode of Attention	General Directedness	
	Self	World
Analytic	I am stopped from doing Y (by X) or	X is stopping (my action Y) or
	I am harmed (by X) or	X is harming (me) or
	I am being treated inconsiderately (by X)	X is inconsiderate (to me)
	I am offended (by X)	X is offending (me)
		X is a bastard
	<u>Non-Categorical</u>	

	<u>Categorical</u>	
Synthetic	I am angry	_____

Table 6

Illustration of the Variation in Content and Form of a 2nd-Order Emotion Experience (of Anger)
According to Mode of Attention: (b) Focus on Action Attitude

In Horizontal File

Table 7

In horiz. file

Figure Caption

Figure 1. The microgenesis of emotion states.

General Notes to Figure 1

1. Secondary appraisal is often conscious, primary appraisal usually is not.
2. Emotion experience is underlain by the ED and AA and is subject to various kinds of attention.
3. Conscious emotion thoughts resulting from attention to the ED or the AA are also input to secondary appraisal.