Toward a Phenomenology of Feelings

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Abstract

Our understanding of emotion cannot be complete without an understanding of feelings, the experiential aspect of emotion. Despite their importance, little effort has been devoted to the careful apprehension of feelings. Based on our apprehension of many randomly selected moments of pristine inner experience we present a preliminary phenomenology of feelings. We begin by observing that often feelings do occur as directly experienced phenomena of awareness; however, often no feelings are present in experience, or if they are present, they are too faint to be observed by a process intended to observe them. Feelings range from vague to distinct and sometimes do, but other times do not, include bodily sensations. When bodily sensations are present, there is a wide range of clarity and location of these sensations. Sometimes people experience multiple distinct feelings and sometimes people experience one feeling that is a mix or blend of different feelings. We also discuss what feelings are not, including instances when feelings do not appear to be present despite evidence suggesting the presence of underlying emotional processes (e.g., behavioral evidence of emotion). These instances of emotion but not feeling lead us to speculate that experiencing feelings is a skill developed over time through an interaction of interpersonal and intrapersonal events.

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Toward a Phenomenology of Feelings

The last three decades have witnessed a dramatic increase in the scientific interest in emotion. We now have multiple models of emotion, all of which describe emotion as comprising several components including at least biological processes, behavioral indicators, and emotion experience. Whereas the modern science of emotion generally recognizes that emotion experience is important (e.g., Kagan, 2007), for a variety of historical and philosophical reasons the scientific study of emotion experience has lagged behind the other aspects:

> Our current, impoverished understanding of emotion experience is due not only to American psychology's behaviorist legacy, but also to a view of the mind that eschews phenomenology and characterizes mental states as nothing but their causes. Consequently, knowing the causes of emotion is presumed sufficient to answer the question of what the experience is. While expedient, this scientific approach leaves out an important aspect of reality: people feel something when they experience emotion. (Barrett, Mesquite, Ochsner, Gross, 2007, p. 374)

Through this paper we hope to advance the understanding of emotion experience. As do most modern researchers, we will use "emotion experience" and "feeling" interchangeably (Kagan, 2007; Niedenthal, Krauth-Gruber & Ric, 2006) to refer to directly apprehended phenomena, to experiences that occur directly before the footlights of consciousness. Our aim in this paper is to adumbrate some aspects of the phenomena of feelings as they naturally occur in everyday people in everyday environments and everyday situations, drawing on our efforts over many years to apprehend pristine, naturally occurring inner experience in high fidelity (e.g.,

Heavey & Hurlburt, 2008, Hurlburt, 1990, 1993, 2011a; Hurlburt & Heavey, 2001, 2006; Hurlburt & Schwitzgebel, 2007). We cannot present a definitive phenomenology of feelings; that is beyond present-day reach. But we have described thousands of moments of pristine experience (experience as it is directly apprehended "before the footlights of consciousness," before it is affected by any particular form of self-examination; Hurlburt, 2011a; Hurlburt & Akhter, 2006; Hurlburt & Heavey, 2006), many of which include feelings, and we hope to advance the understanding of emotion by distilling our observations about the phenomenology of feelings as they naturally occur.

On Apprehending Feelings

Feelings are emotion phenomena that directly present themselves to a person at some moment. The scientific investigation of feelings therefore requires the apprehension of phenomena and must therefore depend on some sort of first-person account of experience. No third-person method can reveal phenomena. For example, the external (third person) observation of facial expressions, which has great utility in the understanding of emotion, cannot directly reveal feelings (or any other phenomena of experience). How you feel may influence your facial expression, may be influenced by your facial expression, may be otherwise related to your facial expression, or none of the above, so a scientist's observation of your facial expression (a third-person act) cannot be substituted for your own direct apprehension of your feelings (a first-person act).

If science is to take feelings seriously, then, it will have to apprehend feelings as they are directly experienced, not as they are inferred from facial expression, physiological measures, behavior, or any other third-person technique. Hurlburt and Heavey (2004) have argued that the apprehension of experience is problematic in science because there is a battle between those who

think apprehending experience is impossible and those who think it is easy, whereas the actual apprehension of experience is *neither* impossible *nor* easy: it requires methodological sophistication. They have advanced one method for apprehending experiential phenomena called Descriptive Experience Sampling (DES; Hurlburt, 1993, 1997, 2011a; Hurlburt & Akhter, 2006; Hurlburt & Heavey, 2006) and defended its phenomenological adequacy (Heavey, Hurlburt, & Lefforge, 2010; Hurlburt, 2011a; Hurlburt & Akhter, 2006; Hurlburt & Heavey, 2002, 2006; Hurlburt & Schwitzgebel, 2007, 2011a, 2011b, 2011c).

We sketch briefly the DES procedure; see Hurlburt and Akhter (2006), Hurlburt and Heavey (2006), and Hurlburt (2011a) for more adequate accounts. DES subjects are given a beeper to take with them into their natural environments. When the random beeps sound (typically six times in a sampling day), subjects are to jot down notes about whatever inner experience was ongoing at what it calls the "moment of the beep," defined as the last undisturbed moment before the beep; that is, DES aims to capture experiences that are "in flight," "ongoing." The investigator interviews the subject within 24 hours about the experiences at each of these moments to develop an understanding and subsequently a faithful description of the subject's ongoing experience at each sampled moment. This process is then improved iteratively (Hurlburt, 2009, 2011a; Hurlburt & Akhter, 2006) over multiple days, ideally until the subject's inner experience has been adequately apprehended.

By "inner experience," DES means whatever is directly, phenomenally present at some moment. Inner experience includes innerly driven phenomena such as inner seeings, inner speakings, itches, and so on. However, inner experience as we and DES define it also includes externally driven phenomena such as the seen sunset, the heard automobile horn, the felt cool breeze, and so on. Some (e.g., Schwitzgebel in Hurlburt & Schwitzgebel, 2007) worry that the

adjective *inner* predisposes DES subjects to favor innerly driven over outerly driven phenomena. Hurlburt (in Hurlburt & Schwitzgebel, 2007, p. 15) considered alternative locutions and decides that "inner experience" is perhaps the best among bad alternatives.

By *pristine* inner experience (Hurlburt, 2011a, Hurlburt & Akhter, 2006 we mean inner experience that is naturally ongoing, experience as it exists in people's natural environments, experience that is not altered or skewed by the attempt to apprehend it. We use pristine in the same way as we would say a forest is pristine: before the logger's clear cut, before the asphalt and signage of the Park Service, and so on. Pristine does not mean clean or pure: much of a pristine forest is mucky, bloody, brutal. We go about our everyday lives immersed in our own pristine experience.

The aim of the DES subject is to apprehend their at-the-moment-of-the-beep-ongoing pristine inner experience and then to describe that experience so the investigator acquires a high fidelity apprehension of it. That is an ideal, and like all scientific methods, DES falls short of its ideal. Here we emphasize five characteristics of the DES method that may allow it to fall short of its ideal in manageable ways and make it particularly well suited to examining the characteristics of feelings in a way that is fundamentally different from other methods that have been used to explore feelings (e.g., Roseman, Wiest, & Swartz, 1994). First, DES examines clearly identified, actually occurring, concrete moments of experience. This anchors the reports to lived experience and thereby helps to avoid contamination of reports by beliefs about the experience of emotion (Robinson & Clore, 2002). Second, subjects are to jot down aspects of experience immediately after the beeped moment. This nearly immediate recording of the features of experience minimizes demands on memory, thereby potentially maximizing the experiential details that are captured and reported.

Taken together, these first and second characteristics raise the likelihood that subjects can faithfully describe their experiences. DES investigators do *not* ask subjects to speculate about the causes of their experience, do *not* ask subjects to characterize their experience in general, do *not* rely on a subject's ability to recall across long time intervals. DES investigators ask subjects to describe actual, immediately ongoing experience.

Third, the open-beginninged (Heavey, Hurlburt, & Lefforge, 2010; Hurlburt, 2009; Hurlburt & Heavey, 2006; Hurlburt & Schwitzgebel, 2007) nature of DES creates the possibility of capturing aspects of experience that may not have been anticipated in advance.

Fourth, the bracketing of presuppositions by both researchers and subjects (Heavey, Hurlburt, & Lefforge, 2010; Hurlburt & Schwitzgebel, 2007, 2011a; Hurlburt, 2009, 2011a; Hurlburt & Heavey, 2006) is critical to the faithful apprehension of inner experience.

Fifth, the iterative nature of DES (Hurlburt, 2009, 2011a; Hurlburt & Akhter, 2006; Hurlburt & Heavey, 2006) helps subjects acquire the skills of apprehending their experience and allows subjects and researchers mutually to refine their ability to communicate clearly about experiences. Experience, including emotion experience, is ephemeral by nature and most people have spent little effort paying close attention to it, communicating clearly about it, or refining the vocabulary necessary to convey the experience. Acquiring the skill of apprehending and communicating about feelings in fidelity sufficient for science can perhaps be accomplished only via an iterative procedure.

Taken together, the third, fourth, and fifth of these characteristics contribute to the researcher's ability both to allow the emergence of new, unexpected phenomena and to recognize phenomena that are well known and fully expected. They allow exploring naturally-occurring inner experience, whatever that experience might be. DES investigators do *not* set out to seek

emotion experience; they set out to apprehend *pristine experience*, and if that turns out to include emotion experience, then they describe emotion experience. DES investigators do *not* contrive situations and place subjects in them; subjects are asked about their naturally occurring experience. DES investigators do *not* select in advance the features of experience that they would explore; they let the randomly occurring beeps select those features.

DES asks a subject one question in many different forms ("What, if anything, was ongoing in your experience at the moment of the beep?") and gives substantial iterative training and practice in answering that question in high fidelity and substantial completeness (but not absolute completeness; Hurlburt & Schwitzgebel, 2011b). The interview process tries to help both subject and investigator bracket presuppositions about what will be found in inner experience. To bracket presuppositions is *not* to adopt the seventeenth century philosophy of science that Bacon (1620/2000) or Descartes (1641/1984) advocated; the inadequacy of that philosophy was demonstrated by Popper (1935/1959, Kuhn (1962/1970), and modern memory researchers such as Neisser (1967), Roediger (1980), and Sutton (1998). Bracketing presuppositions is *aspirational* and *practical*: it recognizes that the science of inner experience is in its infancy as evidenced by the disharmony of current theories (for an extended discussion see Hurlburt & Schwitzgebel, 2011a).

Here are some examples of the bracketing of presuppositions. The DES question asks what, *if anything*, is ongoing. The *if anything* phrase does *not* imply that the investigator believes that James (1890) was mistaken when he implied that the stream of consciousness was always ongoing; it also does not imply that James was right. The *if anything* phrase brackets James's view, leaving space for both possibilities: If there are no gaps in experience, then DES should find none, but if there are gaps, then DES should find gaps. In a nascent science, the *if*

anything is crucially important; without an honestly asked *if anything*, the investigator is likely *never* to discover gaps even if they exist because both subject and investigator likely have (following James) presuppositions to the contrary.

The DES investigator does *not* specifically initiate an inquiry about imagery, as a follower of Damasio's (1994) view might suggest. If imagery is present in pristine experience, then it should emerge from random sample thereof. The DES investigator does *not* specifically initiate a particular focus on the world, as Sartre (1962) or Lambie and Marcel (2002) might suggest, but does inquire about the details of the world-presentations that are a manifest part of pristine at-the-moment-of-the-beep experience. The object is to maintain a level playing field with respect to bodily sensations (and all other aspects or potential aspects of experience; Hurlburt, 2011a; Hurlburt & Schwitzgebel, 2011a).

The Phenomena of Feeling

Thus a feeling as DES uses the term is a phenomenon of pristine experience—it is an ongoing feature of experience before it is disturbed by the beep. DES asks subjects, "What, if anything, was ongoing in your experience at the moment of the beep?" Sometimes those beeped experiences include feelings; this paper discusses some of the characteristics of those feelings. These observations are based on our DES work with hundreds of individuals over decades. As such we do not have a specifiable sample with specifiable characteristics. Most commonly our subjects have been adults in their 20s or 30s, but we have observed the inner experience of subjects ranging from early adolescence to late life. Within each subject our sampling has (almost) always been random. The examples presented are selected to show the range of phenomenon we have observed. We are not in a position at this point to comment on the relative frequency of these phenomena beyond saying that we do not believe any of them are rare. In

other words, the examples are intended to reveal the typical phenomenon of feelings that we have observed among our subjects.

1. Feelings Occur

Feelings do occur in specific moments of experience. When interrupted by a random beep, people often do apprehend themselves as directly experiencing ongoing feelings. Although this may seem like a trivial observation, it is a necessary starting point for any discussion of feelings. Here are four examples of feelings as they occurred during specific moments of experience:

> *Example 1*: Andre was chatting with a friend online. He felt annoyed with his friend and wanted the conversation to stop. This annoyance was directly present in his experience (as immediately present as, for example, the content of the conversation), and manifested itself primarily as a diffuse tightness throughout his body (trunk, arms, legs, head) somewhat more concentrated in his chest.
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> *Example 2*: Barbara was reading a battle scene in a book about the Civil War. As she read, she innerly saw a battlefield with dead confederate soldiers lying on the ground; simultaneously she felt sad. The sadness was a "mental" phenomenon; that is, the sadness was unambiguously directly part of her experience at the moment of the beep (as immediately present as the innerly seen battlefield) but was felt "in her mind"—there was no bodily manifestation.
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> *Example 3*: Cecily was watching the show *Planet Earth*, which was discussing how lions can feed for one week on an elephant. She was feeling amazed by this information. The amazement was central in her awareness and seemed to exist in her head as a physical location (that is, not in her mind as in Example 2). Despite its centrality in her

experience, she could provide no additional details of how the amazement presented itself.

Example 4: David was sitting in his genetics class, which was being led by a teaching assistant. David was feeling annoyed that the professor was not himself leading the class; the annoyance was primarily conveyed by a sharp stabbing sensation in the right side of his heart. David was also feeling a diffuse sense of uneasiness, a slight tingling or electricity throughout his body. The annoyance and the uneasiness were two separate feelings, not two aspects of the same feeling.

These examples demonstrate the feelings are directly apprehended, ongoing-in-awareness features of experience. These feelings were not inferred; they were directly experienced. They were not experienced as being "assembled" after the fact from bodily or mental bits; they were already ongoingly experienced at the moment the beep sounded. For example, Barbara's sadness was co-existent with the inner seeing of the battlefield; it was *not* that, after the beep, Barbara surveyed herself with a process that if put into words would be something like, "Ah! That is a very sad picture. I *must be* feeling sad." These experiences were not judged after the fact to be of emotion; the experience immediately presented itself *as a feeling*. Similarly, Andre's annoyance appeared to him directly; it was *not* that Andre experienced tightness in his body and then experienced himself as judging that tightness to be annoyance. Instead, Andre irreducibly felt annoyed, which manifested itself (at least in part) by bodily tightness.

We note that this paper focuses entirely on experience. Therefore, when, for example, we write that David felt something "in the right side of his heart," we mean "in his heart" as an experiential, not a physical, description. That is, it would be perfectly satisfactory, if somewhat pedantic, to have written, "in the right-hand-side of the region of his chest where he takes his

physical heart to be located." We take no position on whether the physical heart is or is not involved in the experience. When we write that Andre did not judge himself to be annoyed, we mean that there was no experience of judgment intercalated between the body tightness and the feeling annoyed. We take no position on how or if there is an emotional process that underlies this experience—no position on whether the emotion comes first and then the tightness, or the other way around—no position on whether there is, behind the scenes, a judgment involved in the recognition of emotion. Andre's experience is annoyance, directly apprehended. Where that annoyance came from or how it was constructed is not our interest here.

2. Frequently Feelings Do Not Occur

Much of the time people do not have feelings. The DES method explores experience in substantial detail, perhaps as much detail as is currently possible, and we are confident that on many and perhaps most occasions people do not have feelings as directly apprehended features of their ongoing pristine experience. Here are four examples of moments of experience that do not include feelings:

> *Example 5*: Edward was walking to class. He was wondering what topics the instructor would be covering and simultaneously innerly seeing his instructor standing in front of the class. There were no specific words or topics in Edward's awareness, just a general wondering. This was a matter-of-fact or neutral moment without any feeling present—no anxiety about the topics, no excitement, no anticipation, and so on.
>
> *Example 6*: Francine was working on an essay about sibling rivalry. She had paused her typing and was thinking about how sibling rivalry affects most of the world. This thinking involved the idea that many important events in the world stem from the

competition that grows out of sibling rivalry, but there were no specific words or images. This thinking was apprehended as a cognitive process without any feelings present.

Example 7: Georgia was drinking a glass of water, noticing the cold smoothness of the water in her mouth. She was also hearing her two dogs breathe heavily and was hearing her sister yell at the dogs. She was aware of the sensation of the water and the sounds without any thoughts or feelings.

Example 8: Harold was watching TV. He was fully engaged in what was happening in the show without any thoughts or feelings in his experience.

When we write that "no feelings are present," we mean that when we and our subjects carefully examine the experience that directly presented itself at the specific moment, we did not discover feelings. It is possible that on (some of) such occasions feelings were present at a very low level that was not apprehended by the subjects. That is, "no feelings are present" should be understood to mean, "no feelings were directly apprehended by a process that was prepared to apprehend them." (See Hurlburt & Schwitzgebel, 2011b).

In the *What Feelings are Not* section below we will provide additional examples of moments that do not involve feelings.

3. Feelings Range From Distinct to Vague

Examples 1-4 were instances where feelings were clear and distinct experiential presences. By contrast, examples 5-8 were instances where feelings did not exist (or, as we saw, were too "dim" or "indistinct" to be apprehended). In between is a wide range in the distinctiveness or clarity of feelings. Here is an example where feeling seems to be close to being clear and distinct, but not as clear and distinct as in examples 1-4:

Example 9: Ingrid was in her room thinking about what material she should use in her school project. She was pretty sure she was feeling mildly agitated/frustrated about not having what she needed for her project and pretty sure the feeling was physically in her body. She couldn't describe it in any more detail and was not certain that the feeling was actually present to her at the moment of the beep. That is, Ingrid was certain she *was* mildly agitated/frustrated at that moment, but she was only *pretty sure* (not *certain*) that she *directly felt* that agitation/frustration at the exact moment of the beep.

Here is another sample where the discrimination between nonexistent and somehow present is relatively difficult to make with confidence:

Example 10: Jeanine was reading *Romeo and Juliet* and at the moment of the beep was "probably" feeling a vague longing for a passionate relationship like Juliet's. This feeling, if it existed, was difficult for her to describe though it seemed to be related to desire and was both mildly positive and negative at the same time. However, Jeanine was not sure that she actually felt this longing at the moment of the beep. Perhaps she had explicitly felt it a bit earlier but not now; perhaps the longing tinged the way she was reading but was not itself directly experienced.

Note that the distinction we are making here is about the difficulty that subjects sometimes have in determining the existence or nonexistence of a feeling, *not* about the difficulty subjects have in *describing* the feeling. For example, Cecily (example 3 above) was feeling amazed while watching *Planet Earth*. Cecily had no difficulty in apprehending her at-the-moment-of-the-beep amazement—she was entirely confident that amazement was central in her experience. But she had substantial difficulty describing any details of how the amazement presented itself.

4. Some Feelings Include Bodily Sensations

Feelings often involve sensations in the body. Sometimes these sensations are clear, sometimes nebulous (see Characteristic 6 below). The bodily sensations involved in feelings generally seem to be part of the feeling, or the feeling itself, rather than a separable accompaniment to the feeling. Often subjects can translate the sensations into words that allow them to convey the central aspects of the sensation(s), but sometimes they cannot, stating, for example, that there seems to be more to the experience of the feeling but they cannot put it into words. Examples 1 and 4 above (also 3, but see Characteristic 4a below) are examples of feelings that included bodily sensations; here are a few more:

> *Example 11:* Kyle was hanging out with friends in his living room. One of his friends was telling about a movie he had seen. Kyle was feeling relaxed and happy which he experienced as a physical lightness diffusely throughout his torso. The physical lightness was in his torso but not in his legs or arms, but he was uncertain about exactly where in his torso the lightness began or ended.
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> *Example 12:* Laura was watching the finale of the TV show *I Love Money*. She was anxious, which she primarily experienced as tightness on the sides of her stomach as though her stomach were being compressed internally. This location was experienced to be very specific—right *here* but not *there* (whether this location corresponds to the actual stomach is not our experiential concern). There was also a diffuse sense of tension in her body that seemed to be part of the same feeling.
>
> *Example 13:* Melanie was thinking about seeing her boyfriend when he returned from his trip. She was feeling excited, which she experienced as a bubbly/tingly feeling in her torso and arms.

Example 14: Nigel was feeling uneasy, which he experienced as a diffuse sensation of tension in the vicinity of his heart.

Example 15: Olivia was writing an email to her best friend, who was moving out of town. Olivia felt sad, which she experienced as a dull, aching feeling around her heart and in her stomach. The ache was a constant, dull sensation that, while focused in her heart and stomach, radiated out across her body.

Example 16: Paige was talking on the telephone with her sister, who was asking if Paige had finished her tax return, but at the beep Paige wasn't hearing what her sister was saying. Instead she was feeling angry and tense; she had a physical sense of words being caught in the back of her throat; she had a sensation of restraining herself from literally biting her tongue; and she was seeing a burnt-orangey-redness that was both a visual and heat experience that seemed to fill her whole head.

As these examples make clear, feelings often are accompanied by bodily sensations or other experiential details. These bodily experiences are highly variable in both nature and intensity. They often include sensations that the subject knows are impossible. For example, Laura knows that her stomach is not literally being compressed; Melanie knows there is not really anything "bubbly" occurring in her torso and arms; Paige knows there is really no orangey-redness or heat in her head. Despite the fact that subjects know these experiences do not correspond to physical events in their bodies, these experiences are vividly bodily.

4a. Some Feeling Bodily Sensations Are in the Head

As Characteristic 4 showed, feelings often include sensations in the body. Now we observe that the bodily region where those sensations occur can be the head. Example 3 (Cecily's amazement while watching *Planet Earth* seemed to exist in her head as a physical

location) and Example 16 (Paige's burnt-orangey-redness seemed to fill her physical head). Here is another example:

> *Example 17:* Quentin's computer was malfunctioning, and he was angry. His anger was experienced as being physically in his head, but it had no further experiential details. By "physically in his head" he meant that this was not experienced as merely a "mental" phenomenon; instead, he was experiencing something physically ongoing in his head.

We call this phenomenon "4a" to emphasize that the head is a region of the body; like phenomenon 4, emotion is experienced as a physical process somewhere in the body (in this case, in the cranium). We find it desirable to split 4a from 4 because when people describe emotion, they use the phrase "in my head" in two distinctly different ways. Phenomenon 4a emphasizes that some people use "in my head" to refer to the experience of physical sensations located in the head. We will see in phenomenon 5 that some people use "in my head" to refer to a feeling that does *not* have any physical experience.

5. Some Feelings Do Not Include Bodily Sensations

Often people clearly experience a feeling but there are no sensations or other bodily manifestations of that feeling. The feeling is simply present and not accompanied by physical phenomena. We've encountered one such feeling: in Example 2, Barbara was feeling sad while reading about a Civil War battle. The sadness was unambiguously directly present but had no bodily manifestation. Here are other examples:

> *Example 18*: Robert was looking at a *Newsweek* magazine picture about victims of the Haiti earthquake. One victim was helping another injured victim walk away from a demolished building. Robert was feeling compassion for that particular victim and generally for victims of the earthquake. This was a manifestly ongoing feeling directly

experienced at the moment of the beep, but it did not involve any sensations. Robert said the feeling was "in his head," but he did *not* mean that he sensed a physical manifestation of the compassion inside his skull (as in 4a above). Instead, he meant that the compassion was directly experienced but without bodily manifestation of any kind.

Example 19: Sandy was thinking about her boyfriend's upcoming visit and was feeling happy/excited at the prospect of seeing him. There was no question that this happy/excited feeling was ongoing in her experience at the moment of the beep, but it had no physical or bodily referent.

In each of these examples subjects experience a feeling but deny any bodily sensation or other experiential aspects of the feeling. Similar to the discussion in *Characteristic 2* above, when we write that subjects "deny bodily sensations," we mean that when we and our subjects carefully examine the experience that directly presented itself at the specific moment, we did not discover bodily sensations. It is possible that on such occasions sensations were present at a very low level that was not apprehended by the subjects. That is, "no sensations are present" should be understood to mean, "no sensations were directly apprehended by a process that was prepared to apprehend them" (Hurlburt & Schwitzgebel, 2011b). With that clarification, we observe that the experience of feelings does not require the experience of physical sensations.

As best our careful examination can reveal, there is no reason to believe that feelings *without* bodily manifestations are any less vivid, any less real than feelings *with* bodily manifestations. For example, Sandy's not-bodily excitement about her boyfriend's visit was no less vivid, powerful, or salient than Melanie's excitement about her boyfriend's visit (example 13 above), which included a tingly feeling in her body.

6. The Bodily Sensations of Feelings Range from Vague To Hyper-Clear

We have seen many examples of feelings that included definite physical experiential presences, sometimes in the physical body (Examples 1, 4, 9, 11, 12, 13, 14, 15) and sometimes in the physical head (Examples 3, 6, 17). We have also seen examples where feelings did not have physical presences (Examples 2, 18, 19). In between and beyond is a wide range of clarity in the bodily presence of feelings. Here are some examples where the bodily manifestations of feelings are very diffuse and nonspecific

> *Example 20:* Tim was talking to his friend about the beeper and how it hadn't gone off in a while. Tim was asking his friend, "What happens if I don't get six beeps in three hours?" and simultaneously feeling annoyed. Tim understood this annoyance to be somehow experienced in his body, but specifically where or how in his body was not clear to him.

Here, Tim clearly apprehended himself as feeling annoyed (that is, this is *not* an instance of an indistinct feeling as described in Characteristic 3). It is the *bodily* presence or lack thereof that is indistinct or unclear either in location or nature. Thus this example is somewhere between not-bodily and clearly bodily.

At other times, by contrast, there are acutely specific bodily sensations associated with feelings:

> *Example 21*: Uma was doing her makeup and feeling excited about the upcoming trip to Arizona to meet her friend's sister. This excitement manifested itself as a bubbliness in a spherical region of her stomach slightly larger than a tennis ball; this region was experienced to be spinning counter-clockwise.

Here, Uma is extremely specific about the detail and experienced features of the bodily manifestation of the feeling. It is not merely in her stomach, it is in a region that has a

specifically exact size and shape (spherical slightly larger than a tennis ball) and that has specifically exact characteristic (spinning counter-clockwise).

This level of specificity of the bodily manifestation of feeling in Example 21 is greater than is typical, so we call it hyper-clear. Thus there is a range of physical manifestations of feelings, ranging from non-physical to vaguely physical to clearly physical to hyper-clearly physical.

7. Sometimes People Experience Multiple Feelings

Sometimes subjects experience two or more feelings at the same time. Sometimes these feelings are complementary, at other times they are disparate or even contradictory. These feelings can vary in intensity, with, for example, one being strong and another mild. Sometimes one of the feelings will have an accompanying sensation or bodily experience whereas the other does not. Sometimes both feelings occupy the same bodily region but sometimes occupy different bodily regions; sometimes neither feeling is experienced as bodily. The multiple feelings can exist anywhere along the continuum of distinctness (phenomenon 3), and anywhere along the continuum of bodily clarity (phenomenon 6). We have seen one example of multiple feelings: in Example 4, David was annoyed (a sharp stabbing feeling in his heart) and was also feeling a diffuse sense of uneasiness, a slight tingling or electricity throughout his body.

> *Example 22*: Virgil was in class where the professor had made a joke that no one had laughed at. At the moment of the beep Virgil felt somewhat sorry for the professor but also amused that no one had laughed. The amusement had a slight physical presence (he felt himself smiling), but there were no physical sensations accompanying his feeling sorry.

Example 23: Wanda was on the phone with her mother who had asked her if she had finished her scrapbooking project; she had responded "No." Wanda was feeling a mix of mild positive anticipation of doing more scrapbooking and also feeling the burden of having a lot more to do. The feeling of burden was associated with heaviness in her body. There were no sensations associated with her feeling of anticipation.

8. Feelings Are Sometimes Blended or Mixed

Characteristic 7 showed that subjects sometimes experience two or more separate feelings simultaneously. Now we observe that on other occasions, subjects experience one feeling that has several different aspects or emotional ingredients. We call these experiences blended feelings.

Example 24: Xaria had gotten an exam back and received a good grade on it. She was feeling shocked/excited/happy. This seemed to be one coherent but complex feeling that included as aspects feeling shocked, feeling excited, and feeling happy. That is, Xaria was *not* feeling shocked and at the same time feeling excited and at the same time feeling happy (that would have been an example of the multiple feelings of Characteristic 7). Instead, Xaria was feeling one complex feeling, which viewed from one perspective could be called shocked, viewed from another perspective could be called excited, and viewed from another perspective could be called happy.

Example 25: Yolanda had had an upsetting telephone conversation with her ex-boyfriend. At the moment of the beep she was thinking that she couldn't believe she was upset about the call and was simultaneously feeling angry and sad—more angry than sad. This anger/sadness was experienced to be one messy feeling; that is, Yolanda was *not* angry and, at the same time, a little bit sad. Instead, Yolanda experienced herself as feeling one

emotion, which was a combination of predominantly anger but with a little sadness. After the beep, she realized that at the moment she had her fists clenched, her heart was pounding, and she was crying, but those physical accompaniments were not in her experience at the moment of the beep.

The distinction between Characteristics 7 and 8 is metaphorically like the distinction between Neapolitan ice cream (where the chocolate, vanilla, and strawberry exist separately) and a mush where chocolate, vanilla, and strawberry ice creams are mixed together.

9. Feelings Are Immediately Apprehended as Feelings

People feel their feelings. Whatever "feel" means (and we have seen there is disparate phenomenology), for most people most of the time there is an immediate recognition of the existence of a feeling if feeling there is (see Characteristic 2). That is, it is *not* the case that people typically experience themselves as evaluating themselves so that they can "figure out" their feelings—the feelings simply appear.

Sometimes there is difficulty determining whether or not a feeling is ongoing (as in Characteristic 3); sometimes there is difficulty determining whether or not a feeling has a physical manifestation (as in Characteristic 5); sometimes there is difficulty determining whether several different feelings exist simultaneously (as in Characteristic 7) or are blended together (as in Characteristic 8). But despite those occasional difficulties, in all the examples we have cited there has been little question that the annoyance, sadness, amazement, frustration, longing, and so on that we have described are immediately felt *feelings*.

However, there are individuals who characteristically do not or cannot make clearly this distinction between feeling and other experiences. For example, the women with bulimia nervosa described by Jones-Forrester (2009; Hurlburt & Jones-Forrester, 2011) had frequent

experiences where feelings and thoughts were not or could not be distinguished, where the women seemed to "think their feelings" or "feel their thoughts." Jones-Forrester referred to these experiences as thought/feelings. Here are two examples:

> *Example 26*: Zabby had just heard that her manager had been fired and was angry/wondering why this had happened. This angry/wondering was apprehended as an indistinguishable cloudy thought/feeling in the front her head.

Zabby could not distinguish between feeling angry and the cognitive wondering. It was *not* that Zabby was angrily wondering; it was *not* that Zabby was angry and also was wondering. It was *not* that Zabby had one experience with two aspects—the anger and the wondering. Instead, Zabby could not distinguish between a cognitive wondering and an affective being angry; wondering and being angry were the same thing and it did not make experiential sense to apply the usual feeling/thinking distinction to it.

> *Example 27*: Anne's phone kept ringing while she was trying to study. At the moment of the beep she was annoyed, which she apprehended as innerly seeing her phone flying across the floor as if she had thrown it with her right hand. She innerly saw the phone as if viewed through her own eyes; and she simultaneously had some imaginary kinesthetic sense of throwing it.

For Anne, the inner seeing/imaginary kinesthetic sense of throwing the phone *was* the feeling of annoyance. Anne's annoyance was *not* like those described earlier in this paper. That is, Anne did *not* feel annoyance (in her body, in her head, or neither) and simultaneously innerly see herself throw the phone. And yet is not right to say she did not experience annoyance at all—her way of experiencing annoyance was imaginarily throwing the phone.

We think it likely that if the experience of individuals in groupings other than bulimia were as carefully studied as Hurlburt and Jones-Forrester have studied women with bulimia, that there may well be other variants of emotion experience. We don't know what those are, but we explicitly leave space for them.

What Feelings Are Not

An exploration of a phenomenon must include some discussion of what is *not* that phenomenon, to which we now turn. Note that we number these beginning with *N* to indicate that these are *n*ot phenomena of feelings.

N1. Feelings Are Not Sense, Sensitivity, or Empathy

The word "feelings" is defined in a variety of ways, of which we use only one. For us, feeling means the direct experience of emotion. We do *not* use feeling to mean physical sensation, as in "I am feeling the rough surface of the sandpaper." We do *not* use feeling to mean personal sensitivity, as in "the remark hurt her feelings." We do *not* use feeling to mean sense or presentiment, as in "I have a feeling that you will win the prize." We do *not* use feeling to mean empathy, as in "Have you no feeling for the hurricane victims?"

N2. Feelings Are Not Thoughts, Valences, or Judgments

As we saw in Characteristic 9, people usually immediately recognize feelings as feelings and don't confuse them with other phenomena. In particular, people usually distinguish clearly between feelings and thoughts. For example, in Example 2, Barbara was *feeling* sad as she read about the Civil War battle—she was entirely confident that she was not *thinking* something that, if expressed verbally, would be *Oh! How sad!* That is, the sadness immediately and unambiguously presented itself to Barbara as a feeling, not as a thought or a feature of a thought.

Some thoughts or other experiences are said to be "valenced," but that does not make them feelings. For example, it is possible to think "He's such a jerk!" and to note that the thought has an angry valence *without* feeling angry.

We observed above (Characteristic 4) that some feelings involve bodily sensations; now we observe that the bodily sensations are not themselves the feeling. For example, in Example 4, David was feeling annoyed, which involved a sharp stabbing sensation in his heart; but on some other occasion David might experience what seems to be the same heart stabbing (perhaps as the result of a physical ailment) *without* its having emotional significance.

There are theories of emotion that hold that emotion is the result of judgment or appraisal. We do not wish to comment on the adequacy of such theories, but we do observe that there is very rarely if ever the direct *experience* of that judgment or appraisal. That is, the feeling immediately presents itself as a feeling, not as an appraisal and *then* as a feeling.

N3. Feeling Is Not Emotion

The science of emotion generally considers feeling to be one aspect of emotion, and recognizes that it is possible for emotion to occur with or without the feeling aspect (e.g., Lambie & Marcel, 2002; Scherer, 2005; Winkielman & Berridge, 2004; Winkielman, Berridge & Wilbarger, 2005). We agree. Our discussion of feeling has limited itself to describing phenomena that are directly apprehended, and has not discussed presumed emotion processes.

N4. Feeling Is Not Expression

The experience of emotion (feeling) is not the same thing as the expression of emotion. For example, it is quite possible to act angrily without simultaneously feeling anger:

Example 28: Barry screeched his chair back, jerked to his feet while nearly screaming "You fucking don't know what the fuck you're talking about!", yanked open the door and

slammed it behind him. The beep occurred between the scream and the slam. Barry experienced himself as simply yelling at his idiot colleagues and *not* experiencing anger or any other feeling.

N5. Sometimes Emotions Are Importantly Ongoing But Are Neither Understood to be Ongoing Nor Felt

In Example 28, even when Barry was asked retrospectively about this door-slamming incident, and even though Barry was apparently motivated to be candid, he denied having experienced any anger toward his colleagues either during this incident or at any other time. His colleagues were idiots (in his view) and he (justifiably) yelled at them, with no intervening experience of anger. Even when his anger-like characteristics (raised voice, stalking out, door slamming) were pointed out to him, he denied feeling or being angry. It was as if anger did not exist for him.

N6. Sometimes Emotions Are Understood To Be Ongoing But Cannot Be Felt

In example 28, one could say that Barry was blind to emotion in all its aspects. The next two examples are of individuals who did not feel emotion at the moment even though they could recognize the existence of emotion process. The first example is from "RD," a 13 year old male described in Hurlburt (2011a) following Akhter (2007):

> Example 29: RD was saying to himself in his head, in a pissed off voice, "Why did he kick me in my sore knee?" All of his awareness was focused on this thought. RD's inner speech was angry and rapid yet he was not feeling pissed off. Immediately after the beep, RD recognized that his voice sounded pissed off, and he acknowledged to himself that his pissed-off tone of voice reflected that somehow he *was* pissed off. However, at the moment of the beep RD was not experiencing being pissed off. (Hurlburt, 2011a, p. 128)

Like Barry, RD did not *feel* angry even though the emotion of anger was importantly ongoing. However, *unlike* Barry, RD could recognize his anger, could accept that his angry tone of inner speech implied that he was angry. Even when RD recognized his angry tone and accepted the existence of his own anger, he still did not *feel* anger. He recognized his own anger in the same third-person way as he would recognize the anger in others—by observing the characteristics of voice tone.

The second example is from "AV," an 11 year old female participant in Akhter (2007):

> Example 30: AV had been watching TV, an episode where one of AV's favorite TV show characters died. AV had turned off the TV, gone into her room, turned off the lights, and lay down on her bed. She stared at the ceiling while repeating aloud to herself, "I'm sad, I'm sad, I'm sad, I'm sad…" At the moment of the beep, AV was saying the final, "I'm sad" in the chain. Remarkably, even though AV was in the act of saying she is sad, and even though her voice sounded sad (by her own report), she was not actually feeling sad at that moment. (Hurlburt, in 2011a, p. 126)

AV was apparently somehow "figuring out" or "concluding" that she is sad, even though she did not directly feel sad. RD (Example 29) is angry and AV (Example 30) is sad, but neither feels their emotion. However, each of them has the third-person-like ability to recognize the ingredients of emotion in themselves, distinguishing them from Barry (Example 28) who apparently cannot recognize anger even in obvious situations.

N7. Sometimes Emotion Is Ongoing but Not Felt, but Could Be Felt If Attended To

> *Example 31*: Carl was engrossed in his biology reading about mitosis, and while reading was innerly seeing a colorful schematic of cell division. When interrupted by the beep, he took stock of his situation and felt a surge of anger overtake him, aimed at his

roommate Eddie. On reflection, it seemed reasonable to suppose that there had been a physiological anger process ongoing in Carl's body, but he had not noticed it. It wasn't until he "took stock of" himself after the beep that he felt and recognized himself to be feeling angry.

Thus (a) Barry, RD, and Carl are each angry—there is a significant emotion process (whatever that is) ongoing in each of them at the time of the beep. (b) Furthermore, Barry, RD, and Carl were *not* feeling angry at the moment of the beep. However, the similarity ends there. Barry apparently cannot recognize anger even when he is oriented toward it; RD can recognize anger but even when he recognizes it he doesn't feel it; Carl easily recognizes anger and when his attention turns to it he feels angry.

N8. Sometimes Feelings Are Ongoing but Not Felt

Our definition of "feeling" is the direct experience of emotion, so a feeling that is not felt might seem absurd. Let's consider an example:

> *Example 32:* Dalia was engrossed in her calculus homework, saying to herself in inner speech "*dy*/*dx*" as she wrote that expression. That inner speaking and the seeing of the homework page was all that occupied her experience at the moment of the beep. As the beep sounded, it "brought back" into Dalia's awareness her anger at her friend Jennifer, who had told a secret that had put Dalia in an awkward situation. Dalia had been angry at Jennifer all day and was in fact angry at her now, but at the moment of the beep Dalia was not experiencing anger—at that moment she was absorbed in her calculus homework and the inner saying of "*dy*/*dx*."

Thus, like Carl, (a) Dalia is angry—there is a significant emotion process ongoing in Dalia at the time of the beep. (b) Also like Carl, Dalia was *not* feeling angry at the moment of the beep—she

was absorbed in her homework. Therefore Dalia was *not* having a feeling at the moment of the beep. However, *unlike* Carl, when interrupted by the beep, Dalia surveys herself and discovers that the *feeling* of anger (not merely the physiology of anger) had apparently been ongoing at the moment of the beep but not attended to: Dalia had felt anger a few seconds before the beep (for that matter, throughout much of the day), and seemed to experience *the same* anger immediately in response to the beep's interruption—the same sense of heat around the heart, *the same* mild choking sensation in her throat, *the same* sense of holding back nasty words that she wanted to scream at Jennifer. That is, Carl's angry feeling seems to begin when he is interrupted by the beep, but it does *not* seem to do Dalia's experience justice to say that she *begins* to feel angry when interrupted by the beep; it seems much more in keeping with Dalia's experience to say that after the beep's interruption she *continues the angry feeling, and* that therefore the feeling of anger must have been ongoing outside of awareness at the moment of the beep.

Hurlburt (Hurlburt & Schwitzgebel, 2007) has used the expression "feeling-fact-of-body" to refer to such already formed feelings that are apparently ongoing but that are not actually felt at the moment of the beep. To account for experiential distinctions as between Carl and Dalia, Hurlburt has speculated that to feel requires some sort of organization/processing/structure of feeling:

> I don't know exactly what this organization/processing/structure is, but consider an analogy from vision: At one moment, you are looking at a sea of Lakers fans and you cannot spot Jack Nicholson. Then you spot him. Then the game grabs your attention and Nicholson is no longer in your awareness at all. When you look back toward Nicholson a second time, you will spot him much more easily. Some visual organization/processing/structure persisted while Nicholson was out of your attention and

> experience. So feeling fact of body apparently refers to both an actually ongoing physiological process and an apparently ongoing organizational process, so that when the beep sounds, the immediately-following-the-beep recognition is that the emotion has been there all along and that the experience is now returning to an actually ongoing emotional process. (Hurlburt, in Hurlburt & Schwitzgebel, 2007, p. 134)

N9. Sometimes Emotions Are Ongoing but (apparently) Cannot Be Felt

In Example 28 we described Barry's screeching his chair back, shouting at his colleagues, and storming out, and yet (honestly, as we understood it) saying he did not feel anger. We were making the point there (N4) that sometimes emotion is ongoing as a process without being experienced (even when behavior and expression makes it evident that the emotion process is strong). Now we make the observation that for some people, apparently, emotion *cannot* be felt. In the DES interview discussing the Example-28 beep, Barry became visibly angry as we judged by his expression and behavior. We asked him whether he was experiencing anger or any other emotion right then, in the room with us (a departure from standard DES procedure); Barry denied the experience of anger or any other emotion.

As best we could judge, in our interviews Barry was motivated to be forthcoming about his experience, and yet at this beep and others, he denied feeling. Thus we concluded that Barry did not feel emotion, and that this was not merely an example of attention or preoccupation elsewhere—apparently he *could not* feel. Barry's anger plays out *entirely outside* of experience. We emphasize that Barry here is not merely verbally denying the experience of anger; he does not experience anger, period. (As an aside, we note that Barry was judged by others (e.g., his employer, his wife) to have major anger management problems.)

Emergent Organizing Principle: Feeling is a Skill

Descriptions of particular observations, no matter their fidelity, are not themselves useful to science: it is the organization of those observations that has utility. The existence of each of our characteristics is evidence of such organization. For example, when we have said "5. Some Feelings Do Not Include Bodily Sensations," we have implicitly or explicitly created a categorization of experience: some beeped experiences do involve bodily sensations, some do not.

We have been led, over the course of our investigations, to an organizing principle that cuts across our categories: *feeling seems to be a skill that some perform well whereas others do not perform well or at all*. It seems that feelings, as chunks of pristine experience, must be manufactured out of disparate bits of physical, psychological, social and so on environments. For example, feeling sad is the result of some kind of organizing process that somehow integrates this pressure in my chest, that moistness in my eyes, this heaviness in my body, this monotone voice of those around me, that constriction of the world, and many other things, but ignores this itch in my foot, that tension in my shoulders, this engorgement of my genitals, that laughter in the vicinity, and many others. We do not presume to know how this integration/exclusion comes about; we do not presume to know which ingredients are important to integrate or exclude; we do not presume to know whether the same ingredients are important across people; we merely observe that it seems some people can and do perform this integration/exclusion, whereas some people do not. We do not take this observation to be controversial; for example, Lambie and Marcel held that "there are people who apparently do not experience certain emotions… whose difficulty …appears to lie in their failure to experience the components as an integrated whole" (2002, p. 224). The notion of feeling as a skill resulting from the interaction of diverse, sometimes unspecified processes is also consistent with

constructionist theories of emotion, such as Russell's (2003, 2009) theory of core affect, Barrett's (2005, 2006, 2009) conceptual act model of emotion, and the developmental theory of Stern (1985) and Fonagy's concept of mentalizing (e.g., Fonagy, Gergely, Jurist, & Target, 2000).

Barry, for example, is one who apparently has little or no feeling skill. Emotion processes (physiological, neurological, interpersonal, etc.) run rampant within him but he has no feeling and no recognition of the processes. RD (Example 29) also does not experience anger, but he differs from Barry in that RD apparently can recognize anger (in the tone of his own inner voice, for example), even though he does not feel it. There are apparently *two* distinct skills: recognition of emotion and production of feeling.

Table 1 seeks to organize our observations according to these two skills. Columns 7, 8, and 9 schematize the skill of feeling: Column 7 asks whether the person has the ability to organize the disparate processes into the experience of feeling; Barry, for example (the last row) does not have this ability. Column 8 asks whether the person applies that organization at the particular moment in question. Column 9 asks whether the person actually experiences the emotion—that is, feels.

Insert Table 1 about here

Columns 4, 5, 6 schematize the recognition of emotion. We refer to this recognition as "third-person-like" because it does *not* involve the *feeling* of emotion. RD, for example, recognizes himself as pissed off by the tone of his inner voice, in the same way as he would interpret his friend's real voice as evidence for the friend's being pissed off. Thus row 5 shows

that RD (*Yes*) has the skill of third-person-like recognition of emotion but (*No*) does not have the skill of feeling emotion.

Column 3 in this table indicates whether there is substantial emotion process ongoing at any particular time. By "substantial" we mean more than "little or no" emotion as Hurlburt and Schwitzgebel (2011b) and we above have used "little or no." We acknowledge the imprecision of this reference, but our aim here is a sketch, not a mechanical drawing.

Row 1 of Table 1 schematizes that *feelings occur* (Characteristic 1 above). That is, row 1 schematizes most of the examples (see column 2) in this paper, which of course were presented as examples of feelings. In those examples, we presume (*Yes* in column 3) that there is an ongoing emotion process (whatever that biological/psychological/social process is), that the person has the skills to recognize emotion (*Yes* in columns 4-6), that the person has the skills to experience a correlative feeling (*Yes* in columns 7-8), and actually does so (*Yes* in column 9).

Rows 2 through 6 schematize Characteristic 2 (*frequently feelings do not occur*), as illustrated by the *No*s in column 9. *Feelings do not occur* encompasses two very different situations depending on whether a significant emotional process is assumed to be ongoing (rows 3–6, where column 3 is *Yes*) or not (row 2, where column 3 is *No*).

Row 2 schematizes that *there are no feelings in emotional neutrality*. The four examples we gave in our discussion of Characteristic 2 (5: wondering what topics the instructor would cover; 6: thinking that many important events stem from competition; 7: noticing the coldness of the water; 8: just watching TV) were of situations that seemed affectively neutral, that is, where there is little or no ongoing emotion process (*No* in column 3). Row 2 summarizes that if there is no emotion process (column 3), there is no feeling (column 9).

The first two rows of Table 1 are perhaps not surprising: row 1 illustrates that people sometimes have ongoing emotion processes and they feel them; row 2 illustrates the people sometimes (as in neutral situations) do *not* have (significant) ongoing emotion processes and therefore do *not* feel them. The main purpose of Table 1 is to elaborate the distinctions in rows 3 through 6, where there *is* a significant emotion (column 3 is *Yes*) but no feeling (column 9 is *No*).

The next two rows of Table 1 schematize feeling fact of body (row 3) and emotional inattention (row 4). In both situations, emotion processes exist (*Yes* in column 3), the person has the ability to feel it (*Yes* in column 7; also *Yes* in column 4), but no feeling occurs at that moment (*No* in column 9). The distinction is that in feeling fact of body (row 3), the person has already organized (whatever that means) the emotion sub-processes (whatever they are; *Yes* in column 8) so the feeling is understood to be poised, immediately ready to be felt, even though at the particular moment that poised-ness is not acted upon. By contrast, in emotional inattention (row 4), the person has not performed that organization (*No* in column 8), so when attention is called to the possibility of emotion, a pattern-recognition-like act must occur before the emotion is felt.

The last two rows of Table 1 schematize situations where emotion processes exist (*Yes* in column 3) but the person does not have the ability to feel it (*No* in column 7, and therefore *No* in columns 8, and 9). The distinction is that some people (RD and AV for example, row 5) have the ability to recognize emotion in themselves in a third-person-like way (*Yes* in column 4) and may actually at the moment recognize emotion as ongoing within themselves (*Yes* in columns 5 and 6) even though they do not *feel* that emotion (*No* in column 9). By contrast, other people (Barry for example, row 6) apparently do not have the ability to recognize emotion in themselves (*No* in column 4 and therefore *No* in columns 5 and 6).

The categorizations we have advanced and schematized in Table 1 are what we take to be natural groupings based on our observations, but they should not be thought of as all-or-none constructs. For example, our examples 26 (Zabby was angry/wondering why she had been fired) and 27 (Anne sees her phone fly across the floor) do not fit easily into this schema because they call attention to the fact that the experience of feeling is not really a *Yes* or *No* affair.

Discussion

We have taken seriously the widely accepted view that "an important aspect of reality [is that] people feel something when they experience emotion" (Barrett, Mesquite, Ochsner, Gross, 2007, p. 374), and the implication articulated by Barrett and her colleagues that emotion science is "impoverished" by its failure to investigate emotion experience (generally called feelings) carefully. We have taken a step toward describing everyday feelings. Modern science has long recognized that feeling is an important (but by no means the sole) aspect of emotion, but for a variety of methodological and historical reasons, there has been little scientific effort devoted to feelings, as if feelings were so self-evident as not to require investigation, or as if feelings were so private as to preclude investigation. Our investigations indicate to us that neither view is productive—the science of feeling is neither easy nor impossible.

Our step toward describing feelings has been carefully taken: we developed a method (DES) aimed specifically at describing pristine experience, including the experience of emotion. DES takes seriously the moment-to-moment fluctuations of feelings (Hurlburt, 2011a), the bracketing of presuppositions necessary for even-handed description (Hurlburt & Heavey, 2006; Hurlburt & Schwitzgebel, in 2011a), and the training necessary for careful reporting (which we believe must be iterative; Hurlburt, 2009, 2011a).

On the other hand, our step-toward has substantial limitations, including prominently that the observations are made by just us and our colleagues. It is possible that we are, despite our attempts to the contrary, hypersensitive to some aspects or insensitive to other aspects of feelings. Clearly the phenomena of feelings must be investigated by others unrelated to us.

Despite the limitations, we think this step-toward may have substantial value. If feeling is indeed an important aspect of emotion, as science and we think, then the description of feelings as they occur in pristine experience is a necessary step. We have described features of feelings that have been rarely (if at all) discussed in scientific discourse, for example that feelings are sometimes felt in the physical body, sometimes in the physical head, and sometimes keenly felt but in no part of the body; that there are several ways in which emotion can be ongoing but not felt; that feelings range from vague to hyper-clear; and so on. We believe that the existence of those characteristics require that emotion science create a more differentiated view of feelings than it currently has.

Both scientific and everyday language blurs or obliterates the distinctions we have made. Consider the statement "My heart aches for you" made with forthright candor and genuineness by five different people. Person A refers to a strong physical ache in the chest. Person B refers to a strong physical feeling in the head. Person C refers to a strong feeling that has no physicality. Person D refers to a situation that is recognized to be deeply emotional but is not felt whatsoever. Person E refers to an experience that is more a thought than a feeling. Despite the identical ("My heart aches for you") language and sincerity, the experiential phenomena are dramatically, fundamentally different from each other. These differences are not the result of merely loose or imprecise languagings; instead, it is the *experience* referred to by the five identical sentences that differs. It is *not* the case that one is a true statement while the others are

false—each is true in its own experiential sphere. Furthermore, there is little or no recognition of these dramatic experiential differences. If person D says "My heart aches for you" to person A, A will likely understand that as referring to a strong physical ache in the chest—that is, A will understand the expression of emotion according to *her own* way of feeling, *not* according to D's way. It is *not* the case that D has misrepresented himself; it is that neither has required the other to clarify their experiential referents.

We have said above that we have been led by the data to understand feelings as skills—that some people are better at experiencing feeling than are others, just as some are better tennis players than are others. If that is true, then the ability to feel must be acquired through experience and practice: Roger Federer was not born playing tennis. We are (tentatively) led by our observations to the conjecture that there are three separable skills: *(1) the third-person recognition of emotion in others; (2) the third-person-like recognition of emotion in oneself; and (3) the first-person experience of emotion (feeling).*

C1. The third-person recognition of emotion in others is a skill.

We take it as uncontroversial that a child learns what (for example) "angry" means not from some dictionary but from observing a series of incidents: Mom says "I'm angry at you" while raising her voice, wearing a purple dress, clenching her fist, stirring the chocolate milk, and so on; Dad says "I'm angry at you" while wearing a suit and tie, raising his voice, reading the paper, slapping the chair, and so on. Eventually, over a long series of partially consistent occurrences, the child learns that the raised voice, clenched fist, and slapping are parts of this event called "anger," whereas the purpleness, the chocolate milk, the suit and tie, and the newspaper are not. The acquisition of the third-person-recognition of anger (how it sounds,

looks) is thus an acquired skill, aided by the verbal community that points out *this* as anger, *that* as sadness, and *that other* as alarm, and so on.

C2. The third-person-like recognition of emotion in oneself is a skill.

Our observations suggest that children apply these same third-person emotion-recognition skills to themselves. For example, RD (Example 29) was saying to himself in his head, in a pissed off voice, "Why did he kick me in my sore knee?" RD recognized the pissed-off tone of voice and concluded that he was pissed off. RD did not *feel* pissed off; he apparently *inferred* his pissed-offness in the same third-person way that he would infer that a friend was pissed off—from a consideration of tone of voice.

In this example, RD apparently applies his third-person-like anger recognition skill to his own *inner* voice. We understand this as illustrating an extension of Characteristic N4: the possibility of being angry and expressing anger *even to yourself*, while simultaneously not feeling angry.

C3. The first-person experience of emotion (feeling) is a skill.

At some point in development most people learn to *feel* their emotions, not merely to *evaluate themselves* as having an emotion. For example, we concluded about Example 29 that whereas AV could *recognize* emotion in herself, she did not *feel* it. Hurlburt (2011a) speculated that

> AV is telling herself repeatedly "I'm sad" because she hasn't yet acquired the skillful ability to feel sadness immediately and coordinatedly; she is sad, and she knows herself to be sad, but she does not feel sad. AV says "I'm sad, I'm sad, I'm sad" *not* because she feels sad but because she does *not* feel sad. She says "I'm sad, I'm sad, I'm sad" as a way of building/practicing the organized experience of feelings (which currently exists

> only in a nascent or inchoate way) in the same way that new driver learning to drive a stick shift says about the clutch, "let it out slowly, let it out slowly, let it out slowly"—as a way of focusing attention on an as-yet-nonexistent skill. Sooner or later, AV will learn to *feel* sad, but at this point in her development she does not skillfully, automatically know how to do that….
>
> On this view, feelings are coordinated skills. AV will learn the skill of recognizing sadness and other feelings in herself in roughly the same manner as a toddler learns fine-motor skills: build blocks, stack blocks, knock over blocks, throw blocks, over and over until the fine motor skills are secure. In some number of years, AV will immediately, directly feel sadness, and then she will forget what it was like to be unable to do so, just as she has forgotten what it was like not to be able to stack blocks. (Hurlburt, 2011a, pp. 129-130)

As the result of our observations, we are led to this further conjecture:

C4. The skills are acquired in the order (1) third-person recognition, (2) third-person-like self-recognition, (3) first-person experience (feeling)

It seems that the easiest-to-acquire of these three skills is the third-person recognition of emotion in others: the verbal community assists in that skill acquisition by pointing out that this is what anger sounds like, that is what sadness looks like, and so on. The second easiest-to-acquire skill is the third-person-like recognition of emotion in oneself—all the child has to do is to notice, for example, that his own voice (outer or inner) sometimes has characteristics that are similar to the external voices the child can already recognize as expressing emotion. The most difficult of these skills is the first-person recognition of feeling—disparate physiological,

psychological, social events have to be organized with no instruction manual and no help from outsiders.

All this corresponds with our own observations of phenomena: RD knows what anger is and how to recognize it, but does not feel it; AV knows what sadness is and how to recognize it, but does not feel it; and so on. That view is backwards from the frequent assumption in the literature: that the development of the understanding of the feelings of others comes *after* the development of one's own feelings (e.g., Saarni, Campos, Camras, & Witherington, 2006). Furthermore, developmental psychology for the most part holds that the development feelings takes place early in childhood, perhaps by age 3 (e.g., Lewis, 2008). Our conjecture, by contrast, is that learning the skill of feeling occurs much later. For example, RD was 13 years old; AV (of "I'm sad. I'm sad" Example 29) was 11, and apparently neither of them had yet acquired fluency in the feeling skill.

Some might say that we have mistaken linguistic skill for experiential skill: that RD and AV feel emotion but simply don't know how to put it into words. We do not think that that view corresponds to the facts. RD and AV were quite skilled at speaking about emotion, differentiating pissed off from sad, for example (although that is probably an acquired skill, also; Hurlburt, 2011a). The DES procedure is designed to assist subjects, including young subjects such as RD and AV, to elaborate and differentiate language where necessary (Hurlburt, 2011a).

Some might say that feelings were present to RD and AV, but so faint as to be overlooked by the DES procedure. We accept that when we say that RD and AV did not feel emotion, we mean by "did not occur" that "no feelings were directly apprehended by a process that was prepared to apprehend them" (see Hurlburt & Schwitzgebel, 2011b). Therefore we do not contest that feelings might be exquisitely faintly present for RD and AV. However, we think

it is a large phenomenological mistake to try to differentiate between “no” and “little or no” (Hurlburt & Schwitzgebel, 2011b); this was the mistake that contributed to the demise of classical introspection (Monson & Hurlburt, 1993).

Implications for the Science of Emotion

We have two related misgivings about having advanced this conjecture about the development of feeling. First, we agree with Hurlburt and Akhter (2008), who held that the phenomenological investigator should be firewalled away from the theorist. Second, our discussion of theory—even if we undermine it by calling it a “limited conjecture”—may distract us from the more important point of this paper: that if feelings are important to emotion science (as we and most scientists think), then science would be well served to investigate feelings in ways that submit to the constraints that that endeavor imposes (Hurlburt, 2011a). Feelings are pristine phenomena, and the apprehension of pristine phenomena requires a method that identifies moments with precision and that can discriminate among these phenomena (and perhaps others); most studies of emotion are not able to do either (Hurlburt, 2011a). For one example, a typical study of emotion will show an emotional film clip and then ask participants to use Likert scales to rate their emotional experience on a list of adjectives (for example, the widely used PANAS (Watson, Clark, & Tellegen, 1988) rates adjectives such as *enthusiastic*, *interested*, *scared*, and *afraid* on 5-point Likert-type scales ranging from *very slightly or not at all* to *extremely*). Such ratings cannot possibly discriminate between feelings and emotion ongoing but not felt; between feelings felt in the body, in the head, or neither; and so on. Thus, the characteristics of the phenomena we have described here are simply out of reach of such methods.

Insufficient temporal precision may be a main contributor to Watson's (2000) view that "waking consciousness is experienced as a continuous *stream of affect* … such that people are always experiencing some type of mood" (Watson, 2000, p. 13, italics in original). However, Heavey and Hurlburt (2008), in their random sample of experiences from a stratified random sample of subjects, found that feelings occurred in only 26% of all samples, far different from Watson's "always." We think that the discrepancy cannot be explained by different definitions: Watson's definition of mood ("*all* transient feeling states, not simply … those feelings that accompany specific, discrete emotions such as fear, anger, and joy"; Watson, 2000, p. 5, italics in original) casts the net broadly at emotion experience, but that definition is no broader than our understanding of pristine feelings. We think, instead, that Watson did not adequately identify the moments where feelings might (or might not) be occurring.

The discrepancy between Watson (2000) and Hurlburt and Heavey (2008) is not primarily a theoretical difference; it is a disagreement about data that are basic to emotion science. If emotion science is to advance, and if feelings are important, then science must figure out a way to resolve discrepancies as large as the difference between 26% and 100% (see Hurlburt, 2011a, Ch. 13).

Emotion researchers have sought to improve the temporal precision and the ecological validity of measurements of emotion by using techniques such as the Experience Sampling Method (ESM, Larson & Csikszentmihalyi, 1983) and Ecological Momentary Assessment (EMA, Stone & Shiffman, 1994). For example, Barrett (2004) used palm-top computers to signal participants and then to present them with adjectives such as *peppy*, *happy*, *sad*, *and nervous* to be rated on 6-point Likert-type scales. However, even though the palm-top beep provides substantial temporal specificity, subjects are not adequately trained to recognize or

respond with sufficient temporal precision to make the discriminations we have described, which require split-second precision (Hurlburt, 2011a). For example, distinguishing between a feeling and a feeling-fact-of-body requires distinguishing between experience that was ongoing *before* the beep began and experience that occurs *in response to* the beep. Those experiences may be separated by only a fraction of a second but may be experientially quite different. It requires substantial iterative training (Hurlburt, 2009) for participants to become adequately proficient in that temporal precision. Furthermore, like questionnaires, the adjectives typically provided by ESM and EMA studies of emotion are not designed to access the phenomena that we have described. .

Other researchers have attempted to improve on questionnaires by developing in-depth interview techniques. Hurlburt (2011a, Ch. 7) discussed Stern's (2004) "micro-analytic interview" technique and concluded that its retrospectiveness and nonspecificity of the moment made it an unreliable way to apprehend pristine experience.

Thus our DES studies highlight the characteristics of the basic data of feelings and the methodological hurdles to the apprehension of that data. The DES studies highlight theoretical differences as well. For example, Lambie and Marcel (2002) attempted (among other things) to understand claims by Weinberger (1990) and Derakshan and Eysenck (1999) that sometimes people have powerful anxiety states of which they are unaware. Lambie and Marcel wrote:

> The question that remains…is whether they (a) simply have no (or very few) anxiety experiences, (b) have anxiety experiences but lack second-order awareness of them, or (c) are aware of anxiety experiences but fail to categorize them as anxiety…. As we have argued above, it is implausible that, for someone who is exhibiting emotional body states and behavior, there is "nothing it is like" to be and behave in such a way.

> Given their relatively high levels of behavioral and physiological anxiety, [they] are unlikely to lack first-order anxiety experiences per se. (Lambie & Marcel, 2002, p. 250)

We do not find such a situation "implausible," and indeed we have provided examples of it (including Barry, RD, and AV). We think we have arrived at a conjecture different from that of Lambie and Marcel because we emphasize the attempt to apprehend pristine experience, whereas Lambie and Marcel seem more focused on theoretical issues. For example, Lambie and Marcel distinguish between first-order phenomenology and second-order awareness of that phenomenology:

> First-order phenomenology can be taken by focal attention as the content of second-order awareness. Usually, but not always, … one cannot report that content nor will one have an intentionally recoverable episodic memory of it.… If one is focally attending to a certain content of first-order phenomenology, its phenomenal and informational character is altered according to how analytically or synthetically one is attending to it. (Lambie & Marcel, 2002, p. 235)

We think that this misrepresents the phenomena of feelings, implying (incorrectly in our view) that first there is first-order phenomenology, and *then* there is the second-order awareness of it. Pristine phenomena *present themselves as themselves of themselves*, immediate and complete, not as first-order experiences with subsequent (second-order) awareness. There is no distinction between first-order and second-order necessary or possible with pristine experience.

Sartre (1962) distinguished between nonreflective and reflective consciousness, a distinction somewhat similar to the first-order/second-order distinction; and others have similarly distinguished between prereflective and reflective consciousness (Froese, Gould, & Seth, 2011).

Hurlburt (2011b) has argued that pristine experience is a phenomenon, something that shows itself, and therefore does not fit easily into any of those distinctions.

Thus we conclude that pristine phenomena cannot reliably be discovered by questionnaire methods such as the PANAS, by retrospective interview, by ESM or EMA, or by the armchair introspection that underlies much theory of consciousness (Hurlburt, 2011a; Hurlburt & Schwitzgebel, 2011c). If emotion science truly wishes to understand feelings, it must investigate feelings as they are actually felt. That requires starting with multiple investigations of pristine phenomena and building theories thereon (Hurlburt, 2011a). Science might be well served by combining an interest in pristine experience with more orthodox scientific methods. For example, Heavey and Hurlburt (2008) showed that there were wide individual differences in the frequency of feelings: some subjects experienced (pristine) feelings nearly always, whereas others experienced (pristine) feelings nearly never, and others somewhere in between. A standard psychological study could be conducted to discover whether there are neuropsychological, personality, or behavioral differences between those who nearly never and those who nearly always experience (pristine) feelings. Similarly, it is reasonable to believe that some people's feelings nearly always manifest themselves in the physical body, but others who have vivid feelings which never or nearly never have a bodily manifestation (contra James, 1884, Lange, 1885/1922, and their followers). A standard psychological study might productively explore neuropsychological, personality, or behavioral differences between such individuals.

Introspection has, of course, been a spectacular failure in the history of psychology, and it is reasonable to suppose that DES is just another introspective technique destined for the scientific trash heap. We have discussed elsewhere how DES differs from other introspective methods (Heavey & Hurlburt, 2001; Heavey, Hurlburt, & Lefforge, 2010; Hurlburt, 1990, 1993,

2011a, 2011c; Hurlburt & Akhter, 2006; Hurlburt & Heavey, 2004, 2006; Hurlburt & Schwitzgebel, 2007, 2011a, 2011b, 2011c). History will decide whether those differences are adequate to allow DES to overcome the difficulties of introspection. Whatever the historical judgment about DES, the implications for emotion science are profound. If DES is adequate, then it or something better than it is required for any science that seeks to integrate feelings into its whole. If DES is not adequate, then are other methods adequate? And if not, should feelings be banished from emotion science?

Conclusion

Our goal here has been to present the results of carefully examining pristine feeling. We believe that the careful apprehension of pristine inner experience is a crucial step in understanding feelings and building an effective science of emotion, and this paper is a step in that direction. We described the phenomena as we found them and have not engaged in validational and/or theoretical exploration of those phenomena. Thus this paper is a preliminary step; we hope others will examine the phenomena of feeling as carefully or more carefully as we have, and that yet others will validate and consolidate those observations into a coherent theory of emotion that includes pristine experience.

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Table 1. The skills of third-person-like recognition of emotion and of feeling

The skills of third-person-like recognition of emotion and of feeling

	1	2	3	4	5	6	7	8	9
				Third-person-like emotion-recognition skill			Feeling skill		
	Name	Examples	Ongoing emotion process exists	Has ability to recognize the correlates of that emotion	Acts on that recognition ability	Apprehends emotion at the moment	Has ability to create the organization necessary for feeling	Implements that organization at the moment	Experiences emotion (feeling)
1	Feeling	1–4, 9–25	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	Emotionally neutral situation	5–8	No	Yes	n/a	No	Yes	n/a	No
3	Feeling fact of body	32 (Dalia)	Yes	Yes	No	Yes	Yes	Yes	No
4	Inattention to emotion	31 (Carl)	Yes	Yes	No	No	Yes	No	No
5	Third-person recognition	29, 30 (RD, AV)	Yes	Yes	Yes	Yes	No	No	No
6	No emotion experience	28 (Barry)	Yes	No	No	No	No	No	No