Chapter 1

Introducing Dynamic "Forms of Vitality"

The idea of this book is to call attention to an aspect of human experience that remains largely "hidden in plain view." This is the experience of vitality. It is rarely talked about, yet vitality takes on many dynamic forms and permeates daily life, psychology, psychotherapy, and the arts.

However, what is vitality? We know that it is a manifestation of life, of being alive. We are very alert to its feel in ourselves and its expression in others. Life shows itself in so many different forms of vitality. There must be an almost infinite range of forms of vitality. How should we deal with vitality and where do we start?

In centuries past, the doctrine of "vitalism" stated that life was caused and sustained by a vital principle involving a vital element (*élan vital*) that is distinct from all known physical, chemical, and mental forces. This view was abandoned long ago with the advance of science. Moreover, little attention has been paid to vitality subsequently.

However, the issue of vitality has not gone away. It remains as a real human experience. We live impressions of vitality like we breathe air. We naturally experience people in terms of their vitality. We intuitively evaluate their emotions, states of mind, what they are thinking and what they really mean, their authenticity, what they are likely to do next, as well as their health and illness on the basis of the vitality expressed in their almost constant movements. The time-based arts, namely music, dance, theater,

without thinking about it. In addition, at the surface, dynamic forms of vitality, like so many phenomena, are immediately grasped from the fundamental dynamic pentad.

However, it is helpful to identify the various features that contribute to creating the whole and to look more closely at this Gestalt of vitality.

What makes forms of vitality "dynamic"? Albert Einstein was once asked whether he thought in words or pictures. It is said that he answered, "Neither, I think in terms of forces and volumes moving in time and space." That is a physicist's language of "dynamics," the process of change or rapid evolution of forces in motion. As used by Einstein, "dynamics" describes the changing happenings of the universe. There is even something like intention here, except that it takes the nonmental form of entropy or gravity.

Now zoom in to describe the "dynamics" of the very small events, lasting seconds, that make up the interpersonal, psychological moments of our lives: the force, speed, and flow of a gesture; the timing and stress of a spoken phrase or even a word; the way one breaks into a smile or the time course of decomposing the smile; the manner of shifting position in a chair; the time course of lifting the eyebrows when interested and the duration of their lift; the shift and flight of a gaze; and the rush or tumble of thoughts. These are examples of the dynamic forms and dynamic experiences of everyday life. The scale is small, but that is where we live, and it makes up the matrix of experiencing other people and feeling their vitality.

The same is true for the time-based arts. The dynamic flow of music (sound in motion), dance, theater, and cinema sweeps us up at moments and then releases us, only to sweep us up again quickly just downstream. The fundamental dynamic pentad of movement, time, force, space, and intention appears to be a basic, natural Gestalt that applies to the inanimate world as we observe it, to interpersonal relationships as we live them, and to

the products of culture as we experience them. This seems to be the way the mind was designed to grasp dynamic happenings.

The term "dynamics" has many meanings. Physics deals with the dynamics of objective forces that act to move or equilibrate measurable systems. It is energy, power, and force in motion. Alternatively, it is change that is in process. It is the opposite of static. In music, the term "dynamics" is usually restricted to changes in loudness (amplitude, as the product of force). The time course of the change is implied. In psychoanalysis, psychic forces and counter-forces and their resultant experiences ("psychodynamics") act over developmental time to create a history of meanings. Thompson (1994) writes about "emotional dynamics," referrring to the processes that create an emotion from mutually interacting inputs (forces) of arousal, cognitive appraisal, social context, etc. There are also the "dynamics" of our bodily movements in daily life and sports. The dynamic forms of vitality are different. They are psychological, subjective phenomena that emerge from the encounter with dynamic events.[1]

To understand dynamic forms of vitality more clearly, consider the following list of words:

exploding	surging	accelerating
swelling	bursting	fading
drawn out	disappearing	fleeting
forceful	powerful	weak
cresting	pulsing	tentative
rushing	pulling	pushing
relaxing	languorous	floating
fluttering	effortful	easy
tense	gentle	halting
gliding	swinging	tightly
holding still	loosely	bounding

and many more.

The time × intensity (force) axes are readily grasped for some, less easily grasped for others. For example, see Figure 1.1.

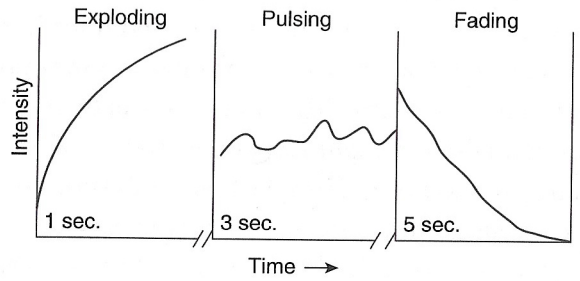

Figure 1.1 Time × intensity (force) graphs for three possible vitality forms.

Although these words are common enough, this list is curious. Most of the words are adverbs or adjectives. The items in it are not emotions. They are not motivational states. They are not pure perceptions. They are not sensations in the strict sense, as they have no modality. They are not direct cognitions in any usual sense. They are not acts, as they have no goal state and no specific means. They fall in between all the cracks. They are the felt experience of force – in movement – with a temporal contour, and a sense of aliveness, of going somewhere. They do not belong to any particular content. They are more form than content. They concern the "How," the manner, and the style, not the "What" or the "Why."

Regardless of the "content" (thoughts, actions, and emotions), this Gestalt of vitality has its own flow pattern (e.g. accelerating, exploding, and fading). It constitutes a separate kind of experience.

I argue that dynamic forms of vitality are the most fundamental of all felt experience when dealing with other humans in motion.

Why is this Gestalt called forms of "vitality"?

The experience of vitality is inherent in the act of movement. Movement, and its proprioception, is the primary manifestation of being animate and provides the primary sense of aliveness.

We move all the time, both physically and mentally. If our mind and body were not in a constant process of change when awake, we would not feel alive and vital. I am writing about dynamic changes that occur constantly. Our respirations rise and fall over a cycle that repeats every three or four seconds. Our bodies are in almost constant motion: we move our mouth, twitch, touch our face, make small adjustments in head position and orientation, alter our facial expression, shift the direction of our gaze, adjust the muscular tone of our body position, whether standing, sitting, or lying (if awake). These processes go on even when not visible from the outside. Gestures and larger acts unfold in time. They change fluidly once an act has started. We can be conscious of any of this, or it can remain in peripheral awareness. In addition, with every movement there is proprioception, conscious or not.

At the same time as the body is moving, thoughts are "moving" (virtually) in the mind, sometimes wandering, at other times progressing apace, or exploding or tumbling about, or fading out. Similarly, emotions ebb and flow, slightly or dramatically. Sensations impinge, build up or overwhelm, their intensity and duration tracing a time line, as does musical flow or dancing, or any stimulus. In addition, while often neglected, our arousal level undergoes micro-shifts. There is shifting vigilance, attention, and engagement with passing events.

Seeing a dead person is immediately shocking because they do not move, nothing moves, and even the almost subliminal vibrations of tonicity stop. We grasp this in a glance with

peripheral vision. Without motion we cannot read in or imagine mental activity underneath, or thoughts, emotions, or "will." That is how we know there is no vital presence. (This is also related to how we experience ourselves; see Sevdalis & Keller, 2008.)

Similarly, when a mother goes "still face" while facing her infant, i.e. not moving her face at all, not even with slight expressions, the baby, or even a neonate, becomes upset within seconds. Newborns already have working peripheral vision that is designed to detect motion at the periphery. Accordingly, stillness is registered no matter where their focal vision is on the mother's face.

The ongoing changes of almost constant movement reignite and maintain our sense of being alive, of "going on being" à la Winnacott (1971). In addition, if movement did not have a dynamic flow, but was a sequence of discrete steps, we would be digital organisms from the land of the early-generation robots.

How is it that dynamic forms of vitality are relatively little considered and understood? We know them so well, perhaps too well. Vitality forms are hard to grasp because we experience them in almost all waking activities. They are obscured by the felt quality of emotions as it accompanies them. They are absorbed into the explicit meaning as the vitality form accompanies a train of thought, so we do not pay attention to the feel of the emergence of the thought, but only to its contents. It slips through our fingers. It is strange that even when it comes to motor acts, dynamic experiences are most often taken for granted as a part of means–ends operations to accomplish a goal, and thus receive little additional attention. Today we think more in terms of "embodiment" and the "embodied mind" (Varela, Thompson, & Rosch, 1991). One of the meanings of this concept is that all acts (mental and physical) must take on

a temporal shape while they are being enacted. If they did not, our experience of the human world would not be incarnated – it would be unrecognizable.

Forms of vitality, although little studied, are rich with implications. These will be explored below.

Why should we explore forms of vitality further?

The first set of reasons are psychological and clinical.

1. Dynamic forms of vitality are part of episodic memories and give life to the narratives we create about our lives. Accordingly, dynamic forms of vitality provide another path for psychotherapy to access non-conscious past experience, including memories, dissociated experiences, phenomenological experience, past experience known implicitly and never verbalized, and in particular "implicit relational knowing" (how we implicitly know how "to be with" a specific other (Stern, 1985; Lyons-Ruth, 1998; Boston Change Process Study Group, 2002). Forms of vitality are part of all past experience. As such, they offer a special verbal way to evoke past experience (see Chapter 7). Gestalt and other therapies do this, too, but without a particular focus or mention that dynamic aspects are an important element of opening the past.

   To provide an example, here is a microdynamic anecdote from everyday life:

   > A man is sitting on the porch in a rocking chair. Except for the easy back-and-forth motion, he is still. He is thinking about his daughter's visit right after she left. Thoughts surface in sequence, some surge up quickly, others float up more slowly: how she looked, how it made him feel good, but was there a sadness underneath? Emphatically, "Yes"! Did she almost say something? But still, when she was here he laughed more fully. At this point, he breaks into a slow slight smile.

It fades … and a song floats up from memory, "The sunshine girl has tear drops in her eyes." He makes no interpretations.

Each thought and its feeling makes its own different entrance onto his "mental stage." Some arrive with a rapid "attack" and are suddenly there. Others slip quietly onto the stage. Each has its own contour, some fluctuate in–out, others weak–strong, some accelerate and crest, some arrive with force then peter away. Each has its own duration and form of disappearance for the next to surface.

The train of his thoughts is broken off altogether when the presence of a tree on the lawn emerges involuntarily and easily into his awareness. The leaves are moving slightly in the breeze. A new present moment emerges before him, but it doesn't hold him. It slips away and stops getting registered. He sinks into a momentary stretch of apparently not thinking, not perceiving, but his overall feeling is still moving down, settling deeper into him. The chair's rocking motions diminish in size, so the rhythm accelerates progressively and then stops. Now there is only the rise and fall of his breathing. A feeling jumps up into his consciousness and swells – a feeling of things not right, of agitation. The feeling grows very gradually and then faster. At its crest, he suddenly tenses his muscles, ready to burst out of the chair and go to the telephone. But that feeling subsides, rapidly at first, then slowly. He deflates. As it decreases, it becomes more sad, even sour. He slumps back into his chair.

To best grasp the perspective taken in this chapter, the reader should hold in check for the time being his or her usual paths of curiosity about the above vignette. Do not dwell on questions like the following. What did the daughter not say? What did he imagine was going on within her? Why was his reaction not more immediate when she was still there? What did he plan or want to say to her on the telephone? Is this interaction their characteristic way of dealing with the unsaid? Is this a repeating pattern between father and daughter, or a family pattern? What historical events forged these patterns? And many other such questions.

Instead, I would direct the reader to ask different questions. What does it feel like and mean to have a thought "surge up," "fade in," "accelerate and crest," or enter on the scene with a "rapid attack"? What does it mean and feel like to have a "feeling jump up and swell" or "move down and settle deeper"? On the other hand, what does it mean and feel like to suddenly almost "burst" out of a chair? In this particular example, I would have asked him first to tell me more about what it felt like to have a surge up and crest, then to subside the intention and readiness to get up from the chair. Is he familiar with this sequence of vitality dynamics from the past? Has he experienced these before, and when? That might better prepare him for later questions about the narrative. Questions directed to the dynamic experience of vitality lead to clinically pertinent material by a path that is described more fully in Chapter 6.

2. How can empathy, sympathy, and identification be explained without in some way capturing the exact movement characteristics of a specific person? Mirror neurons can well explain the "what" of an act (its goal-directedness). In addition, other mechanisms like intention detection centers can help to explain the "why," its intent and goal (Ruby & Decety, 2001). However, for identification based on faithful imitation one also needs the "how" – the other's "dynamic movement signature," their form of vitality (see Hobson & Lee, 1999 for an example of the difference between the how and the what).
3. Related to the above, how can one recognize known others when they are not in focal vision? Each individual has a movement signature. We can recognize their walk from behind, even at a distance (Loula *et al.*, 2005). Peripheral vision allows us to keep at least two separate and different actions occurring at different speeds in the visual fields at the same time, one in the left visual field, and one in the right

(Paxton, 2008). In a similar vein, jazz musicians can move in time with the other players in an improvising ensemble, allowing them to mesh their music (Keller, 2008).

In groups where everyone is moving, as in hunting or some sports, it is an advantage to be able to pick out individuals using just peripheral vision based on their movement dynamics. We do not have to rely on the focal vision needed for face or body shape recognition. This gives an adaptive advantage.

4. Dynamic forms of vitality dynamics help one to adapt to new situations that arise. If one had to deal with each dynamic element separately (its speed, intensity, temporal contour, etc.), the process would require much integrative work with the fragments and would be inefficient. Some Gestalt that integrates the many dynamic elements needs to be interposed between the stimuli and the subjective experience as acted upon so as to streamline the processes of adaptation. This Gestalt is the dynamic form of vitality. The situation is no different from our passing over phonemes to grasp a word, or passing over words to capture the sense of a phrase, or being unaware of the evaluation checks when appraising an emotion (see below).

   Similarly, how can we progress from a general category of action (walking, smiling) to someone's specific walk or smile that carries the signature of their own unique vitality? We now know that many categories of action that we previously thought of as fairly fixed motor patterns, or representations or schemas, such as reaching to grasp an object, are not so fixed. Thelen & Smith (1994) have shown how a specific reach by an infant is accomplished by a "soft assembly" of different forces, speeds, hand orientations, limb extensions, and muscle groupings that are fitted to the exact local situation at the moment of reaching (i.e. a "real-world" reach, not an abstract one as given by language). There are thus hundreds of reaches. And so it is with forms of vitality. They are involved in the translation from the general to the specific, in the moment-to-moment process of adaptation and enactment. Vitality dynamics are thus crucial for fitting a living organism into the world that it encounters.

Pursuing the domain of vitality dynamics may refocus interest on several neuroscientific questions that remain open.

1. We have good descriptions of many Gestalts, emergent properties, and other holistic events, but still lack greater detail about the nature of their formation and underlying structure.
2. Where in the brain do dynamic experiences reside, or rather emanate from? It cannot be from any one modality, or any one specific domain such as cognition, emotion, or action. It has to be in multiple sites throughout the brain, how do they get integrated coherently? This involves various forms of the "binding" problem and the question of multisensoriality, particularly because it applies to distinct holistic experiences.
3. How is speed, or rate of change, processed in the brain, and where? Even more difficult is the question of how a progressive change in rate is processed and represented (e.g. an acceleration). After all, an exponential rate shift can be fascinating, exciting, and memorable.
4. How are relative levels of intensity in different modalities grounded and scaled? In addition, how are different intensity levels in different modalities compared?
5. How are different rhythms processed? How does the brain allow the mind to open up to polyrhythmicity or to synrhythmicity?

6. Similarly, how are different time and intensity contours processed and represented, and where? How large a repertoire of dynamic experiences can the brain handle and represent (i.e. how many forms of vitality)?
7. Will multisensoriality prove to be ubiquitous not only at the level of single neurons (Stein & Stanford, 2008), regardless of the anatomical region in which they are found, but at higher organizational levels as well? Will the functional anatomy of the brain have to be radically changed (Ghazanfar & Schroeder 2006), and if so, what are the consequences for psychology?

Plan of the book

This book is divided into three parts. Part I is an introduction and background. This first chapter has been an overview of the nature of dynamic forms of vitality, and an introduction. Chapter 2 provides the conceptual framework that vitality forms are built upon, and explains more of their nature. Chapter 3 provides a brief selected review of the attempts of psychological and behavioral science to deal with dynamic forms of vitality.

Part II suggests a neuroscientific underpinning for forms of vitality, and shows how the time-based arts require and use these forms. Chapter 4 suggests a major role for the arousal systems in the creation of dynamic forms of vitality. It addresses the neuroscience of the arousal systems that suggest and support the ideas put forward. Chapter 5 examines how vitality forms have been dealt with in the arts of music, dance, theater, and cinema, and forms the basis of collaborations.

Part III concerns the implications of forms of vitality for developmental and clinical work. Chapter 6 discussses when dynamic vitality experience may arise in very early development, and the central place of arousal in life's beginning. Finally,

Chapter 7 addresses various theoretical and practical implications of dynamic forms of vitality for adult psychotherapies.

This inquiry aims to further identify and explore this realm of dynamic forms of vitality, and to illustrate the breadth of its scope. This descriptive enterprise may be helpful in approaching the dynamic dimension from psychological, neuroscientific, and phenomenological perspectives, and may be useful in reorienting some of our notions of emotion theory, memory structure, and social communication, as well as psychotherapeutic theory and practice.

Notes

1 I have been concerned with the dynamic aspects of experience over many years. Along the way, different terms have been used for this aspect, including "vitality affects," "temporal feeling shapes," "temporal feeling contours," "proto-narrative envelopes," "vitality contours," and now "dynamic forms of vitality" (Stern *et al.*, 1984; Stern, 1985, 1994, 1995, 1999, 2004). Koppe, Harder, & Vaever (2007) point out that some of the shifts in terminology create problems. They ask whether the shifts in terms reflect changes in underlying concepts. Yes and no. Probably the main reason for this terminological drift is the difficulty of putting dynamic terms into precise words and never quite capturing what is wanted, leading to fresh attempts, which are, never fully satisfying. In other words, changes in the terms do not necessarily reflect significant changes in the underlying concept. In my mind, there has been less conceptual drift and more re-emphasis in different conceptual contexts. In this book, I gather all of these terms together under the more englobing term "dynamic forms of vitality." This adds "force," "movement," "space," "directionality," and "aliveness" to the previous discussions of time and intensity.