Introduction
The notion of Attunement is a concept in Dance Therapy that at some level Dance Therapists feel that we understand. In Dance therapy literature, it seems to be a vague and uncaptured concept. One author notes that it is like “kinesthetic empathy”, another talks about “trying to attune” in order to create a feeling of empathy. We become wrapped in word, but what do we mean, what are we attending to, what are we doing? As Dance Therapists we use this word or its derivatives almost carelessly. The focus of this paper is to attempt to create a functional explanation of this very important notion that is also grounded in infant development and human physiology.

Attunement, although key to Dance Therapy, emerges from theories for Infant Development, and Psychodynamic psychotherapy. Attunement is about “being in tune” – but how, and with what or whom? It is these questions that must be explored.

With respect to who or what, the answers seem easy. In a normal, psychologically healthy adult, we might say that this person is “in tune” with his/her Self. In a therapeutic situation, we can consider that the Therapist is “in tune” with the “other” or patient. In infant/child development, we would hope that the caretaker is “in tune” with the infant and the infant’s particular stage of development (Lee, 1981, p. 115).

The answers to “what to attend to and how to do it” require more consideration. The psychodynamic literature suggests that where we might be working more verbally, there are two components to a client’s communication: content and affective tone. True “attunement” is considered to occur to the affective component of the communication, rather than the content (Schlesinger, 1981, p. 393).

Infant development literature notes that in the infant-mother dyad, particularly because words are not available to the infant, the mother must be accessible to the child’s needs and (appropriately) emotionally responsive. Attunement in this instance allows the child to grow and develop a sense of self. How the mother attunes leads to patterns of relationship style – often called Attachment. (I hope to discuss Attachment in a later paper.) However, another major objective of the attunement process, whether in infant or adult situations, is to assist in the integration of affect into the organization of one’s experience of their Self (Stolorow, 1987, p. 66).

Two questions emerge in reference to our work as Dance Therapists:
1. What are these affects to which it is important that we attune
2. Because we work non-verbally, to what in the body-movement spectrum are we attuning, and how do we do it?

To answer these questions, I would like to have an in-depth look at the work of two key theorists, Daniel Stern and Judith Kestenberg.

Kestenberg and Attunement
Judith Kestenberg looked at attunement in the 1960’s and 70’s. At that time (Kestenberg, 1975, p. 161) she noted that “complete attunement is based on mutual empathy…. a sameness of needs and responses, but also a synchronization in rhythms”. It is this last phrase about “rhythms” that introduced a new and movement based element. She went
on to say that “attuning to or sharing the same or affined tension flow rhythms creates the foundation for empathy and communication” (Kestenberg in Amighi, 1999, p. 29). Kestenberg also introduced other ideas around the process of attunement, such as “attunement and clashing”. Clashing is those times when the rhythmic patterns do not blend. She noted that both attunement and clashing are needed to prevent dysfunctional relationship styles (i.e. Attachment), however, a predominance of attunement is preferable.

An interesting, and subtle shift occurred as Amighi and Loman began to apply Judith Kestenberg’s work later in the 70’s and 80’s. They note that “using KMP (Kestenberg Movement Profiling) terminology, we would speak of attunement in rhythms and adjustment in shape flow” (Amighi, p. 29). These authors then began using shape flow rhythms instead of the tension flow rhythms originally identified for attunement by Kestenberg. This change significantly altered the direction of our practice as Dance Therapists in creating attunement. We began to associate body shaping and shape flow with attunement, rather than affect. By relegating tension flow rhythms to the less important position, we began focusing more on the body actions (i.e. shape, or ?content) rather than the affective tone component. We thus lost the important function of attunement – affect reflection and integration.

**Kestenberg Movement Profiling (KMP)**

To understand the importance of this shift in focus on the function of attunement, let me discuss the KMP in more detail.

The KMP is a series of nine profile diagrams, which define movement qualities and are laid out in a developmental progression. Earlier diagrams will be applicable to the very newborn, whereas later diagrams can apply through to adulthood. A profiler observes the client’s natural movement and collects data, which is then tallied, in the appropriate diagram to show preferences for and absences of particular movement patterns.

These nine diagrams are actually broken into two “systems”. System I documents what was originally called “tension flow patterns” and System II, “shape flow patterns”. Amighi (1999, p. 13) reports that System I “gives a movement portrait of needs, feelings and temperament, defenses, and coping strategies”, while System II reflects “self feelings, responses to stimuli in the environment, uses of designs in space, use of directional movements and complex relationships with others”. In Laban Movement Analysis terms, we would say that the adult movement qualities of Effort would fall into System I and Shape into System II.

The four diagrams that comprise System I are (1) Tension flow Rhythms, (2) Tension Flow Attributes, (3) Pre-Efforts, and (4) Efforts. Tension flow rhythms would be most applicable to newborns and infants while Efforts are the mature counterparts. For the purposes of this paper’s thesis, I will discuss the first two diagrams in much more detail.

1. **Tension flow rhythms** – Basically all muscles exhibit ever-changing tension due to the specific interactions of the antagonist and agonist muscles during any activity. Movement is more constrained or bound in flow if the antagonist provides significant resistance, and unhindered or free in flow if the antagonist gives little opposition. Kestenberg identified rhythmic patterns of changes in muscle tension, which she called tension flow rhythms, based on thousands of free hand tracings she made while observing baby movement. From these she identified ten basic rhythms. She felt that particular rhythms correlated with particular developmental tasks. A rhythm became more prominent when its
particular development task(s) came on line for the infant. She also felt that
preferences for particular rhythms revealed a preoccupation with particular tasks
or needs (Amighi, 1999, p. 14).

2. Tension flow attributes – Further investigation of Kestenberg’s free hand tracings
of changes in muscular tension revealed that there were variations within the ten
basic patterns that could be considered to describe how the infant used the
patterns. The following six categories were created to describe this “how” of
tension flow.
   a. Even flow – showing evenly held levels of tension
   b. Flow adjustment – using fluctuations and variations in tension flow
   c. High intensity – using extremes of tension flow (very free or very bound)
   d. Low intensity – using levels of tension flow that cluster more around
      neutrality
   e. Abruptness – using swift changes of intensity of flow
   f. Graduality – using gradual changes of tension flow

The tension flow attributes, according to Kestenberg and Amighi, underlie the core of
temperament and tend to persist throughout one’s life. They also felt that “each of these
six attributes reflects qualities of emotions or affects” (p. 15). Other interesting
observations tie these attributes more specifically to the autonomic nervous system, which
has a major role in physiological and emotional regulation. The authors state that
“bound flow, free flow, and neutral flow are amongst the earliest types of regulations and defenses
that a baby can use. Bound flow may freeze motion (being cautious), free flow is used for flight, and neutral
flow deadens feelings and movement. In sum, tension flow rhythms and attributes are among the earliest
types of movement patterns found in newborns. Rhythms are the expressions of needs and attributes reveal
affects or emotions” (p. 15).
Thus Kestenberg makes it very clear that tension flow is somehow associated with
“emotions or affects” or at least their developmental underpinnings.

In contrast, System II qualities are based on the growing and shrinking of bodily
dimensions (Amighi, 1999, p. 110), result from a basic sense of comfort/discomfort, and
influence feelings of trust and security. Shared within a relational dyad, these qualities can
create or destroy a sense of bonding, whether therapeutic or between mother and infant.
This bond can facilitate or hinder the expression of needs and affects, but in and of itself,
being “in tune” with shape qualities is not affective responsivity or attunement as discussed
earlier.

Stern, Affect, and Attunement
Daniel Stern, psychiatrist, psychoanalyst, and infant researcher, has looked at attunement
in significant detail. He writes that the attunement process creates the series of
experiences that lead to the development of the sense of self. That implies that
attunement is critical for us therapists to understand. He writes about the attunement
dance between parent and child as follows (1984, p. 139).
   “Several processes must take place. First the parent must be able to read the infant’s feeling state
from the infant’s overt behaviour. Second, the parent must perform some behaviour that is not a strict
imitation but nonetheless corresponds in some way to the infant’s overt behaviour. Third, the infant must be
able to read this corresponding parental response as having to do with the infant’s own original feeling
experience and not just imitating the infant’s behaviour. It is only in the presence of these three conditions
that feeling states within one person can be knowable to another and that they can both sense, without using
language that the transaction has occurred.”

Stern is making several critical points (1999, p. 138).
   1. Attunement is about communication of and understanding of feeling states.
2. “Interaffectivity” or emotional responsiveness is what we actually mean when we think of “mirroring” (by the therapist or the parent).
3. Imitation of behaviour will not do. Attunement is to something slightly different.

Other authors reiterate this point,

“attunement is more than imitation. Imitation mechanically copies, whereas attunement never copies exactly and always involves feelings. Attunement is more than empathy, that is more than the cognitive form of vicarious introspection. It is more like communion, where one shares another’s experience without attempting to change that person.” (Lee, 1981, p. 115).

Stern then considers the requirements that allow attunement to “work”. He explores the qualities a parent might “match” without falling into “imitation” and found three: intensity, timing, and shape. He also felt that “intermodal fluency” (the ability of behavioural expressions to occur and be recognized in different forms and different sensory modes) was a requirement and noted that intensity, timing and shape fit this criteria. Finally he recognized that “attunement feels more like an unbroken process. It cannot await discrete affective eruptions; it must be able to work with virtually all behaviour” (1999, p. 156).

These points suggest that although attunement is an affective interaction, we are not responding exactly to the suite of affects that we typically recognize. This suite, first noted by Darwin, was elegantly researched by Sylvan Tomkins (see appendix a) and are called “Categorical Affects” by Stern in order to discriminate them from Stern’s “other” affects of the attunement process. Stern called these other affects “Vitality Affects”. He explains them as follows (p. 54).

“There is a quality of experience that can arise directly from encounters with people, a quality that involves vitality affects. What do we mean by this, and why is it necessary to add a new term for certain forms of human experience? It is necessary because many qualities of feeling that occur do not fit into our existing lexicon or taxonomy of affects. These elusive qualities are better captured by dynamic, kinetic terms, such as ‘surging’, ‘fading away,’ ‘fleeting,’ ‘explosive’, ‘crescendo’, ‘decrescendo’, ‘bursting’, ‘drawn out’, and so on. These qualities of experience are most certainly sensible to infants and of great daily, even momentary, importance. It is these feelings that will be elicited by changes in motivation states, appetites, and tensions.”

Stern then evokes the work of Suzanne Langer (1967) by noting that she felt that

“close attention must be paid to the many forms of feeling inextricably involved with all the vital processes of life, such as breathing, getting hungry, eliminating, falling asleep, and emerging out of sleep, or feeling the coming and going of emotions and thoughts. The different forms of feeling elicited by these vital processes impinge on the organism most of the time. We are never without their presence, whether or not we are conscious of them, while ‘regular’ affects come and go” (p. 54)

These two passages bring to mind the work of Judith Kestenberg in notating the tension flow rhythms and their attributes. Further elaboration on this topic from Stern allows us to tie his ideas even more firmly to the KMP and validate the importance of the use of System I observations.

“The infant experiences these qualities from within, as well as in the behaviour of other persons. Different feelings of vitality can be expressed in a multitude of parental acts that do not qualify as ‘regular’ affective acts: how the mother picks up the baby, folds the diapers, grooms her hair or the baby’s hair, reaches for a bottle, unbuttons her blouse. The infant is immersed in these ‘feelings of vitality’. Examining them further will let us enrich the concepts and vocabulary, too impoverished for present purposes, that we apply to nonverbal experiences” (p. 54).

These vitality affects are curious and exciting things. As noted by Stern they do not fit into the current theories of affect, particularly those of Sylvan Tomkins, and yet they seem to provide the “vitality” or “life” that underlies affective. And these vitality affects can occur in the presence or absence of the categorical affects. Thus they truly fit the criteria for the ongoing process of attunement.
As an interesting aside, Stern also notes that dance and music are excellent examples of “the expressiveness of vitality affects. Dance reveals to the viewer-listener multiple vitality affects and their variations, without resorting to plot or categorical affect signals from which the vitality affects can be derived. The choreographer is most often trying to express a way of feeling, not a specific content of feeling. This example is particularly instructive because the infant, when viewing parental behaviour that has not intrinsic expressiveness (that is, no Darwinian affect signal), may be in the same position as the viewer of an abstract dance or listener to music” (p. 56).

As therapists well-trained in the ‘movement and dance’, we are in a perfect position to be able to attune, providing we are aiming for the appropriate element of movement.

Attunement, Vitality Affects and KMP/LMA

Stern reframes the attunement process by stating that it is an inner state to which the mother/therapist is attuning. He states “most attunements seem to occur with the vitality affects” (1984, p. 156). He goes on to then make the link between attunement and vitality affects, and in my opinion, the qualities that we observe using the KMP as well as Laban Movement Analysis (LMA).

“We identified vitality affects as those dynamic, kinetic qualities of feeling that distinguish animate from inanimate and that correspond to the momentary changes in feeling states involved in the organic processes of being alive. We experience vitality affects a dynamic shifts or patterned changes within ourselves or others. One of the reasons we went to such efforts to establish vitality affects as entities in their own right distinct from what is usually meant by activation as well as from categories of affects, is that now they become essential to an understanding of attunement.

During an average mother-infant interaction, discrete affect displays occur only occasionally – perhaps every thirty to ninety seconds. Since this is so, affective tracking or attuning with another could not occur as a continuous process if it were limited to categorical affects. One cannot wait around for a discrete categorical affect display, such as a surprise expression, to occur in order to re-establish attunement. Attunement feels more like an unbroken process. It cannot await discrete affect eruptions; it must be able to work with virtually all behaviour. And that is one of the great advantages of the vitality affects. They are manifest in all behaviour and can thus be an almost omnipresent subject of attunement. The concern how a behaviour, any behaviour, all behaviour is performed, not what behaviour is performed.

Vitality is ideally suited to be the subject of attunements, because it is composed of the amodal qualities of intensity and time and because it resides in virtually any behaviour one can perform and thus provide a continuously present (though changing) subject for attunement. Attunements can be made with the inner quality of feeling of how an infant reaches for a toy, holds a block, kicks a foot, or listens to a sound. Tracking and attuning with vitality affects permit one human to “be with” another in the sense of sharing likely inner experiences on an almost continuous basis. This is exactly our experience of feeling-connectedness, of being in attunement with another” (p. 156 –157).

Stern is clearly pointing us, as Dance Therapists familiar with tension flow and shape flow, in the direction of tension flow rhythms (KMP), and tension flow attributes (KMP), in working with mother-infant dyads. He also queries what we would attune to in adults. With the following statement I believe he is pointing us to the critical importance of the Efforts of LMA.

“We tend automatically to transpose perceptual qualities into feeling qualities, particularly when the qualities belong to another person’s behaviour. For instance, we may gather from someone’s arm gesture, the perceptual qualities of rapid acceleration, speed, and fullness of display. But we will not experience the gesture in terms of the perceptual qualities of timing, intensity, and shape; we will experience it directly as “forceful”, that is, in terms of a vitality affect” (p. 158).

From an LMA point of view he is saying that what we experience in another’s or our own movement is Effort States or Effort Drives (see appendix b).

Summary

Using the infant development research of Daniel Stern, Dance Therapy can now refocus our attunement efforts more concisely. His work leads us from the ‘red-herring’ of the Shape path (System II in KMP) back to the more affect-related Tension Flow-Effort qualities of System I. Of course System II must not be forgotten or eliminated. The movement qualities contained in this grouping can assist in building the safety and trust
that are essential to the therapeutic alliance or caretaker-infant relationship. However, if our intention in attunement (whether working with an infant or adult client) is to build their sense of self, then interaffectivity must occur. And this is primarily done through attunement to System I (KMP) qualities.

Appendix a – Affect Theory of Sylvan Tomkins
Silvan Tomkins (1962 – 63) was a pioneer in affect theory. He “conceptualized affects as biologically inherited programs controlling facial muscles, the autonomic nervous system, bloodflow, respiration, and vocal responses. On the basis of a study of the facial muscles he presents evidence for nine primary affects (listed below)” (Lee, 1991, p. 265). Tomkins concentrated on facial muscles because he found them to be more finely articulated and also more able to change rapidly. These two characteristics allow them to more aptly communicate affect state than the other responses. The other responses are more dependent on chemical changes which have a slower response time.

The nine primary affects that are recognizable worldwide, independent of culture or gender are:
- Surprise
- Interest
- Distress
- Enjoyment
- Anger
- Fear
- Contempt
- Disgust
- Shame

Appendix b – Effort States and Drives (drawn from C. Dell, 1977)
Effort and Shape are two components of a method developed for systematic description of qualitative change in movement by Rudolf Laban and a number of his co-workers. The Effort component is a method of describing changes in movement quality in terms of the kinds of exertions that occur. There are four main types of exertions that may occur, singly or in combinations, at any one moment.
1. Flow – changes in the quality of the tension of movement, can fluctuate between extremes of Bound or Free.
2. Weight – changes in the quality of force of the movement, can fluctuate between extremes of Strong or Light.
3. Time – changes in the acceleration or deceleration of the movement, can fluctuate between extremes of Sudden or Sustained.
4. Space – changes in the focus of the mover can fluctuate between extremes of Direct or Indirect.

These four effort factors can be combined in any grouping of three elements or two elements. A group of three elements, such as Time-Weight-Flow or Weight-Space-Time, etc. is called a Drive. A group of two elements is called a State. There are four possible Drives and eight States.

References
Dell, C. 1977, A Primer for Movement Description: Using effort-shape and supplementary concepts, NY, Dance Notation Bureau Press.


