# The 'Pre-Narrative Envelope': An Alternative View of 'Unconscious

### **Phantasy' in Infancy**

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## I. Frame of Reference

This work grows out of a continuing effort to understand the nature of the infant's representational world and, in particular, to imagine how this world is created. Such a creation within the infant's mind would be easier to envision if we had a 'basic unit' of subjective, psychic experience of psychodynamic relevance to work with. Such a unit would serve as the building block for constructing the representational world. In psychoanalysis, the 'basic unit' of psychic experience is the 'unconscious phantasy'. This article proposes the 'pre-narrative envelope' as an alternative way to view such a basic unit, especially its origin in early infancy.

Why is an alternative view needed, and what directions might it take? The point of reference for the concept of an 'unconscious phantasy' is contained in Freud's earlier views of a 'primal phantasy' (1916-17) and in the Kleinian view of an 'unconscious phantasy (Isaacs, 1948). In these conceptions, 'unconscious phantasies' are inherited scenarios containing an object, aim and goal.

These scenarios are innate correlates or the psychic content of drive, and exist independently of experience, which only gives them local colour. Stated in that way, this is the clearest, most robust and radical psychoanalytic position on 'unconscious phantasy'. It is the reference point of which all other positions are modifications. Even though a majority of psychoanalysts may not hold to this position in its pure form, their views are necessarily defined against this point of reference.

The desire to modify this reference point has been strong historically and remains so. The reasons for this are evident. First, the notion of a mental scenario that is inherited is hard to envision or explain. Second, many wish to give interactions with the environment a greater role in the formation of the 'unconscious phantasy'. And thirdly, if the 'unconscious phantasy' is an inherited mental structure, there is little work of mental construction left for our enormous capacities, and the subject of thinking and representing in that case is of little interest, at least as concerns the formation of the basic unit of psychic experience. To be sure, in the traditional psychoanalytic view, ego processes play a crucial and necessary role in bringing the unconscious phantasy into psychic life. Nonetheless, the basic form of the unconscious phantasy is already established for the ego to work upon. Thus, 'thinking' and 'representing', as ego functions, are allocated a role in the transposition but not the creation of the basic form of the phantasy.

In spite of this interest in modifying the 'reference position', it is difficult to do so within the psychoanalytic framework. If one wishes to give a greater formative role to environmental interactions, and to 'thinking' and 'representing' which construct the mental landscape from these interactions, at least two things are needed. First, one would need a theory of 'thinking'. However, psychoanalysis has never developed a real and independent theory of 'thinking'. (Bion is a possible but partial and problematic exception. His work will not be discussed here. 'Thoughts' have remained the offspring and handmaidens of drives. In a sense, the pre-formed phantasy takes the place of the creational function of 'thinking'. That is why psychoanalysis has been so concerned with the dialectic between absence and presence in the emergence of 'thought', instead of being interested in the role of 'thought' in creating the prior dialectic between non-existence and existence (existence containing both presence and absence).

Secondly, one would need a greater interest in, and a more elaborated perspective on the nature of observable interactions. Psychoanalysis, with its centre of gravity firmly in the intrapsychic, has been unable to do this. (There are of course some grand but individualistic exceptions such as Winnicott.)

Without a theory of 'thinking' or a systematic approach to interaction, the possibilities are limited for modification within a strict, traditional psychoanalytic frame. It is with this in mind that I will borrow some concepts of 'thinking' from cognitive science, and some infant observational approaches to interaction, and apply them to the psychoanalytic notion of drive. The result is an alternative view of the 'unconscious phantasy' which I will call a 'pre-narrative envelope' for reasons that will become clear.

Since the major thrust of this article is progressively to assemble the concept of a 'pre-narrative envelope' and demonstrate how it can further our understanding of infantile subjective experience, the acquisition of representational worlds, and of 'thinking' in infancy, I will summarize here the main features of this unit so the reader will have a clearer picture of where we are headed.

1. The unit must be clinically useful, potentially, and must be appropriate from a developmental perspective.

2. The backbone of the unit is the desire/motive with its goal-directedness. This is an expectable directrix of any psychodynamic unit and of all motivation-centred units of experience. It is certainly at the core of Freud's notions of drive, unconscious phantasy and the purposive ideas (representations-buts). It is interesting in this

connection that Darwin in his notebooks muses that motives are the basic unit of the universe in that they are the functional units of evolution. (① I am indebted to Colwyn Trevarthen for calling my attention to this reference to Darwin.) From a different perspective, students of narrative structure have found motives and goal-orientation to be crucial narrative aspects (see below). Similarly students of affects (Scherer, 1986; Steiner-Krause, 1992), of motor action (von Cranach et al., 1982), of cybernetics (Céllerier, 1992), of ethology and others, all place goal-directedness at the core of their explanatory concepts.

Goal-directedness alone, however, is not sufficient to make such a unit 'psychoanalytic' or psychodynamic. Drives imply a psychic component, a structure of thought, e.g. unconscious phantasies, wishes and desires. I am not leaving these out. They will reappear below - but as indirect products of drive.

The scope of motivations and goals encompassed here is largely that developed by Sandler (1985), and Sandler and Sandler (1992), in which the goals of desires/motives include external and internal states of object-relatedness, affect states, and states of self-esteem and safety, as well as physiological need-satisfaction and consumatory acts in general.

The goal-directed unit of the motive/desire is indeed our 'basic unit' for understanding (parsing (découper), explaining and predicting) human behaviour. At the level of comprehending human behaviour psychodynamically or in terms of folk psychologies this unit is not reducible (Bruner, 1990; Dennett, 1978; Whiten, 1991). It is the basic unit and starting point for a subjective phenomenology underlying any clinical science of the mind.

3. The 'pre-narrative envelope' is a subjective experience that unfolds in time. It has a temporal structure that provides part of its coherence and meaning. This unit is like a musical phrase that loses its sense when cut up further and like a musical phrase moves, with an inevitability, to an end-state. A temporal dimension is not explicitly present in the concept of an 'unconscious phantasy' as it is for the 'pre-narrative envelope'.

4. The 'pre-narrative envelope' has a coherence and meaning by virtue of its narrative-like structure which includes a dramatic line and the basic elements of a proto-plot, such as agent, action, goal, object, context.

5. It is a 'pre-narrative' unit because it arises before the emergence of language or narrative-producing abilities, but conforms to most of the structures essential to narrative. It is the unit from which narrative will emerge, transposed.

6. This unit is subject to revision sur-le-coup, après-coup and as transposed into a true narrative communication without losing its basic form.

7. The 'pre-narrative envelope' is not an innate structure, or the ego's discovery of such; rather, it results from the infant's own mental construction. This construction emerges from the infant's subjective experience with drives being enacted in an interpersonal context. It is an 'emergent property' of mind as currently conceived in the cognitive sciences (Céllerier, 1992; Churchland, 1984; Dennett, 1991; Edelman, 1990; Rummelhart and McClelland, 1986; Maturana and Varela, 1979).

The cognitive-science view of 'thinking' (2) It is not agreed upon nor clear what 'thinking' is. I will use the term in quotes to mean different mental operations and processes, some of which would be better called 'pre-thinking' - whatever that may be.), borrowed and applied to the psychoanalytic question, 'What is an unconscious phantasy in early infancy?', can be summarized briefly below.

In this view, the mind appears to process, in parallel and in partial independence, a large number of simultaneous mental happenings. During an experience, instinctual urgings, visual images, affect shifts, sensations, motor actions, ideas, states of arousal, language, place and space, time, etc., are all processed simultaneously in parallel throughout all 'centres' in the mind as well as in specialized ones devoted to processing each ('Parallel Distributed Processing' (PDP)). The parallel processing of each element is carried out with lower-level, local, mental operations which are never translatable into subjective experience. These mental processes are operationally unconscious. This results in a sort of mental pandemonium of mental action in multiple 'centres' ('modules'): many characters in search of an author. This is the normal state of things. And from the interplay, co-ordination, integration of these lower-level processes, a more global mental event emerges: 'an emergent property' of the mind, which has coherence and sense in the context in which it emerged. That is to say, the diverse events and feelings are tied together as necessary elements of a single unified happening which assumes a narrative-like structure. The 'pre-narrative envelope' is just such an emergent property of mind that accomplishes this integration of experience.

Such an emergent property as a 'pre-narrative envelope' does not arise from the ongoing and unfolding mental pandemonium in one stroke. It emerges as a movement towards coherence in successive (often transient) stages of multiple drafts, constantly revised, which need not reach a final state of fixed coherence but only a workable current draft (or two). There is a flow of consciousness and unconsciousness that consists of many separate streams with highly variable and rapidly changing interconnections. There is revision 'sur-le-coup' (as well as 'aprèis-coup'). There no one 'coup'. There is are multiple drafts

of narrative fragments in competition. (Much of what is taken to be 'thoughts' are these fragments of drafts in the process of emergence.) The general criteria for coherence (and emergence?) probably are in play in this competition for relative supremacy of coherence: consistency, comprehensiveness, continuity, cohesiveness, and parsimony. (However, several narrative versions can 'win', not just one.)

But is not the function of the drive precisely the creation (or rather the preparation for the creation) of narrative coherence? Let us explore further the relationship between drives and thinking. In the beginning of life the drives are largely manifested in the basic innate rhythms of psychosomatic motivational states such as hunger, activity cycles, transitions in and out of arousal states (sleep, waking, etc.); events that are repeated many times a day. There are also the innate and cultural and individual family patterns used to regulate these rhythms (the nature of the feeding, the hedonic and arousal regulation involved in social face-to-face interaction, the sleep rituals, the subject and style of setting limits, negotiating the beginning and end of interactive contact, etc.). There is also an array of non-rhythmic but repeating events such as crying and its outcome, self-soothing, being overwhelmed, being bored, etc.

The drives create recurring patterned happenings consisting of expectable internal and external events. These happenings owe their patterning and their organization largely to innately programmed motivations. But how does the infant know that? How does he come to realize that the diverse, parallel, semi-independent happenings (his feelings, desires, arousal shifts, perceptions, sensations, actions of self and others, etc.), going on simultaneously in his mind, are all organized by his drives? He doesn't. Constructing a coherent sense of these many events is the work of parallel distributed local mental processes resulting in an emergent property of mind. Psychoanalysis is accustomed to saying that the drives, acting via the ego, give meaning to experience. That cannot be so. Only the mind, by 'thinking' and construing, can create meaning. Drives can create and give a pattern to events but 'thinking' gives them subjective coherence and meaning. The crux of the difference lies in this. In traditional psychoanalysis the 'basic meaning' is already profoundly inherent in the drive in some inchoate form. The ego transforms, specifies and instantiates this 'intrinsic meaning' within a given current psychodynamic context, thus giving rise to a 'subjective meaning'. (The amount of ego work required is greater as one moves from a purely Kleinian to a later Freudian position.) The alternative point of view presented here is more purely 'subjectivist'. It assumes that there are no 'basic meanings' (subjectively speaking) in our psycho-biological or psychosomatic nature. Accordingly, the ego apparatuses or 'thinking' have no inherent meanings to uncover, to discover, or transpose. Their function is more purely creative, to forge subjective meaning from the vast array of happenings (including drives) that make up our lived experience. To summarize briefly, from a strictly Kleinian perspective, 'unconscious phantasies' are directly determined by or

co-existent with drives. In most Freudian perspectives the 'unconscious phantasy' derived the this from the drive via ego. In alternative view. is 'unconscious phantasies' are createdfrom mental constructions about lived experience - to be sure, drives helped to give pattern to the lived experience. It is in this sense that drive and 'unconscious phantasy' are once-removed from one another.

An analogy is illustrative. Imagine the performance of a symphony. The genes are the composer who creates the musical score. The parents are the conductor who (guided by innate hints and preferences) interprets the score in an individually and culturally special way. The infant is the orchestra - or at least many of the instruments - who play, automatically, the genetic score. And at the same time, the infant is also the audience who, let us assume, does not yet know this music by heart. Even though the infant has contributed (blindly and automatically) to the performance, still, as audience, he has to organize it in his mind, i.e. identify the themes, the variations, the feel of it, etc. Ultimately, the psychic construct of the music will emerge from the mental work he does on the listened-to performance, not on the act of performing. It is in this sense that the drives determine only indirectly the mental representation of living a drive experience.

But what guidelines does the 'mind' use in arriving at the final form of the 'emergent property'? Do we fall back, here, on pre-determination in the form of preferential genetic loading for certain scenarios? Yes, but only in part. There are many events that are very likely to have - innately - a higher salience and a given hedonic value (e.g. physical-threat gestures, certain shifts in orientation and distance between partners, states and state-shifts in visual regard, various sensations, various perceptions, etc.). The innate 'marking' of these events will ensure that they get priority treatment in the construction of experience, but the experience must still get constructed. We can also assume that the general structure - or rather the rules that regulate the formation of envelope structure (but not the specific content) - are genetically influences in the form of general tendencies of mind and ways of parsing experience. (This position is not to be confused with Bion's notion of 'empty thoughts' (1963, 1967) which has both structure and content in a restricted range innately built in. These issues will be taken up again below.)

Has the infusion of these cognitive-science views of 'thinking' pushed us outside a psychoanalytic framework? It is true that in psychoanalysis the relationship between drive and thought is more direct. Historically psychoanalysis has viewed 'thinking' as a product of the never smooth and never direct process leading to drivesatisfaction. Theoretically, 'thinking' would not arise if satisfaction could be realized immediately through appropriate 'specific action'. And 'thinking' would cease altogether if satisfaction were sufficiently complete. But since that is impossible - reality being what it is - 'thought' emerges from the inevitable delays

and obstacles to direct immediate satisfaction. It is in this sense that 'thinking' has been seen as a derived and secondary process in its origin (this applies to 'perceptual identity' and 'thought identity', to 'purposive ideas' and free association in general (Freud, 1895, 1900)). The basically Kleinian notions as modified by Bion concerning 'pre-conceptions' or 'empty thought' comes to life - so to speak - only when a drive pressure begins to be felt.

The perspective taken here is that 'thinking' is a set of heterogeneous processes of the mind that goes on all the time independently of whatever else is going on in the psyche - including drive states. Stated differently, 'thinking' is one of the things a mind does and can never stop doing. We seem to keep on 'thinking' and representing, irrespective of wide fluctuations in the degree of satisfaction of drives. Or we go to sleep, where we continue to 'think' (dream), both during REM sleep and equally during non-REM sleep, that is, all night long. A foetus appears to 'think' (or 'pre-think') in the womb while in a steady state physiologically. The question is no longer under what conditions (e.g. drive or drive inhibition) does 'thinking' emerge. Rather, the question is do minds ever stop 'thinking', and the answer seems to be 'no'. That is what minds do (among other things). 'Thinking' is not a derived secondary process. It is an independent property of mind. However, it is applied to whatever is being experienced, including itself. And drive states are always being experienced, even at low levels. These drive states do not give rise to 'thought'; rather, 'thinking' is the ongoing, omnipresent mental milieu in which instinctual life occurs, and the phantasies ('pre-narrative envelopes') that arise are 'emergent properties' of mind that organize the diverse array of experiences that were occasioned by drive activity.

What has psychoanalysis lost or gained with this altered perspective? The psychoanalytically indispensable phenomenon of an 'unconscious phantasy' has been retained under a different title. Furthermore, its contents and form remain essentially unchanged. What is different is its relationship with innate motivations. It is derived differently. Its derivation is less psycho-biological and innate, and more constructionist and narrative in nature. This shift gives to psychoanalysis a far more interesting role and task in exploring the nature and process of 'emergent properties'. Furthermore, it gives to psychoanalysis a very crucial role in the discourse of modern cognitive science, namely as the main experts on the phenomenology of these 'emergent properties' of mind that most concern us clinically and personally.

# II. The Formation and Nature of 'Pre-Narrative Envelopes' in

# **Early Infancy**

# A. The role of repetition

A first requirement in the formation of 'pre-narrative envelopes' is for the events that lead to them to be repeated often in the infant's life. They must come round again and again. This requirement is not necessary for a unit that is fully loaded genetically, like the 'pre-conception' of Bion or the 'innate releasing mechanism' of ethology. For these innate units, only one single exposure to the right piece of reality is needed. For units like the 'pre-narrative envelope', however (where genetics play only a guiding role consisting of preferences and tendencies), many exposures to the same pattern of events are necessary for the infant to identify and represent the pattern. It must be constructed in his mind. It is not already lying there in full form, waiting (albeit there are cases in between).

One could say that this is a learning (associationist) approach to the formation of the 'pre-narrative envelope' - and indeed it is; but it is based on drives, because it is the drives that ensure the repeating rhythms that make up the important initial life-events.

In infancy the major innate programme (drives) express themselves as repeating rhythmic patterns. And it is these patterns that are the privileged subject matter for the infant's mental constructions. It is the genetic pre-design that assures repeated interactions with the world. It is the rhythmic nature of drives that lends advantage to the infant's capacity to learn from experience. Drives and learning are natural partners, not, as is often assumed, the reverse.

An initial task of mental construction (thinking?) is to identify the repeating subjective experiences as occasioned by the repeating patterns of life. The infant's pattern-recognition abilities ensure that the repeating experiences will be recognized global patterns. are remarkably good as Infants very early on identification/recognition. Some unexpectedly pattern early examples are: recognition of the mother's voice immediately after birth on the basis of experience in the womb (De Casper and Fifer, 1980); recognition of the mother's smell after 4 days of breast-feeding (MacFarlane, 1975); recognition of her global patterns of feeding and putting to bed, after 10 days of life (Sander, 1964).

When considering this issue of construction from repeated repetitive exposures it is worth being concrete. Since the infant eats about every 4 hours, by the age of one month he has had about 180 roughly similar feeding experiences, hundreds of experiences of arousal-state shifts, of crying, of face-to-face interaction, etc.

The account that follows, of the formation of representations and memories of such experiences, is based largely on Piagetian concepts of schema formation with modifications from more recent infancy research on memory, and on category and

prototype formation. This account is different, however, as it also concerns schemasof motivational, affective and object-related experience.

## **B.** Forming prototypes and representations of subjective

#### experience

The infant sets about creating subjective units ('pre-narrative envelopes') by identifying their invariant elements. An invariant element, as defined here, is a feature of the repeating experience that is always there when the general pattern is seen. Variant elements may or may not be present each time - or they may change too much on successive repeats. The infant provisionally defines a unit of experience by its constellation (i.e. co-occurrence) of invariant elements.

An over-simple example serves well to illustrate the infant's mode of proceeding. It concerns the mother's face as a simple element (a perceptual element in this case - not a 'pre-narrative envelope' in itself). Suppose the infant is hungry and calls out in the morning. The mother gets out of bed and enters his room. Her face is full of sleep, her hair down, etc. (face no. 1). She then leaves for a moment, puts her hair up and washes her face. She reappears (face no. 2) for the feeding. After the feeding she retreats, gets dressed, puts on lipstick, earrings and re-does her hair. Then she returns to his room to play for a while (face no. 3). After that she leaves again, puts on her hat and ties a scarf round her neck. She then reappears (face no. 4) to say goodbye before going to work. (For the sake of simplicity I have left out all the changes in the infant's perception due to changes in his motivational state, etc. see below.)

Has the infant - subjectively - encountered 4 different faces and 4 different mothers? No. He identifies the invariant features of her face that remain constant across all the changes in lipstick, hair, etc. Experiments show that infants by 5 months, if not earlier, can conserve the identity of a face (its invariant form) across changes in emotional expressions, and across shifts in his own state of hunger-gratification (Speiker, 1982; Schilling, unpublished).

This is how the infant treats a single element. However, a 'pre-narrative envelope' consists of a constellation of such invariant elements. The constellation of invariant elements necessary to compose a 'pre-narrative envelope' are: motivational state, affect, arousal/activation, motor action, perceptions, sensations, cognitive evaluations, setting. It is the specific constellation of elements, taken together, that constitutes the unit of experience. All elements are necessary and all are invariably

present. There are no motivations without affects, arousal shifts, perceptions, actions (even inhibited), etc. Similarly there are no perceptions without motivation, affect, etc. These elements of experience only become isolated or excluded in psychopathological states (or academic experimental approaches). Otherwise, taken together, they are what makes up lived, subjective experience.

The idea of global 'basic units' of subjective experience in infancy is not new. Many who have been interested in the development of thinking and representationhave sought a key global unit of subjective experience to work with, especially in early development. Golse and Bursztejn (1990) have summarized various such attempts under the heading of 'signifiants archaïques'. These include (Aulagnier, 1981), 'agglomérats 'pictogrammes' primatifs' (Belger, 1981), 'représentations de transformation' (Gibello, 1984), 'concrétions' (Pinol-Duriez, 1984), 'signifiants formels' (Anzieu, 1987) and 'la matière psychique, cette expérience triangulaire: éimotionnelle, physique, mathématico-logique' (Schmid-Kitsikis, 1991). The 'unconscious phantasy', itself, is fundamentally such a unit, as it englobes desire, perception, action, affect, discharge, etc.

The 'pre-narrative envelope' proposed here is conceived, in part, in the same spirit and differs mainly in its pivotal role in relating drives, 'thinking', and interaction as three independent determinants.

The process of forming a 'pre-narrative envelope' as a category of lived experience already involves an early form of abstraction and representation. This process is well illustrated by an example from the experimental literature that complements the situation we imagined the baby to be in with the four potentially different maternal faces.

A baby of 10 months is shown 7 different drawings of a face in succession where in each subsequent drawing one facial feature is varied, every 20 seconds. For example, in one the nose is longer. In the next it is shorter. In the following, the eyes are larger or the ears placed lower, etc., until the baby has seen 7 different variations. After a waiting period, the infant is 'asked' (there are accepted techniques for doing this) to pick from a new set of drawings (some of which he has already seen) the one that best represents the series of seven drawings he has previously seen. He will choose as the best representative of the whole series a drawing that is the mathematical average of all the feature placements that he saw in the original sequence of seven drawings (Strauss, 1979). However, the drawing that he chooses as the 'representative' one, he has never seen before.

What the infant has done is to compose a kind of composite picture which gets updated at each successive presentation of a new variation. In so doing, the baby forms a single prototype that represents the entire sequence he has seen. What is fascinating about this process is that the prototype itself is a construction from reality. The infant never before actually experienced the prototype. He made it up. It is a kind of primitive abstraction. Yet it is, for him, the 'representation' of his past experiences.

Now let us take an example that falls within the definition of our unit of interest, a 'pre-narrative envelope'. Suppose the infant is hungry and the mother has just arrived and is about to start feeding. One invariant will be the sensation of hunger, its intensity, its quality, its fluctuations while he waits, etc. Another will be his state of activation which will be high and will mount progressively higher until the feeding starts. The activation element will invariantly be accompanied by large jerky ballistic movements of his arms and legs, etc. Another invariant will concern his perception of his mother's face (he looks far less at her breast, if at all). There, he will perceive certain invariant features. Let us assume, for example, that the Kleinian view is correct and the infant will experience her face as 'persecutory'. That too will then be an invariant element'; and so on, with all the other invariants: physical position in space, touch contact-points, smell, setting, etc. The overriding invariant is that all of these stable elements co-occur. (The moment the feeding begins, a new 'pre-narrative envelope' will have begun with its own invariant constellation of elements. The sequencing of units will be taken up below.)

Life is such that each time this constellation of invariants occurs - i.e. about six times a day - it will be somewhat different, depending on how hungry he is, mother's mood, etc. The elements are only relatively invariant. It is from this unfolding set of variations that the infant will construct a prototype, a representation of the experiential unit we are calling the 'pre-narrative envelope', of being hungry.

# C. Remembering 'pre-narrative envelopes'

In what form are 'pre-narrative envelopes' remembered? Research of the past few decades on episodic (autobiographical) memory describes how memories of a specific place at a specific time are packaged (Tulving, 1983; Neisser and Winograd, 1988). In brief, it appears that the event is largely preserved (with possible changes, omissions, etc. - see below), in the form in which it was 'lived'. Each attribute of the lived event (equivalent to each invariant element in the 'pre-narrativeenvelope') is encoded in the sequence in which it was experienced. The entire event is remembered as a whole that is fixed at a specific time in that person's lifeline and at a specific place. Furthermore, the entire event may be retrieved from memory via any of the attributes (i.e. potential invariant elements). The whole experience can be retrieved and 'relived' via the sensations of the lived experience (.e.g. smell/taste à la Proust), or via a particular movement, a shift in affect, or motive-state, etc. Further, no one attribute (motivation, affect, sensation, action, perception, etc.) has, a priori,

a privileged role in organizing the memory structure or its retrieval. Any one of them could be the dominant subjective attribute in any one particular memory or lived experience (Pine, 1981).

The research of Rovee-Collier and Fagen (1981) demonstrates that a form of episodic-memory encoding and retrieval (which is perhaps midway between recall and recognition memory) can be demonstrated in infants by 10 weeks of age. 'Proto-episodic memory' is probably a better term because the infant cannot place himself along a personal time-line.

Nonetheless, episodic memory is ideally suited to handle a notion such as 'pre-narrative envelopes'. More accurately, the notion of episodic memory has been helpful in conceptualizing 'pre-narrative envelopes'.

## D. The temporal structure of the 'pre-narrative envelope'

Subjective experience unfolds in time. I return to the analogy of a phrase in music composed for many instruments. Each invariant element of the envelope (affect, action, sensation, etc.) is temporally contoured. And each has its own particular melodic line or contour. We cannot just speak of affect, or activation level, as a static invariant. We must include the contour of its shift over time, e.g. crescendo, decrescendo, explosions, attenuations, remaining steady, etc. These contours consist largely of changes in intensity over time. They are what I have elsewhere called 'vitality affects' because they are the constantly present aspects of living that describe the how - not the what - of the inner feeling state and its outward manifestation. These vitality affects apply to all manifestations of living: hunger; breathing; walking; smiling; waving goodbye; realizing i.e. the processes of thinking itself (Stern, 1985). They are also the main phenomena on which affect attunement and other aspects of empathy are based (Stern et al., 1984).

In a 'pre-narrative envelope', each separate invariant element has its own intensity contour. And this contour has its own temporal relationship to the contours of the other invariants. And the whole phrase, taken together, has its own superordinate contour, i.e. the combined effect, the orchestration. (It is worth recalling how early and relatively easy it is to encode and recall complicated pieces of music compared to other events of a similar complexity.) For such a unit, if it is cut up further it ceases to exist. This is largely true for vocal and verbal and most gestural and tactile communication. The events make no sense without the factor of temporal unfolding. This seems to be equally true for affects, arousal, pain and other such elements of experience. Their form is largely defined by bounded intensity changes over time.

An example is illustrative. Imagine the same hungry baby, mentioned above, crying in the morning for his mother to come in and feed him. We will begin at the moment the mother enters the baby's room and stop after the first 3 or so minutes into the feeding. This will be divided into two 'pre-narrative envelopes': 'pre-narrativeenvelope' no. 1 begins when mother comes into sight and ends with the immediate goal-state achieved of being positioned at the breast with the nipple in the mouth; 'pre-narrative envelope' no. 2 begins with the nipple in the mouth and ends when satiation begins to over take the baby. We will follow only 5 invariant elements which are schematized in Figure 1 below.

There are two quite different temporal patterns (orchestrations) of invariants in these two envelopes. Also each is dominated by a different immediate goal (nipple in mouth vs. contentment), and each embodies a different vitality form: mainly progression and acceleration in the first and deceleration and fading in the second. The infant appears able to discriminate them as two different units of subjective experience.

Figure 1. A schematic of 5 invariants during a sequence of two 'pre-narrative envelopes'.



Key:

...= The subjective sensation of hunger. In the first 'pre-narrative envelope' (PNE 1), starting from a high level, subjective hunger should decrease slightly on sight of his mother. This abatement is transitory and the sensation of hunger may rise as the feeding approaches. Once the nipple is in his mouth (PNE 2), and sucking begins, the hunger will probably remain intense at first and then fall away.

= Negative affect. This contour should adhere fairly closely to the sensation of hunger. It will be more sensitive perhaps to the psychological effect of seeing motherin PNE 1, and to nipple in mouth in PNE 2, even before much milk intake.

\$\$= Visual perception of mother. The infant will gaze at and visually pursue mother throughout PNE 1. In PNE 2, he is likely to remain looking at her for this first phase.

\$\$= Tactile contact with mother. None in PNE1. Constant in PNE2.

\$\$= The baby's arm and leg movements: large, jerky ballistic movements until mother appears in PNE 1, lessening somewhat on seeing her, but resuming with progressive amplitude until sucking begins. At that point, in PNE 2, the arm and leg movements cease and motor action is dominated by rapid frequency, lower amplitude sucking movement.

The idea of 'vitality affects' applied the notion of time-intensity contours (Tomkins 1962, 1963) to affects (Stern et al., 1984). Here, I am expanding this application to all units of subjective experience that fall into the broad category of 'pre-narrative envelopes'. This will include lived experience, remembered experience, represented experience, phantasized, i.e. imagined, experience. All have a shape of temporal unfolding. These temporal forms are at the basis of all experience that is not purely semantic or highly abstract. Others have been impressed with the need for such a concept, e.g. the 'vitalisation des schèmes' by bringing in affects (Schmid-Kitsikis, 1991). This line of inquiry initiated by Tomkins and expanded by Stern deserves much greater exploration.

This notion of time as part of vitality-forms poses an enormous problem: the difference in temporal unfolding between lived experience and represented, imagined or remembered experience. This is the problem of virtual time vs. real time which is beyond our scope here (see Ricoeur, 1985). Similarly the problems of sequencing will not be discussed here.

(It is with these subjective forms that we, as adults, can enter into and understand abstract time-based art such as dance and music. And it is with the same subjective forms that we, as infants, first entered into and understood our lived experience.)

The issue of temporality will be taken up again below in discussing dramatic narrative lines.

To be able to identify and represent the temporal forms of vitality, of dramatic line, the infant must have precocious time discrimination. There is now ample evidence that exquisite timing abilities are in place from very early in life. Even simple games played by mothers and infants demand a precise evaluation of short periods of time on the infant's part (see Stern, 1977).

## E. Narrative coherence as an aspect of the 'pre-narrative

### envelope'

Narratives consist of plots that unfold along a temporal dramatic line of tension. The 'pre-narrative envelope - contains an early form of dramatic line and plot which together give it coherence and meaning. Let us begin with the property of dramatic line, i.e. the contour of tension which unfolds in time.

All theories of narrative include some temporal features related to a dramatic line or a line of tension, or a high point or a crisis. All theorists agree that there is always the sequence of a beginning, middle and end. Labov (1972) proposes a more elaborated version with an orienting phase, a phase of complicating action - leading to a high-point (crisis), and a phase of resolving action. Ricoeur (1983, 1984, 1985) speaks in terms of characters in situations who respond to the situation by acting and thinking to change or reveal new aspects of the original situation. This creates an altered situation for the characters, etc. From a psychotherapeutic perspective Luborsky and Crits-Cristoph (1992) have talked in terms of 'core of conflictual relationship themes' which consist of (object related) wishes, the response of the object to the wish, and the wisher's reaction to the other's response. (This probably involves two sequenced narrative envelopes. as mav the narrative structure described by Ricoeur.) Freud's concepts of drive and 'unconscious phantasy' - like all goal-directed units - has an implicit dramatic line of tension created by the necessary movement towards the end-state.

I am suggesting that in pre-verbal and pre-narrative infancy, units of subjective experience ('pre-narrative envelopes') are already experienced as having a line of tension, a preliminary form of a dramatic line. This is so for two reasons. The 'envelope' is already temporally structured as a 'vitality form' of intensity contoured in time. The vitality forms that run through 'pre-narrative envelopes' have an intrinsic line of tension. And infants have constant and intimate experience with many different patterns of these tension lines. Secondly, because their subjective

experience is parsed into goal-directed units, the dramatic line inherent in the 'pull' of the goal is made familiar to infants very early.

The 'pre-narrative envelope' also contains primitive forms of a plot, just as it contains a preliminary form of dramatic line. Narratives must have a plot and a plot is made of certain elements.( ③ As soon as children start to tell autobiographical narratives, at between 3 and 4 years of age, they immediately build a dramatic line into their telling. It is part of the structure as intuitively grasped. When children begin narrative production, they tend to put the dramatic high-point in the front or at the end, as a punch-line, rather than somewhere past the middle as in Greek or Shakespearean tragedy, which they will learn to prefer to do by the age of 6 or 7 (Peterson and McCabe, 1983).)

Burke in his classic on the grammar of motives (1945) describes a 'pentad' of elements that compose a coherent narrative plot: agent, action, agency, purpose, scene. Bruner (1990), in applying narrative concepts to developmental psychology, has taken up the pentad with slight modifications: agent, action, instrumentality, goal, context. He points out that this is a basic unit for comprehending human behaviour in most folk psychologies. In this light, it is notable that schools of journalism teach that a good story - in fact, the first line of a good story - should contain a: who?, where?, when?, why? and how?. This is the same pentad in question form. And certainly well-formed gossip develops around these elements. It is these elements that make up the plot of the desire/motive/goal unit.

Freud's drive and unconscious phantasy contains the elements of source (agent implied), aim ('specific action' of psychoanalysis), goal (satisfaction or discharge), and object (instrumentality or means facilitating discharge, in its original sense). An object-relations version of the same is arrived at with minor modifications. Laplanche and Pontalis are clear in emphasizing the 'unconscious phantasy' as having the structure of a scenario or plot, the 'mise en seène du désir' (1967).

How early may the infant have the necessary rudiments to experience the plot-like features of his subjective experience?

I will begin with the elements of the pentad. By 3 - 4 months of age, if not before, the infant has sufficient capacities to differentiate self from other. Part of this differentiation rests on his ability to recognize his own 'agency', that he is the author of intended actions (see Stern, 1985, for detailed argumentation). At the same time, he starts to have an appreciation of primitive forms of 'causality', and his behaviour is clearly goal-oriented. We even speak of 'instrumental crying' at 3 months to get something, as well as other 'instrumental' behaviours. In a sense, then, well before the first half of the first year, the infant has a sense of: agent, object, goal, and instrumentality.

The remaining elements of the pentad are context, the where and when. Here the work of Rovee-Collier and colleagues (1981) shows that infants, by at least 3 months, have a great sensitivity to spatial surroundings (the 'where?') which becomes one of the expectable attributes of a 'proto-episodic memory'. Less data on the 'when?' in infancy are available.

In summary, the basic elements of plot, even in a preliminary form, are available to infants very early. These help to constitute the purposiveness, the goal-directedness of human desires/motives. The 'pre-narrative envelope' contains this aspect of subjective experience. Trevarthen has long held that infants, beginning in the first months of life, share with the mother 'primary motives' (1980, 1982).

Without the addition of the narrative-like aspects of dramatic line and plot, the 'pre-narrative envelope' would be only a co-occurrence of invariant elements woven together in time, rather than a coherent script-like structure with meaning. In the perspective adopted here, where each invariant of an experience is being processed semi-independently, in parallel, simultaneously, and at an unconscious local level, the need for creating coherence - or the illusion of coherence - of experience becomes that much greater. The most universal way that the mind self-organizes, to make sense of 'what-is-happening', is to use the desire/motive/goal unit to create emergent properties such as narratives or 'pre-narrative envelopes' to give the sense of coherence to experience.

In this view, innate endowment plays another of its roles in the need to create coherence of experience, and in preferring certain structures for establishing the sense of coherence.

# F. Interaction and object-relatedness

The 'pre-narrative envelope' is a unit that encompasses any form of patterned subjective experience, and that, importantly, includes object-related experiences such as: identifications, fusions, self-objects, internalizations, projective identifications, etc. In fact, the great majority of 'pre-narrative envelopes' of clinical interest naturally concern object-relatedness. However, here too, the general outlines of formation and structure of the 'pre-narrative envelope' mentioned above are respected.

An example is illustrative. For a formative period of early infancy, between 3 and 6-7 months, the infant cannot experience relatively high levels of joy unless he is in an

interaction with a caregiver. Intense smiling and laughter are not seen in an infant on his own at those ages. The higher peaks of joy are achieved by the infant and caregiver in progressive steps where each is thrown by the other into higher and higher orbits of positively toned animation. To paraphrase Winnicott, there is no such thing as a laughing baby, alone. Returning to our invariants, their packaging and representation, the presence and the responsive behaviour of the caregiver are invariant elements of the infant's own internal experience of high-level joy. It is an internal state that never occurs except in certain interactions with partners. The 'pre-narrative envelope' for joy at this age includes a 'self-regulating-other', or an 'internalized object', or a 'self-object', however one wishes to label it. The 'internalization' has occurred by virtue of the nature of the invariant elements that make up the infant's subjective experience. 'Internalization' does not occur as a later, or second, or separate step.

Some of the necessity for a 'constructivist' approach ( A 'compositionnisme fonctionnel', a term suggested, tentatively, by Guy Céllerier) has arisen from the realization in infant observation of the unexpected quantity and quality of the infant's interactions with the environment from birth, the great precocity of many of his mental capacities, the abandonment of the notion of an infant who is 'normally autistic' and protected behind a stimulus barrier, and a re-'thinking' of our notions of primary narcissism. Also closer observations of mother-infant interactions have revealed that normal 'good-enough' parent-infant interactions inevitably consist for the baby of many moments of pain, fear, menace, anxiety, rejection, intrusion, and so on down the list of negative experiences. Less recourse to innate preconceptions seems needed to explain the darker complexion of the infant's phantasy world.

### G. Re-construction of 'pre-narrative envelopes', and the issue

#### of distortion

The 'pre-narrative envelope' is a constructed experience, not a reflection or registration of 'objective' reality. There are several ways that 'thinking' and representing may lead the 'pre-narrative envelope' away from what one might imagine to be the 'objective' truth. First, there is the nature of prototype formation. All prototypes are already 'fictions' in that they were never actually experienced in just that way.

Second, we now know that infants (by the age of 3 months) can modify their memories of past events. For instance, if an infant forms a prototype of a given situation, and then later he is exposed to a new version of one of the elements of the

original experience, in isolation, i.e. in another context, he may incorporate the new version into the prototype and will act as if it had been part of the original experience (Boller, 1992).

In this fashion we can see, in infancy, substitutions and displacements, long before language. This is possible because the current view suggests that infants are capable of non-linguistic symbolic-like transformations, abstract 'thinking' or 'pre-thinking', and associations across wide and diverse memory networks (Timmons, 1992; Mandler, 1988; Rovee-Collier, 1981).

Infants have an innate ability to recognize information across modalities. For example, infants of three weeks of age know, without any prior experience, that something that feels a certain way to the touch will look a certain way (Meltzoff and Moore, 1979). Or, going from vision to audition, an infant will recognize the sound of a temporal pattern (e.g. \$\$) if he has seen it before as a visual temporal pattern expressed in light flashes. In other words, infants have supramodal capacities to extract information from one modality and use it in another modality. This may facilitate associative linkages permitting interesting alteration in the form of a representationcompared to the original conditions under which it was formed.

Infants seem to show affect-state-dependent memory (Orh et al., 1990; Fagen, 1992). They may be unable to remember an experience unless they are put back into the same affect state (e.g. crying) that prevailed when the experience occurred. In this respect, they act as if Freud's initial ideas (as influenced by Charcot) about traumatic hysteria were operating (Freud, 1893).

The nature of the appearance of 'emergent properties' in multiple drafts as described above is relevant here. This process leaves much room for the infant to be of many minds and many voices simultaneously - some contradictory, some more painful than others. This creates the conditions of conflict under which defensive and coping manoeuvres become necessary, thus leading to distortions of yet a different kind.

In short, we can anticipate that the contents of a 'pre-narrative envelope' and its linkage with other envelopes will undergo important revisions sur le coup and après coup. The infant has the means of making this kind of continual reconstruction as needed, without changing the basic form of the unit.

Finally, there is the potentially profound 'distortion' of reconstruction involved in the transposition of the 'pre-narrative envelope' into a narrative told to oneself or to others. Examining this transposition is crucial for understanding developmental continuity and the problem of clinical reconstruction. It is, however, beyond the scope of this article, but the subject of current active research in our team.

related А question is raised here. Are 'pre-narrative envelopes' conscious or preconscious or unconscious? The treatment of 'pre-narrative envelopes' here mainly relates to the formation of these units prior to verbal and symbolic activity, and prior to self-reflection, both occurring at about 18 months. As traditionally defined, then, the 'pre-narrative envelope' is unconscious. More recently, verbal symbolization has not been considered necessary for consciousness, and in this view the 'pre-narrative envelope' can readily become preconscious or conscious. Accepting this view, the 'pre-narrative envelope', topographically unconscious, while usually can become dynamically unconscious secondarily.

# III. A Clinical Example Using 'Pre-Narrative Envelopes'

With the 'pre-narrative envelope' now fully assembled as our basic psychodynamic unit of subjective experience in infancy, it may be illustrative to apply it to a clinical situation. I will take the 'dead mother complex' as described by Green (1983) as the example. This clinical situation is chosen for several reasons. It is widely recognized as a superb description of a clinical situation which is frequently found and is also of theoretical interest. It involves interactive events presumed to happen between an infant and mother, well events. It provides as as intrapsychic а full picture of development-related reconstructive modifications of the original representations. Perhaps of most importance, it details the task of reconstructing the developmental situation, the account according remarkably well with what one sees when observing these potential cases prospectively, in status nascendi. Because there is agreement, in the main, about the phenomena present when viewed prospectively or as reconstructed, I am able to examine essentially the same phenomena from a different perspective.

In the past years, infant observers have turned their attention increasingly to the interactions between infants and depressed mothers. What follows is a selective summary of this work, including my own observations.

When mothers get depressed, there is not quite the 'brutal change' and 'love lost at one blow' that adult patients may describe, in reconstruction, as a single clear traumatic event. Rather there is а progressive process of usually partial désinvestissement. Instead of one traumatic subjective experience, there are at least four different subjective experiences - leading to four separate 'pre-narrative envelopes', that together start to make up part of the infant's representational world from the beginning of the mother's psychic disappearance in the context of her physical presence. These are:

# **'Pre-narrative envelope' no. 1: an experience of repeated**

## 'micro-depression'

Compared to the infant's expectations and wishes, the mother's face is flat and expressionless. She breaks eye-contact and does not seek to reestablish it. Her contingent responsiveness is weaker. There is a disappearance of her animation, tonicity, etc. Along with these invariants coming from mother, there are the resonant invariants evoked in the infant, the flight of his animation, a deflation in his posture, a fall in positive affect and facial expressivity, a decrease in activation, etc. In sum, the experience of а 'micro-depression'. This is recurrent а 'way-of-being-with-mother', which is identifiable, and becomes represented as a regular part of his subjective experience - i.e. it is assembled in a 'pre-narrative envelope'.

## 'Pre-narrative envelope' no. 2: the infant's experience of being

#### a re-animator

Faced with the situation of a resonant micro-depression, the infant invariably tries to get mother to come back to life. At this stage, this is a coping mechanism, not a defence. He turns to face her and establish mutual eye-contact. He raises his eyebrows and opens wide his eyes and mouth in invitation to interaction. He vocalizes, smiles, gestures, and is often very creative with humour and invention. When none of this works, he turns his head away for a moment and then turns back to try again. This pattern of trying to recapture and re-animate mother (and self) is regularly seen with maternal depression and also in the experimental situation called the 'still face' which was specifically developed to study what infants do under these conditions (Tronick et al., 1978).

The important point about this envelope of infant behaviours is that it sometimes works and the mother is re-animated, even though depressed. It works because maternal depression is not a matter of all or nothing and not constant. Mothers vary in their availability to be reanimated from day to day or from hour to hour. Most depressed mothers are very distressed by their relative unavailability for their infant and often fight harder against that than against any other feature of their depression, and with variable success. One might think that if the infant's attempts at re-animation are rarely successful, he will gradually cease his efforts. And indeed, some infants do - with their mother at least. But many do not. (Variable, infrequent reinforcement is a good way to maintain a behaviour.) And for those who do not, the 'experience as potential re-animator' continues to be а second 'way-of-being-with-mother' under these conditions.

### 'Pre-narrative envelope' no. 3: the experience of 'mother as a

### background context in seeking stimulation elsewhere

After repeated failures of 're-animation', the infant turns away to seek a more appropriate level of stimulation. Here, the invariants are the solo-search for level of auto-regulated vigilance and stimulation, a certain activation, and amplification of curiosity, etc., all occurring in the invariant physical presence of mother but as an element of the background. That is to say that the external search for stimulation implies the mother's presence somewhere in the background. This is yet a third 'way-of-being-with-mother'.

## 'Pre-narrative envelope' no. 4: the experience of an

### 'inauthentic mother and self

Depressed mothers try very hard. They know, only too well, that they are insufficiently there for their child and insufficiently stimulating. They tend to overcompensate in bursts. They make a huge effort, reaching into their repertoire and going through the right steps but without the feeling. The result is a certain inauthenticity revealed in failures of fine tuning and minor discrepancies. I believe that infants can discriminate a forced flow from an easy flow, but they are so eager for a more enlivened interaction that they accept the minor violations and adjust their own behaviour accordingly. The result - to overstate the case - is a false interaction between a false mother and a false self. The behaviour is forced, the feeling is off, but the desire is very real. This is a fourth 'way-of-being-with-mother', a fourth 'pre-narrative envelope'.

The interaction with the 'dead mother' shuttles back and forth between these four 'pre-narrative envelopes' for months and months, i.e. usually for the duration of the acute phase of the depression. There is no set pattern to which of the four has relative predominance. Some mothers, for instance, cannot love well, but can rouse themselves to stimulate the infant. These infants have less need for auto-stimulation or stimulation elsewhere, but the acceptable (but not optimal) stimulation they receive is without a sufficient dose of love. Other mothers can continue to love their infant - perhaps the only person they can still love, and it shows. But they cannot raise themselves to adequate levels of stimulation. In this case the split between exciting sensations and love tilts the other way. Or, some mothers can be re-animated (enough of the time) by their infant. This favours the infant becoming - more of - an 'anti-depressant', a creative and sparkling signal-reader and performer.

What is remarkable in considering these two perspectives is that the reconstruction from adult patients in Green's account includes almost all the same elements as appear in the above observational-prospective account. (It adds others of course. The prospective account can say nothing about reconstructions après coup). Where the two accounts mainly differ is in what are assumed to be the initial conditions which will be pathogenic. The reconstructed 'abrupt' traumatic event which single account posits a focuses on the mother's désinvestissement. The other elements then get added later on in the course of progressive reconstructions and defensive elaborations which fill out the evolution of the clinical picture as development proceeds through its different psycho-sexual stages.

The observational-prospective account posits an initial condition consisting of four different related 'ways-of-being-with-mother' which are represented in four different 'pre-narrative envelopes'. These are not conceived of as reconstructions or defensive elaborations. Rather, they are four parallel subjective experiences that make up the original pathogenic terrain. All four are the starting conditions on which later reconstructions will be based. In this view, the initial conditions are richer and more elaborated. The trauma has been somewhat demystified and transformed into the quotidian. This perspective requires less reconstructive work après coup, since there is more to start with or to build upon.

The reconstructive perspective assumes a sharper and simpler beginning which requires more and richer reconstructive work later on. It is not surprising that the reconstructive approach finds the lion's share of the action in progressive reconstructions après coup, while the observational approach finds more of the action in the observable initial conditions created sur-le-coup.

These two complementary perspectives are potentially mutually enriching - and together provide the triangulation necessary better to understand the nature of the evolution of reconstructions.

# **IV. Summary**

The 'pre-narrative envelope' is suggested as a basic psychodynamic unit of infantile subjective experience. This concept borrows equally from psychoanalytic notions of drive, from cognitive-science views of 'thinking' and 'representing', and from observational studies on parent-infant interaction. It is an alternative view of an 'unconscious phantasy'.

The 'pre-narrative envelope' differs from the traditional 'unconscious phantasy' in the following:

1. Where the Kleinian 'unconscious phantasy' is mainly determined by genetic endowment, and the Freudian 'unconscious phantasy' is an ego-rendition of innate 'drive themes', the 'pre-narrative envelope' is highly dependent on environmental interactions, is once removed from genetic endowment (such as drives), and requires the mental construction of coherence and sense from subjectively unrelated happenings. It requires 'thinking' for its creation and emergence.

2. The 'pre-narrative envelope', as an 'emergent property' of mind, is based on a theory of 'thinking' currently prevalent in cognitive science. This has the advantage of bringing psychoanalysis back into the mainstream of modern scientific discourse about the mind.

3. The 'pre-narrative envelope' is explicitly a temporal unit of experience. This favours a further exploration into the real and virtual time-basis of subjective experience - a still-neglected domain of inquiry.

4. The 'pre-narrative envelope' is seen as the all-purpose, basic unit of subjective experience that involves desires/motives/goals. The structure of this unit remains the same even though the unit can exist in many different modes: lived experience, remembered experience, represented experience, or fantasized experience. Furthermore, 'pre-narrative envelopes' can be of various sizes. Smaller envelopes can be nested within a larger one. The structure of the unit, however, does not change with size. It is a kind of fractal. The 'unconscious phantasy' is conceived less broadly and less flexibly.

5. The 'pre-narrative envelope' is seen as the unit of experience from which later true autobiographical narrative acts of meaning are created. In this sense, it implies a discoverable ordered relationship between the two, and views the hermeneutic approach as complementary.

6. From a clinical point of view, thinking in terms of 'pre-narrative envelopes' provides an additional search-strategy for the origins of the patient's representational world. It puts a greater emphasis on the detailed exploration of repeated 'micro-interactions' in both past and present.

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