The relation between experience, conceptual structure and meaning: non-temporal uses of tense and language teaching

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1. Introduction

1.1. The problem

It is widely accepted that the primary function of English tense is to signal time-reference (Binnick 1991, Comrie 1985, Jespersen 1924; Langacker 1991, this volume, Quirk et al. 1973, Reichenbach 1947). While this paper is concerned with both tense and language teaching, we will not be primarily addressing the time-reference function associated with tense, nor will we be offering an approach for teaching tense. Nonetheless, the problem we address is directly motivated by an issue faced by language teachers. While tense morphology canonically signals time-reference, it is often associated with other non-temporal functions (Celce-Murcia and Larsen-Freeman 1998, Comrie 1985, Cutrer 1994, Fleischman 1989, Langacker 1991, Quirk et al. 1973, Riddle 1986, Swan and Smith 1987, Ter Meulen 1995, Westney 1994).

There are four kinds of non-temporal uses of tense that we will consider. The first function relates to a designation of *intimacy* between the speaker/s and others. The second relates to what we will term *salience* (commonly referred to as *foregrounding* and *backgrounding* in the discourse literature). The third concerns what we will term *actuality,* in which tense is used to signal the extent to which the experiencer (or speaker) believes the event described corresponds to the actual world-state and conditions holding (this has

been variously termed *epistemic stance,* cf. Fillmore 1990, or as a distinction between *realis* and *irrealis).* The fourth function concerns what we will term *attenuation,* in which certain speech acts are "softened"' or *mitigated* in terms of their threat to *face* (cf. Brown and Levinson 1987). This function is commonly referred to in terms of linguistic politeness phenomena. These functions will be described in greater detail in Section 2.

In previous approaches to tense it has been common to distinguish the time-reference function from such non-temporal functions on the basis of "meaning" versus "use" (e.g. Comrie 1985). That is, while the literal meaning of tense relates to time-reference, non-temporal uses are simply uses derived from contextual interpretation. The argument is that in a sentence such as: *I just wanted to ask you if you could lend me a pound* (ibid.: 19), the addressee can determine from context that the use of the past tense does not relate to a past desire, but rather to a current situation. This common approach has tended to reinforce the view that non-temporal uses should be treated as exceptions.

The difficulty for language teachers, and one we have faced ourselves in classroom settings, is how to insightfully present the non-temporal uses associated with tense. The approach offered by received wisdom, as reflected in course books and pedagogical grammars, is to treat them as exceptions, or worse to ignore them altogether. For instance, Westney (1994) has observed that in pedagogical grammars: "[T]ime reference is treated as dominant and other uses are simply appended" (ibid.: 79). Riddle (1986) notes that most pedagogical texts ignore the uses of tense to signal intimacy, salience, and attenuation. If any of them are addressed, the general position is that these uses are arbitrary; presentation of non-temporal usages are often scattered throughout a grammar with no attempt to tie the non-temporal use back to the basic temporal sense. Such analyses have resulted in second language learners being instructed to simply learn formulaic phrases to express polite requests, indirect commands, conditionality, etc. with little or no explanation for why the tense marking in the phrases they are asked to memorize does not correspond to temporal uses of tense. The ultimate result, as Riddle

(1986) documents, is that second language teachers are at a loss for a satisfactory explanation of the phenomena and even relatively advanced second-language learners often experience difficulty acquiring these non-temporal uses of English tense.[1]

Our central thesis in this paper is that the non-temporal uses of tense are related to its time-reference function in a motivated way. Rather than treating tense as being analyzable into a literal time-reference meaning and an unrelated range of non-literal exceptional uses, we suggest that two important aspects of the cognitive linguistic perspective allow us to view the non-temporal meanings as being related to the temporal meaning in a systematic way. First, cognitive linguists treat grammatical markers, such as tense morphemes, as being meaning-bearing elements in the same way, in principle, as full lexical items. This entails that tense markers can be treated as form-meaning pairings. The second is that symbolic elements (i.e. form-meaning pairings) are subject to usage-based meaning extensions. As such, through use, additional meanings can become associated with a particular form, resulting in the lexical form becoming related to a semantic network of distinct, although ultimately related, senses. We follow Elizabeth Traugott (e.g. 1989) in referring to this process of meaning extension *as pragmatic strengthening.*

In other words, we argue that the non-temporal meanings associated with tense are conventional meanings or senses associated with a particular lexical form, in the same way as the time-reference meaning. While the time-reference sense might be the diachronically primary meaning element, our approach suggests that distinguishing meanings based on their "literalness" or whether or not a particular meaning counts as an exception may be misplaced. Moreover, we will argue in detail that due to the way in which we actually experience the notions of intimacy, salience, actuality, and politeness, namely in terms of proximal-distal spatial relations, and the fact that time-reference is experienced in terms of analogous spatial relations, in certain situations tense morphemes which canonically signal time-reference can implicate a non-temporal relation. Through usage-based conventionalization, i.e. pragmatic strengthening, a conven-

tional non-temporal meaning can become associated with a particular tense morpheme.

The main purpose of the present paper, as we noted above, is not to offer a new way of teaching tense, whether we are concerned with temporal or indeed non-temporal meanings. Rather, the aim of presenting the rather elaborate study outlined below, is to illustrate that by assuming the perspective and methodology of cognitive linguistics it is possible to relate the non-temporal senses associated with tense with the time-reference meaning in a plausible way. This approach, we suggest, should facilitate language teaching by providing a systematic model of the links among the semantics of tense markers, which is to say between temporal and non-temporal meanings. Langacker (this volume) suggests that cognitive linguistics may "prove to be lighter, less onerous, and more appreciative than certain previous theoretical burdens. I hope it will even prove useful". We offer the present analysis in the same spirit, and suggest that by relating the various meanings associated with tense morphology, language teachers have a model by which to understand and so relate the diverse functions performed by tense markers. It is our hope that the proposed theoretical perspective may assist in the language classroom.

1.2. Previous analyses and overview of the proposed solution

Our goal is to present a motivated approach to the multiple uses of English tense. We argue that there is an experientially-based commonality reflected at the conceptual level that holds between the concepts of time-reference (externalized linguistically via tense), and intimacy, salience, attenuation, and actuality; this commonality motivates the use of the tense morphemes to implicate the multiple, attested meanings associated with tense. As such, the tense morphemes, which primarily encode time-reference, have come to be associated with non-temporal meanings.

In our account, we depart in certain ways from previous explanations of tense within cognitive linguistics (e.g. Dirven and Radden 2000, Langacker 1991). We note two heretofore unaddressed prob-

lems with the analyses of the usage of English tense morphology. The first involves a contradiction between the representation of the basic sense of the past tense morpheme and several of its non-temporal uses. Langacker (1991), whose work forms the basis of many subsequent analyses, represents past time as being equated with "non-immediate reality" (ibid.: 242), and present time with "immediate reality" (ibid.: 242). The situations or states of affairs being referenced by the English tense morphemes are represented as known reality, i.e. they "are accepted by a conceptualizer as being real" (Langacker 1991: 242). Reality status is argued to be signaled linguistically by the presence or absence of modal marking. Past time, which largely equates with non-immediate reality, is signaled by the past tense morpheme; present time, which largely equates with immediate reality, is signaled by present tense morphology. In contrast, future and modal forms are represented as signaling irrealis. However, English speakers regularly use the past tense morpheme to signal relatively less commitment to the reality of an event or state of affairs; past tense is also used in certain politeness phenomena, which are clearly not interpreted as states of affairs accepted as real. These uses are at odds with the "known reality" representation.

The second problem concerns the explanatory power of certain claims about metaphorical distance and tense morphology. Recognizing that English tense morphemes are not solely interpreted in terms of temporal relations, Langacker (1991) argues that there is an epistemic opposition between "immediate and non-immediate reality" (ibid.: 245-246) which is marked by the absence or presence of past tense morphology;[2] the present and past tenses contrast with "immediate and non-immediate irreality" (ibid.: 245-246) which are marked by various modal forms. On this basis, he labels the past tense morpheme as a "distal marker". Significantly, his discussion in relation to the past tense morpheme centers on temporal distance. Expanding on Langacker's analysis, Dirven and Radden (2000: Chapter 9) note that a sentence such as: / *wanted to ask you a favor* "illustrates a metaphorical shift of the past tense...The use of past tense in *[I wanted to ask you a favor]* achieves an effect of politeness; it distances the situation in time and, as a result makes the request

seem less face-threatening." What is left unspecified in such an account is why placing a speech event in the past, i.e. in non-immediate reality, where it would normally be assigned the interpretation of known (or established) reality, should be understood as less face-threatening. For instance, the normal interpretation of: *I wanted to ask you a favor* still involves the understanding that the speaker is about to ask a favor. Why should establishing that the speaker had a favor to ask before the speech event, a state which continues at the time of the speech event, result in less face-threat? Simply saying this is an example of metaphoric shift and "temporal distance" (which itself is a metaphor that brings together two distinct domains - the temporal and spatial) does not actually offer an account of the phenomena. Crucially missing from this metaphorical analysis is an explanation of the relationship between 'known reality', time, and cognitive distance.

Intuitively it seems that tense-related politeness phenomena *do* involve a notion of distance, but the distance seems to be interpreted in a non-temporal way. The nagging question remains as to why a morpheme which primarily signals non-immediate reality or, metaphorically speaking, "temporal distance", should come to be associated with "non-temporal distance". The analysis we put forward in this paper seeks to offer an explanation for these apparent dichotomies.

In particular, we expand on two fundamental insights initially discussed in Grady (1997, see also Evans 2000). First, many linguistic phenomena which have previously been treated homogeneously as metaphor are more accurately understood as arising from different sources; the most important for our purposes involves *experiential correlation,* i.e. independently motivated and recurring correspondences in experience. Second, previous accounts of conceptual structure have tended to represent concepts pertaining to internal states as abstract and indirect while representing concepts pertaining to experiences with the external world as concrete and direct. Grady (1997) persuasively argues that this representation is questionable and that a more appropriate distinction can be made in terms of *image* and *response* concepts. Image concepts pertain to sensorimotor

information, derived from external experience. In contrast, response concepts pertain to information arising from internal states.

Specifically, we suggest that the concepts of time-reference, intimacy, salience, actuality, and attenuation all represent *response concepts* that are structured or elaborated in terms of the same experientially-based *image content.* In certain contexts, tense (which denotes time-reference) may implicate one or another of these concepts. Through continued use, these implicatures can come to be conventionally associated with the tense morphemes. This process of meaning extension we term, following Traugott (e.g. 1989) and Hopper and Traugott (1993), *pragmatic strengthening.* In essence then, we will argue that morphologically bound English tense forms (past and present tense markers) are meaningful elements which typically prompt for time-reference meaning. However, these forms have been extended to convey non-temporal meanings in systematic and motivated ways.

In view of the foregoing it is worth briefly contrasting the nature of the present analysis of tense with that presented by Langacker (this volume). In his paper, Langacker argues that canonically "the present tense indicates that a full instantiation of the profiled process occurs and precisely coincides with the time of speaking...[while]...[t]he past tense morpheme imposes an immediate scope located prior to the speech event" (ibid.: 22). Put another way, for Langacker, coding time (the time of speaking), and reference time exactly co-occur in canonical uses of the present tense. One of the issues that his paper addresses is the way in which present tense is employed in situations in which the present tense, for instance, does not refer to a situation in which coding time and reference time coincide. By way of example, a speaker who lives in London but works in New York might say: "I work in New York", even though it is the weekend, and coding time coincides with not working and being in London as opposed to New York. Langacker is at pains to address such 'non-present' uses of the present tense in terms of the possibility of multiple construals or viewing arrangements that change the interpretation of the particular linguistic element under examination. In some instances "what is being coded linguistically is not *the actual occurrence* of

events, but their *virtual occurrence* as part of a non-canonical view-
ing arrangement" (ibid.: 30). While we in large measure subscribe to
Langacker's stance, it is worth pointing out that in the present paper
we are not dealing with 'non-present' uses of the present tense, in the
sense of Langacker. Such 'non-present' uses are still, after all, tempo-
ral in nature. Rather, we seek to examine why tense morphology can
be employed to code meaning elements which are non-temporal in
nature. After all, politeness, for example, is not in any obvious way a
temporal notion. Yet, in English, and indeed, in a range of other lan-
guages, notions such as politeness can be designated by utilizing
tense morphology (cf. Fleischman 1989). Our approach, as intimated
above, and as will become evident, is to claim that there are distinct
meaning elements or senses, relating to concepts such as politeness,
which are conventionally associated with the past and present tense
morphemes. While construal is an important part of understanding
non-canonical temporal uses of tense, some non-temporal meanings
associated with tense are, we argue, due to the polysemy exhibited by
tense morphology. This parallels the polysemy exhibited by free
morphemes such as the much studied English preposition *over,* for
instance (cf. Tyler and Evans forthcoming a, forthcoming b).

   The remainder of the paper is organized in the follow manner. In
Section 2, we briefly present the linguistic phenomena under consid-
eration. In section 3, we lay out the theoretical foundations for our
analysis. First, we examine the evidence in favor of adopting the dis-
tinctions of *image concepts* versus *response concepts* rather than
concrete concepts versus *abstract concepts* (contra Lakoff and John-
son 1980, 1999). We further argue that all the meaning elements as-
sociated with English tense that we discuss are best understood as
response concepts. Next, we turn to Grady's insights regarding *expe-
riential correlation.* We argue that *experiential correlation* provides
a powerful mechanism for explaining how distinct events come to be
associated at the conceptual level. In Section 4, we examine the non-
tense linguistic patterns associated with the domains of temporal ref-
erence, intimacy, salience, actuality, and attenuation and show that all
are elaborated through distal-proximal *image* content. In Section 5,
we argue that the fact that all these concepts are elaborated by the

same *image content* links them at the conceptual level. This conceptual linking, then, licenses the use of tense morphology to signal these various uses. Finally, in Section 6, we sketch some of the implications of the analysis for language pedagogy.

2. The phenomena

In order to give a sense of the various meanings of tense to be investigated, we present some examples below. We also emphasize that we will only be considering the synthetic tense forms in English, namely the present and past tense bound morphemes. The present tense morpheme we will represent by [zero/s] or [0/s], to capture the fact that this tense morpheme constitutes the default verb marking. The past tense morpheme we will represent by [Id], which represents a generalization over regular and irregular past tense verb marking in English. These two tense morphemes can be employed to signal the following meanings:

Time-reference
(1)   a. I *work* in advertizing   (present time-reference)
         b. Yesterday I *went* to the cinema   (past time-reference)

Intimacy
(2)   a. A: Jane just bought a Volvo.
             B: Maureen *has* one.
             A: John, you've got to quit talking about Maureen as if
                 you're still going together. You broke up three months
                 ago. (Riddle 1986)

The context in which the utterance occurred is that Speaker B, John, and Maureen were previously in an intimate relationship but the relationship ended and the two have not seen each other for some time. Speaker A interprets Speaker B's use of the present tense as an unjustified claim to intimacy.

(2)   b. My daughter's father *was* Brazilian. He stays in contact with Suzanna, but I haven't seen him in years. (Tyler, personal data)

The past tense appears to be employed by the speaker to signal emotional distance from Suzanna's father. Given the context, we cannot interpret this use to mean that the father is dead or no longer Brazilian. Nor can we assign the interpretation that the man from Brazil is no longer in the role of father.

Salience

(3)   a. In November 1859, Charles Darwin's The Origin of Species, one of the greatest and most controversial works in the literature of science, *was* published in London. The central idea in this book *is* the principle of natural selection. In the sixth edition... Darwin *wrote:* "This principle of preservation of the survival of the fittest, I have called Natural Selection." (Eigen and Winkler 1983: 53)

Tense is employed to signal the relative status of the information or salience, i.e. past tense signals background and supporting status and present tense signals foreground status.

(3)   b. Bateson *introduced* the notion of frame in 1955 to explain how individuals exchange signals that allow them to agree upon the level of abstraction at which any message is intended. Even animals can be seen to use frames to interpret each other's behavior, by signaling, for example, "This is play." Bateson (1972) *insists* that "frame" *is* a psychological concept, but to characterize it he *uses* "the physical analogy of the picture frame and the more abstract...analogy of the mathematical set", (p. 186) (Tannen 1993: 18)

Again, past tense is used to establish the background information and present tense is used to foreground the information the author deems most salient.

Actuality
(4)   a. I wish I *knew* what he'll say next. (Westney 1994)
       b. I wish the students *liked* phonetics. (Fleischman 1989)

Past tense is used in conjunction with specific lexical items, such as *wish,* to signal a state of affairs, which the speaker believes to differ substantially from actuality.

       c. Suppose your house *burned* down. Do you have enough in-surance? (Frank 1983)

Past tense is used to signal that a situation is hypothetical, i.e. a situation which given the current world-state does not hold, and hence is imaginary or contingent in some way.

       d. If he *studied* harder now, he would get better grades. (Frank 1983)

Past tense in the *if* clause (the protasis) signals a negative stance vis-à-vis the conditional situation and reality, i.e. the situation described is non-actual. The sentence roughly paraphrases as "He is not studying hard at the moment. If he changes the present circumstances, and he studies harder, it would be possible for him to get better grades."

Attenuation
(5)   a. I *was thinking* about asking you to dinner. (Fleischman 1989)
       b. I *was hoping* we could get together next week. (Fleischman 1989)

Past tense is used to attenuate invitations, and hence to decrease the threat to face for the hearer (e.g. the imposition of an invitation which must be responded to immediately), and to the speaker (e.g. possible immediate rejection of the invitation), (cf. Brown and Levinson 1987), and is thus conventionally interpreted as polite.

    c. Receptionist (answering telephone): Good afternoon, Dr. Keller's office.
       Caller: Yes, I *wanted* to ask you a question. (Davies personal communication)

Past tense is used to attenuate requests.

    d. *Did* you want to take a look at this? (Fasold personal communication)
    e. I *thought* you might like to try this (Westney 1994)

Past tense can be used to attenuate suggestions.

    f. It's high time we *left* (Westney 1994)

Past tense attenuates commands and reprimands, rendering them conventionally more polite.

In the foregoing examples we have seen that tense is crucially employed in English to signal a number of distinct and fundamentally non-temporal meanings. In (2), tense is used to signal intimacy. In (3) tense signals the relative salience or status of the information being conveyed. In (4), tense is employed to signal the stance towards the actuality of a particular scenario, i.e. speaker's degree of commitment to the reality of the scenario, or alternatively how likely it is to come about. Finally, in (5), tense can have an attenuating function in requests, commands and invitations, mitigating the amount of imposition on the addressee or mitigating potential threats to our public persona or face.

In the remainder of this paper, we explore the hypothesis that the various meanings associated with tense are highly motivated, being related in a systematic, principled way. Thus, we attempt to move to a deeper level of explanation of the phenomena than afforded by previous metaphor-based accounts of tense.

3. The nature of conceptual structure

3.1. Image concepts versus response concepts

One of the most important contributions of cognitive linguistics to our understanding of language has been the insight that much of everyday language involves discussing/understanding one concept in terms of another. Within cognitive linguistics it has traditionally been assumed that there is an a priori distinction to be made between abstract concepts, which are not directly perceived and with which we have less experience, e.g. time, and emotion concepts such as anger, etc., and concrete concepts, which are directly perceived and with which we have more extensive experience, e.g. motion, heat, etc. (Lakoff and Johnson 1980,1999). It has been further argued that it is the distinction between direct and indirect perceptual experience that is responsible for the organization at the conceptual level of abstract concepts in terms of concrete concepts. Hence, an utterance such as *Time flies* is held to demonstrate that English speakers conceptualize and accordingly lexicatize the abstract, less directly experienced notion of *time* in terms of the more directly experienced notion of a physical entity in motion.

However, it is not at all clear that so-called abstract concepts are less directly or less fully experienced than so-called concrete concepts. For instance, Ortony (1988) observes that putative abstract emotion concepts such as *love* are experienced by children much earlier and more extensively than putative concrete concepts such as *journeys,* which Lakoff and Johnson (1980, 1999; Lakoff 1987, 1993) and others have claimed serve to structure the abstract concepts. More recently, Grady (1997) has pointed out that while so-called abstract concepts may not result from external sensorimotor input (i.e. perceptual experience from the external world), this does not entail that they do not derive from equally direct experience. Grady's argument is that so-called abstract concepts pertain to internal, subjective states, but it does not follow that such internal states are not directly experienced. As Grady observes: "[T]he awareness

that we are conscious (as opposed to unconscious) is perhaps the quintessential subjective experience, and yet we do not consider this awareness to be merely an intellectual construct or abstraction - it is a real and direct experience." (Grady in preparation: Chapter 5, 22).

In a detailed study of the conceptual system for time, Evans (2000) argues that the concept 'time', which has previously been assumed to be a parade example of an 'abstract' concept, in the sense of an intellectual construct, can be traced to physiological mechanisms and processes. This work offers support for Grady's suggestion that 'abstract' concepts derive from frequently experienced internal states which humans are aware of at the level of phenomenological experience. As such, these experiences would seem to be just as basic as those arising from external sensorimotor input. Thus, there appears to be little justification for distinguishing many concepts based on their level of abstractness (Evans 2000, Grady 1997, in preparation).

In addition, it is also worth reminding ourselves that even sensorimotor experience of the world 'out there' is mediated by our particular physiology and neurological architecture. As the developmental psychologist Jean Mandler (1992) points out, information arising from observation and experience of the real world does not directly enter into consciousness in an unmediated form. Even the most basic concepts are represented in the human conceptual system as redescriptions and only then are accessible to conceptual structure. That is, sensorimotor experience itself cannot be assumed to be 'direct'.

Accordingly, following Grady, we suggest that the bifurcation in the nature of concepts has little to do with whether a concept is abstract or concrete, but rather is determined by what kind of information the concept represents a redescription of. In essence, a more accurate distinction may be that while image concepts represent redescriptions of 'external' i.e. sensorimotor experience, response concepts represent redescriptions of internal states (cf. Evans 2000).

Perceptual information derived from external sensorimotor information and redescribed into a format accessible to the conceptual system we term *image content,* This represents substrate available at the conceptual level which serves to derive *image concepts,* such as

motion, heat, etc. Perceptual information derived from internal states (also redescribed into a format accessible to the conceptual system) gives rise to what we term, following Grady (1997), *response content.* Response content gives rise to *response concepts.* Response concepts derive from internal body states. In some cases, these internal states themselves may ultimately be responses to external information, hence the term *response.* For instance, *love* refers to an internal state, yet at the same time constitutes an emotional *response* to another being in the external world.

What is clear from the foregoing is that while response concepts lack the 'objectivity' of image concepts, such as those pertaining to physical proximity or physical distance (deriving from sensorimotor information), they are no less basic (Grady 1997). As concepts such as time-reference (in the sense of temporal deixis rather than clock-time), intimacy, salience, actuality and attenuation are internal in nature and hence subjective, rather than being external and inter-subjective, it follows that they constitute response concepts.

The next question to consider is why it should be that response concepts tend to be elaborated in terms of image content. One possible explanation comes from the variability across individuals and the non-verifiability inherent in internal states.[3] Perhaps because we do not have access to each other's minds, when we attempt to externalize information about our internal states through language, humans have resorted to talking about such internal states in terms of experiences which are verifiable, inter-subjective and so consistent across individuals. The issue may not be that the internal experience is less direct or less fully experienced than the sensorimotor experience for the experiencer/speaker but that the speaker's internal experience is less direct for the listener.

A second explanation for why response concepts tend to be elaborated in terms of image concepts, may be because the parts of the brain which process response information may be less well connected to the conceptual system (the repository of concepts which language externalizes) than the parts of the brain which process image information (Evans 2000, Grady 1997, cf. Jackendoff 1987, 1992). In evolutionary terms it makes sense that the conceptual system should

have better access (in terms of better neurological connections) to sensorimotor information than to response information. In terms of ecological viability, it is more pressing that external information be more readily available to the conceptual system (and hence consciousness) than response information (cf. Edelman's 1992 suggestions regarding the evolution of consciousness). Since response content may be only partially accessible to the conceptual system, response concepts may opportunistically appropriate image content in order to develop structure accessible (i.e. "visible") to the conceptual system, and hence available for encoding by language (Evans 2000, Grady 1997).

On this view, it is due to the elaboration of a response concept in terms of image content that a concept such as time-reference (externalized by the tense morphemes [0/s] and [Id]) is elaborated in terms of locational content pertaining to proximal-distal relations, rather than in its own terms (whatever such terms might be). However, this does not deny that at least some of the content which elaborates a response concept is response content, as attested by the fact that we intuitively "know" what it is that tense symbolizes, without being able to adequately express this without the assistance of image content such as time-lines etc. (cf. Comrie's 1985 explanation of tense for instance, which appeals to notions such as a time-line in order to explain time-reference phenomena). Hence, the hypothesis that this response content is only partially accessible to the conceptual system explains 1) why response concepts such as time-reference are difficult to define, and 2) why response concepts tend to be expressed linguistically in terms of image concepts such as 'distance'.

We now turn to a consideration of the mechanism which serves to elaborate response concepts in terms of image content.

3.2. Experiential correlation

One of the remarkable insights to have emerged from cognitive linguistics has been the realization that conceptual structure is largely organized in terms of substrate deriving from external sensorimotor

experience, which we are identifying as image content. However, it remains to be explained what mechanism motivates response concepts to appropriate certain kinds of image content and not others.

A promising candidate mechanism is *experiential correlation,* which has been studied in detail by Grady (1997, 1999a, 1999b, in preparation). Grady notes that a consequence of the nature of the interaction between humans and their environment is that certain kinds of experiences are frequently correlated. For instance, a common, recurring experience in the world is the correlation between the vertical elevation of a physical entity and an increase in the quantity of the entity, which is to say when there is an increase in vertical elevation, there is frequently a correlative increase in the original amount of the entity. By way of illustration, if there are two boxes stacked one on top of the other and a delivery person adds another two boxes to the stack, the height of the stack increases. Hence, height (vertical elevation) and number of boxes (quantity) are correlated in our experience. Similarly, if there is a certain amount of liquid in a container, and more liquid is added, the level of the liquid rises. So, humans frequently experience greater quantity in terms of an increase in vertical elevation.

Grady argues that tight and recurring correlations in experience motivate associations at the conceptual level. Hence, as quantity and vertical elevation are correlated in experience, they come to be linked at the conceptual level, as attested by the example in (6):

(6)   Prices have gone up recently.

This sentence has a conventional interpretation in which prices have increased. Yet, this reading is achieved by utilizing the linguistic prompt *gone up.* The point is that language systematically utilizes expressions, which conventionally denote vertical elevation to provide an interpretation of greater quantity.

We suggest that correlations in experience serve to relate certain kinds of image content with specific response concepts. Kurath (1921, cited in Sweetser 1990) studied Indo-European words for emotions and noted that they are often derived from the physical ac-

tions or sensations accompanying relevant emotions. Kurath attributed this historical development "to the inseparability of physical sensation from emotional reaction, or of emotional state from concomitant physical changes" (Sweetser 1990: 29). Putting this in present terms, the response concept 'anger' is elaborated in terms of image content pertaining to heat, precisely because anger and a physical sense of feeling hot (caused by increased adrenaline and increased heart rate) form a tight correlation in experience.[4]

4. Concepts elaborated by proximal-distal content

During the course of this paper, we will argue that time-reference, the primary meaning associated with tense forms, comes to implicate non-temporal meanings, which in turn through entrenchment (a process we term pragmatic strengthening) comes to be conventionally associated with the tense morphemes. However, in order to able to offer a motivated account for the association of non-temporal meanings with the two tense morphemes, we need to establish why it should be that time-reference should implicate intimacy, salience, actuality and attenuation in the first place. We will argue that all five of these response concepts are elaborated in terms of locational content pertaining to the relative physical proximity of the experiencer because we conceptualize each of the concepts of time-reference, intimacy, salience, actuality and attenuation in terms of proximal-distal relations with respect to the experiencer. Hence, these distinct concepts, while not literally being spatial concepts are all elaborated in terms of spatial deixis, which, as we will demonstrate, is motivated in each instance by a distinct, tight correlation in experience. It is by virtue of being elaborated in terms of similar image content, we will suggest, that the tense morphemes, which denote time-reference, can come to implicate and ultimately denote non-temporal meanings.

In the remainder of this section, we examine the evidence for experiential correlations which give rise to each of these distinct concepts being associated with the proximal-distal dimension. We will

also illustrate how these experiential correlations are reflected in non-temporal language patterns.

4.1. Time-reference

As noted by a number of scholars (e.g. Comrie 1985, Rauh 1983, Traugott 1975, 1978) tense is a deictic phenomenon which signals time reference with respect to a reference point or deictic center. The reference point typically assumed is *coding time,* or time of speaking. Coding time is a temporal concept, which in principle is distinct from spatial image-based content. However, it quickly becomes clear, at least for English speakers, that it is virtually impossible to conceptualize temporal deixis without appealing to spatial image content. This is implicit even in formal definitions of tense. For instance, Comrie (1985) characterizes tense as "the grammaticalisation of location in time" (ibid.: 1). Given that location is a spatial notion and hence pertains to image content, by virtue of offering a definition of time-reference in such terms, it is evident how deep-seated the conceptualization of time-reference is in terms of the locational information.

Grady (1997) has noted that in experiential terms there is a tight correlation between the temporal concept of 'now' and the particular physical location, which is proximal to the human experiencer i.e. 'here'. In other words, we cannot help but experience the present moment in terms of our immediate physical surroundings and our sensory perceptions of them. This tight correlation in experience between the present moment and the particular location we happen to occupy, motivates the elaboration of the concept identified by the lexeme *now* in terms of our experience of our physical location and the vicinity proximal to us. Extending this insight, we note that 'not now' is similarly experienced (through memory or imagination) as a location other than the immediate 'here'. In other words, 'not now' is experienced as 'not here.'

A second experiential source linking time and space involves the human experience of getting from point A to point B. Traversing a certain distance inevitably correlates with the elapse of a certain

amount of time. Thus, elements of the spatial domain, such as movement from one location to another and distance, have become strongly associated with the elapse of time. This is reflected in many aspects of language. For instance, it is not uncommon to hear exchanges along the lines of the following:

(7)   A. How far is the restaurant from here?
      B. Oh, about a five minute walk.

Given that tense morphemes typically obtain their time reference with respect to the temporal 'now' (the coding time), which is elaborated at the conceptual level in terms of locational image content, and the experiential correlation between traversing a particular distance and the elapse of time which co-occurs with the traversing, it is hardly surprising that we should find that time-reference is conceptualized and lexicalized in terms of physical proximal-distal relations with respect to the experiencer. It is this elaboration, we suggest, which may be largely responsible for our ability to conceptualize temporal events in terms of physical location and distance, as attested by expressions such as: *Christmas is getting close; The present moment has arrived,* etc. (cf. Evans 2000, Grady 1997, Moore 2000). Moreover, expressions such as *the near past, the distant past,* etc., which employ the spatial language *near* and *distant* in order to signal time-reference with respect to coding time, illustrate that time-reference is elaborated in terms of physical proximal-distal relations vis-à-vis the experiencer.

   In many ways, this account of the cognitive relationship between time and space may seem very like that for tense articulated by Dirven and Radden (2000), and Langacker (1991), and indeed the more general account of the concept of time offered by Lakoff and Johnson (1999). We readily acknowledge that the present account builds on those earlier ones. However, we believe the explanatory value provided by the notion of *experiential correlation* adds substantially to our understanding of how humans come to understand one concept from a distinct domain of experience, in terms of another, and begins to provide the illusive explanation for the apparent contradiction

between the primary sense associated with the tense morphemes and their non-temporal uses.

4.2. Intimacy

Due to the nature of human interaction, there is a tight and recurring correlation in experience between intimacy and physical proximal-distal relations. In physical terms, two people cannot be intimate, e.g. touch, kiss, have face-to-face conversations, etc., unless they are physically proximal. In terms of familial relations, which are typically considered to be more intimate than the relationship between acquaintances, family members tend to spend a greater proportion of their time in physical proximity with each other than with acquaintances or casual friends. Consequently, there is a tight correlation between intimacy and physical proximity. We suggest that due to this recurring experiential correlation between intimacy and physical proximity, intimacy (which is a response concept), is elaborated at the conceptual level in terms of physical proximal-distal relations.

This conceptual elaboration is attested by expressions such as the following:

(8)   Peggy and I have been close for many years, but lately she has been acting a little distant.

In this sentence, the notion of physical proximity, as denoted by the word *close,* has a conventional reading of intimacy and that of physical distance, as denoted by the word *distant,* has a reading of lack of intimacy, in fact, the reading is so highly conventionalized that on first inspection we might fail to notice that the literal meanings of *close* and *distant* are not of intimacy and non-intimacy but rather of physical proximity and distance. The point is then, that the nature of experience, and particularly recurring correlations, gives rise to response concepts such as intimacy becoming elaborated at the conceptual level in terms of proximal-distal content. Hence a *close* rela-

tionship is one which involves intimacy, while a *distant* relationship is lacking in intimacy.

4.3. Salience

Salience is another concept elaborated in terms of image content pertaining to the physical experience of being proximal or distal. Due to the nature of our sense organs, particularly our eyes, that which is physically closer to us is more salient, that which is at a distance less salient. That which is closer tends to be that which is in foveal vision and more clearly observable, while that which is physically distant tends to be in peripheral vision and less clearly observable. That which is closer appears to be relatively larger, that which is distant appears to be relatively smaller. Entities which are located physically closer to humans, or events which take place physically closer are more likely to demand immediate attention than those which are physically distant. Thus, there is a tight correlation between the salience of an entity and how close it is to the experiencer.

By way of example, in a situation in which a human can see two tigers, the tiger which is ten feet away is likely to be more salient than the one a quarter of a mile away. This tight experiential correlation between salience and physical proximity in human experience is illustrated by the following:

(9) We have to keep focused on the pressing issues of the day, those which are close at hand, not some distant threat or peripheral controversy.

In this sentence, the lexical items *focused, pressing* and *close at hand,* which represent image content pertaining to physical proximity and distance, are used to indicate which issues the speaker holds to be most salient; the items *distant* and *peripheral* are used to indicate those which the speaker holds less salient or important.

4.4. Actuality

The next concept we examine is that which we are terming actuality. By actuality we mean that which a person believes to be objectively true and reliably known, particularly about the current world-state. Generally our cognitive commitment to (and hence belief in) the actuality of something which can be verified perceptually is much stronger than to something which we cannot verify. Given the physiological constraints on human sense-perception, that is, given that the ability of our sense organs allows us to see, hear, smell, etc. most acutely that which is within an area which is physically proximal to us, our beliefs about what currently holds in the world, correlate tightly with what we have personally experienced, by virtue of our sense-perceptory apparatus. Given that our sense-perceptory apparatus gathers information about our physical proximity, our actuality correlates with that which is physically proximal. This correlation is attested by expressions such as:

(10)   a. I saw it with my own eyes.
         b. I know someone was in the house. I heard the sound of foot-
            steps with my own ears.

Moreover, it follows that while we can be sure of that which is verifiable by our own senses, we are less sure of that which is not available to our own senses. Thus, we are cognitively committed to what is proximal and physically verifiable and we conceptualize these entities and events as constituting our actuality; we are much less committed to the actuality of that which is distant and not physically verifiable. In view of the foregoing we suggest that actuality is elaborated at the conceptual level in terms of content pertaining to that which is physically proximal to the experiencer.

4.5. Attenuation

The relation which concerns us here is that between attenuation of invitations, requests, suggestions, etc., on the one hand, and proximal-distal relations between the speaker and the addressee on the other. Attenuation represents a conventionalized linguistic means of mitigating the imposition placed on the addressee by a request, question, etc., and a means of mitigating the potential threat to face on the speaker, should the hearer fail or refuse to comply (cf. Brown and Levinson 1987). Like the other concepts considered in this paper, attenuation can be elaborated at the conceptual level in terms of physical proximity-distance.

Talmy (1988) noted that real world force dynamics, in terms of barriers and forces needed to overcome those barriers, provides a powerful model for our understanding of much of the rest of our experience, including social interactions. Behind our understanding that certain linguistic acts (such as requests, commands, etc.) place impositions on the addressee, is a complex set of notions involving authority, status, desire to *keep* social relations in balance, and desire to be seen as cooperative, which are themselves largely seen in terms of force dynamics. Sweetser (1990) argues that language allows us to affect one another's actions without having to rely on physical force. "[Language] is ... our major means of intellectual and emotional influence on each other. As linguistically capable human beings, we have no need to constantly resort to physical pushes and pulls to influence other speakers of our language; we can do so in a far more sophisticated and effective manner via the vocal organs and the auditory sense-channel" (ibid.: 41). She adds, "In the real world, we don't usually use force unless we need to overcome reluctance on the part of the person we are forcing. ... In the real world, force is usually resented by the victim because freedom is valued" (ibid.: 61). In sum, Sweetser argues that consideration of socio-physical force lies behind many speech acts and much of politeness phenomena.

In terms of politeness specifically, Sweetser notes that it is less face-threatening to enable your interlocutor to be cooperative rather than to evoke your restrictive powers of authority. Drawing on Prin-

ciple 3 from R. Lakoff s (1973) discussion of politeness: "Make the interlocutor feel good. Be friendly" - Sweetser notes that "[this] goal [is] best achieved by minimal exercise of overt authority." (ibid.: 153) One important way in which speakers give the appearance of lessening their overt power and simultaneously giving their addressee the option to be cooperative (R. Lakoff s 2nd principle "Give options"), is to linguistically implicate that the speaker is not in the position to force compliance. English has developed a number of conventional ways of enacting such mitigation. We believe that one of the most pervasive has to do with implicating that the speaker is physically distant from the addressee.

In humans' everyday experience, there is a tight correlation between physical proximity and one's ability to affect an entity. For instance, if the experiencer is proximal to an object he or she can pick the object up, scrutinize it and manipulate it. If the experiencer is located away from the object he or she is unable to affect the object to the same degree. This experience is reflected in linguistic examples such as the following:

(11)   She kept a tight grip on the budget.

In this sentence, the degree of control over and hence ability to affect the budget is articulated by the phrase *tight grip,* which literally denotes very close physical contact. Examples such as these are licensed by virtue of the experiential correlation between the ability to affect something and physical proximity. Experience also tells us that physical distance results in a lessening of the ability to affect a particular entity. This is reflected in sayings such as:

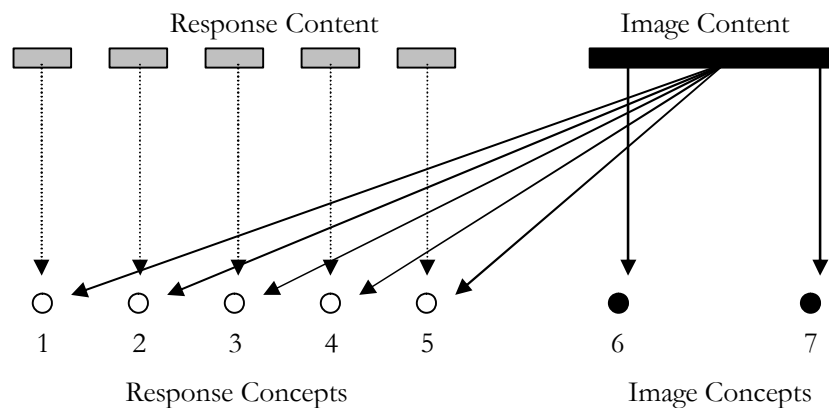(12)   When the cat's away the mice will play.

Invitations, requests, etc. create a situation in which the addressee's actions are potentially affected by the speaker. Attenuation represents an attempt on the part of the speaker to imply a lessening of his/her ability to affect the addressee. Given that being located away from an object correlates with the experiencer being unable to affect the ob-

ject, we suggest that attenuation is elaborated in terms of locational content in which the speaker is physically distal with respect to the entity being affected, i.e. the addressee.

5. Accounting for non-temporal uses of tense

To this point, we have argued that the concepts time-reference, intimacy, salience, actuality and attenuation represent response concepts, in part elaborated in terms of response content. As response content derives from internal states, it is less accessible to the conceptual system than externally derived image-based content. Hence, response concepts appropriate image based-content in order to elaborate themselves. Following Grady (1997) we suggest they do so by exploiting naturally occurring and ubiquitous correlations in experience. Each of the response concepts dealt with correlates with proximal-distal content with respect to the experiencer. Hence, each of these concepts shares similar image content, as depicted in Figure 1.

Legend: 1: time-reference; 2: intimacy; 3: salience; 4: actuality; 5: attenuation; 6: proximity; 7: distance

Figure 1. The elaboration of response concepts in terms of image content

The unshaded spheres on the left correspond to the response con-epts: time-reference, intimacy, salience, actuality   and attenuation

respectively. The two shaded spheres on the right correspond to proximity and distance, which represent redescriptions of sensori-motor information (image content) pertaining to physical proximal-distal relations. The response content is shaded in grey, indicating it is only partially accessible to the conceptual system, as further indicated by the broken arrows between the response content and the response concepts. Accordingly, image content (shaded in black) which is wholly accessible to the conceptual system is appropriated so as to make the response concepts accessible to the conceptual system. As noted earlier, in this paper we are dealing with the two bound tense morphemes in English namely |0/s] and [Id], which correspond to present and past tense respectively. Such morphemes constitute form-meaning pairings. Given the experiential correlation between the temporal reference point, i.e. the experiencer's awareness of now, and the location occupied by and proximal to the experiencer, time-reference is elaborated in terms of proximal-distal content, such that the present tense lexicalized by [0/s] is elaborated in terms of locational content proximal to the experience, and the past tense, lexicalized by [Id] is elaborated in terms of locational content distal with respect to the experiencer.

We have also argued that other concepts such as intimacy, salience, actuality, and attenuation are elaborated in terms of similar locational content Accordingly, we hypothesize that due to the parallel conceptual elaborations, in certain contexts the use of tense to signal time-reference can implicate a distinct concept, such as intimacy for instance. Through continued use, we suggest that tense morphology has become associated with the additional meaning, a process we term pragmatic strengthening, such that a new meaning component becomes associated with the tense morphemes.

5.1. Tense and intimacy

Now we return to the examples of non-temporal uses of tense in (2) through (5) with which we began our discussion. Turning first to intimacy, we have argued that intimacy is elaborated at the concep-

tual level in terms of locational content proximal to the experiencer. This is due, we suggested, to the tight correlation in experience between intimacy and physical proximity. Now let us examine the example in (2) reproduced below:

(2)   a. A: Jane just bought a Volvo.
            B: Maureen *has* one.
            A: John, you've got to quit talking about Maureen as if you're still going together. You broke up three months ago. (Riddle 1986)

In this example the use of the present tense form *has* by B, is interpreted by A as a claim of (unwarranted) intimacy. John does not have direct knowledge as to whether Maureen still owns a Volvo. He is speaking as if they are in an on-going relationship which would give him that knowledge. As such, in examples such as this the use of tense provides an intimacy reading. The point is that the tight correlation between intimacy and physical proximity is a corollary of the correlation between time-reference and physical proximity. Being temporally "located" provides immediate and verifiable experience. As such, knowing that Maureen has a Volvo in the present represents a stronger claim to intimacy than knowing that at some point in the past she had one.

Due to an intimacy reading having become conventionally associated with tense markers, we suggest that A is able to interpret the tense usage not in terms of time-reference, but rather in terms of intimacy, due to tense being conventionally employed in certain situations to signal relative intimacy.

A second example illustrates the use of past tense to signal lack of emotional intimacy:

(2)   b. My daughter's father was Brazilian. He stays in contact with Suzanna, but I haven't seen him in years. (Tyler, personal data)

In this case, the speaker presents information about her daughter's father in the past tense. Out of context, this sentence is ambiguous and could suggest that the father is no longer alive. However, the additional information, that the father and the daughter continue to see each other, rules out the interpretation that the father is dead. Given our knowledge of the world, we can also rule out the interpretation that he is no longer Brazilian, as one's country of origin typically does not change. Finally, we can reject the interpretation that the man from Brazil is no longer Suzanna's father since biological fatherhood is unchangeable and he seems to continue, at least in some aspects, in the social role of father. We conclude that the speaker used the past tense to signal her own psychological/emotional attitude of non-intimacy towards her daughter's father. We hypothesize that intimacy has become associated with tense for the following reason. In certain situations, such as when talking about human relationships, as in (2a-b), relative intimacy is implicated. As time-reference and intimacy share similar image content, tense can become reanalyzed as the linguistic component in the sentence signaling the intimacy relation. Through continued usage of tense in situations in which intimacy is implicated tense develops intimacy as an additional meaning component, which can become instantiated in semantic memory along with the time-reference function. This process of conventionalization we term pragmatic strengthening.

5.2. Tense and salience

We find an analogous recruitment of English tense to indicate salience (i.e. whether information is being foregrounded or backgrounded). We illustrated this phenomenon with the example in (3a-c) reproduced below:

(3)   a. In November 1859, Charles Darwin's *The Origin of Species,* one of the greatest and most controversial works in the literature of science, *was* published in London.

      b. The central idea in this book *is* the principle of natural se-
          lection

      c. In the sixth edition...Darwin *wrote:* "This principle of pres-
          ervation of the survival of the fittest, I have called Natural
          Selection." (Eigen and Winkler 1983: 53)

The main point of these sentences is not the precise date of publica-
tion of this book, but rather the central topic of the book. The infor-
mation presented in the first sentence establishes the frame for the
focal information which occurs in the second sentence. The informa-
tion in (3c) provides supporting evidence for the key point, and as
such is less prominent in terms of information status. Discourse ana-
lysts have often referred to the relative status of information such as
that in sentence (3a) and (3c) as background and information such as
that in sentence (3b) as foreground. In this example, tense is em-
ployed to signal the relative status of the information, i.e. past tense
signals background status and present tense signals foreground status.

   As before, we suggest that tense comes to signal salience for the
following reason. In certain contexts, when, for instance evaluating
the relative importance of information, some pieces of information
are implicitly more or less important than others. As time-reference
correlates with physical proximity, so too degree of salience corre-
lates with that which, as noted earlier, tends to be in foveal vision and
thus physically proximal. Accordingly, as time-reference shares
similar image content with salience, tense can in some contexts im-
plicate relative salience. We suggest that through continued use of
tense in contexts in which salience is implicated, namely pragmatic
strengthening, tense morphology has developed a conventionalized
meaning component, in which past tense denotes relatively less sali-
ence while present tense denotes greater salience.

   This use of past and present tense in order to signal relative sali-
ence relates to Langacker's (this volume) arguments concerning non-
canonical uses of the present tense. He discusses vivid narrative, play-
by-play sports casting, historical present, and other discourse uses of
present tense which clearly do not conform to the typical rep-
resentation of present tense usage. It is not entirely clear how his ex-

planation of non-canonical uses of the present tense as coding special viewing arrangements involving "virtual" events and texts might apply to the particular uses of present tense morphology we are considering. However, the use of the present tense to make a particular event more 'real' would seem to be related to the use of the present tense to denote greater salience and hence importance in terms of information structure.

5.3. Tense and actuality

As we have previously observed, tense can be employed to signal actuality (the degree to which the experiencer believes the event described matches the current or actual world state). Let us reconsider example (4c), reproduced below:

(4)   c. Suppose your house *burned* down. Do you have enough insurance?

Normal interpretation of this sentence is that the speaker is hypothesizing about an event which the speaker does not believe to have taken place, i.e. the speaker is not referring to an actual event in which the addressee's house burned down at some time before the moment of speaking. The fact that the speaker does not believe that the house concerned has actually burned down is signaled by the lexeme *suppose*[5]. In addition, in this example past tense seems to underscore that the speaker does not believe that *your house burned down* references a situation holding in the world. That is, the use of past tense cannot be interpreted as referring to a past event, but rather signals a lack of commitment to the actuality of the situation.

While English speakers regularly use the past tense in hypothetical constructions, they also have the option of using the present tense. So, *Suppose your house* burns *down* is also perfectly acceptable. Moreover, the choice of present tense would not entail that the speaker believes that the house is in fact burning down at the moment of speaking. Rather the choice between past and present tense seems

to signal a somewhat subtle shift in the speaker's commitment to the probability that the hypothetical event will happen. In cases such as these, the choice of the present tense seems to signal a stronger commitment on the speaker's part to the possibility of the hypothetical state of affairs occurring.

In terms of example (4c), without further context or access to the speaker, it is difficult to say with confidence why the speaker chose the past tense rather than the present. Given the language, this sounds like a sales pitch for insurance. It may be that the speaker was concerned about sounding overly aggressive and, not wanting to have his or her arguments dismissed out of hand as mere 'scare tactics', chose the past tense in order to soften the message.

The point is that in these constructions, neither past nor present tense is interpreted in its canonical temporal meaning as coding information about events, which the conceptualizer believes to be real. Again, we suggest that as time-reference (signaled by tense) and actuality are both elaborated in terms of similar image content, i.e. the present correlates with the physically proximal, as does the notion of actuality, in situations in which a stronger or weaker commitment to the actuality of the event described is implicated, tense is reanalyzed as a lexical form contributing to this implicature. Through continued use of tense in such contexts, this meaning comes to be conventionally associated with the tense morphemes, such that the present tense form [0/s] signals a stronger commitment to the potential actuality of the situation, while the past tense form [Id] signals a weaker commitment.

5.4. Tense and attenuation

We now turn to the final non-temporal meaning of tense, which we will address in this paper. Consider the following example, which is adapted from (5c) above.

(13) I *wanted* to ask you a question.

In sentences such as (13) we conventionally understand that the use of past tense does not place the desire to ask the question in the past, but rather that it attenuates and so makes such requests less face-threatening and hence more polite.

We noted earlier that attenuation - which constitutes a linguistic lessening of the speaker's assertion of authority and an offering of options to one's addressee to cooperatively be affected by the speaker's request, hence lessening the face-threat involved - correlates with not being physically proximal to the addressee. That is, attenuation can be elaborated at the conceptual level in terms of proximal-distal locational content, the same image content used to elaborate time-reference. Put another way, while being in past time-reference correlates with not being physically proximal with the current location, so too being polite correlates with not being physically proximal. After all, very close proximity can be perceived as being overly assertive and/or aggressive. This may be related to physical proximity being a pre-requisite for physical control. As the image content which serves to elaborate the concepts time-reference and politeness is closely related, we suggest situations in which politeness (and hence attenuation) are implicated, tense has come to be reanalyzed as the lexical means of signaling attenuation.

5.5. Further issues

In view of the foregoing it is now apposite to ask why it should be tense, rather than some other linguistic form, which has become associated in English with the non-temporal meanings described in the foregoing. Indeed, tense appears to have developed some of the functions described above in a cross-linguistically robust way (cf. Fleischman 1989). This situation is even more intriguing as there is evidence that in some languages some of the meanings described in the foregoing are lexicalized not by tense but by other closed-class elements. For instance, in Japanese the demonstrative *are* 'that', which locates an object distant from both the speaker and listener, can serve to express attenuation:

(14)   A (male):   *doo   shita   no?*
                  how   did   interrogative marker
                  'What's wrong?'
       B (female): *kon 'na   koto iu   no   are*
                  this such   thing say   complement   that
                  nan-desu   kedo anata   kimochi waruin-desu.
                  be   but   you   creepy   be
                  'It might be *that* to say this to you, but you're
                  creepy.' [Mitsuyo Sato]

In this attested example, a female Japanese speaker employs *are* in order to attenuate a face-threatening remark. What is interesting is that the form used is a demonstrative, which locates an object distant from both the speaker and hearer. Given that Japanese employs a form with a primary meaning of a distal location in order to lexicalize attenuation, this pattern supports our suggestion that attenuation is elaborated at the conceptual level in terms of locational content distal to the speaker and hearer. Moreover, this pattern coheres with our explanation for the situation in English. We argued that as past time-reference is elaborated in terms of locational content which is distant from the experiencer, the parallel elaboration between attenuation and past time-reference at the conceptual level means that time-reference can come to develop an attenuation meaning.

In English (and many other languages) the appropriation of tense as the relevant marker may simply be opportunistic based on frequency of appearance, i.e. due to usage. As English tense is so frequent, being marked on most verb forms, it is natural, given the parallel elaboration in terms of image content between time-reference and intimacy, salience, actuality and attenuation, that tense should be re-analyzed as the form which marks these meanings, rather than another form being developed for this purpose. However, the frequency of tense does not preclude another lexical item being developed to express these meanings, as we have just seen to be the case in Japanese.

6. Consequences for language teaching

A number of researchers have noted the difficulty second language learners regularly encounter with non-temporal uses of English tense. For instance, Riddle (1986) documented that advanced learners of English often experience difficulty appropriately interpreting and producing non-temporal uses of tense in the areas of intimacy and salience. While advanced learners tend to learn to mitigate requests and suggestions through the use of the so-called past tense modals *could* and *would,* they experience a good deal of confusion over the type of attenuated invitations, requests, and suggestions exemplified in (5) above (Celce-Murcia and Larsen-Freeman 1998). Lock (1996) notes that uses of tense to indicate actuality presents problems for learners.

We believe that at least part of this difficulty stems from the way English tense is represented in contemporary reference grammars and English as a Second Language (ESL) texts. As Riddle (1986) pointed out, ESL texts tend to present past tense solely as meaning 'completed before the time of speaking'; 'exceptional' uses, especially in the areas of intimacy, saliency, and attenuation, are generally ignored all together. For instance, while *The Collins Cobuild English Grammar* lists "vivid narrative" and "firm plans for the future" as the "other uses of tenses" (ibid.: 257), this information is placed in a usage note, several pages removed from the discussion of the primary uses of past and present tense. Moreover, no attempt is made to explain the connection between the temporal and extended uses. Their sections on politeness make no mention of the use of past tense to convey attenuation. Lock (1996) presents uses of tense in a variety of extended discourse contexts, but does not mention tense to convey foreground and background (i.e. salience); neither does he mention use of past tense to convey attenuation.

When non-temporal uses are presented, for instance in hypothetical constructions, they tend to be discussed in terms of arbitrary constructions to be memorized. For example, from *The Collins Cobuild English Grammar,* "When you are talking about an unlikely situation, you use simple past tense in the conditional clause." (ibid.: 350).

No explanation of why past tense is used in this situation is given. Similarly, Lock (1996) offers the following rule for unlikely conditions: "The general rule is that a condition is marked as unreal by the tense of the finite verb group being one step back in the past relative to its tense in the expression of a real condition..." (ibid.; 199). No further explanation follows. Finally, Westney (1994) reported that English teachers and texts often have difficulty in clearly articulating generalizations which cover many everyday uses of English tense. He notes that uses involving actuality and attenuated suggestions are simply unexplained exceptions which render rule-making very difficult.

In sum, the typical ESL student appears to be presented with a partial list of uses of English tense, rather than a unified model, along with the advice that memorization of the arbitrary patterns is the best policy as there is no systematicity in the various non-temporal uses.

We believe that insights from cognitive linguistics have real merit in offering more systematic, motivated accounts of how English works. However, we also believe that simply stating that tense can have additional usages due to "metaphoric extension" is in itself not very helpful. As we noted in Section 1.2., simply labeling something as metaphoric does not necessarily provide a revealing explanation, unless we actually explain how the information from the two domains come to be associated. We have attempted to show how the "exceptional" meanings associated with tense are grounded in experience, by virtue of experiential correlations, and derived as semantic elements associated with lexical forms, through language use, i.e. pragmatic strengthening. The nature of meaning extension is itself a function of treating grammatical elements as meaning-bearing units. This way of viewing language, we suggest, will be particularly helpful for teachers and language learners alike.

Notwithstanding the utility and, we suggest, the plausibility of the present analysis, it is obvious that the details and concomitant complexity of the discussion presented here would be largely inappropriate for language learners or even many language teachers.

Clearly further research is required in order to develop materials, based upon the foregoing proposals, which teachers could present in

a classroom setting. Such must be the aim of cognitively oriented applied linguists.

7. **Conclusion**

In this paper we have argued that the primary meaning of tense is temporal reference, which is elaborated at the conceptual level in terms of spatial proximal-distal relations. The elaboration of this particular image content is motivated, we suggested, by experiential correlation. Due to the nature of tight correlations in experience, other response concepts such as intimacy, salience, actuality and attenuation are also elaborated in terms of similar image content. In certain contexts where tense is employed and these meanings are implicated, tense markers can come to be reanalyzed as the markers of these non-temporal meanings. This is the result, we have argued, of the parallel elaboration of time-reference on the one hand and intimacy, salience, actuality and attenuation on the other, in terms of similar image content. Through continued use, these meanings can come to be conventionally associated with the tense markers [0] and [Id], a process we have termed pragmatic strengthening.

   In terms of language teaching, this account has great utility as it provides a unified account of tense phenomena. Hence, it would be more teachable and coherent than accounts that assume that non-temporal meanings are arbitrarily related to the temporal reference meaning of tense.

Notes

1.   Riddle's point is dramatically underscored by the presentation of tense in *Collins Cobuiid English Grammar* (1990), which specifically purports to be a functional grammar aimed at second language learners with the intent of "concentrating on the real patterns of use in today's English." (back cover). No mention is made of the use of tense in relation to politeness in invitations, requests, or suggestions (ibid.: 204-206; 228-232). The exception to this silence is in a section 'Expressions used instead of Modals' where we find the state-

ment, "You can use 'want' instead of 'would like' to give an instruction or make a request... 'Wanted' is also sometimes used. It is more polite than 'want.' (ibid.: 240) No further explanation is provided. Similarly, in the section on expressing importance, there is no discussion of tense as a signal of the relative importance of information within the discourse (ibid.: 236-237; 257); the only remotely possible mention is in a usage note associated with the present tense under the rubric of 'Vivid narrative* (ibid.: 257). This deals only with personal narratives coded exclusively with the present tense; present tense is represented as a device to increase audience involvement. The only example involving tense given in relation to actuality is the use of the present tense in the following, "Suppose we *don't* say a word and somebody else finds out about it." Although native speakers also use the past tense in such structures, this use is not mentioned This grammar also clearly exemplifies the tendency to scatter non-temporal uses of tense, essentially representing them as arbitrary, and offering no attempt at a unified, systematic account that would tie them to the central temporal sense.

2. Specifically, Langacker argues that immediate reality is marked by the absence of a modal and the absence of the distal morpheme; non-immediate reality is marked by the absence of a modal and the presence of the distal morpheme. The immediate/non-immediate contrast is argued to be "a proximal/distal contrast in the epistemic sphere." (ibid.: 245) "Immediate reality coincides temporally with the time of speaking, so to the extent that the notion of time is specifically invoked, present time is conceived as one facet of immediate reality.. .In precisely analogous fashion, the predication of non-immediate reality is equivalent to one of past time...These notions are basically epistemic, i.e. they do not refer to time, yet they have an obvious interpretation with reference to die time-line model: since reality subsumes the past and present (but not the future), and immediate reality constitutes the present, the temporal projection of non-immediate reality can only be the past. Presumably, then, the distal morpheme has a prototypical value that invokes the time-line model and is reasonably considered a past-tense predication. That, however, is only one manifestation of its basic epistemic import" (ibid.: 246).

3. Sweetser (1990) notes that experiences which have been labeled concrete tend to be those which allow continuity across individuals. For instance, "vision is...identical for different people - that is to say, two people who stand in the same place are generally understood to see the same thing ... Identity across people is a highly objective characteristic..." (ibid.: 39) In contrast, "abstract" concepts tend to be identified with internal states. Since human beings cannot communicate through mental telepathy, one human being cannot directly observe or know another person's mental or emotional state; we can only guess. Internal states simply do not allow for verifiable identity across people in the same way that entities and events in the external world do. Moreover, internal

states and subjective reactions are proverbially variable across individuals. We hypothesize that in order to communicate more effectively with their interlocutors about internal states, speakers have come to use concepts from the more observable, objectively agreed upon (intersubjective) world to discuss the unobservable (subjective) (cf. Grady 1997).

4. It is interesting to note that evidence is beginning to emerge that correlation may be a fundamental operation at all levels of cognitive processing. For instance, at the neurological level, integration or "binding" of perceptual information which is spatially distributed in the brain in order to form a coherent percept, may result from the correlated firing of the relevant neurons (Crick 1994, Crick and Koch 1990, 1998, Pöppel 1994, Stryker 1991). That is, the particular neurons associated with the sensory qualities constituting the perception of an object fire in correlated fashion. This synchronous firing serves to integrate the various spatially-distributed sensory qualities into a coherent percept, without requiring that the information be transmitted to and hence integrated at a single site in the brain.

5. In Fauconnier's (1994, 1997) terms, *suppose* is a *space builder,* which signals a hypothetical space.

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