

A REANALYSIS OF THE AYMARA VERB USING PROTOTYPES*

Erik Levin
University of Chicago

Up to this point, the Aymara verb has been analyzed as a matrix of tense and evidentiality (i.e. how the speaker came to know of an event). Under this analysis, the morphology is defective in two regards. It collapses the distant past and the present/near past for non-personal knowledge, and there is no evidentiality distinction for the future form. Furthermore, there are significant ‘exceptions’ to the uses of these forms.

A more elegant, non-defective analysis without ‘exceptions’ is possible if we recognize that the previous analyses have imposed Indo-European categories onto a language that does not give precedence to them. Whereas most Indo-European languages are more concerned with locating an event in time, Aymara prioritizes how much responsibility a speaker assumes for the information in a speech act. Even for instances when time is the most salient piece of information, previous studies have neglected to incorporate the Aymara conception of time. In contrast to a Western view, in which the speaker conceptually looks faces forward toward the future, the Aymara place the *past* in front of the speaker, because it is ‘visible’. The unknown, unseen future lies behind the speaker. This construal of the unknowable future fits into the Aymara focus on evidentiality.

Further investigation shows that Aymara verbs reflect four grades of how sure a speaker is of the information that he or she reports. The passage of time is simply the prototype of any of a number of reasons for which a speaker may choose to accept less responsibility. Other reasons include hearsay, surprise, and intoxication. This study suggests a new approach to analyzing tense, aspect, and modality in languages such as Aymara.

1. Introduction

Aymara is a South American language of the Jaqi family. In contrast to all but a few of its South American counterparts, it is widely spoken. Most estimates show that approximately one third of Bolivia’s almost eight million people are native Aymara speakers. Another 500,000 live in Peru, but they constitute only three to

* Special thanks to Alex Reusing, Alexander Mawyer, and Miguel Huanca.

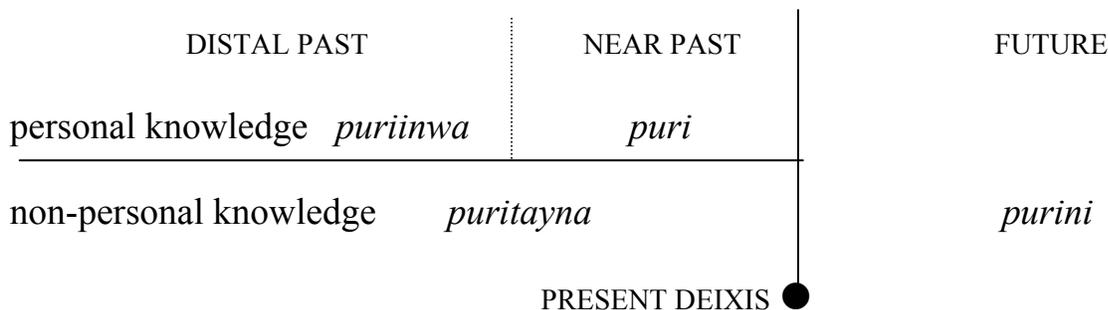
four percent of the Peruvian population. Among the Aymara, rates of bilingualism with Spanish are extremely high; monolingual Aymara speakers are generally elderly people only. This does not seem to have affected the conceptualization that Aymara expresses, though; in fact, all evidence points to Aymara culture's changing the uses of Spanish verb forms to reflect indigenous conceptualization (Stratford 1989).

The second section of this paper presents a description of the Aymara verbal paradigm as it has been traditionally analyzed in the literature. Section 3 discusses the rather serious shortcomings of this traditional viewpoint. The fourth section is a reanalysis of the mappings from Aymara verb forms to meanings. It uses prototype theory to argue against the usual mixed temporal / evidential analysis, and for an analysis based entirely on evidentialism, of which temporal distance is merely a prototype.

2. The Traditional Analysis of the Aymara Verb System

By far the single most salient feature of the Aymara tense/mood/aspect system (TMA) is its evidentials, which mark whether the asserted information reflects a speaker's knowledge obtained through direct observation, or second-hand knowledge obtained via reports, hearsay, etc. Whereas most Indo-European languages are more concerned with locating an event in time, Aymara prioritizes how a speaker knows of the event. Evidentiary marking in Aymara is an obligatory grammatical category. A model of the Aymara TMA system from Laprade (1981) for the verb *pur-* 'to arrive' appears in Figure 1. Unless it is otherwise noted, the verb *pur-* will be used for all further examples.

Figure 1: The Traditional Analysis of the Aymara TMA System



In the traditional analysis, verbs in the indicative mood are divided along two axes, a personal/non-personal knowledge dichotomy (the evidential marking),

and a future / non-future dichotomy – temporal marking. One of the two personal knowledge (henceforth PK) forms, *-iinwa* or *-i*, is used when the speaker is or was an eyewitness to an event. Thus, PK codes direct knowledge. The non-personal knowledge (NPK) form, *-itayna*, is used if the information came indirectly, for example, by hearsay or by reading. No matter how trustworthy a source might be, the NPK form *-itayna* is employed if the event was not personally witnessed. Adverbs and phrases can express even finer evidential distinctions concerning the source of data or varying degrees of assuredness about it; some of their specific uses appear later. The source of information is not marked for the future because it is impossible for anyone – the speaker or another person – to witness it. Aymara is so imbued with evidentialism that it even affects the conceptual basis of time.

The two broad Aymara tenses, future and non-future, are reflections of what is capable of being witnessed (the present and the past, which both fall under the non-future) and of what by definition cannot yet be witnessed by anyone at all, the future. Both are absolute tenses with respect to a present deictic center. The connection between evidential marking and time reference in the Aymara language is readily apparent, as the future cannot be directly observed.

While there are several non-future forms that a speaker can employ, there is only one future form, *-ini*. It is used no matter how close to the present an event might be. For example, it is appropriate to use the future to say *sarjjañaini* ‘I’m going outside’ while in the process of stepping through a doorframe. In English ‘I will go outside’ is slightly awkward in some contexts, but in Aymara, because the event has not yet occurred, the future form is necessary.

The non-future forms refer to those times that are not strictly future. Non-future personal knowledge verbs are obligatorily marked for remoteness, i.e. Aymara distinguishes a present / ‘near’ past and a more ‘distal’ past; the non-future NPK does not reflect distance from the deictic center. The near PK form, *-i*, reflects subjectively recent events, and the distal PK, *-iinwa*, those that are further from the speaker’s viewpoint. If it rained yesterday, for example, a speaker will generally use the PK near form *jalluntañainwa* ‘it rained’ to indicate this. If it rained twenty years ago, then the distal PK form *jalluntañaitayna* ‘it rained’ would be employed. There is no sharp dividing line between the near PK and the distal PK, but both must necessarily refer to events that have taken place within the speaker’s lifetime, or it ceases to be personal knowledge, in which case NPK forms are mandated. What is important for remoteness marking in Aymara is the subjective, not the absolute, passage of time. Although the rain might have fallen fifty years ago, if the speaker very clearly remembers it, he or she can use the PK near form *jalluntañainwai*. If the rain fell yesterday, but the speaker wishes to put distance between the rain and the present moment, the PK distal form *jalluntañainwa* may be used.

2.1 Anomalies to the Traditional Paradigm: ‘Exceptional Cases’

There are ‘exceptional cases’ (EC’s) in the use of the distal PK or the non-future NPK is employed that run counter to the above generalizations. EC’s are *not* a grammatical or a semantic category. There are very different types; the only two things that all EC’s have in common is that they usually cause an Aymara speaker to choose to take less responsibility for the information in a speech act, and that they are anomalous to the TMA uses described by the traditional analysis. Previous studies have not grouped them into a single category, but henceforth they will be called Exceptional Cases. It is important to keep in mind that the only motivation to make this category is to have a shorthand term to describe some shortcomings of Aymara’s traditional analysis, and to show how responsibility fits into the TMA system under the alternate analysis in section 4. There are no EC’s in either the alternate analysis or the Aymara conceptual system.

Although there is a variety of Exceptional Cases, two in particular are noteworthy and are discussed here. These cases are those that involve an element of surprise, and those that involve intoxication. An example of surprise is when the speaker realizes that he or she has unwittingly done something, for example, upon seeing a drop of blood and then saying something along the lines of “Oh look, I cut my finger.” Surprise may also be evident when an individual learns of something that contradicts what is currently believed, or experiences mildly startling events such as someone’s unexpected arrival. In the second case, a speaker may use the NPK form *-itayna* when s/he is intoxicated or is referring to a time in the past when s/he was intoxicated. As different as surprises and intoxication are, they both might cause a speaker to want to take less responsibility for information, albeit for different reasons. They are also anomalous to the traditional analysis’ description of TMA uses.

The distal PK is used for mild instances of Exceptional Cases, even if they occur in the present or the recent past. The non-future NPK is for more extreme circumstances, even if the speaker personally eyewitnessed the event. For example, if a speaker were under the impression that a friend would not come home until nighttime, but the friend returned at noon, then it might be appropriate to use the PK distal form *kutiñyainwa* ‘you’ve arrived!’ to express surprise. On the other hand, if the speaker believed his friend to be deceased and he showed up at the front door, then it would be more appropriate to use the NPK *kutiñyaitayna* ‘you’ve arrived!!!’ to express extreme surprise and disbelief. Even though an event may have happened a fraction of a second ago, a mild Exceptional Case may override the temporal qualities and require use of the PK distal form. In a similar manner, extreme Exceptional Cases override the personal / non-personal qualities

of personally witnessing something. Table 1 summarizes the uses of Aymara verb forms in these indicative mood (it omits the desiderative and the imperative).

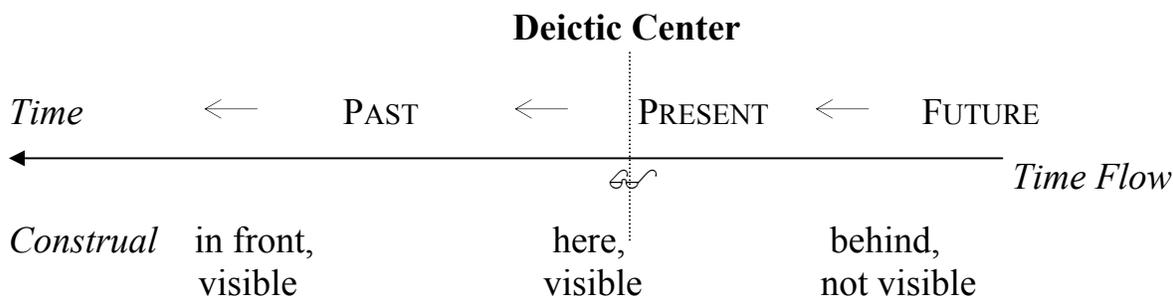
Table 1: The Aymara TMA System in the Indicative Mood

| Form Name | Form | Source of Data | Time | Uses |
|----------------|----------------|----------------|------------------|--|
| * | * | PK or NPK | future | Does not exist because witnessed accounts of the future are normally impossible |
| Near PK | <i>-i</i> | PK | NF recent | Eyewitnessed events in the present OR the subjectively recent past |
| Distal PK | <i>-iinwa</i> | PK | NF remote past | Eyewitnessed events in the subjectively remote past OR comparatively mild Exceptional Cases |
| Future | <i>-ini</i> | NPK | future | Any event in the future, no matter how near or far from the present deixis |
| NPK non-future | <i>-itayna</i> | does not apply | present and past | Non-witnessed events in the present or past OR more extreme Exceptional Cases |

3. A Critique of the Traditional View of the Aymara Verb System

The traditional analysis of the Aymara verb system correctly describes how it functions in general, but is inadequate in three significant ways. First, the traditional analysis proposes a tense distinction – future / non-future – that is questionable. Although time is mapped onto Aymara verbs, it is by pragmatics, not grammaticization. Second, the traditional analysis fails to account adequately for the degree of responsibility the speaker assumes. Studies have long recognized the PK / NPK split, but they have not shown them to be a part of a larger responsibility category. This will be shown in Section 3. Third, the traditional analysis assumes a Western concept of time for the system, and a consequently fails to incorporate the Aymara concept of time. Most Western cultures conceptualize the dynamic speaker moving forward into the future; thus one looks back into the past. The Aymara view the speaker to be stationary and looking into the visible past while an unseen future passes by and recedes into the past. That is, time is moving rather than the speaker. Figure 2 is a graphic representation of this view.

Figure 2: The Aymara Construal of Time



(The \mathcal{S} symbol represents the speaker's static viewpoint past which time flows.)

Aymara morphology reflects its culture's view of time. Consider, for example, the words for 'yesterday' and 'tomorrow', which are, respectively, *masuuru* and *q^haruuru*. The morpheme *mas* means 'in front of', and *uuru* means 'day', so yesterday is the 'day in front of'. When speaking of yesterday, the speaker is conceptually staring at the visible past which lies directly in front of him or her. In the same manner, *q^har* means behind, so tomorrow is the 'day behind' because it lies in back of the speaker where it is not visible.

3.1 Where the Traditional Analysis Needs to be Fixed

Although the traditional analysis of the Aymara verb system does account for most of the TMA uses of the various forms, it cannot account for the Exceptional Cases that do not fit into the expected temporal or personal / non-personal knowledge dichotomies; like forms envelope radically different uses that sometimes even contradict the axial parameters' definitions. EC's are anomalous in the traditional paradigm in the following two areas:

1. remoteness marking on the time axis – The PK distal form can express absolute (as opposed to subjective) recent pasts or presents (e.g. startling events), and the PK near form less frequently can express absolute remote pasts if the event is very well remembered by the speaker. These uses are in opposition to what the traditional analysis predicts is appropriate.
2. source of data marking on the PK / NPK axis – the NPK non-future can express personally witnessed events in extreme Exceptional Cases.

The two dichotomies above should be discarded if more plausible paradigms that group together only similar uses can be found. Prototype theory is a tool that can do this. Note that future and non-future uses do not show anomalies to the

paradigm; there is a sharp and inviolable split at the present reference point for reasons to be explained in Section 4.4.

4. What Exactly Do Aymara Verb Forms Express?

A closer inspection of the uses of Aymara verb forms reveals that they directly express only varying degrees and types of evidentialism, not time. Time is only indirectly coded into the system by pragmatics and by what is or is not logistically possible under normal circumstances. This yields the following four forms, and their abbreviations and uses in Table 2.

Table 2: Forms, Uses, and Abbreviations in the New Analysis¹

| Form | Use | Traditional Analysis' Name | New Analysis' Name and Abbreviation |
|----------------|---|---|-------------------------------------|
| <i>-i</i> | Used for events for which the speaker is willing to take high degree of responsibility in reporting: present or recent eyewitnessed events are the prototype; very well remembered eyewitnessed events in the remote past are radial extensions. | Personal Knowledge Present / Recent Past | high responsibility (HR) |
| <i>-inwa</i> | Used for events for which the speaker takes slightly less responsibility for than the HR from: personally witnessed events in the remote past are the prototype; comparatively mild Exceptional Cases that fall outside of what the speaker knows as 'normal' are radial extensions | Personal Knowledge Distant Past | mid responsibility (MR) |
| <i>-itayna</i> | Used for events for which the speaker takes little responsibility: indirectly acquired knowledge is the prototype; extreme Exceptional Cases that fall far outside of what the speaker knows as 'normal' are radial extensions | Non-Personal Knowledge Past | low responsibility (LR) |
| <i>-ini</i> | Used for events for which the speaker takes minimal responsibility: reserved for the future because by definition, absolutely no one has witnessed it at the time of the speech event | Future | future (F) |

¹ The cells in Table 2 are color coded – the lighter the cell, the more responsibility for a speech act its corresponding morpheme represents.

Before discussing each verb form, it is appropriate to define ‘responsibility’ as it pertains to evidentialism in more detail. A quick review of two terms from the philosophy of phenomenology is in order. Phenomenology defines the noema as something in the external world which is known by a conscious being, be it by direct sensory observation, memory, or otherwise. The noetic process is the tool that conscious beings use to know of the external world. The strength of the link between noema and noetic process might differ under various circumstances, including temporal dislocation (for memory, e.g.), the being’s state of mind, etc. Sometimes the noema and the noetic process are not directly linked at all, but have an intermediate level, such as another being’s noetic process, in the case of second-hand information. For the purposes of this paper, then, evidentialism will be viewed as a commentary on the speaker’s perceived strength of the link between noetic process and noema. The stronger and more direct the link, the more responsibility the speaker will take for the truth of a speech act, and vice versa. In the following four subsections, the morphemes listed in Table 2 will be analyzed in these terms.

The analysis uses prototype theory, a branch of cognitive linguistics in which the prototype is the epitome of a category. Less salient examples are conceived as radial extensions. A commonly used example is the category of ‘bird’. A robin might be a prototype because it is more ‘bird-like’ in our conceptualization than is a penguin, or an ostrich. Robins have feathers, can fly, migrate seasonally, etc. Penguins, on the other hand, have none of the above characteristics, so they are a radial extension of the category. Note that the important criterion here is the human construal of categories, not other factors (e.g. in our bird example, neither biology nor Linnaean classifications matter).²

4.1 The High Responsibility Form *-i*

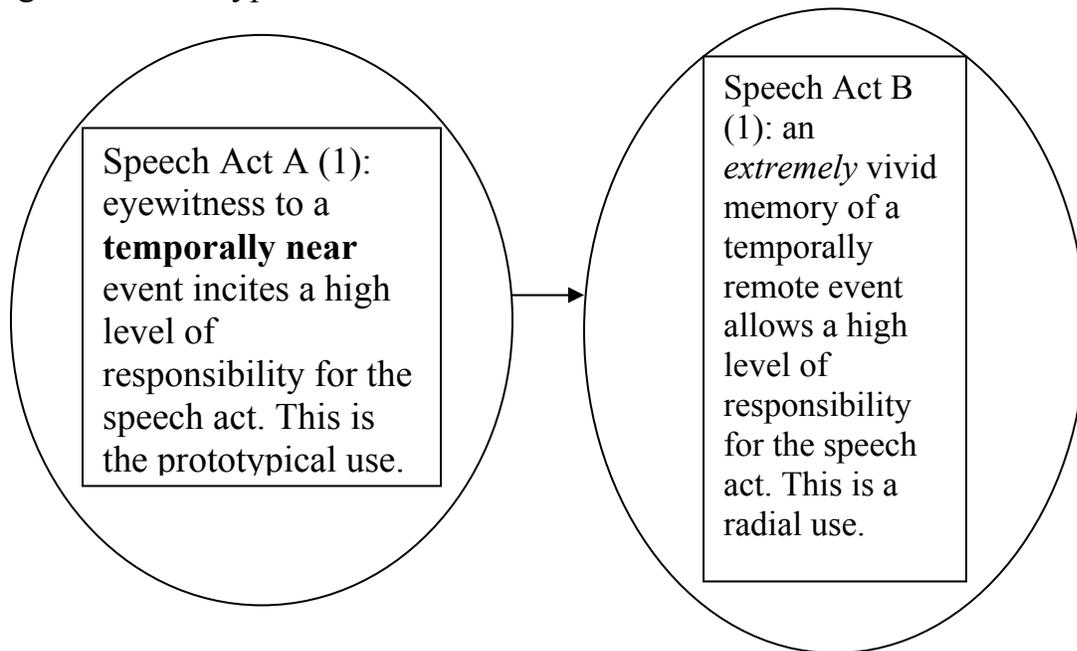
(1) *jalluntañainwai* ‘it is/was raining’

As noted in Table 2, the high responsibility (HR) form is used primarily for personally witnessed events in the present or recent past. This is why the traditional analysis of Aymara verbs views the *-i* form as a portmanteau tense/evidential marker. The utterance in (1) can be a speech act of someone reporting that it is currently raining outside, and that s/he sees the rain clearly. We will label this instance Speech Act A. Speech Act B, in contrast, uses the same overt form in (1), but to report rain that fell nearly thirty years ago. The use of the HR form shows that the speaker remembers the rain extremely clearly. The *-i* form, then, codes for the perception of a very strong link between noetic process

² For a good overview of prototypes see Lakoff (1987) *Women, Fire, and Dangerous Things*.

and noema. Using prototypes, then, the relation between Speech Acts A and B for the utterance in (1) is illustrated in Figure 3.

Figure 3: Prototype and One Radial Extension of *-i*



4.2 The Mid Responsibility Form *-inwa*

(2) *purinwa* 's/he arrived'

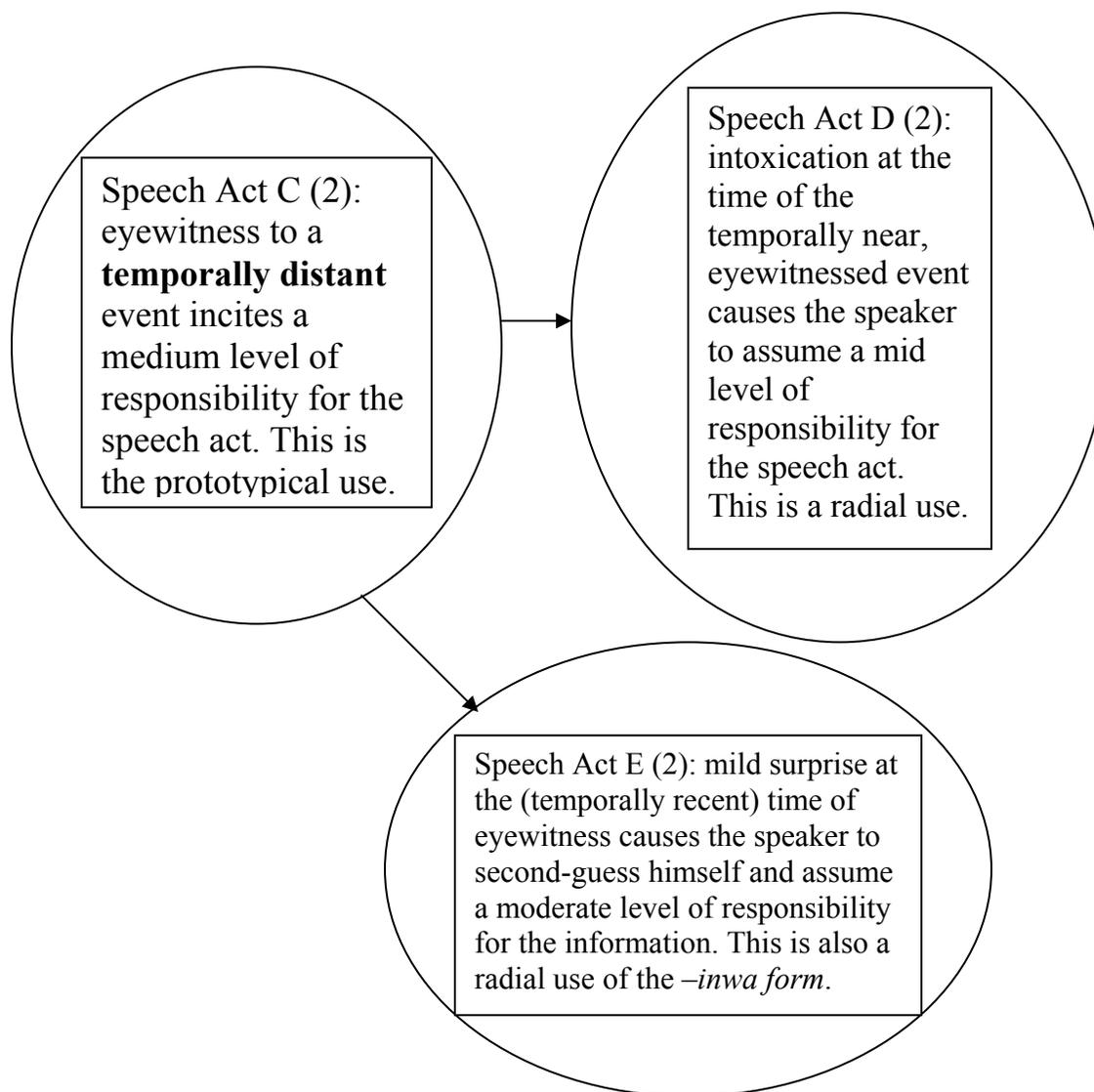
Speech Act C of the utterance in (2) is used by a speaker who personally witnessed the topic's arrival five years ago. This use is temporally remote, so the traditional analysis correctly predicts a distal time / personal knowledge *-inwa* form. The new analysis also correctly predicts the *-inwa* form, but it predicts it because the event is displaced from the speaker. In this case the displacement happens to be the temporal sort, but that is irrelevant since only the subjective *degree* of displacement, not the *type*, matters.

Speech Act D of the utterance in (2) is also used for a personally witnessed event, but for one that happened yesterday while the speaker was intoxicated. Yesterday is not temporally remote under normal circumstances, so the traditional analysis cannot account for this use of the *-inwa* form. In the new analysis, however, since intoxication causes 'reality' displacement, the speaker chooses to accept less responsibility for the information by using the *-inwa* form, even though the event was comparatively recent.

Finally, in Speech Act E of the utterance in (2) the speaker personally saw the event that happened yesterday, but speaker had expected the person to arrive a day later, causing mild surprise. Surprise is displacement from expectations of

reality, which might cause someone to second-guess himself, so it, too, merits a form that codes for less responsibility than would be otherwise be assumed. Figure 4 illustrates the relationship between Speech Acts C, D, and E:

Figure 4: Prototype and Two Radial Extensions of *-inwa*



What these examples have in common is that the speaker is less sure about the strength of the noetic link than in Section 4.1

4.3 The Low Responsibility Form *-itayna*

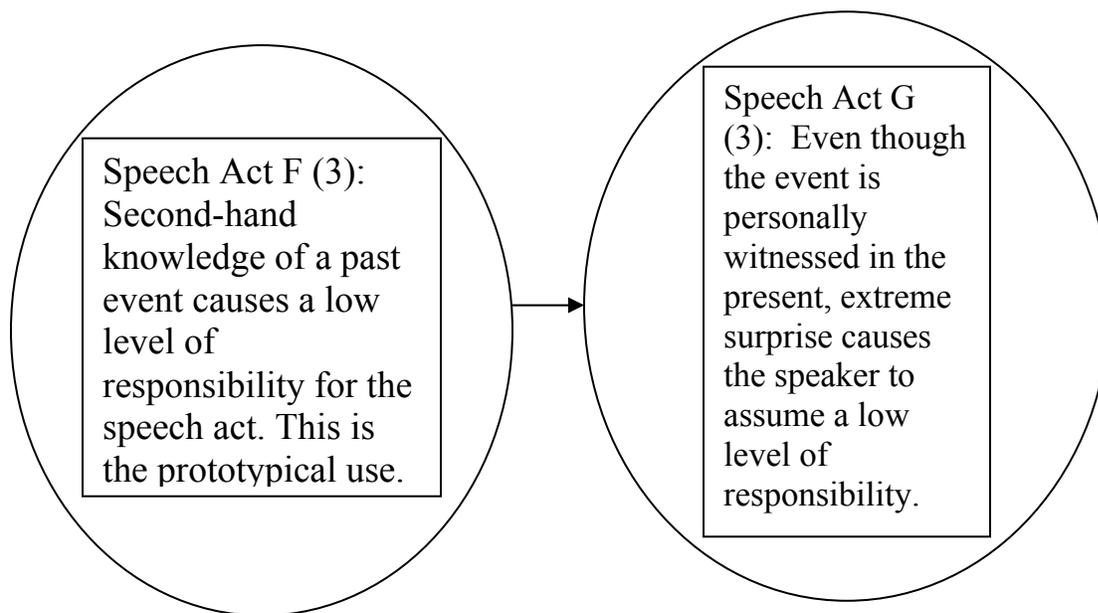
(3) *kutiñyaitayna* ‘you’ve arrived’

Usually the expression *kutiñyaitayna* ‘you’ve arrived’ means that this happened at an unspecified point in the past, and that the information is known from a second-

hand source, such as hearsay. Let this serve as Speech Act F. Speech Act G of utterance (3) is said upon seeing a friend arrive whom the speaker believed to be deceased. This, of course, does not code for second-hand knowledge, since the speaker personally observes his friend's arrival. The fact that the friend was believed to have already died causes the speaker to question his own eyes, and to choose the low responsibility (LR) form.

The prototype of the *-itayna* morpheme, then, is second-hand knowledge. Saavedra (1981) notes that in Aymara culture, disdain for gullibility is rather extreme, so the Aymara consider second-hand knowledge to be unreliable at best. A radial extension of the prototype is extreme surprise, since by definition this is out of the ordinary and merits skepticism. The speaker who uses this morpheme, in effect comments that the noetic link is tenuous at best. Figure 5 shows the relationship.

Figure 5: Prototype and One Radial Extension of *-itayna*



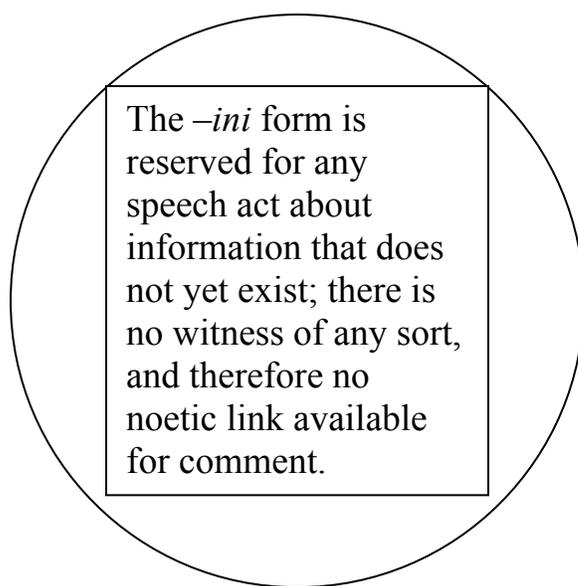
4.4 The Future Form *-ini*

(4) *purini* 's/he will arrive'

Both the traditional and the proposed analyses correctly predict the use of the *-ini* form in Utterance (4), though for different reasons. Under the traditional analysis, *-ini* is a future tense, so an event that will happen tomorrow uses this form. Under the new analysis, *-ini* encodes the least amount of responsibility that a speaker can accept for information that no one can possibly have witnessed, since the event has

not even existed at the time of the speech act. The future time is then indirectly mapped onto the form by Aymara pragmatics. This form is a true future; even if an event is almost certain to happen in the next moment, all events that have not yet existed take the *-ini* form. There is no noema at all for future events; there is only a concept in the speaker's mind that maps onto the noema by metonymy, so the link with the noetic process is very unreliable. Figure 6 is the prototype; there are no radial extensions because events that have not yet existed are all equally unwitnessed.

Figure 6: Prototype of *-ini*



5. Conclusion

Contrary to the literature on the subject, the Aymara language does not directly encode tense or aspect with its verb system. Instead, the evidential system expresses degrees of responsibility that a speaker accepts for the knowledge coded by a speech act. These degrees of responsibility are commentaries on the connection between noemae and noetic processes; they map time onto the system only by implicature or pragmatics. Seemingly different situations that are expressed by like verb forms were previously dismissed as exceptions. Upon further reflection, though, these present themselves as radial extensions of prototypes of the different verb forms.

Finally, a more general observation is in order. The case of the Aymara verb system is the epitome of a situation in which Western concepts have been forced onto the analysis of a non-Western language. To do this is to belie the very reason for the study of more 'exotic' languages. It will benefit the science of linguistics greatly if the general trend away from such ethnocentrism continues.

References

- Binnick, Robert I. 1991. *Time and the Verb*. New York: Oxford University Press.
- Botne, Robert. 1999. personal communication. Indiana University, Bloomington, IN.
- Clancy, Steven. 2003. personal communication. University of Chicago. Chicago, IL.
- Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.
- Comrie, Bernard. 1985. *Tense*. Cambridge: Cambridge University Press.
- Ebbing, Juan Enrique. 1965. *Gramatica y Diccionario Aimara*. La Paz, Bolivia: Editorial Don Bosco.
- Gomez, Donato Bacarreza and Cosme, José Condori. 1992. *Morfoligía y Gramatica Del Idioma Aymara*. La Paz: (publisher unspecified).
- Hardman, M.J., et al. 1988. *Aymara: Compendio de Estructura Fonologia y Gramatical*. La Paz: Instituto de Lengua y Cultura Aymara.
- Laprade, Richard A. 1981. Data Source in La Paz Spanish Verb Tenses. In *The Aymara Language in Its Social and Cultural Context*, ed. M.J. Hartman, 206 - 207. Gainesville, FL: University Presses of Florida.
- Lakoff, George. 1987. *Women, Fire, and Dangerous Things*. Chicago, IL: The University of Chicago Press.
- Miracle Jr., Andrew W., and de Dios Yapita Moya, Juan. 1981. Time and Space in Aymara. In *The Aymara Language in Its Social and Cultural Context*, ed. M.J. Hartman, M.J., 33 – 57. Gainesville, FL: University Presses of Florida.
- Saavedra, Carlos. 1981. Social and cultural context of the Aymara in Boliva today. In *The Aymara Language in Its Social and Cultural Context*, ed. M.J. Hartman, M.J., 18 – 29. Gainesville, FL: University Presses of Florida.
- Sokolowski, Robert. 2000. *Introduction to Phenomenology*. Cambridge: Cambridge University Press.
- Stratford, Billie Dale. 1989. *Structure and Use of Altiplano Spanish*. Doctoral Dissertation, University of Florida, Gainesville, FL.

Departments of Linguistics and Anthropology
1010 E 59th Street
Chicago, IL 60637
elevin@uchicago.edu