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The Nawatl verb *kīsa*: A case study in polysemy

David Tuggy

Abstract

Even a cursory examination of the meanings of the Orizaba Nawatl verb *kīsa* (perhaps best glossed as 'emerge') illustrates a number of basic principles that are relevant to debates about the status of polysemy. These principles are commonsensical, so ubiquitously evident that it is difficult not to call them "facts" or "truths"; yet they have been denied by some linguists, so it is useful to reaffirm them. Among them are the following: (i) polysemy is rampant; (ii) polysemous meanings are related in multiple, reasonable, even systematic ways; (iii) context is necessary for the establishing and maintenance of these meanings and for choice among them; (iv) nevertheless, all of this does not amount to prediction or allow meanings to be omitted from the theoretical lexicon because of their relation to more basic meanings or to context. Learning a language still involves learning which of these meanings are and which are not established.

Keywords: construal, criteria for polysemy, decontextualization, elaboration, extension, idiosyncrasy, landmark, monosemic bias, monosemy, motivation, multiple homonymy, partial schematicity, polysemy, present context, relatedness of meaning, schema, trajector.

1. Introduction

There are certain propositions about language which bear on much debate about polysemy, and which seem to me to have such ample, even ubiquitous support that they are almost self-evident; for brevity and convenience I propose to refer to them as "facts", even though some theoreticians, including notably Ruhl (1989), have been eager to deny crucial aspects of them. These facts must be accounted for by

any adequate theory of meaning. Among them are the following: (i) polysemy is rampant; (ii) polysemous meanings are related in multiple, reasonable, even systematic ways; (iii) context is necessary for the establishing and maintenance of these meanings and for choice among them; (iv) yet this does not warrant a deterministic account of those meanings such as might allow them to be omitted from the theoretical lexicon because of their relation to more basic meanings or to context. The meanings are neither arbitrary nor inevitable with respect to each other and to context; they are only reasonable.

In this chapter, I pursue as a case study a single verb root of Orizaba Nawatl (henceforth Nawatl),¹ comparing it occasionally with the English and Spanish structures that would be used to translate it. These data will repeatedly illustrate the above-mentioned facts and appropriate conclusions will be drawn.

2. The verb *kīsa*: the data

2.1. Sentences illustrating usages of *kīsa*

Kīsa is the citation form of an intransitive verb root of Nawatl which is probably best glossed in English as 'emerge'. To exemplify its

1. Orizaba Nawatl is spoken in the mountainous area south of the city of Orizaba, Veracruz, Mexico. It has been referred to by a number of other names, perhaps the most common of them being Zongolica Nahuatl or Náhuatl de la Sierra de Zongolica. The data in this paper are from the town of San Juan del Río, also known as Rafael Delgado. (Much of this town's economy depends on floriculture, a concern reflected in some of the examples.) "Nawatl" is used instead of the traditional "Nahuatl" because it reflects the orthography most used in the area (and adopted in this paper). Serendipitously, its most natural English pronunciation is much more nearly correct. (The first of the two syllables is stressed; and the *tl* is a voiceless lateral affricate.) Most of what is said here regarding *kīsa* holds true of its usage in other variants of Nahuatl (Aztec) as well.

I wish to thank Victor Hernández de Jesús, in particular, for helping me learn Orizaba Nawatl and for providing much of the data used in this paper, including all the example sentences.

usage, I have selected from a database of illustrative sentences a baker's dozen of sentences in which it appears. They had all been composed to illustrate the usage of words other than *kīsa*, and happened to be the first thirteen usages of *kīsa* which were found following a randomly chosen spot. For presentational ease, I have altered their ordering so as to group similar cases together; otherwise they are as they occurred in the database.² *Kīsa* is in each case glossed as 'emerge', but the free translations show the inadequacy of that gloss in many cases.^{3,4}

2. They originally occurred in the order (1) (5) (6) (4) (7) (12) (9) (13) (8) (10) (2) (3).
3. Each Nawatl sentence is followed by a word-for-word translation line, in which a sequence of English words joined by periods corresponds to a single Nawatl word. The orthography is that used by the Decanato de la Sierra de Zongolica for their vernacular publications. It does not show vowel length (which is very elusive); thus, the forms of *kīsa* do not have the long *i* marked. Everything is pronounced essentially as in Spanish, except that *x* is the alveopalatal voiceless fricative [š] or [ʃ], *h* is like English *h*, *tl* is the voiceless lateral affricate [λ] or [tʰ], *ll* is a long *l*, and *w* is pronounced [w] or [v] depending on which town a speaker comes from. Almost all words have penultimate stress.
4. As might be expected in an agglutinative language like Nawatl, *kīsa* does not usually occur as a naked stem, and it may be questioned what effect the affixes attached to it have on the meanings here set forth. The reader will have to take my word for it that the answer is, essentially, "nothing significant". Note, however, that (i) as noted in the text, reduplication is involved in the 'wiggle back and forth' sense of sentence (4), (ii) the 'almost' or 'practically' sense of (12) and (13) cannot occur with affixes, but is associated with the naked stem (see footnote 15), and (iii) for obvious reasons, meanings with non-human trajectors (subjects) will not allow first or second person subject markers, those which specify singular trajectors will not allow plurals, and so forth.

Here are the forms of *kīsa* which occur in this paper, with affix cuts and glosses indicated. ("ø" indicates the third-person zero subject-marking prefix, and "trunc" is a process morpheme of truncation, indicating preterite tense except in *kīstikah*, where it is morphologically mandated): *kīsa* [emerge] or [ø-emerge], *kīsa-h* [ø-emerge-plural], *kīsa-s* [ø-emerge-future], *kīs-tikah* [ø-emerge-trunc-honorific], *ō-kīsa-ko* [past-ø-emerge-came.to], *ō-kīs* [past-ø-emerge-trunc], *ō-kīs-ki* [past-ø-emerge-trunc-preterite.singular], *ō-ti-kīs* [past-you.singular-emerge-trunc], *ti-ki-kīsa* [you.singular-reduplication-emerge], *yi-on-kīsa-s* [already-ø-suddenly/surprisingly-emerge-future].

2.2. *Physical emergence: prototypical kīsa*

If a naïve Nawatl speaker is asked what *kīsa* means (or a naïve English speaker what *emerge* means), he (or she)⁵ will probably describe or demonstrate a situation in which one physical entity is enclosed within another, and the first entity moves, through time, out from within the enclosing entity. This sort of process is, intuitively, the central or *prototypical* notion of EMERGE.⁶ The following sentences illustrate usages of *kīsa* which fit that notion.

- (1) *Mokmotlapokan* *apanmeh, walkiawis*
 may.they.yet.be.opened ditches it.ups.and.rains
yionkah *kanik* *kisas* *n* *atl.*
 there.already.is whereabouts it.will.emerge the water
 'Let's first open up the ditches, so that if it should rain there will be a place where the water can get out.'
- (2) *Yi* *tetahtzin* *Daniel, machok keman*
 already someone's.father.honorific Daniel not.still when
kistikah *iseltihtzin.*
 he.emerges.honorific his.alone.honorific
 'Daniel is an old man now, and he does not ever go out by himself any more.'

5. To avoid such awkward parenthetical expressions as this, I will follow in this paper the tradition of using a masculine pronoun to refer to a human being who could perfectly well be of either gender.
6. Prototypicality generally correlates with such things as statistical predominance, early position among examples chosen when speakers are asked to illustrate or explain the meaning, and logical centrality (prototypical meanings are more likely to have extensions in several different directions). Prototypical relations (including verbal concepts) will tend to occur between prototypical participants (e.g., in this case physical objects as *trajector* and *landmark*). Assessing these characteristics thus provides a rough (because indirect) measurement of prototypicality which goes beyond intuition (and often confirms it). Other measures, such as comparison of recognition response times, are also useful, but are more difficult to use in a field situation. In text, the most common meanings of *kīsa* are physical emergings (subcases of 1.a), followed by 'result' or 'change of state' readings (subcases of 3.o).

- (3) *N Ramón* *kualli yimomachilhtih;*
 the Raymond good already.he.goes.along.feeling.himself
kihtowa *kanah* *sábado* *koxamo*
 he.says.it somewhere Saturday whether.not
yionkisas *kanah.*
 already.he.will.up.and.emerge somewhere
 'Raymond is feeling better and better now; he says that by about Saturday maybe he can go out somewhere.'

In (1), rainwater is envisioned as emerging from where it is pent up (presumably in a field) through a ditch, and in (2) and (3) a person emerges from his home into the world outside it. Of course, in English we would not use the word *emerge* in normal speech, but rather (depending on a number of factors including the viewpoint we assume in speaking) verb-particle phrases such as *get out*, *come out*, or *go out*.

Following Langacker (1987, 1991), we will refer to the moving entity in this prototypical notion as the *trajector* (tr) and the enclosing entity as *landmark* (lm). This concept is diagrammed in 1.a.⁷ The two subcases attested in sentences (1) and (2)–(3), of water emerging from a containing structure, and of a person emerging from his house, are diagrammed in 1.b and 1.c respectively.⁸

7. Labeled subdiagrams of figures are referred to by a number followed by a period and a letter (or two). The same designation is used for the concept which such a subdiagram represents: thus, "1.c" means either "the subdiagram labeled 'c.' in Figure 1" or "the concept (of leaving the house) which is represented in 1.c". The identifying letter of these subdiagrams remains constant: thus, 2.a is a repetition of 1.a, and 5.h of 3.h.
8. Figure 1 illustrates the following diagramming conventions (from Langacker 1987): meanings are represented in boxes whose boldfacing or lack thereof correlates to posited degree of cognitive prominence or *salience*. Categorizing or generalizing structures (*schemas*) such as 1.a are connected by arrows to their subcases or *elaborations* (1.b–c). The schema contains only material common to the elaborations. A dashed arrow such as those in Figure 2 indicates *partial schematicity*: here the categorized concepts contain specifications which conflict with specifications of the categorizing schema. Thus, A ----> B means "A is schematic for B and B elaborates A; B is unproblematically an example of

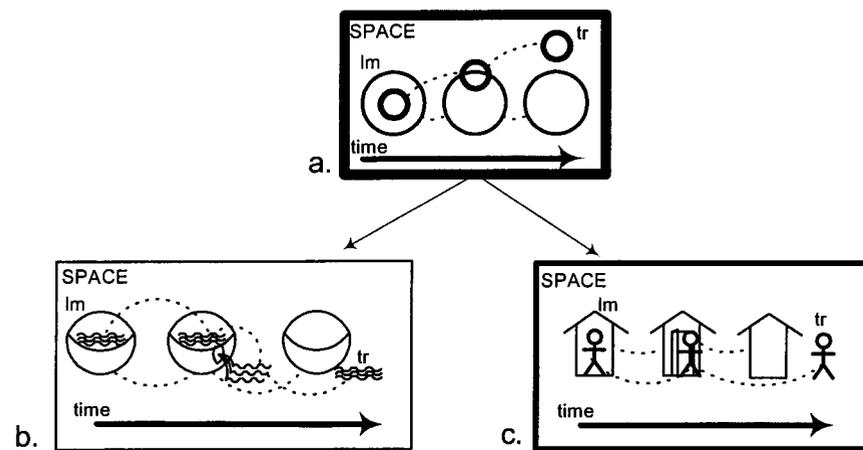


Figure 1. Prototypical *kīsa*.

2.3. Extensions from the prototypical *kīsa*

The other examples diverge from prototypical EMERGE in one way or another.

Actually, the meaning in (2) and (3) is very likely not quite the same as that represented in 1.c. The trajector may be construed not as leaving the interior of the house and moving to the area immediately

the kind A; B has all of A's specifications plus some of its own which do not conflict with them". A → B means rather "A is partially schematic for B; B can be seen (with some difficulty) as a kind of A; A and B are similar but they have specifications that conflict".

For representational and mnemonic ease, crude graphic representations are used, such as circles for objects, and stick-men for humans. These are not unsuitable to concepts which have an important spatial-configuration component which is nevertheless not specified in all details. Labels are also utilized, particularly *tr* to mark the trajector, and *lm* the landmark. The passage of conceived time (crucial to the verbiage of these meanings) is represented by a labeled arrow, and different configurations are aligned along it. Identity of participants in those configurations is indicated by dotted lines.

outside of it (a slightly more precise version of 1.c which is represented in 2.d and is translatable as 'go outside'). Rather, he may be construed as leaving the vicinity of the house – whether he is originally inside the house or not is basically irrelevant – a concept translatable as 'go out' or 'leave the house' (2.e).⁹ Here, the landmark is a "virtual" one: there are no clear physical boundaries setting off the enclosing area (the vicinity of the house) from its surroundings. English allows such landmarks with some verbs (e.g., *leave* or *move out of your place/the center of the room*) but not easily with *emerge* (*?*emerge from your place/the center of the room*). Nawatl, in contrast, puts no such restriction on *kīsa*: i.e., 2.f is well-established in Nawatl.

- (4) *Amo semitzillihtok welitis*
 not.question we.are.telling.you possibly
tikmomaas n tlaketzalli san
 you.will.hit.yourself.against.it the stood.up.thing just
tikikisa Leonardo
 you.reduplication.emerge, Leonard.
 'Haven't we been telling you you were liable to bang into that pillar, the way you keep wiggling back and forth, Leonard?'

This notion of emergence from a virtual landmark helps us understand example (4). Here Leonard, who from the way he is addressed is presumably a child, is represented as repeatedly (the repetition being coded by the reduplication) moving out of (and, of course, back into) the area where he is supposed to remain.¹⁰ Both 2.g (the non-repetitive notion from (4)) and 2.e. are subcases of 2.f, in which

9. The greater salience of 2.e vis-à-vis 2.d relates to the fact that 2.e is more likely to be understood in structures like (2) and (3), where context does not specifically favor one over the other.
10. Another (and not incompatible) analysis would take *kīsa* as meaning 'leave' (an established meaning; see below) and the reduplication as indicating insincerity or non-genuineness (as it does elsewhere), yielding something like 'make like you're going to leave', a meaning quite close to that appropriate in the context.

a person leaves a virtual landmark. The arrows connecting 2.a to 2.f, 2.c to 2.e, and 2.d and 2.e to each other are dashed, indicating a relationship of *partial schematicity*, since there is a degree of conflict in the specifications, so that, e.g., 2.e is not a straightforward elaboration of 2.c (leaving home is not a clear example of a kind of emerging from the house) but rather involves some degree of semantic extension from it.

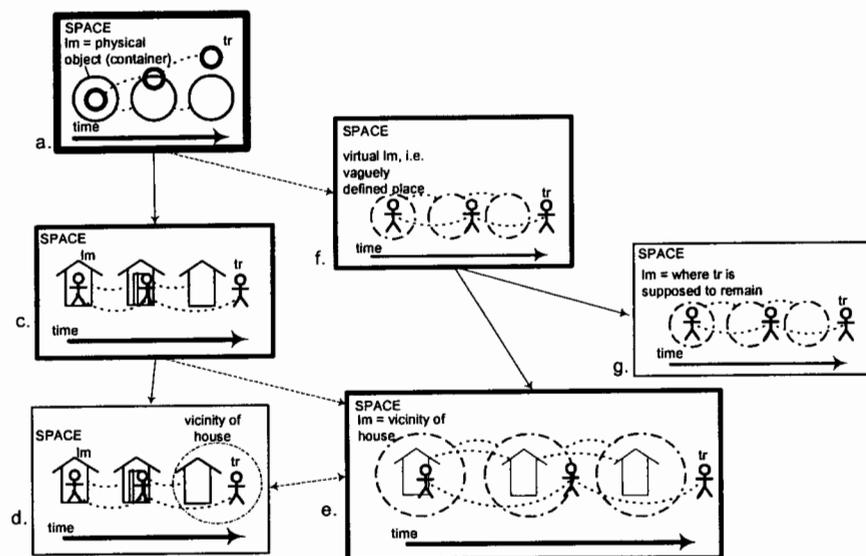


Figure 2. *kīsa* with "virtual" landmarks.

- (5) *Kihtowan Tomasa tlenoh imak okis.*
 she.says the Thomasina what.is.that on.her.hand it.emerged
 'Thomasina wonders what it is that has broken out on her hand.'

In (5), *kīsa* refers to something like a wart or a pimple or a boil appearing on the body, a process which in English is not labeled *emerging* but rather *breaking out* or perhaps *popping up* or *erupting*. Yet it seems clear that there is something closely akin to the idea of emerging here: a trajector that presumably was inside the body (the

material that forms the wart or pimple) breaks through the normal boundary of the body, appearing on its outside surface. However, the trajector (the wart) and the landmark (the body) are not as distinct from each other, either before or after the process happens, as one might wish for a clear case of emerging. Note, too, that the trajector has changed form in the process. (Incidentally at this point, but relevantly later, *īmak* in other contexts can mean 'in his power, under his control'.)

- (6) *N Rufino no okimaka totonki, yekin yalla*
 the Rufino also it.had.hit.him hot barely yesterday
okiski.
 it.emerged
 'Rufino had also gotten a fever; it did not stop till yesterday.'

For (6), it is relevant to know that in Nawatl illnesses are construed as entities located within a sick person; when a person gets a fever, the fever is often said to enter that person (although alternative expressions such as the HIT metaphor exemplified in (6) are also used). Given such reification and location of the fever, it is not surprising that the cessation of the fever can be construed as a kind of EMERGING. Yet it is not a prototypical EMERGING, and in English we would speak of the fever *stopping*, *ceasing*, or *breaking*,¹¹ or perhaps (though it sounds a bit archaic) *leaving* the sick person. Here, the fact that the trajector is not a physical object is part of why the concept does not exactly fit the prototype.

- (7) *Kexan estatuahtih ken kualli kisah n san*
 like statues how good they.emerge the just
kinmachihchiwah.
 they.make.them.by.hand

11. For some speakers, including myself, a fever *breaking* refers to a sudden decrease which may not coincide with a complete cessation; similarly, *dropping* need not imply complete cessation. Yet both words are often used to name a process which does include complete cessation as its end point.

'Take statues, now; how do they turn out so good when people make them by hand?'

- (8) *Machno kualli okiski n Elisabet ivedido.*
 not also good it.emerged the Elizabeth her.dress
 'Elizabeth's dress didn't turn out right either.'

The usages of (7) and (8) are closely parallel: the process of an artifact being made is construed as a process of its emerging from the materials of which it is made. As in (5), the concept combines a change of state of the trajector with a less than sharp separation between the trajector and landmark. In fact, if the landmark is viewed as a distinct physical object rather than as a mass (i.e., in these cases, if the landmark is construed as the particular piece of rock, wood, etc., from which the statue is made or the particular piece of cloth from which the dress is made), it ceases to be itself through the process. But one can see how this also could be a kind of EMERGING. The fact that the particle *out* occurs in the translating English phrase *turn out* is almost certainly no accident.

- (9) *Kualli otikis, Marsiano, tla san*
 good you.emerged Marcian if just
otimawiwiontia.
 you.went.swinging.arms
 'Things went well with you/You came out all right, Marcian, considering that you went there empty-handed.'

As in the cases of making an artifact, in (7) and (8), we are dealing in (9) with a change of state, but here it is a change of the situation of a human trajector. This trajector was "in" one situation and now has moved from that situation to another. This change can be seen as EMERGING from the former situation into the latter. Note again the *out* in the English translation *come out*.

Note also that in all three of these usages, i.e., (9), (7), and (8), the word *kualli* 'good' appears with *kīsa*. This is no accident; rather, it reflects the fact that in both the 'creation-of-an-artifact' and the 'per-

son-changing-situations' senses of *kīsa*, an evaluation of the new state is a very prominent notion. This ties in closely with the fact that the final state in (9) and (7) is an approximation to a desired or intended state, and the closeness of that approximation is a natural matter for concern. Similarly in (8), it is a difference in quality between the two states that prompts the usage, and again an evaluation of the difference is natural.¹² In fact, if there does not occur an evaluative word or phrase such as *kualli* or *mach kualli* 'not good, bad', or some other adjective indicating the quality of the trajector in the new state, *kīsa* will usually need to be translated 'come/turn out well' rather than just 'come/turn out'.

The construals of *kīsa* in (5), (6), (7), (8), and (9) are represented in 3.h, 3.i, 3.j, 3.k, and 3.n, respectively, together with some of the generalizing concepts which unite them.¹³

- (10) *Merino kitta machok miek kisas n*
 Merino he.sees.it not.still much it.will.emerge the
xochitl, sa omen tlatekitinweh.
 flower just two they.go.to.cut.something
 'Merino figures that there won't be much of a flower crop left, so there are just two of them going off to harvest them.'
- (11) *Tla okisako ehekatl koxamo*
 if it.came.to.emerge wind whether.not
waltlamomachilis tlaseseya.
 there.will.likely.begin.to.be.felt it.gets.cold
 'If the wind has started blowing, it will probably start to feel like it is cold.'

12. Evaluations of different kinds of goodness or badness presumably consist in comparison of the final state of a concept with a desired or desirable state. I did not attempt to represent this in 3.o and its subcases, rather I have simply included an *ad hoc* label stating that that final state is evaluated, in order to simplify the diagrams.

13. In order to help the diagrams fit in a reasonable space, only the initial and final states of the process are represented. To be sure, even the diagrams in Figures 1 and 2, with one medial state represented, underspecify the true complexity of the concepts along this dimension.

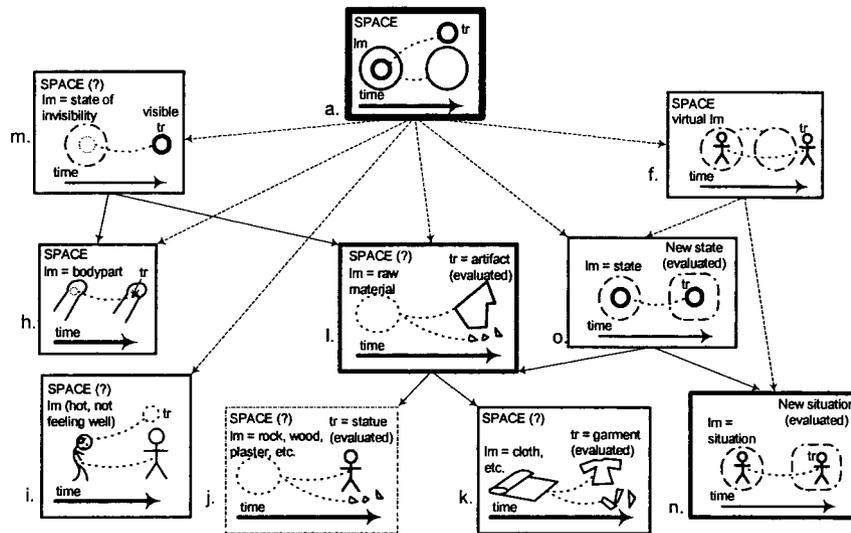


Figure 3. Warts, fevers, and artifacts *kīśah*, people *kīśah* from situations.

Sentences (10) and (11) are, I believe, more closely related than might appear from their English translations; they are also closely related to another type of usage which happened not to be exemplified in our random sampling of thirteen usages. In that usage, represented in 4.p, an event which occurs is said to *kīśa*. (One might say, for instance, *Nochipah ihkon nopan kīśa* [always thus on.me it.emerges] ‘That’s how it always happens to me’.) A characteristic common to many kinds of prototypical, physical EMERGING, and also to the developmental or artefactual emergings of (5), (7), and (8) (cf. 3.m), is that before the trajector emerges from the landmark it is difficult or impossible for most people to see it or interact with it. One can readily see how the most important part of the emergence, in both speakers’ and hearers’ minds, can come to be the beginning of accessibility or of knowability (4.q). This idea is probably active in another usage (4.r), in which thoughts which pop up in a person’s mind are said to *kīśa*. By a parallel construal, then, an event as it occurs can be seen as coming into being and into knowability, and this is naturally seen as a kind of EMERGING (4.p). Since events which

occur *kīśah*, it takes no great stretch of the mind to see a crop becoming ripe as a similar kind of EMERGING (4.s). One could also note that ripeness is analogous to the finished state of an artifact or the final state of a developing situation; thus, achieving any of those states can be seen as undergoing the same sort of process (4.t) and it should not be surprising that it can be called by the same name. Similarly, a wind arising (why do we say *arise*?) can also be seen as an event occurring, thus as a kind of EMERGING, or at any rate the wind’s coming into contact with humans, entering their perception and interacting with them, can be seen as EMERGING (4.u).

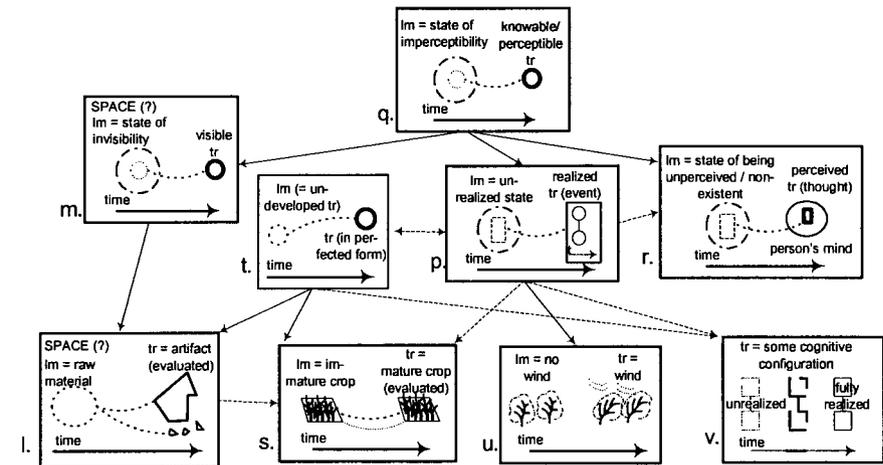


Figure 4. Events and crops *kīśah*, ‘adverbial’ *kīśa*.

- (12) *Nikan toaltepeh momatennamikih kīśa*
 here our.town they.greet.each.other.kissing.hands emerge
san yen itech ilwitl.
 just that’s.it on.it feast
 ‘Here in our town people greet each other with the hand-kiss practically only at religious feasts.’

- (13) *N changohtih mayehkeh kisa kexan tehwan.*
 the monkeys hand.havers emerge like we
 'Monkeys have hands almost like we do.'

This leaves only (12) and (13) from our random sample. In these cases, we are practically forced to translate *kīsa* with an adverb such as *practically* or *almost*. I suggest that this notion is another extension of the idea of EMERGING as coming into existence. A particular semantic configuration – in (12), that of occurring only on feast days; in (13), that of being precisely like us humans – is viewed not as having occurred, as already “there”, so to speak, but as in an arrested process of occurring, almost but not quite yet “there”.¹⁴ This meaning is diagrammed in 4.v.¹⁵

14. A reviewer for this article suggests calling this notion “coming up (to a certain degree)”; one might also suggest “approaching”. I have no objection, as long as it is clear that these are English ways of expressing the notion, and not Nawatl, in that the Nawatl has no forms particularly tied to meanings ‘come’, ‘up’, or ‘approach’. An alternative construal might involve a DEPARTURE metaphor: real, definitive occurrence might be viewed as the landmark, the ideal out from which the actual departs. *Kīsa* can, and often does, mean physical departure, and it is not unreasonable to suppose that this notion may be/have been active in some speakers’ minds. However, it is less clearly parallel to other usages where the trajector is an event or configuration, and thus would presumably not be as likely or as strong as the construal mentioned in the text. It has not (if my memory serves me) been advanced to me as a possible explanation for this usage by native speakers, whereas that in the text has.
15. The adverbiality versus verbality of *kīsa* in these usages is a difficult call, and, to my mind at least, not a crucial one. If taken verbally (as in 4.v, i.e., as a process, a situation developing or extending through conceived time), the form is naturally (though not by logical necessity) always in third person singular, since the subject is a conceived configuration or situation rather than a (conceived) person. Somewhat less predictably, but still very naturally, it is also always in present tense. It thus winds up with the uninflecting form *kīsa*, without normal overt verbal morphology to establish or authenticate verbal status. Its subject clause or phrase tends to be semantically much “heavier”, a more important part of the communication between speaker and hearer; this tends to relegate *kīsa* to modifier (rather than head) status. If verbal, *kīsa* must be construed imperfectively, i.e., one stage in the perfective process of becoming is

2.4. Further usages of *kīsa*; complexities in cases of physical emergence

All the usages of *kīsa* which we have examined are commonplace, fully robust patterns;¹⁶ hundreds of examples of most of them would show up from any large corpus of Nawatl data. And they are by no means all of the attested patterns. I would like to single out for additional comment a complex of cases involving physical emerging, subcases of the prototypical 1.a (= 5.a).

Kīsa is used conventionally to describe the rising of the sun; in Nawatl the sun does not rise, it emerges (5.w).¹⁷ Similarly, the moon’s rising may be coded by *kīsa* (5.x); the commonality of these concepts is captured by 5.y, which specifies emergence of an astronomical luminary from behind the horizon.¹⁸ The stars’ rising is, somewhat surprisingly, not coded by *kīsa* but rather by *mo-tta* [re-flexive-see] ‘be(come) visible’.

singled out and extended through conceived time. The difference between that and a stative (atemporal) construal is so minimal as to be practically negligible in a modifier. I would suppose speakers may construe it either way. If *kīsa* is construed as an atemporal modifier of a relation, whether a verbal relation as in (12), or a stative one as in (13), that makes it, on the Cognitive Grammar definition, an adverb. The fact that adverbs provide the best English translations is unsurprising.

16. The particular notion of a statue “turning out” (well or otherwise) is doubtless an exception to this statement, and it is so represented in 3.j. Thus, 3.j, I claim, is good Nawatl because it straightforwardly elaborates schema 3.1 (it is *sanctioned* by 3.1). Clothing turning out well (3.k), in contrast, is a common topic of conversation at least in many households, so I would claim that it is established in its own right, as well as being sanctioned by 3.1. Similarly, I make no claim that the notions of occurring practically only on feast days (12), or of being nearly like humans (13), are established meanings of *kīsa*, although they are straightforward elaborations of 4.v; I did not even include them in the diagram.
17. The extent to which the sun (*tōnal-tzin*) is personified by Nawatl speakers is debatable and no doubt variable. It/he is rarely mentioned without the honorific *-tzin* suffix attached.
18. The setting of sun, moon, and stars is, in Nawatl, conventionally coded by the stem *pol-iwi* [lose-intransitive] ‘be lost, disappear’, not by the opposite of *kīsa* (*kalaki* ‘enter’). *Kalaki* is used in other dialects, however, e.g., in the Mösiehualj (Nahuatl) of Tetelcingo, Morelos.

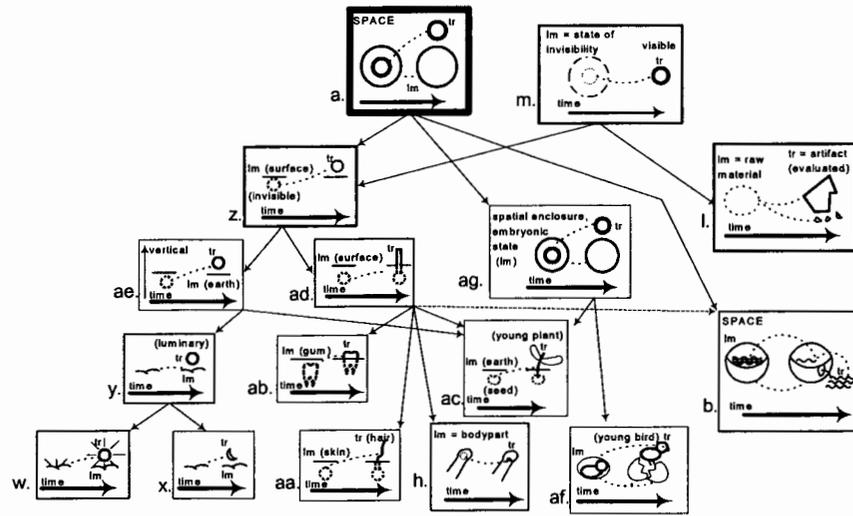


Figure 5. More physical emergings coded by *kīsa*.

These meanings are part of a group of concepts in which the landmark is a physical entity with an extensive surface, and the trajector is at first invisible, as it is either hidden under that surface or hidden behind a fold or bulge of it, and later becomes visible, having penetrated or come out from behind the surface. Schema 5.z characterizes this class; it is, like 3.1, a subcase of the notion of the trajector becoming visible (3.m). Surprisingly, since it would be a straightforward subcase of this schema, *kīsa* is not used of a person or a vehicle coming into sight over the horizon. Other subcases of 5.z which are coded with *kīsa* are hair sprouting from head or chin (5.aa), or a baby's tooth "coming in" (as we say in English – the Nawatl is nearer to "coming out", though it lacks the prominent deixis of *come*) (5.ab),¹⁹ or a seed sprouting from the earth (5.ac), or an eruption breaking out on the body (3.h = 5.h). Subschemas 5.aa–ac and 5.h all

19. *Tlan* 'tooth' is incorporated on *kīsa* to form *tlán-kīsa* 'teethe, cut a tooth, have your teeth come in'. Compare with *tlán-kopīni* [tooth-be.plucked] or *tlán-wetzi* [tooth-fall] 'lose a tooth, have a tooth fall/come out', and *tlán-chapāni* [tooth-fall.multiple.subject] 'lose your teeth'.

share the notion of the trajector not emerging as a whole but rather one part of the trajector becoming visible above the surface while another part remains invisibly anchored beneath it (5.ad).²⁰ This notion is also close to the concept in (1) (1.b = 5.b) of water emerging from some enclosing or containing object; during and often even at the end of the process, some water will still be in the container and perhaps all along the path of the emerging.

Subschema 5.ac (the sprouting of a seed) is further linked with 5.y (the rising of sun or moon) in that both have the earth as landmark and presume a vertical orientation; this commonality is expressed in schema 5.ae.²¹ Schema 5.ac is also complex in that with the spatial emerging there is a concomitant emergence of an organism from an embryonic state into full life. It shares this complexity with 5.af, which represents the conventional use of *kīsa* to describe the hatching of chicks; schema 5.ag represents the commonality of these concepts.

All of this is not even nearly an exhaustive treatment of the meaning of *kīsa*. An hour's run-through of text netted the following additional usages, many of them occurring repeatedly: set out on a journey, (water) come up onto the ground (in a seep or spring), (dye) come out (of cloth),²² come out (around a corner into view), (part of a fence) stick out, (bile) be secreted (from the liver), be divided (into parts), (a plague of grasshoppers) appear, (flower bulbs) come out (of the ground), be spit out, play a role, leave a field, come to a decision. It should be obvious that these could easily be fitted, in quite com-

20. "Above" and "beneath" here do not necessarily imply vertical orientation; a tooth emerging downwards from the upper gums or a hair sprouting from the bottom of the chin are perfectly valid instances.

21. The validity of this schema is reinforced by the fact that these cases more often than not are coded by the complex stem *pan-kīsa* [on-emerge] 'come up on top of the ground/over the horizon' rather than by *kīsa* alone. *Pan-kīsa* may also designate (as *kīsa* alone does not) a person or vehicle's coming into view over the horizon or a hill; it is not used of teeth or hair sprouting, nor of any of the other situations discussed here.

22. In this usage, as in English, the dye or stain is not said to (perfectively) *kīsa* when some comes out but when none remains. This contrasts rather directly with, e.g., 1.b, or especially 5.ad.

plex ways, into the diagrams in Figures 1–5; it should also be clear that some usages (e.g., stick out, be divided, play a role, come to a decision) involve significant extensions from what has so far been presented. In causative forms (based on *kīxtia* ‘take out’), many of these usages were repeated; *kīxtia* also denoted (a shaman’s) taking a (supposed cause of) sickness out of a person’s body (cf. 3.i), picking out good flower bulbs from bad, pulling teeth (contrast 5.ab), taking goods from a truck, gruel from a pot, toys from a box, and a tree out of a brook, and throwing a fiesta (causing it to occur, cf. 4.p).

2.5. High-level schemas

In the previous sections, I have presented a number of schemas, that is, generalizing concepts that abstract away from the differences between more specific meanings. (In fact, all the concepts I have described, and probably all concepts used in language, are schematic to one degree or another, generalizing over particular sensory experiences or other cognitive events which may differ slightly from person to person.) Other schemas might be posited which generalize over the highest-level schemas I have described so far.²³ Schema 6.ah generalizes over the cases where spatial movement is involved (the prototypical 1.a, 2.f, and 3.i), 6.ai generalizes over that concept and the not-necessarily-motional change-of-state concepts of 3.o and 4.q, and 6.aj unites that concept with the “almost” concept of 4.v, in which a change of state is incipient but not fully realized. Schema 6.aj, then, is a generalization covering all the meanings examined so far. If there

23. I would not claim that these schemas are necessarily present, much less salient, for all speakers of Nawatl. Langacker is probably right (1987: 372–377) in claiming that any extension of meaning or perception of similarity between meanings involves at least the momentary activation of the specifications common to the compared meanings. Those specifications constitute a schematic concept, and to the degree that that schema becomes routinized and conventionalized, it will become part of the language. Yet subschemas can be accessed on their own and can function independently: higher-level schemas are not necessarily activated and may well be marginal to the system.

is one meaning of *kīsa* which can be said to include all the others, this is it.

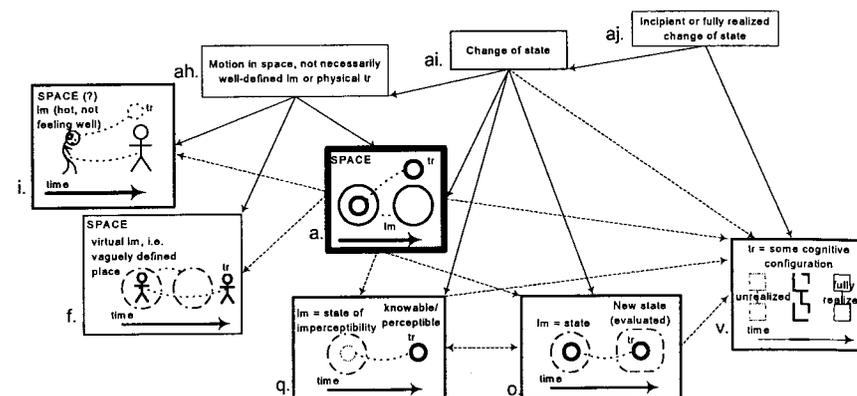


Figure 6. High-level schemas for *kīsa*.

3. Basic facts illustrated by the data

The data we have examined so far conveniently illustrate a number of points which are so well-substantiated that it is difficult for me to see how they can be questioned. Each of these “facts” will be discussed in the sections ahead. They are:

- (a) Polysemy is rampant.
- (b) Polysemous meanings are separate but intricately related.
- (c) The links among the meanings are reasonable.
- (d) Not all reasonable links obtain, however. There are holes in the patterns.
- (e) The reasonableness of the links helps a person learn the system but does not mean that one can predict it and needn’t learn it.
- (f) Context is the key to letting the meanings function separately and the means of establishing them in the first place, but ...

- (g) Context cannot be used to explain the meanings away.
- (h) Conclusion: One cannot eliminate these meanings on the basis of their relationships to each other or to context.

3.1. An alternative view: monosemy

Crucial aspects of these “facts” are denied by certain linguists, who claim that monosemy rather than polysemy is the norm. Here, I am especially interested in replying to Charles Ruhl (1989). I have singled Ruhl out from among those who espouse or assume monosemy for several reasons: (i) His model incorporates typical features of monosemic models, and offers unusually full justification for them; (ii) He takes seriously the implications of those features and follows them out conscientiously, even when they lead to conclusions others would resist; (iii) Anyone who appreciates Bolinger as palpably as Ruhl does and yet disagrees with him cannot be thinking about these issues superficially and is worth hearing; (iv) Ruhl has offered me the great pleasure of reading one who really has considered the data – time after time he brings up considerations which others ignore but which seem to me of the highest relevance and importance – and with whom I agree at least 90% of the time, but with whose conclusions, arising from all that agreement, I find myself in quite violent disagreement.

Those positing monosemy generally do so in the interest of theoretical simplicity.²⁴ Accordingly, Ruhl seeks a semantics that is limited to “closed, finite systems” and “rules ... with only a few options” (1989: xi, 36). Undoubtedly, life would be simpler for semanticists if each linguistic form had only one meaning. The question is ultimately empirical, however. Do the data support a model which posits only one meaning? If this particular kind of simplicity can be

24. Although few would state it quite as bluntly as Bouchard (1995), many seem to be motivated by a desire for a semantics which does as little as is necessary to let their syntactic machinery run smoothly.

bought only at the expense of greater, more mysterious, and less probable complexities elsewhere, it may not be worth the price.

The general drift of monosemic analyses is to seek a high-level generalization which covers all of the apparent meanings of the lexical item in question, and to assume *a priori* that that generalization must be the whole meaning (Ruhl’s “monosemic bias”, 1989: 3–5).²⁵ This involves acceptance (usually covert) of the dictum that to list particulars is to lose a generalization, and making the generalization entails excising the particulars. Thus, Ruhl (1989: 51) states (atypically, without supporting argument) that “when meanings generalize, ... concrete meanings become pragmatic specifications of the abstract meaning, which is *the* meaning of the word” (1989: 51). (“Pragmatic”, for Ruhl, is “extralinguistic”; e.g., 1989: 15.) This seems the central point of disagreement between Ruhl’s view and mine. As Langacker (1987: 28–29, 41–42) states, we are not faced with a simple “either-or” choice between lists of particulars and general rules; a “both-and” option must also be considered. To assume otherwise is to subscribe to the rule-list fallacy. I argue below that the “facts” indicate that the “both-and” option is in fact the correct one.

On a closely related matter, Ruhl assumes a dichotomy between meanings which are related (and therefore reducible to one meaning) and those which are not. In other words, although he calls it polysemy, what he is really arguing against is multiple homonymy. Having admitted that his highly abstract meaning for the English verb *bear* is not intuitively accessible but reachable only by inference, he asks, “On the other hand, is a polysemic solution warranted? Is it possible, with the previous data, to argue that *bear* breaks into a number of discrete semantic parts? ... The challenge is to understand why all the data in this chapter (and of course many more) *seem to be related* [italics his], especially so when *bear* appears to be ... a highly idiomatic word” (1989: 63). In presenting those data, he repeatedly demonstrates parallels to particular constructions or usages

25. It is tempting to dismiss the “monosemic bias” as pure question-begging; at best it is a fiat declaration that the burden of proof is heavily on those who claim (as I do) that particular meanings are not predictable. Ruhl need not prove a meaning is predictable: we must prove it is not.

and argues that those constructions and usages cannot therefore be idiomatic, which means, on his either-or view, that they must be predictable. Thus, he argues, e.g., that “contrary to Bolinger’s claim that *bear the brunt* is an idiom, *burden*, *brunt*, *load*, *impact*, and *strain* fit the general pattern”. He notes that “*bear witness* is treated as a separate phrase in some dictionaries, but it relates directly to *bear testimony*; in the light of previous examples, it loses its apparent idiosyncrasy”. Elsewhere, he uses the virtually definitional phrase “idiomatic, with no systematic explanation” (1989: 55, 57, 17, cf. 49). We might phrase his criterion as: “if not fully idiosyncratic, then predictable by Ruhl”. He is entirely right about the relationships being there, but wrong, I believe, in assuming that this means the forms are fully predictable. In other words, idiomaticity or idiosyncrasy are matters of degree, not plus-or-minus qualities; the truth is that while the forms are reasonable given the system, they still cannot be predicted and must be learned.

Ruhl recognizes that monosemic meanings are of necessity highly abstract. He admits that his premises force him into “claiming that meaning almost universally ceded to be semantic should be considered pragmatic” (1989: ix). Thus, for *bear*, “distinctions such as abstract-concrete, horizontal-vertical, and movement-nonmovement are ... determined pragmatically, not semantically ... [and similarly] effects of being ‘on top’, such as control, dominance, and effect ... intensity ... speed, and the like” (1989: 39). The resulting “general abstract meanings elude consciousness; the interpretations of the conscious mind by necessity are oriented towards reality and thus are not purely semantic” (1989: 51). In other words, native speakers will not be conscious of the linguistic meanings of the words they use, but only of their pragmatically contaminated variants. Ruhl would posit for *kīsa* a meaning like 6.aj, and it would not bother him that native speakers would be unlikely to think of it as even a meaning of *kīsa*, much less as *the* meaning.

Ruhl would certainly agree that (apparent) polysemy is rampant (section 3.2). That people do separate senses in their minds may be true (section 3.2.1), but would be essentially irrelevant, as these are only pragmatic variants, not semantic meanings. The connections

among the senses (sections 3.2.2 and 3.3) are certainly there, and are important; in fact, they are the justification for arriving inferentially at the one true meaning (6.aj or its equivalent). And the role of context is definitive for selecting one of these concrete (non-semantic) meanings from among the possibilities, and new contexts can be expected to produce new variants (section 4.2). The major arguments for which I do not believe Ruhl has good answers are in sections 3.4 (holes in the patterns and differing patterns), 3.5 (multiple reasonable solutions, need to account for speakers’ as well as hearers’ usages), 4.2 (duplication of meaning is allowable, even normal), and 4.3 (context does not supply all the missing information.)

3.2. Polysemy is rampant

I cannot contemplate a lexical item like *kīsa* without being impressed by the sheer number of meanings which are clearly related to each other but just as clearly distinguishable from each other. And *kīsa* is not really unusual in this characteristic. A good many common verb stems in Nawatl are comparably complex, and there are dozens that are an order of magnitude less complex. There are not very many that do not have more than one meaning clearly established. Nouns, adjectives, and postpositions also typically have multiple meanings. And this is true of any other language, at least of those I am at all familiar with; just look up, in any good dictionary, a word like *get*, *pass*, *turn*, *break*, *jack*, *rack*, or *heart*. In this light, then, one comes to expect any commonly used lexical item to have multiple meanings.

3.2.1. Many times a word’s meanings should be distinguished from each other

It may not be all that significant theoretically that I can distinguish a word’s multiple meanings and that they “feel” like different meanings to me. Monosemists’ counter-arguments to the apparent prolif-

eration of meanings generally appeal to a supposed difference between what is in speakers' minds and what may be in analysts', or to a supposed possibility of predicting the multiple meanings from some one central meaning. The second of these two arguments will be dealt with later (section 3.4); here, I address briefly the related questions of whether the meanings are distinguished in native speakers' minds, and whether analysts' intuitions are at all trustworthy.

Doubtless, any analyst is influenced on this matter by intuitions: feelings or convictions – preceding any argumentation – that (for instance) two meanings are different enough that one of them does not automatically entail the other. I confess to such intuitions in the case of *kīsa*. But they are confirmed by indications that native speakers share them to some degree at least. For instance, if native speakers are asked to explain the meaning of *kīsa*, they will tend to indicate the prototypical meaning, either by gesture, by exemplification, by paraphrase, or by translation, and then if presented with a sentence where another meaning is needed, they will say that is another meaning. If invited to state what different things *kīsa* means, they can make a list of several. They can make or enjoy plays on the different meanings: they will at least smile when asked how a goal in soccer *ōkīs* 'emerged', i.e., 'happened, was scored', when the scoring player *ōkikalaktih* 'caused it to enter', i.e., 'put it in' the goal mouth, or if you ask whether the baby's tooth *ōkīs īkamak* 'emerged in/[or conceivably from] his mouth' by itself or whether someone *ōkikīxtih* 'caused it to emerge', i.e., 'took it out, pulled it [as a dentist would]'. The fact that different synonyms are available within the language for certain meanings but not for others makes it clear at least that speakers can make (and are used to making) distinctions between the concepts involved.

Analysts' or native speakers' intuitions are confirmed by the fact that in many cases the meanings are different enough that their truth values can clash. The traditional tests for ambiguity and vagueness (Lakoff 1970; Zwicky & Sadock 1975), involving various forms of conjunction and reduction, rely crucially on such clashes. They can easily be made to yield results indicating separate meanings for many forms. If Martha has 'emerged' from her home in the sense of leav-

ing the building or the premises (2.c–e), and Eliza has 'emerged' in the sense of going away to live elsewhere (a well-established meaning closely related both to 2.e and 3.n), to say *Yalla Marta ōkīs īchān iwan Elisa nō* [yesterday Martha emerged her.dwelling and Eliza also] is quite inappropriate. Many other examples could be given.

I am by no means claiming that all the distinctions I have represented in Figures 1–6 are salient in speakers' minds. On the contrary, some groups of meanings, for instance 3.j–l, or 4.v and its subcases, are quite strongly vague, with distinctions among them quite unlikely to be focused on by speakers and virtually any new instance (e.g., building a computer) likely to be acceptable without question (cf. Tuggy 1993). But I cannot accept, and the evidence seems to me clearly to deny, that this is the case for all the meanings represented, that the only thing speakers have in mind when they say the word *kīsa* is the schematic meaning 6.aj, which "includes" all the others.²⁶

A question beyond what is consciously in speakers' minds is what is there subconsciously. This is, naturally, information that cannot in general be directly accessed, although introspection by speakers themselves may be of some use in pushing the borders back. Psychological tests for unconscious knowledge work from indirect evidence, measuring some response which is best explicable by hypothesizing such unconscious knowledge. About such work I have little to say, although I am convinced it is a worthwhile endeavor. However, patterns of language use often give us similar indirect evidence, which does not need a psychology laboratory to measure it. The ambiguity tests mentioned above, or the holes that one finds in patterns (section 3.4), give evidence that, even if speakers are not aware of doing so, they are discriminating among the logically expectable members of a category.

26. Ruhl, of course, would agree, but claim that says nothing about semantics: "the interpretations of the conscious mind [even of native speakers] by necessity are oriented towards reality and thus are not purely semantic" (1989: 51).

3.2.2. A word's multiple meanings are intricately related

Polysemy, to be sure, is not just a matter of there being different meanings attached to a form: the same is true of lexical ambiguity, or homonymy. In polysemy the meanings are not only separable, but related.

There is probably no need to belabor the point that there are multitudinous links of similarity to be recognized among the meanings so far discussed, with many examples of both the strict, non-contradicting similarity of a schematic relationship and the looser similarity of partial schematicity.²⁷ I cannot prove, and need not presume, that every single one of the relationships I have represented or discussed is active in all speakers' minds, much less that there are no other connections to be discerned. (As with the meaning discriminations mentioned above, we may reasonably expect there to be meaning connections subconsciously active even when speakers are not aware of them.) What I see no reason to deny, and every reason to affirm, is that links of similarity do exist in Nawatl speakers' minds, whether consciously or subconsciously, that they bind the meanings of *kīsa* into a more or less coherent category and subcategories, and that they aid immensely in the establishing of the different meanings in children's and other learners' minds. This is, I believe, completely typical of the meanings of polysemous lexical items.

27. Although I do not discuss it here, what are usually recognized as metaphoric and metonymic (or collectively, figurative) extensions of meaning can be viewed as subclasses of partially-schematic relationships. E.g., the 'fever ceasing' sense (3.i) might be seen as a metaphoric version of the prototype (3.a), and the 'leaving home' sense might be seen as a metonymic extension of 2.e (leaving the physical vicinity of one's house is a part of leaving home). The labels "metaphor" or "metonymy" are more likely to be applied when the degree of semantic strain is greater, but the phenomena are basically the same. These relationships, of course, also help bind concepts together.

3.3. The links among polysemous meanings are reasonable, even systematic

These links among polysemous meanings are reasonable. Their very nature makes them so. I know no one who doubts that perception of similarity is at the heart of the human power of reasoning, and these are relationships of similarity. It is no accident that emergence from a physical enclosure (1.a = 2.a) and from a "virtual" physical landmark (2.f) are classified together in Nawatl and coded by the same phonological form; they are linked by a relationship of similarity that is quite certain to occur to anyone who compares the two concepts. Even less closely similar concepts, such as physical emergence and the "emergence" of an artifact from raw materials (3.1), or a person's "emergence" (3.n) from one situation into another, are based on reasonable connections between the concepts.

These connections are reasonable not only for Nawatl speakers. The semantic ranges of *kīsa* and its Spanish counterpart *salir* overlap considerably: *salir* is a standard way to speak of most of the cases involving emergence from a physical object or a virtual landmark (e.g., of a baby's teeth coming in), and also for the cases of an artifact turning out (well or badly), or of a person coming out (well or badly) from a situation. The repeated occurrence of *out* in the English glosses of these concepts (a pimple *breaks out*, a dress *turns out well*, a person *comes out well* from a situation, etc.) is also far from purely accidental. (I assume the semantic similarity of *out* to *emerge* need not be substantiated.) And a historical investigation would certainly indicate that borrowing or contact among the three languages is unlikely to be a factor in any but perhaps a small minority of cases. What is much more likely is that the same reasonable connections among the concepts, the same naturally perceptible similarities, are utilized independently in the different languages to unite the related concepts into categories which are lexically linked to a single phonological structure.

Sometimes the linkages are not only reasonable, but systematic in some degree, i.e., their reasonableness is reflected in the fact that related linkages can be found in numerous other lexical items in the

language,²⁸ to the point where the pattern might even be considered productive. The most widespread case of this is *elaboration*, i.e., the linkage from a well-established schema to a subcase of that schema. Sometimes certain kinds of *extensions* are systematic as well. Much ink has been employed in the exposition of systematic metonymies, for instance, such as the naming of literary works by their authors (*Milton is on the shelf next to Plato*) or restaurant patrons according to the dish they have ordered (*The ham sandwich in the corner needs more coffee*). Other extensions are systematic in being tied into an extended metaphorical system for structuring a domain of knowledge.

Cases of systematic elaborations are not hard to come by. For instance, the 'creation-of-an-artifact sense' (3.l) is linked to its subcase dealing with the creation of a garment (3.k) and to a large number of other such subcases (including subschemas such as one of food in preparation), and it can even apply productively, as in sentence (7) (=3.j). Extensions, in contrast, often fail to be systematic to any great degree, and there are no straightforward examples in the Nawatl data. Still, there are a few marginal cases: (i) the 'achieve perfected form' sense is extended to the 'event be realized' sense (3.t ----> 3.p) in a manner parallel to a similar meaning extension in *mo-chīwa* [reflexive-do] 'be made, become, happen'; (ii) the (metonymic) extension of prototypical *kīsa* to primarily have to do with visibility (3.a ----> 3.m) might be seen as cross-linguistically systematic: many languages use words for emergence to refer to becoming perceptible; (iii) the extension to the cessation of a fever (3.a ----> 3.i) is clearly related to a standard construal of sickness as entering a person, remaining within him while he is sick, perhaps being drawn out by a skilled shaman, etc. But most of the extensions, although reasonable enough, are not systematic even to that degree.

28. And perhaps other languages as well. This would be a many-to-many correspondence across languages, and thus differ from the essentially one-to-one correspondences noted above.

3.4. ... but they are not predictable

The reasonableness of a linkage is not the same as its inevitability. Not all reasonable relationships of similarity, even those that would be systematic, are necessarily perceived (or conceived) by all reasonable people. Much less is it the case that a perception of similarity will necessarily entail people linking both the similar concepts to the same phonological structure. Several lines of reasoning strongly support this contention.

First, there are holes in the patterns. These are obvious at the most abstract levels. For instance, most cases of incipient or actual change of state are not coded by *kīsa* (6.ai-aj), nor are most cases of spatial motion (6.ah). One cannot call falling, or eating, or deteriorating, or running, or any of myriad other processes involving motion or change of state, *kīsa*. Under a monosemic analysis, why should this not be possible? These instances would be reasonable, systematic elaborations of the motion and change-of-state schemas. The answer is that there is no reason, nothing that would allow us to predict it: that these instances are not coded by *kīsa* is just a fact. Either the high-level schemas do not exist as meanings of *kīsa*, or one cannot expect all their subcases to automatically come with them.

Whether the high-level schemas are retained or not, there are holes at much more specific levels as well. If the sun and moon, when they rise, are said to *kīсах* (5.w-y), why aren't the stars? Even though it would be perfectly reasonable, and even systematic, it just happens not to be the case. If plants *kīсах* when they sprout and chicks when they hatch (5.ac, 5.af), why don't humans or animals at birth? Birth is a perfectly reasonable candidate for such coding: like sprouting and hatching, it is a physical emergence marking the beginning of independent life (5.ag). If the sun or moon coming into view over the horizon is considered to be a kind of *kīsa*, why isn't a truck coming into view over the horizon? If there is only one meaning and all the

submeanings are inevitable results of it, I see no way to explain such gaps in the patterns.²⁹

I mentioned above how striking it is that languages which have no genetic relationship to Nawatl should use their words for prototypical physical emergence to also express some of the same extended senses for which Nawatl uses *kīsa*. It is at least equally striking that they do not use those words for all of *kīsa*'s senses. I can think of no good way using *out* or *emerge* or anything similar to approximate, in English, to the 'almost, practically' sense (4.v), or the '(wind) arise' sense (4.u). We could say *come out* or something similar for a chick hatching (5.af) or the sun rising (5.w), but we generally do not. Similarly, *salir* is not used in Spanish to talk about an event occurring (4.p), and although it could be used for a seed sprouting (5.af) (as it is for a chick hatching), the verb *nacer* 'be born' is usually used instead. *Salir* and *emerge* or *come/go out* are also used in extended senses for which *kīsa* is not. *Emerge*, *come out*, and *salir* are all used to refer to the process of a fact becoming publicly known; I do not believe I have ever heard *kīsa* so used. In the Spanish of the Orizaba area, *sale* (lit. 'it emerges') is often used to mean 'that's fine, OK, agreed'; again, I have not heard *kīsa* used to similar effect.

If *kīsa*, *emerge*, and *salir* each has only one meaning, and all the other supposed meanings are automatic consequences of that meaning, then the three meanings must be subtly different from each other, in order to account for these differences in the ranges of the terms.³⁰

29. Ruhl (1989: 55–56) agrees that an abstract, unspecified concept should "exhibit all degrees ... (including lack)" of the characteristics it is unspecified for. Thus, any holes in the pattern (ranges of cases which should be included but in fact are not) are problematic.

30. Alternatively, the nature of the pragmatic/combinatorial principles which derive the context-specific meanings must be different for each language. Positing this would be subject to the same objections as given in the text; in addition, it would be difficult to maintain that those principles were "non-linguistic", as they are supposed to be.

If the pragmatic or combinatorial principles must in fact be specified in detail not just for each language but for their application to each lexical item, a very close theoretical equivalent to polysemy will result. I would certainly not deny that some such particular specifications may be involved in many cases,

The precision and delicacy of these subtle differences must be simply amazing. From slight differences in meanings on the order of 6.ah or 6.aj, abstract enough to include wide ranges of both physical and non-physical emergings, the model must specify whether or not, for instance, a chick hatching or a seed sprouting will be included in the meaning. It must guarantee that in English a baby's teeth will *come in*, not *come out*, whereas in Nawatl they *kīсах*, or that in English the stars *come out* but the sun and moon do not, whereas in Nawatl it is the other way around. The nature of this astonishing subtlety seems wholly mysterious, as is the way it would operate through pragmatic or combinatorial principles (non-linguistic, universal, and automatic) to produce the desired results. The whole scenario strikes me as fantastic in both senses of the term. Since the only reason for positing it is to avoid polysemy, it seems obviously preferable to allow the relatively straightforward complexity of polysemy.

This ties in with the experience of second-language learners, who not only need to learn the names of the closest equivalents of the concepts they are used to thinking with, but who also need to learn where the ranges of the terms do not coincide. They have to learn that, reasonable though it might seem, a term does not mean concepts it obviously would fit very well, or surprisingly does mean concepts which one would not have thought of, much less been able to predict.

The same argument can be repeated with dialectal (or even idiolectal) differences. A number of other dialects of Nahuatl do not have the 'almost, practically' meaning of *kīsa* (4.v), and in at least one the sun is said to *tlākati* 'be born' rather than to *kīsa* (5.w). They may also extend the meaning of *kīsa* past that allowed in Orizaba Nawatl; some do use *kīsa* of the stars as well as of the sun and moon. This is perfectly reasonable, but the monosemist claim is that it must be in-

enriching the polysemy that would be posited without them, but I do not think all polysemy can be reduced to that. In other words, I believe that sometimes a sense may initially only be accessed from a more basic (more strongly-entrenched) sense via an established semantic (originally pragmatic) pathway, but I believe that such senses easily become established in their own right, outgrowing the need for such an established pathway to the point that the pathway is activated only contingently, rarely, or even not at all.

evitable. If *kīsa* has only one highly abstract meaning, what conceivable change in that meaning accounts for such differences?

3.5. Comprehension vs. production; multiple reasonable solutions

The foregoing argument speaks more strongly to the speaker's knowledge of his language than the hearer's. Possibly it is a legacy of the "interpretive semantics" metaphor, but the arguments Ruhl and others bring to claim that a usage is predictable almost always try to show, and would be satisfied to show, that hearers could understand an attested usage without having to learn it. However, they really should be obliged to show as well that speakers (and hearers) would know that was the proper usage to employ for the concept, again without having to learn it.³¹ Hearers understand much that they know better than to say. If I speak as if the stars *kīsaḥ* when they rise, Nawatl hearers understand what I mean. But they are aware that that is not the way to say it, and they do not say it themselves. They can understand the deviant utterance, but it is clearly part of their linguistic knowledge that it is deviant. Similarly, if Nawatl speakers were to say in English, in an appropriate context, *I wonder when the chicks will emerge/come out*, we might well understand that they were talking about them hatching, but we would know that was not the way to say it in English.

When production is considered as well as comprehension, the problem of multiple solutions becomes acute. Other Nawatl verbs, e.g. *patla* 'change', *wetzi* 'fall', *mo-chīwa* [reflexive-do] 'become', or *mo-kuapa* [reflexive-turn] 'turn over/around, change, become', would under a monosemic theory wind up with meanings very close if not identical to that of *kīsa*: something like 'change of state'. It would be perfectly reasonable for them to be used as easily as *kīsa* for most if not all of the cases *kīsa* is used for. The ranges of usage do in fact overlap, but they do so surprisingly little. This is to be ex-

31. As Geeraerts (1991) would phrase it, our semantics must be not only semasiologically but onomasiologically adequate.

pected if the most abstract schemas are not predictive and the occurring ranges are reflected in the polysemic structures under those schemas. It is not explainable under standard monosemic assumptions.

Ruhl acknowledges the force of this argument. After showing that expressions such as *the facts bear me out* fit under his abstract characterizations of *bear* and *out*, he says, "But why *bear* and *out*? If we need an 'abstract sense of movement' ..., why use *bear* here rather than *run*, *go*, *move*, which are more obviously motional? Further, *off*, *down*, and *up* ... have 'goal' meanings too, so why is *out* the choice? These questions are telling, and I have no answers" (1989: 49).

- (14) *Mottas* *kox* *kualli* *kisas* *n*
 it.will.be.seen whether good it.will.emerge the
kamohkli *kan* *poxtik* *n* *tlalli*.
 flower.bulb where powdery the earth
 'We'll see how well the bulbs in the powdery soil will
 _____.'

- (15) *Exkan* *ma* *kisa* *n* *mopehpena* *n*
 Three.places may it.emerge the it.is.picked.out the
kamohkli.
 flower.bulb
 'The flower bulbs which are being picked over should
 _____ in three places.'

Yet even if just comprehension is considered, the arguments are strong. To drive these points home, I include two more sample usages of *kīsa*. In both cases, the meaning is an ordinary one for Nawatl speakers, a subcase of 6.aj (in fact of 6.ai). I have left the translation for *kīsa* blank, and I challenge the reader to guess what exactly is meant (check the answers in the footnote!³²) and to ask

32. In (14), the meaning is 'produce a crop' (cf. 4.s). In (15), it is 'be divided'; in this case, the combination *exkān kīsa* is better translated 'be separated into three grades'.

himself the following sets of questions: (i) If I guessed incorrectly, what possible change in 6.ai or 6.aj would have enabled me to guess correctly? Would it have made me sure I had done so? (ii) If I guessed correctly, did I really start from 6.ai or was it some more concrete meaning that helped me? Was I absolutely sure this had to be the meaning (as it had to have been if it really was predictable)? In either case, (iii) If I had been given the intended meaning and context and the choice from the whole lexicon of what verb to use, would I have known, starting from 6.aj, that *kīsa* was the correct choice?

4. Meanings cannot generally be reduced to one per lexical entry

It should have become obvious: it is not enough to specify that *kīsa* means something like 6.ai or 6.aj, a kind of abstract emerging. One cannot predict on universal or even on language-wide grounds which reasonable usages will be established and which will not. One has to learn which of the myriad kinds of processes that could reasonably be construed as emergings in fact are named by *kīsa*. *Kīsa*'s meanings are all reasonable in some degree, but they are not predictable. They themselves must be admitted as meanings of the word.

And, as I have stressed repeatedly, *kīsa* is by no means an unusual case. The same arguments could be made from any of a multitude of other cases.

4.1. The role of context

Monosemists generally look to both linguistic and non-linguistic context to fill in the meaning specifications necessary for communication which their abstract semantic meanings allow but do not specify. Thus, Ruhl states: "The important point is that *diversity is provided by context*. What often happens in polysemic analyses is that contextual contributions to meaning are duplicated into the word; the original monosemic sense vanishes" (1989: xii). Reference to context is one of the major ideas which cluster around the notoriously-

difficult-to-define concept of "pragmatics".³³ What is the role of context in polysemy?

Unfortunately, space constraints do not permit a thorough discussion of this important topic, so what follows is a summary of what I am convinced is true rather than an argument that it must in fact be so. Only those areas in which I differ with Ruhl are considered at any length.

4.2. Context helps establish and maintain polysemic meanings, and enables choice among them

Monosemists are right, I believe, in assigning great importance to context in the matter. (i) Context makes possible the initial learning of different senses and reinforces them in continuing usage. (ii) Context makes it possible for creative speakers and cooperative hearers to expand meanings to include new senses. (iii) It is "the insulating power of the context" (Lewis 1967: 11–12) that keeps the polysemic senses from colliding and, so to speak, short-circuiting each other. They "do not interfere with one another because they are unlikely to occur in the same context. They live happily by keeping out of each other's way". (iv) Part of the insulation function is that context clues hearers in to which of the established senses is intended. Both linguistic and non-linguistic contexts function in all these ways.

As Langacker reminds us, "all linguistic units are context-dependent ... Rather than context-dependency, it is the process of partial *decontextualization* that requires explication" (1987: 401). All

33. Along with: going beyond truth-values, going beyond strict compositionality, being functionally motivated rather than arbitrary, being calculated on-the-fly rather than established, being implicit rather than overt, having to do with belief and intention rather than reference, being part of extra-linguistic "performance" rather than linguistic "competence", and other things. Schneider's (1995: 636–637) perception of pragmatics as "the wastebasket of linguistics" is accurate, I believe, as is his statement that "it was in fact the precise definition of truth-conditional semantics that created pragmatics by leaving to it the study of all non-truth-conditional aspects of meaning". (The quote may be due to Bertucci Papi.)

meanings, not just polysemic meanings, are derived by observation of context and abstraction away from differing contexts.

This is true of the establishment of two kinds of "new" meanings: those that are established in the linguistic system but are new to the learner, and those that are "new" to the linguistic system itself. In either case, the means by which new meanings are established is context. The learner hears a phonological form and must figure out, from the situation (both linguistic and extralinguistic) in which the form is heard, what the speaker intends. As the same form recurs in similar situations, the commonality of the form's contexts becomes more and more strongly associated with it, and that constitutes its meaning.

From this perspective, Ruhl's is a rather odd complaint, that in polysemic analyses "contextual contributions to meaning are duplicated into the word". That, in effect, is what meanings are: duplications from context. The seeming fallacy is mitigated, however, insofar as Ruhl is referring only to the *present context*, i.e., the context in which each particular usage occurs, for spoken language the "context of utterance", while establishing meanings involves the distillation of "duplications" from many past contexts.

Ruhl's objection also seems a little less unreasonable when another fact is considered. I admit (and even insist) that for polysemous meanings the present context must be active enough to enable the correct choice among the meanings. In what other conceivable manner could hearers know, for instance, that in (3) *kīsa* means '[person] go out (from the house)' (2.c-e), in (9) it means 'it go well with [person]' (3.n), and in (8) it means '[artifact] turn out' (3.l-k), rather than some other pattern of meanings in these sentences? By definition the phonology of *kīsa* itself will not be clueing them in to the differences in meaning: context is the only possibility. And context does so by providing overlapping pieces of meaning.

Note, however, that this is equally true of homonymous meanings. Ruhl agrees that "the noun *bank* is homonymic" (1989: 5), presumably between the classic 'river edge' and 'financial institution' senses. How can speakers clue their hearers in to their intent to use one rather than the other of these meanings? It can only be by present

context. As far as I know, Ruhl would not object to the duplication of meaning between *bank* and its contexts, or claim that any meaning in the contexts cannot be part of what distinguishes between the meanings of the form.

What's sauce for homonymy ought to be sauce for polysemy: if duplication of meaning between the form and its context is allowable and necessary for proper use of homonymous meanings, it should be allowed for proper use of polysemous meanings as well.³⁴

4.3. Context underdetermines meanings

Even more difficult for the monosemic position, however, is the fact that often, even typically, the present context simply does not supply anything like all the information that speakers intend to convey and that hearers in fact understand.

I will discuss a couple of cases, but the argument could be made from any of our example sentences, with a strength inversely proportional to the degree of semantic overlap between *kīsa* and its context in each case. For a Nawatl speaker, (5), or any similar structure in which something unspecified is said to *kīsa* on or at a (skin-covered) bodypart, provides enough context to make it virtually certain that something like a wart is in mind. (Often the extralinguistic context or further linguistic context will reinforce this in some degree, but it is not necessary.) I do not see any way in which this much context, combined only with a monosemic meaning on the order of 6.aj, could produce anything nearly that specific. Why could it not mean that the hair had been singed off, that a thorn or sticker had gotten stuck in, that a blister had healed, that part of the skin had changed color, that a callus had come close to forming, that the skin had gotten wrinkled or cold, that a finger had nearly been cut off, or that any other change of state had occurred or nearly occurred with respect to Thomasina's

34. The argumentation that claims "If a piece of meaning in construction A+B can be shown to come from A, then it must not come from B" is flawed. Semantic overlap between components is not only typical, it (along with phonological overlap) is the very means by which constructions are formed and cohere.

hand? Why should *kīsa* in (12) and (13) not mean 'as it turns out' or 'entirely', instead of 'practically, almost' (4.v)? Those meanings would fit those contexts (and very many others) just fine, and would be just as reasonable specializations of 6.aj as is 4.v.

This problem is exacerbated by the fact that, under thoroughgoing monosemy, the linguistic context itself is far less informative than one might suppose, since often the lexemes forming that context must also be highly schematic. For instance, I mentioned above *kīsa*'s combination with a bodypart term such as *īmak* in (5). But for a monosemist *īmak* is not a bodypart term: its meaning must be abstract enough to include not only 'in/on his hand' but also 'in his power, under his control'; the bodypart sense would only be a pragmatic specialization. Yet nothing in the context provided by (5) would prompt that specialization. The abstract meaning will have to be on the order of a non-spatial 'near him' or 'associated with him'. So the meaning 'potential change of state' (6.aj) is combining in (5) with this abstract 'near him'. The chances of predicting, from this combination, the meaning 'a wart or similar eruption break out' seem to me to be nil.

The only answer I can come up with is that in fact the more specific meanings are established as well as (perhaps even "instead of", quite certainly "more strongly than") the highly abstract schema(s).

5. Conclusions

I have argued that the proliferation of meanings in *kīsa* and most other linguistic forms is not just apparent. *Kīsa* has multiple meanings, separable but related by multiple relationships of similarity.

Monosemists' efforts to establish the contrary position, that each form has only one meaning, founder on the following facts: The indications are that native speakers can and do distinguish among the meanings (3.2.1). Truth value differences can show up among the meanings (3.2.1). There are holes in the pattern, in that not all reasonably expected meanings obtain (3.4). Near-synonyms, translation equivalents, and dialectal variants exhibit differing ranges of mean-

ing that cannot be predicted from a single meaning (3.4). This is especially clear when one considers what speakers must know, not just hearers (3.5). Overlap of meaning with the context cannot be used to prove absence of that meaning from a form (4.2). And finally, context often does not provide enough information to account for what speakers intend and hearers understand (4.3).

In short, polysemy is not just obvious, it is real.

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