

WHAT IS THE COMMON USAGE OF 'WORD'?

SOME EXAMPLES:

"Mmm... no, that's the wrong word."

"I'm going to read you a list of 7 words"

"Do you know this word?" "No, but I know I've heard it before"

"How do you spell that word?"

"Do you know what this word means?"

"I was out butterflying." "What?? That's not a word!"

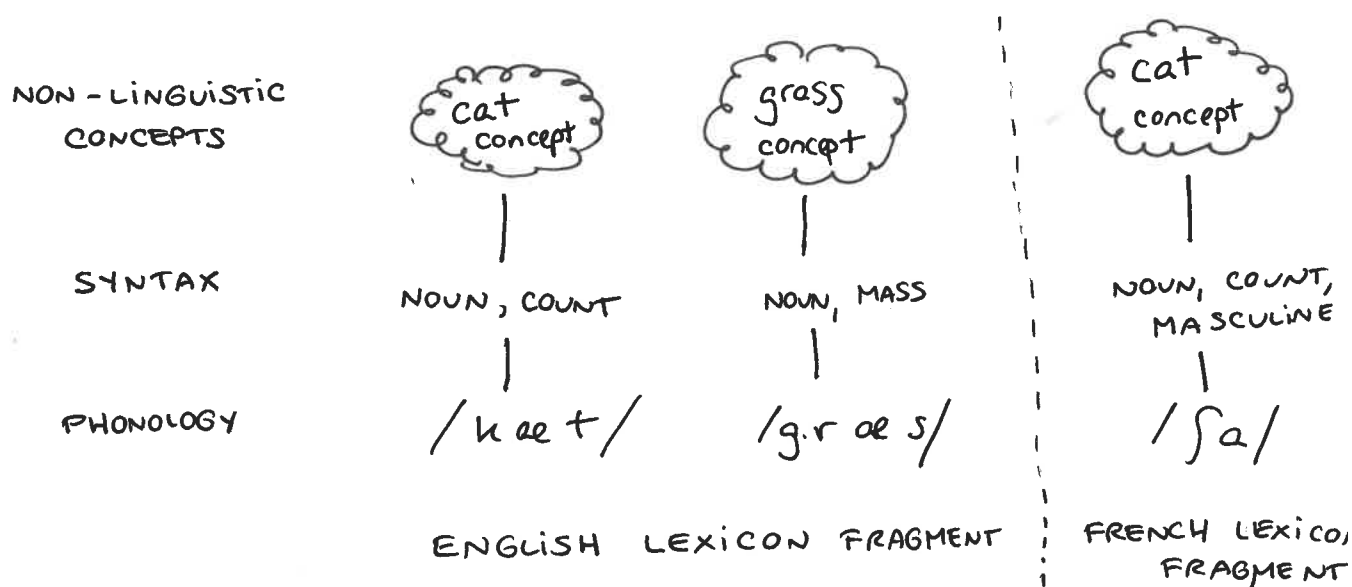
"Do you know how to pronounce this word?"

IT'S NOT INCOHERENT, OF COURSE. IMPRESSIONISTICALLY, ALL THE COMMON USAGES OF "WORD" ARE SOMEHOW RELATED TO LINGUISTIC KNOWLEDGE, AND MORE OFTEN THAN NOT, THEY TEND TO EMPHASIZE KNOWLEDGE THAT A PHONOLOGICAL FORM HAS A MAPPING TO MEANING, WHETHER OR NOT THE SPEAKER KNOWS THAT MEANING. AND YET, THE USAGE ALSO REALLY ISN'T CONSISTENT IN WHAT PART OF THE KNOWLEDGE IS PICKED OUT. FOR MANY PEOPLE, IT'S AMBIGUOUS WHETHER "KNOW A WORD" . . . REQUIRES KNOWLEDGE OF THE MEANING AS WELL AS THE FORM. AND WHAT ABOUT THE "butterflying" EXAMPLE?

IS SPOKEN LANGUAGE MADE OF WORDS?

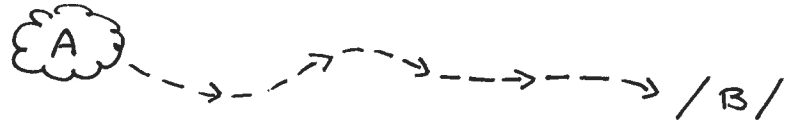
HOW DO HUMAN MINDS STORE LANGUAGE-SPECIFIC KNOWLEDGE ABOUT HOW CONCEPTS MAP TO SYNTAX AND PHONOLOGY?

ONE COMMON ANSWER IS A LIST OF 'WORDS' — OR, IN TECHNICAL JARGON, 'LEXICAL ITEMS' — KIND OF LIKE A DICTIONARY. EACH LEXICAL ITEM CONTAINS CONCEPTUAL, SYNTACTIC, AND PHONOLOGICAL INFORMATION, AND THE SET OF ITEMS, HOWEVER MANY THERE ARE, IS CALLED THE 'LEXICON'.



THE 'LEXICAL ITEM' TERMINOLOGY ADOPTS A METAPHOR THAT IS OFTEN USEFUL IN HUMAN REASONING — THE OBJECT/ITEM METAPHOR. THE LEXICON IS A COLLECTION OF OBJECTS; WORDS ARE 'THINGS' THAT WE CAN COUNT. THIS IS A MAINSTREAM WAY OF TALKING IN PSYCHOLINGUISTICS TODAY. BUT IS IT THE ONLY WAY?

A DIFFERENT METAPHOR IS THAT OF A PATH — A ROUTE THAT GETS US FROM POINT A TO POINT B.

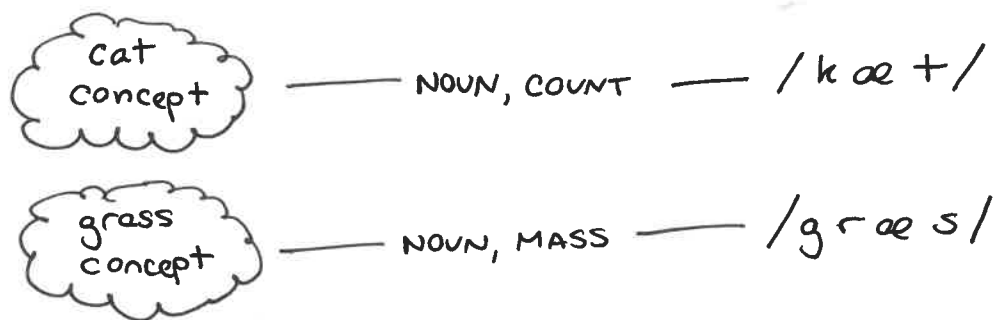


SO AN ALTERNATIVE FRAMEWORK FOR LEXICAL KNOWLEDGE SAYS THAT, WHILE THERE MAY BE COUNTABLE SETS OF CONCEPTUAL ITEMS, SYNTAX ITEMS, AND PHONOLOGY ITEMS, THERE ARE NO LEXICAL ITEMS THAT 'CONTAIN' ALL THAT INFORMATION TOGETHER. RATHER, THERE ARE LEXICAL PATHS THAT KIDS LEARN FOR GETTING FROM ONE KIND OF ITEM TO ANOTHER.

ARE THE ITEM AND PATH METAPHORS EQUALLY GOOD WAYS OF CHARACTERIZING LEXICAL KNOWLEDGE? WELL, THEY SEEM PRETTY CLOSE IF THERE IS A ONE-TO-ONE-TO-ONE RELATIONSHIP BETWEEN

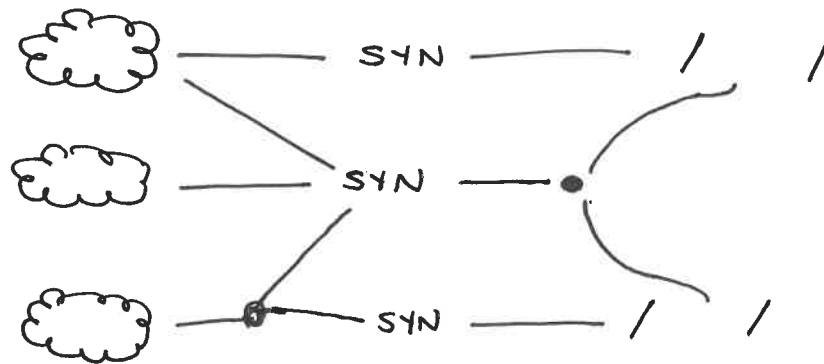
CONCEPT	—	SYNTAX	—	PHONOLOGY
ITEMS		ITEMS		ITEMS

E.G., IF LEXICON IS JUST



THEN WE CAN EITHER SAY WE HAVE TWO 'LEXICAL ITEMS' OR TWO 'LEXICAL PATHS'. THE MAINSTREAM 'ITEM' METAPHOR SEEMS TO WORK FINE FOR MANY CASES IN ENGLISH — AND IT'S FUNNY HOW OFTEN WE BUILD THEORIES IN PSYCHOLOGY WITH ENGLISH cat AND dog AS OUR PRIMARY EXAMPLES.

BUT WHAT IF THE RELATIONS ACROSS DIFFERENT LEVELS ARE MORE COMPLICATED?



IF LINGUISTIC KNOWLEDGE CONTAINS MAPPINGS LIKE THIS, THE 'SET OF LEXICAL ITEMS' METAPHOR WOULD SEEM LIKE A BAD FIT, BECAUSE ITEMS ARE DISCRETE AND COUNTABLE, AND THE COMPLEX RELATIONSHIPS HERE DON'T LEND THEMSELVES TO COUNTING. BUT IT'S EASY TO DESCRIBE THIS KNOWLEDGE IN TERMS OF THE PATHS FROM SOUND TO MEANING OR MEANING TO SOUND THAT THE KID NEEDED TO ACQUIRE.

IN RECENT DECADES, MANY LINGUISTS HAVE CONCLUDED THAT THE LEXICAL ITEM APPROACH CANNOT BE MAINTAINED BECAUSE OF THE KIND OF COMPLEX CONCEPT-SYNTAX-PHONOLOGY MAPPINGS OBSERVED ACROSS THE WORLD'S LANGUAGES (INCLUDING ENGLISH!). THIS IS SOMETIMES CALLED NON-LEXICALISM.

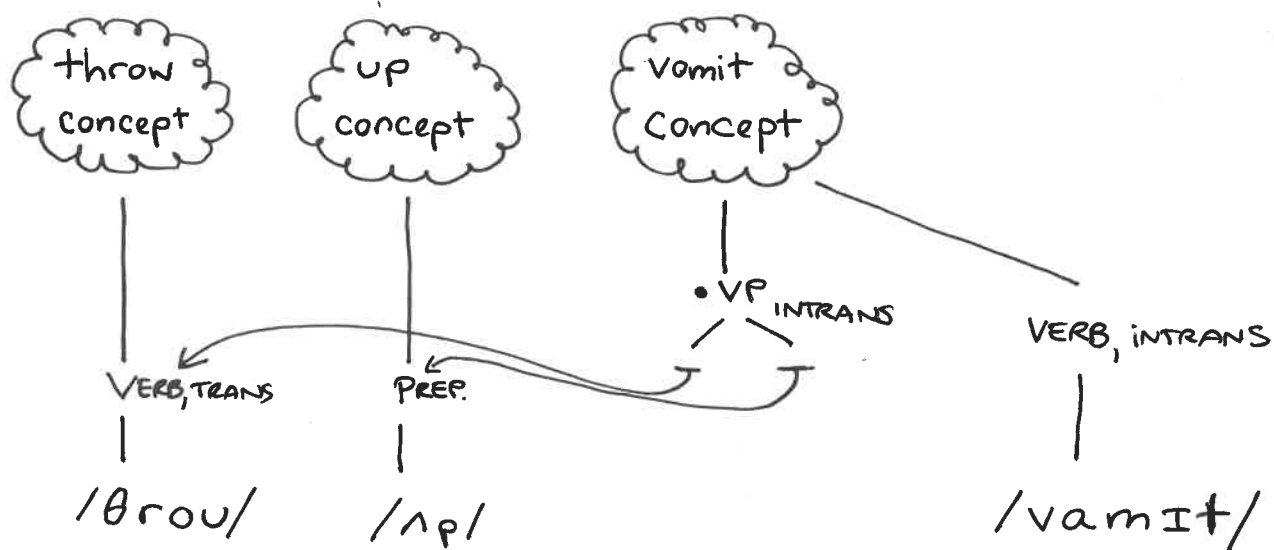
LET'S NOW TAKE A LOOK AT SOME OF THOSE ARGUMENTS, BEFORE CONSIDERING WHY IT MATTERS THAT MANY PSYCHOLOGISTS AND POLICYMAKERS STILL THINK IN TERMS OF 'WORDS' AND 'LEXICAL ITEMS'.

THROWING UP



IF YOU SAID TO A FRIEND "I JUST THREW UP" AND THEN ASKED THEM HOW MANY WORDS WERE IN THAT SENTENCE... THEY'D PROBABLY LOOK AT YOU REALLY WEIRDLY. AND THEN THEY'D ANSWER "4". THAT IS, IF WE FOLLOW THE COMMON USAGE OF 'WORD', 'throw up' IS NOT A WORD.

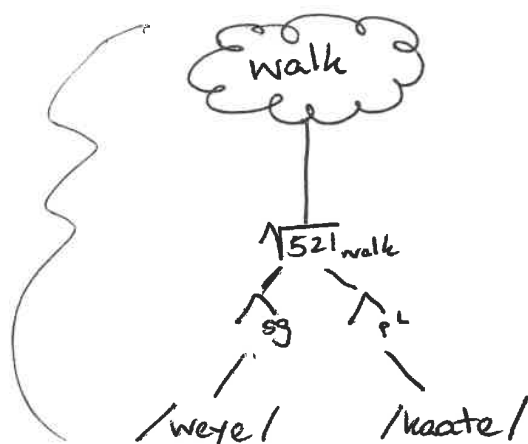
BUT 'throw up' CAN CLEARLY MAP TO A SINGLE CONCEPT, EVEN AS THE FORMS 'throw' AND 'up' EACH ALSO MAP SEPARATELY TO DIFFERENT CONCEPTS. NOTICE THAT 'throw' SEEMS TO BE 'THE SAME' VERB EITHER WAY, AS IT ALWAYS HAS THE SAME IRREGULAR PAST TENSE INDEPENDENT OF THE MEANING (I threw up / I threw the ball).



THIS EXAMPLE ILLUSTRATES THE ADVANTAGES OF A 'LEXICAL PATH' FRAMEWORK OVER A 'LEXICAL ITEM' FRAMEWORK. IMAGINE A KID WHO KNOWS WHAT /θrou/, /ʌp/, AND /vami/ MEAN. ONE DAY THEY LEARN THE MEANING OF 'throw up'. TO SAY THEY LEARNED A NEW 'WORD' OR LEXICAL ITEM SEEMS WEIRD, BECAUSE NO NEW 'THING' GOT ADDED TO THE DIAGRAM. WHAT GOT ADDED IS NEW RELATIONS BETWEEN EXISTING THINGS.

THE DEFINITIONAL PROBLEM GETS WORSE IF WE LOOK AT OTHER LANGUAGES BEYOND ENGLISH. FROM HARLEY (2014), LET'S TAKE THE UTO-AZTECAN LANGUAGE HIAKI, WHICH HAS VERBS WHOSE PHONOLOGICAL FORM IS TOTALLY DIFFERENT WHEN THE SUBJECT IS SINGULAR VS. PLURAL

weye - "walk" WITH SINGULAR SUBJ
kaate - "walk" WITH PLURAL SUBJ



IF WE CALLED THIS WHOLE SET OF MAPPINGS A "WORD" OF HIAKI, THEN WOULD WE SAY /weye/ AND /kaate/ ARE TWO PARTS OF THE WORD? THIS WOULD PROBABLY BE A VERY CONFUSING WAY TO TALK TO SOMEONE USED TO THE "COMMON USAGE" OF THE TERM word!

AND WHAT ABOUT TEMPLATIC LANGUAGES? HERE YOU HAVE DISCONTINUOUS PHONOLOGICAL FORMS; E.G.

CONSONANTAL 'ROOTS' LIKE $k - v - \int$ OR $k - t - b$

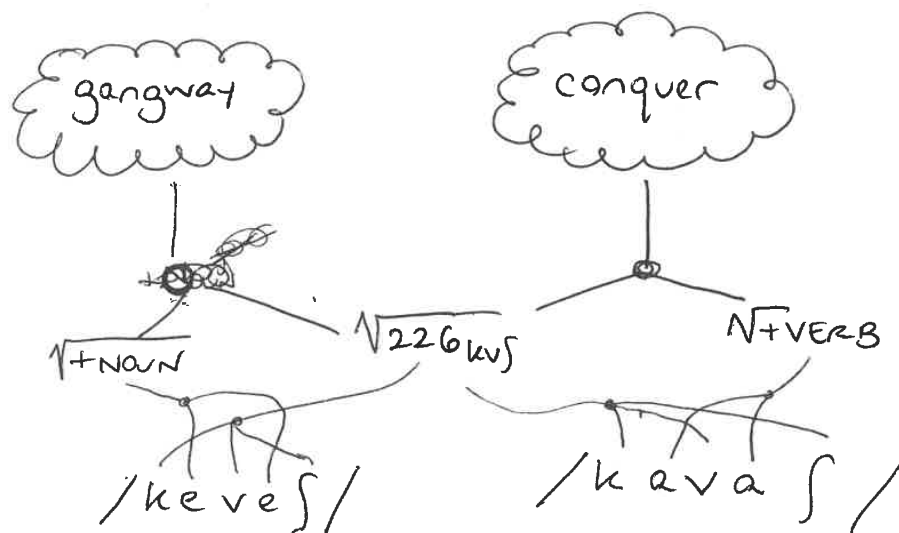
'TEMPLATES' LIKE $e - e = \text{NOUN}$ OR $a - a = \text{VERB}$

SO

$keve\int$ = the noun 'gangway'

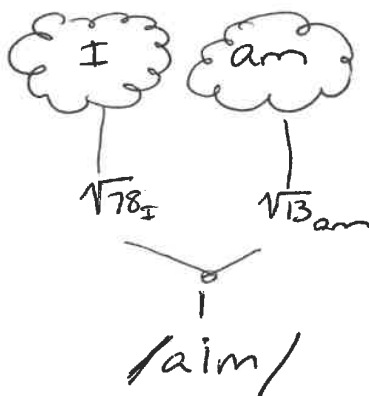
$kava\int$ = the verb 'conquer'

IF WE TRY DRAWING A GUESS ABOUT HOW THIS KNOWLEDGE IS ENCODED...



WHAT COULD WE CIRCLE THAT SEEMS LIKE 'A WORD'? NOTHING, NOT EVEN A CONTIGUOUS 'WORDFORM' LIKE WE HAVE IN ENGLISH. THE LEXICON LOOKS LIKE A SET OF MAPPINGS FROM CONCEPTUAL STUFF TO SYNTACTIC UNITS, AND SYNTACTIC UNITS MAP TO CONSEQUENCES FOR THE PHONOLOGICAL FORM, BUT NOT IN A WAY THAT ALLOWS YOU TO CIRCLE WORDS.

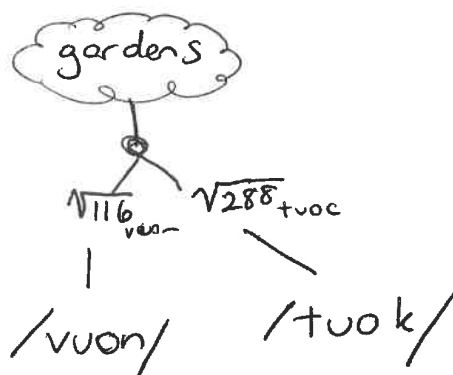
EVEN IN ENGLISH, THINGS THAT ACT LIKE
PHONOLOGICAL WORDS (A MORE PRECISE TERM FROM
 LINGUISTICS) OFTEN MAP TO MULTIPLE SYNTACTIC
 UNITS. LIKE TAKE /aɪm/ (I'm)



YET ANOTHER TYPE OF MAPPING ARE THOSE WHERE
 A PHONOLOGICAL WORD MAPPED TO A SYNTACTIC UNIT, ONLY
 HAS A MAPPING TO MEANING IN A SPECIAL CONTEXT.
 NOYER (1998) SHOWS ~~THAT~~ MANY SUCH CASES IN VIETNAMESE.
 FOR EXAMPLE, VU'Ò'N = {garden} BY ITSELF, BUT TU'Ò'C
 MEANS NOTHING BY ITSELF. WHEN YOU ADD THEM TOGETHER:

VU'Ò'N TU'Ò'C = {gardens}

BUT TU'Ò'C DOESN'T MEAN PLURAL IN GENERAL; DOESN'T
 COMBINE WITH OTHER WORDS. SO SOMETHING LIKE (?)



OPPOSITE PICTURE
 FROM ABOVE! ↑

ALL THESE INTERESTING KINDS OF LINGUISTIC KNOWLEDGE MAPPINGS LEAD SOME OF US TO THE CONCLUSION THAT THERE JUST ISN'T A SET OF MENTAL UNITS IN THE LANGUAGE SYSTEM THAT CORRESPOND TO THE COMMON USAGE TERM WORD.

ALTHOUGH THERE'S A COST, WE DON'T SEE ANY WAY AROUND IT — A TRUER, CLEARER EXPLANATION OF THE MENTAL CAPACITY FOR LANGUAGE MUST ABANDON "WORD", "LEXICAL ITEM", AND EVEN CERTAIN WAYS THAT PSYCHOLOGISTS HAVE USED "MORPHEMES".

WHAT WE CAN NAME ARE THE UNITS AT EACH LEVEL. AND WE COULD EVEN NAME THE MAPPINGS, IF WE STICK TO ONE MAPPING AT A TIME.

