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The Linguistics of Eating and Drinking
Edited by John Newman

The Linguistics of Eating and Drinking

Edited by

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All people eat and drink

Does this mean that 'eat' and 'drink' are universal human concepts?*

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Eating and drinking are, one might say, human universals. Or so it may seem to speakers of English, and other European languages. But what would a Kalam, or a Warlpiri linguist say about it, given that Kalam and Warlpiri have no word meaning 'eat' and no word meaning 'drink'? No doubt, he/she would say that *ñb-* (Kalam, roughly 'eat/drink') or *ngarni* (Warlpiri, roughly 'eat/drink') is a human universal. This paper argues that describing languages like Kalam and Warlpiri through the prism of the English words *eat* and *drink* is Eurocentric and it proposes to complement such an Eurocentric approach with a more neutral one, based on empirically established conceptual universals such as BODY, PART, DO, and INSIDE (cf. Goddard & Wierzbicka eds 2002; Wierzbicka 2007)

1. Introduction: Universals of the human condition vs. universals of human thinking

Eating and drinking are human universals: all people eat and drink, as all people live and die. But the apparent parallelism between, on the one hand, living and dying, and on the other, eating and drinking conceals a deep difference between the two pairs. As linguistic evidence suggests, living and dying are not only empirical universals of the human condition but also conceptual and linguistic universals of the human *interpretation* of that condition: all languages have words, or distinct word meanings, for 'live' and 'die', but not all have words, or distinct word meanings, for 'eat' and 'drink'.

This means, in effect, that while all people, everywhere, conceive of human beings as beings that live and die, not all people conceive of them as beings that eat and drink. Furthermore, the twin ideas that people 'eat' and 'drink' can not even be expressed, in any straightforward way, in all languages of the world, whereas the twin ideas that people 'live' and 'die' can.

*I am very grateful to Cliff Goddard for his help in developing the explications in this paper, and for other extremely helpful suggestions. I am also grateful to David Nash for his com-

For example, as empirical cross-linguistic investigations carried out within the NSM framework (see section 2) indicate, sentences like “all people die” can be readily expressed in all languages, because all languages have words meaning ‘all’, ‘people’ and ‘die’, and in all languages these three meanings can be combined to create a sentence with a meaning identical to that of the English sentence. This is not the case, however, with sentences like “all people eat” and “all people drink”. Here, what is universal is, roughly speaking, that people often put some things or substances into their mouth, and that these things then move to other places inside their bodies. This rough scenario allows for a number of different conceptualizations, depending on facts such as the kind of substances introduced into the mouth, the way they are introduced into the mouth, and what happens to them in the mouth.

When one studies the closest counterparts of the English concepts ‘eat’ and ‘drink’ in many different languages, in many different geographical and cultural areas, one discovers that there are really many different ways in which the “bodily intake of substances” can be conceptualized and categorized. The familiar English, and more generally, European division between ‘eating’ and ‘drinking’ is by no means the only one. If we try to interpret the conceptualizations reflected in other languages through the prism of this one, we will be imposing on them an Anglo-centric, or Eurocentric, perspective.

Here as elsewhere, the key question is: how can one articulate the conceptualizations reflected in different languages from the insiders’, rather than outsiders’, point of view – while making them accessible, at the same time, to the outsiders’ understanding? And here as elsewhere, the answer is that this can be done if instead of using English as our metalanguage we use a different metalanguage, one relying on shared human concepts rather than culture-specific English ones. This point, which is crucial, requires elaboration, and this will be provided in section 2. Here, let me conclude these preliminary remarks by articulating in simple, universal concepts the human universal alluded to earlier by means of the semi-technical and culture-specific English phrase *bodily intake*.

A human universal [A]

people often do something to things of some kinds with their mouth[M] for some time
 because they want things of these kinds to be inside their body
 people can’t live if they don’t do this

A similar universal could be proposed for animals – at least for those whose bodies are sufficiently similar to human bodies to have a part which could be seen by people as comparable to the human mouth. But when one thinks, for example,

of the way dogs or cats “do something to things when they want these things to be inside their bodies”, one realizes that the human way of doing it is usually different: more often than not, people do something to things with their *hands* before they do something to them with their *mouth* (on the polysemy of *eat* and *drink*, see section 4). This leads us to another human universal:

A human universal [B]

people often do something to things of some kinds with their hands for some time
 because they want things of these kinds to be inside their body
 when they do it, they do something to it with their mouth[M] during this time

“Doing things to some things with one’s hands” is not strictly necessary for survival, so in this case I have not added the line “people can’t live if they don’t do this” (people can live without hands, but they can’t live without a mouth). There is, on the other hand, something else that people can’t live without: they often need to introduce into their body, through the mouth, water, or “something like water”. This leads us to the third human universal [C]:

A human universal [C]

some things are things like water
 people often do something to something like this with their mouth[M]
 because they want it to be inside their body
 people can’t live if they don’t do this

Having introduced these three human universals, formulated in a non-prejudicial, culture-independent way, we have set the scene for a non-prejudicial, culture-independent exploration of the ways in which these universal aspects of human life are conceptualized and lexicalized in different languages of the world.

2. Metalanguage as a central problem for cross-linguistic semantics

Most contemporary approaches to semantics in general and to cross-linguistic semantics in particular treat the issue of a suitable metalanguage as non-existent. The common practice is to use technical or semi-technical English as a metalanguage. The most distinctive feature of the NSM approach employed in this paper and in the other publications by the author and colleagues is that it takes seriously the idea advanced by seventeenth-century European philosophers like Descartes,

Arnould, and above all Leibniz, that only a small repertoire of self-explanatory simple concepts can provide the bedrock of all human understanding. To quote Leibniz: "If nothing could be understood in itself nothing at all could ever be understood. Because what can only be understood via something else can be understood only to the extent to which that other thing can be understood, and so on; accordingly, we can say that we have understood something only when we have broken it down into parts which can be understood in themselves" (Leibniz 1903/1961: 430).

The NSM approach to semantics has adopted this idea, and its practitioners have engaged, over more than three decades, in theoretical and empirical investigations, seeking to identify, by trial and error, a set of self-explanatory "semantic primes" which could free semantic analysis from infinite regress and lead to genuine understanding of the meanings encoded in lexicon and in grammar. To this end, NSM researchers have undertaken wide-ranging experimentation over many semantic domains, across many diverse languages. The purpose of this experimentation was to identify within the languages under investigation matching minimal sets of lexically embodied simple meanings in terms of which all other, more complex, meanings could be intelligibly explained and compared.

The natural semantic metalanguage (NSM), built through extensive cross-linguistic investigations, is described in great detail in various publications, including Goddard (1998), Wierzbicka (1996), Goddard 2005; and especially Goddard & Wierzbicka (eds. 2002), which also contains six studies demonstrating that the posited semantic primes and their basic syntactic frames exist in a set of typologically and genetically diverse languages. The full NSM lexicon of universal semantic primes is set out, in summary form, in Table 1, using English exponents. A sizable bibliography is available at: www.une.edu.au/bcss/linguistics/nsm/

Empirical investigations carried out within the NSM framework suggest that similar tables can be drawn up for any language, and moreover, that the semantic primes listed in them share a set of combinatory properties. This means that every language has as its semantic core a language-like structure, with a mini-lexicon and a mini-grammar. Each such mini-language is in fact a surface realization of one and the same underlying system, both "natural" and formal (cf. Lehrman 2006). Crucially, this universal "mini-language" can be used effectively as a "natural semantic metalanguage" for exploring and comparing the ways of thinking and categorizing experience reflected in the languages of the world.

In addition to semantic primes, many NSM explications rely also (in a limited way) on "semantic molecules", especially in the area of concrete vocabulary. In particular, body part concepts often function as "semantic molecules" in the meaning of verbs of physical activity, such as *walk* ('legs', 'feet'), *lick* ('tongue'), *bite* ('teeth') and of course *eat* and *drink* ('mouth'). In NSM explications, such molecules are marked with the symbol [M].

Table 1. Semantic primes – English exponents

Substantives:	I, YOU, SOMEONE, SOMETHING/THING, PEOPLE, BODY
Relational substantives:	KIND, PART
Determiners:	THIS, THE SAME, OTHER/ELSE
Quantifiers:	ONE, TWO, MUCH/MANY, SOME, ALL
Evaluators:	GOOD, BAD
Descriptors:	BIG, SMALL
Mental predicates:	THINK, KNOW, WANT, FEEL, SEE, HEAR
Speech:	SAY, WORDS, TRUE
Actions, events, movement, contact:	DO, HAPPEN, MOVE, TOUCH
Location, existence, possession, specification:	BE (SOMEWHERE), THERE IS, HAVE, BE (SOMEONE/SOMETHING)
Life and death:	LIVE, DIE
Time:	WHEN/TIME, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT [IN ONE MOMENT]
Space:	WHERE/PLACE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE [ON ONE SIDE], INSIDE
Logical concepts:	NOT, MAYBE, CAN, BECAUSE, IF
Augmentor, intensifier:	MORE, VERY
Similarity:	LIKE

Notes: – Primes exist as the meanings of lexical units (not at the level of lexemes) – Exponents of primes may be words, bound morphemes, or phrasemes – They can be formally complex – They can have different morphosyntactic properties, including word-class, in different languages – They can have combinatorial variants (allolexes) – Each prime has well-specified syntactic (combinatorial) properties. – Two (or more) primes can share the same lexical exponent, with different syntactic properties.

3. "Eating" and "drinking" in the Papuan language Kalam

The Papuan language Kalam has been studied for a long time by Andrew Pawley (for extensive discussions of Kalam from an NSM perspective see Pawley 1994; Goddard 2001; see also Wierzbicka 1996: 200–202, Goddard 2002: 27–28; Wierzbicka in press b). A wealth of information about the Kalam lexicon can be found in the Dictionary of Kalam co-authored by Pawley and Bulmer. As this dictionary makes clear, Kalam has no words equivalent in meaning to the English words *eat* and *drink*. This doesn't mean that Kalam people cannot speak and think about what English speakers call "eating" and "drinking", but that they speak, and presumably think, about such activities in a different way: not in terms of 'eating' and 'drinking' but in terms of a concept which they link with the verb *n̄b-*, roughly, 'consume' (and its variants). Pawley and Bulmer's Kalam dictionary assigns to this verb as many as eight different meanings or senses. The most important and presumably the most common among these senses is the first one, described and illustrated in

the Dictionary as follows: "Consume, especially by mouth; thus: 1. Eat, drink. *ñbin agen, yuurt gs-ap*. When I try to eat it hurts. (lit. When I say 'I'll eat!' pain keeps happening.) *ñg pagen, apek ñbin*. When I suck the liquid it comes up (through the straw) and I drink it. *Tap etp nbsay?* What are they eating/drinking?"

Although the Dictionary glosses the Kalam concept with two English verbs ("eat, drink"), to its credit, it doesn't regard the two glosses as two distinct meanings, but rather, recognizes the unitary character of the Kalam concept ('consume'). As the last example in the entry above illustrates, a sentence like *Tap etp nbsay?* 'What are they eating/drinking?' is vague rather than ambiguous. It may seem ambiguous from the point of view of an English speaker but not from a Kalam point of view: clearly, Kalam speakers do not habitually think about 'oral consumption' in terms of two distinct conceptual categories (1. eat, 2. drink), as speakers of English (and other European languages) do, but rather, in terms of one, unitary category.

As we have seen, the Kalam dictionary offers, in addition to the two glosses "eat, drink", a unitary one: "consume (especially by mouth)". Why can't we say then, that *ñb-*, which makes no distinction between 'eating' and 'drinking', means the same as the English word *consume*? The addition "especially by mouth" is no doubt motivated by other, secondary, uses of *ñb-*, for example, as in "drown in the ocean, lit. consume sea-water". But why can't we say that in its primary meaning *ñb-* means the same as *consume* (in its literal sense, that is, "consume by mouth")?

The intuition behind glossing *ñb-* as "eat, drink" (rather than simply "consume") reflects no doubt the basic and colloquial status of this Kalam word, similar to the basic and colloquial status of *eat* and *drink* rather than to the technical and as it were disjunctive character of *consume*. The Collins Cobuild Dictionary of English defines *consume*, sensibly though not accurately, as "eat or drink". The definition is not quite right because it doesn't work in substitutions. For example, the sentence "they consumed vast quantities of alcohol" does not mean that "they ate or drank vast quantities of alcohol". One could say, however, that it means something along the following lines (very roughly): "They introduced alcohol into their bodies, by doing something to some alcohol as people do something to some things when they want to eat or drink these things".

This very rough approximation suggests that the meaning of *consume* is based on the meanings of *eat* and *drink* (as the meaning of *parent* is based on the meanings of *mother* and *father*). To eliminate the reference to *eat* and *drink* in the definition of *consume* we could try to replace it with a reference to the *mouth*, along the following lines: "to consume something is to introduce it into one's body through the mouth". This would not work, however, because this version would apply to tobacco or marijuana as well as to food and drink, which is not compatible with the ordinary use of *consume*.

Furthermore, *consume* is not used to describe human activities in progress, as *eat* and *drink* are in English and *ñb* is in Kalam. For example, it would be odd to say "I saw her consuming something" or "what are they consuming?". *Consume* is an abstract verb which indicates the speaker's lack of interest in the physical activity as such and focusses on the outcome. Clearly, *ñb* is not like that: it is a verb of physical activity analogous, broadly speaking, to the English verbs *eat* and *drink* rather than to the English verb *consume*. It describes a kind of physical activity – from an English point of view, two kinds ('eat' and 'drink'), but from a Kalam point of view, one kind.

Arguably, therefore, it makes more sense to describe the meaning of *ñb* as "eat/drink" than as "consume". But clearly, this cannot be the end of the story. From a Kalam perspective, 'ñb' is a unitary conceptual category, not a disjunctive 'eat or drink'. To capture this unitary meaning of *ñb* from a Kalam perspective we need to go beyond "translating" it into conceptual categories of English ('eat', 'drink') and try to understand what such a unitary category could possibly mean for people who do not have separate conceptual categories of 'eat' and 'drink'.

Lexicography is not a traditional cultural pursuit in Papua. Nonetheless, it might be useful at this point to try to imagine that we are in the shoes of a hypothetical Kalam lexicographer trying to explain the meaning of *ñb* in a large monolingual dictionary of Kalam (if they had shoes, that is). How could such a hypothetical Kalam lexicographer (who doesn't speak English) approach this task?

To answer this question (in English!) we need to forget, for a short time, English as we know it, that is, English in all its culture-specific richness, and try to limit our conceptual kit to a small set of concepts which English and Kalam share.

What matters most in the present context is that if a Kalam speaker wanted to explain in Kalam what *ñb* means, they could readily draw on the concepts *DO* and *HAPPEN* (using two exponents identical in their form but different in their grammatical properties). For example, he or she could say the exact equivalents of the following English sentences:

she was doing something to something with her mouth for some time
because of this something was happening to this something at the same time

Thus, we can assume that it would not be very difficult to draw a Kalam version of Table 1. This version would show a good deal of polysemy, for example, the same lexical element *g-* would be presented as the Kalam counterpart of the English elements *DO* and *HAPPEN*, but this by itself would not be a problem from the point of view of developing a Kalam explication of complex Kalam concepts, for example, of the complex Kalam concept *ñb* ('eat/drink').

Furthermore, we can also hypothesize that Kalam, like other languages, has a number of "semantic molecules", including, for example, 'hands', 'head', 'mouth',

and 'water', which are definable in terms of the semantic primes but which can enter the meanings of many other more complex concepts as semantic chunks (Goddard 2007; Wierzbicka 2007).

Experimenting with various semantic explications and drawing on the semantic template developed for other verbs of physical activity in (Goddard and Wierzbicka 2008), I have come to the conclusion that the hypothetical Kalam lexicographer could define the meaning of *ñb-* as in the explication below. With one exception, this explication relies exclusively on universal semantic primes (including 'do', 'happen', 'someone', 'something', 'people', 'body'). The exception is the word *mouth*, which can be plausibly regarded as a near-universal semantic molecule (for an explication of *mouth* in terms of primes, see Wierzbicka 2007).

The Kalam word *ñb* ('eat/drink')

Someone (X) was *ñb*-ing something (Y)

LEXICO-SYNTACTIC FRAME

someone (X) was doing something to something (Y)
with their mouth[M] for some time

because of this, something was happening to this something (Y) at the same time
PROTOTYPICAL MOTIVATIONAL SCENARIO

people do something like this to something when it is like this:
they are doing something to this something with their mouth[M]
because they want this something to be inside their body

MANNER

when someone does something like this to something
the same thing happens many times
it happens like this:

this someone does something to something with their mouth[M]
because of this, after this, part of this something is for a short time
inside this someone's mouth[M]
after this, this someone does something to it with their mouth[M]
because of this, after this, it is not inside this someone's mouth[M] anymore,
it is somewhere else inside this someone's body for some time,

POTENTIAL OUTCOME

if someone does this to something for some time
after some time all of it [i.e., all parts of it] can be inside this someone's body

The template used in this explication was not invented ad hoc, for the purposes of explicating *ñb* in Kalam and *eat* and *drink* in English, but was developed on the basis of extensive experimentation with many verbs of physical activity in many languages (see Goddard & Wierzbicka 2008; Wong, Goddard & Wierzbicka,

Briefly, the "lexico-syntactic frame" accounts for a given verb's basic syntactic profile, including in particular its transitivity and its temporal and aspectual properties. The "prototypical motivational scenario" sets up a prototypical situation, with a prototypical goal which shapes, to a large extent, the details of the "manner" in which the action is done. The "manner" segment specifies the constant features of the way in which the action is performed. The final segment, the "potential outcome", is closely related to the "prototypical motivation": if the action proceeds in accordance with the "prototypical motivational scenario" for some time, the goal set out in the "prototypical motivation" section can be achieved.

In the case of the Kalam verb *ñb*, the "lexico-syntactic frame" specifies that the action is performed by someone for some time and that it affects, simultaneously, some things or some substance. The "prototypical motivational scenario" refers to "doing something to something with one's mouth" in order to introduce part of this something into one's mouth. The "manner" shows that the action is iterative and it describes its stages: doing something to something with one's mouth, having a bit of that thing in one's mouth for a short time, doing something to it with one's mouth (i.e., swallowing it), after which the bit in question travels to some other places in the person's body. The "potential outcome" envisages the possibility of the whole thing¹ in question ending up inside the person's body.

4. The English verbs 'eat' and 'drink' seen from a Kalam perspective

Suppose now that our hypothetical Kalam lexicographer seeks to understand, and to explain to other Kalam speakers, the meaning of the two unfamiliar English concepts, with no equivalents in Kalam: 'eat' and 'drink'. There can be little doubt that this lexicographer would try to explain the meaning of the English verbs *eat* and *drink* via the Kalam word *ñb-*. As a starting point, he/she might offer the explanation that *eat* and *drink* stand for two varieties of *ñb*-ing, and that the distinction between the two is based, partly, on the kind of thing that the *ñb*-ing person is putting inside his or her mouth. If this thing is like water, the English speaker would choose *drink*, and if it is not like water, they would choose *eat*.

Of course such an explanation will work in Kalam only if Kalam, too, has a word for 'water', and if this word is very close, if not identical, in meaning to

1. In English, a more idiomatic rendering for "all parts of this something" would be "all

the English word *water*, and Pawley and Bulmer's dictionary tells us that it does. Since 'water' is not a universal semantic prime, the availability of a word for it in Kalam cannot be taken for granted. In English, 'water' is a semantic molecule,² which enters – alongside the molecule 'mouth' – the meanings of the words *drink*, *eat*, and of course many others (including, for example, *liquid*, *cup*, *mug*, *bottle*, *jug*, *urine*, *tears* and many others). Presumably, the Kalam word for water, *ñg*, is also a semantic molecule in Kalam, but evidently this molecule is not included in the meaning of the verb *ñb-* ('eat/drink').

In addition to the distinction between 'things like water' and 'things not like water',³ an astute Kalam lexicographer would point out that the English verbs *eat* and *drink* refer also to a difference in what is happening in the mouth of the person *ñb-*ing ("consuming") something. If the substance "consumed" is like water the following happens to it many times: first some of it is for a very short time in the person's mouth, then the person does something to it with the mouth ("swallows" it), and then it is not in the person's mouth any longer. If, on the other hand, the substance "consumed" is *not* like water, what happens to it each time is more complex: when some of it is in the person's mouth, the person does something to it with some parts of the mouth ("chews" it, "bites" it, moves it around with the tongue), and as a result, something happens to it; after this, the person does something else to it with their mouth ("swallows" it), and after this, because of this, it is no longer in this person's mouth.

If our hypothetical Kalam lexicographer persists in the analysis of the alien English concepts 'eat' and 'drink' they might notice that there is a third difference between them, related to the other two: 'drinking' can be done directly with one's mouth (for example, when someone is 'drinking' water from a source), whereas 'eating' typically involves also the use of the hands.

2. The molecule "water" can be explicated in NSM as follows:

water

something of one kind
 people can see a lot of this something in some places
 when people are in these places this something can touch some parts of their body
 on all sides of the body at the same time
 often people do something with this something
 because they want this something to be inside their body at that time
 often people do other things with this something

3. The idea that not only *drink* but also *eat* may refer in its meaning to 'things like water' (in the case of *eat*, 'things not like water') is due to Michael Neubauer (personal communication).

On the basis of all these observations the hypothetical Kalam lexicographer could arrive at the following explications of the English words *eat* and *drink*, stated here in NSM English but storable also in NSM Kalam, by means of the Kalam set of semantic primes and the Kalam semantic molecules 'mouth' and 'water':

Someone (X) was eating something (Y)

LEXICO-SYNTACTIC FRAME

someone (X) was doing something to something (Y)
 with their mouth[M] for some time

because of this, something was happening to this something (Y) at the same time

PROTOTYPICAL MOTIVATIONAL SCENARIO

people do something like this to something when it is like this:
 this something is not something like water[M]
 they do something to this something with their mouth[M]
 because they want this something to be inside their body

MANNER

when someone does something like this to something
 the same thing happens many times
 it happens like this:

this someone does something to something with their hands[M]
 at the same time, this someone does something to it with their mouth[M]
 because of this, after this, part of this thing is for a short time
 inside this someone's mouth[M]
 when this part is inside this someone's mouth[M],
 this someone does something to it with some parts of their mouth[M]
 because of this, something happens to it at this time
 after this, this someone does something else to it with their mouth[M]
 because of this, after this, it is not inside this someone's mouth[M] anymore,
 it is in another part of this someone's body for some time

POTENTIAL OUTCOME

if someone does something like this to something for some time
 after some time all of it [i.e., all parts of it] can be inside this someone's body

This explication of *eat* overlaps to a large extent with that of the Kalam verb *ñb*, but there are also some differences. Thus, the "prototypical motivational scenario" of *eat* specifies that the agent is doing something with "something not like water". This specification is missing in the case of *ñb*. Its presence in the "prototypical

motivational scenario" of *eat* does not imply that *eat* can only be applied to solids and that one cannot, for example, *eat soup*. It only suggests that the *prototypical* situation of *eating* involves solids.

The "manner" of *eating* includes a reference to "the hands", and also, to something *happening* to the bit in one's mouth when it is there (e.g., being chewed). Both these references are absent from the explication of *ñb* and both require a comment.

As for the use of the hands, I should clarify that I regard the verb *eat* as polysemous and that the meaning explicated here applies only to human eating. When animals or birds "eat", they "eat", I would claim, by analogy with human *eating*. Just as the head of a snake is not the uppermost part of the snake's body (as the human head is), but rather, that part of the snake's body which is 'like' the head in people's bodies, so the snake's "eating", too, is conceived by analogy with human *eating*. (For discussion, see Wierzbicka 2007: 37–38; 1980: 86–88).

The conceptual salience of the 'hands' in *eat* is of course related to the fact that prototypically, people *eat* solids, and that in general, when they *eat* something, they do so in the way in which people *eat* solids. This conceptual salience of solids ("something not like water") is also linked with the fact that when someone *eats* something this someone does something to the bits in his or her mouth (e.g., chews them) and that consequently, something happens to these bits while they are in this person's mouth (they can be broken into smaller bits, mixed with saliva, and so on). These two components are also missing from the explication of *ñb*.

As for the explication of *drink*, it is much closer to that of *ñb*, but unlike the explication of *ñb*, it specifies that the substance introduced into one's body is "something like water".

Someone (X) was drinking something (Y)

LEXICO-SYNTACTIC FRAME

someone (X) was doing something to something (Y) with their mouth[M]
for some time

because of this, something was happening to this something at the same time

PROTOTYPICAL MOTIVATIONAL SCENARIO

people do something like this to something when it is like this:

this something is something like water[M]

they do something to this something with their mouth[M]

because they want this something to be inside their body

MANNER

when someone does something like this to something
the same thing happens many times

this someone does something to this something with their mouth[M]

after this, because of this, part of this something is for a very short time

inside this someone's mouth[M]

after this, this someone does something to it with their mouth[M]

because of this, after this, it is not inside this someone's mouth[M] anymore

it is somewhere else inside this someone's body for some time

POTENTIAL OUTCOME

if someone does something like this to something for some time

after some time all of it [i.e., all parts of it] can be inside this someone's body

The explications of *eat* and *drink* developed here can of course be arrived at from within English: they don't require an outsider's, for example a Kalam person's, perspective. But to take a Kalam perspective helps us to de-naturalize English and to resist the temptation to interpret the indigenous Kalam concept *ñb*- through the prism of the English concepts 'eat' and 'drink'. Eating and drinking are universal human activities, but so is *ñb*-ing. Universally, people put various substances into their mouth and swallow them, bit by bit. The process of doing so can take different forms and can involve different kinds of substances. How the activities involved are conceptualized and categorized depends, to some extent, on the language. The use of a mini-language based on universal human concepts (NSM) allows us to study those different conceptualizations and categorizations from a neutral, language-independent perspective. It frees us from our conceptual dependence on languages like English and at the same time it allows us to see it in a fresh way. Seen from a Kalam perspective, English may seem an exotic language, just as Kalam may seem exotic from the perspective of native speakers of English; but the use of NSM allows the speakers of English to understand the perspective embedded in Kalam, and vice versa.

5. "Eating" and "drinking" in the Australian language Warlpiri

In Warlpiri, the basic counterpart of the English word *eat* is the verb *ngarni*, which, like the Kalam *ñb*-, makes no distinction between solids and liquids.⁴ The Warlpiri Dictionary glosses this word as "ingest, eat (of solid), drink (of liquid)", and it provides the following unitary definition: "xERG cause to be in stomach (*miyalu*) of x, by action of mouth (*lirra*) and alimentary canal".

⁴ Other Australian languages which don't distinguish lexically between "eat" and "drink"

It is to the credit of the Warlpiri Dictionary that it tries to inject in this definition some elements of the indigenous perspective, by including in it the Warlpiri words *miyalu* ('stomach') and *lirra* ('mouth'). This willingness to accommodate the indigenous perspective breaks down, however, in the phrase *alimentary canal*: judging by the data in the Dictionary, there is no corresponding phrase in Warlpiri, and there are no words like *alimentary* and *canal*. So what can *ngarni* really mean, from a Warlpiri point of view? Let us first consider some examples:

Maliki-rli ka-Ø kuyu nga-rni yarnunjuku-rlu.
dog-ERG PRES-3SG.SUBJ meat "eat/drink"-NPST hungry-ERG
'The hungry dog is eating the meat.'

Ngapa-ju yu-ngka yi-rna purraku-rlu nga-rni.
water-1SG.OBJ give-IMP result-1SG.SUBJ thirsty-ERG "eat/drink"-NPST
'Give me some water to drink as I am thirsty.'

Ngapa-rlangu miyi-rlangu kuyu-rlangu ka-Ø nga-rni.
water-also food-also meat-also PRES-3SG.SUBJ "eat/drink"-NPST
'She is drinking water and eating vegetable food and meat.'

The English translations use two verbs, *eat* and *drink*, but the Warlpiri sentences use only one verb, *ngarni*. Thus, *ngarni* is like *ñb-*, in not drawing any distinction between taking into the body, through the mouth, liquids and solids.⁵ On the basis of the examples given in the two dictionaries, Kalam and Warlpiri, we can surmise that *ngarni* means the same as *ñb-* and could be assigned the same explication.

The interlinear glosses provided for the sentences above, with their slashes and inverted commas, highlight the fact that the whole practice of interlinear glosses is deeply problematic. As this paper illustrates, the assumption that any words from any language can be matched, at least approximately, with some English words, is plain wrong. The practice of interlinear glosses perpetuates both the myth of word-for-word translatability and the view that English words offer a viable "neutral" medium for the representation of meaning.

Returning to Warlpiri, I will note that while it is similar to Kalam in that it does not distinguish between 'eating' and 'drinking', it draws other lexical distinctions, absent from both English and Kalam. Consider for example the verb *yilyi-wirrpini*, glossed as "drink, drink up, slurp up, lap up, sip, suck up", and defined as follows: "X_{ERG} ingest (*nga-rni*) y (= heavy liquid typically blood, fat or hot liquid)

5. Some Australian languages have grammaticalized the concept of, roughly speaking, 'eating/drinking' in the form of what is often called an "associated eating suffix". For example, of the Wangaaybuwan language of New South Wales, Donaldson (1980: 175-6) writes that the "associated eating suffix" *-DHa-y* "indicates that the event occurs in association with eating and/or drinking (...) *-DHa-v* is obligatory whenever some NP argument in the sentence has

bit by bit". What is particularly interesting is the folk comments on the meaning of this Warlpiri word included in the Dictionary:

'*Yilyi-wirrpini* is what they do to kangaroo blood. Yirrimiji is what we call the blood of kangaroos. The word *yilyi-wirrpini* is used thus: when the meat has cooked and they have taken it out of the cooking-pit and are cutting it up, they pour the blood into pannikins or tins as once it's cooked it is good to drink. They drink up that blood. They drink it out of the tin or whatever. Or even if there are no pannikins or tins they still drink it up - when they cut up the cooked kangaroo they slurp up the blood as they do so.'

Kuyu marlu karna ngajulurlu yilyi-wirrpini yirrimiji.
'I drink up the blood of the kangaroo.'

Yilyi-wirrpini karna wawirri jara.
'I am slurping up the kangaroo fat.'

One reason why these comments are so valuable is that they illuminate the link between conceptual categories and cultural practices. The Warlpiri word *yilyi-wirrpini* appears to include in its meaning a reference to a cultural practice involving kangaroo blood. Evidently, the word can be also used in other contexts (for example, with reference to kangaroo fat), but a prototype referring to kangaroo blood appears to be included in its meaning. Roughly, to *yilyi-wirrpini* appears to mean "to do something to something with one's mouth like people do something to kangaroo blood with their mouth, bit by bit, when they want some of it to be inside their bodies". More precisely, this meaning could be explicated as follows (the bits in bold indicate how this explication differs from those of the Kalam word *ñb-* and of the English word *drink*):

The Warlpiri word *yilyi-wirrpini* ('to slurp, like kangaroo blood')

Someone (X) was *yilyi-wirrpini*-ing something (Y)

LEXICO-SYNTACTIC FRAME

someone (X) was doing something to something (Y)

with their mouth[M] for some time

because of this, something was happening to this something (Y) at the same time

PROTOTYPICAL MOTIVATIONAL SCENARIO

people do something like this to something when it is like this:

this something is like *yirrimiji* [M] [kangaroo blood]

they are doing something to it with their mouth[M]

because they want this something to be inside their body

MANNER

when someone does something like this to something
the same thing happens many times

this someone does something to this something with their mouth[M]
 other people in this place can hear it
 at the same time, some parts of this someone's mouth[M] are moving
 after this, part of this something is for a short time inside this someone's mouth[M]
 after this, this someone does something to it with their mouth[M]
 because of this, after this, it is not inside this someone's mouth[M] anymore,
 it is inside somewhere else in this someone's body

POTENTIAL OUTCOME

if someone does this to something for some time
 after some time all parts of this something can be inside this someone's body

The "prototypical motivational scenario" of the English word *eat* includes the component "this something is not something like water", and of *drink*, "this something is something like water". The corresponding line of the "prototypical motivational scenario" of the Warlpiri word *yilyi-wirrpini* reads: "this something is something like *yirrimiji* [kangaroo blood]".

Why does English distinguish lexically between 'eating' and 'drinking' whereas, for example, Kalam and Warlpiri do not? It cannot be excluded that there could be some cultural factors at play here, as there are clearly cultural factors behind the fact that Warlpiri distinguishes lexically between "ingesting" kangaroo blood and "ingesting" things in general whereas English has no similar lexical distinction. However, it must be noted that geographically, genetically and culturally close languages of Central Australia behave differently from one another in this respect. For example, while Warlpiri makes no lexical distinction similar to that between *eat* and *drink*, Pitjantjatjara/Yankunytjatjara and Arrernte do (Goddard 1996; Henderson & Dobson 1994). There can be no doubt that culture-specific conceptualization of human activities is often related to salient culture-specific practices (cf. e.g. Goddard & Wierzbicka 2008). But the question to what extent conceptual distinctions relating to "bodily intake" of substances of different kinds are associated with different cultural practices requires further investigation.

Reading the entries on bodily activities in the Warlpiri Dictionary one is also struck by the salience of 'sucking' in the Warlpiri view of the world and of the human life in it.⁶ Consider for example the following dictionary entries:

kuuny-nga-rni. English: suck, eat, drink. Definition: XERG (=being) eat/drink (*nga-rni*) y by making vacuum with muscles of lips and mouth in contact with y or with entity containing y.

6. The observation that "sucking" is frequently mentioned in Warlpiri Dictionary entries related to "eating" is due to Helen Bromhead (personal communication).

Example: Yatiyi! Pamarna kuuny-ngarni. Kuuny-ngarni kapurna ngajulurlu.
 'Hurrah! Let me eat some honey. I'll eat some.'

kunykuny-nga-rni. English: suck (out/up), draw out/up (with lips), suck on.
 Definition: XERG (=being) eat/drink (*nga-rni*) y (=liquid-like entity) by causing y to come to be external to some entity, by making vacuum with muscles of lips and mouth in contact with said entity.

Examples: Pajirni karnalu, parawuju, ngula karlipa kunykuny-ngarni yangka maru pama.
 'We pick it, the parawuju flower and we suck out that black nectar.'

Piriwarla karnalu pamalku ngarni, kunykuny-ngarni. Pamanya karnalu yurkulju kunykuny-ngarni.
 'We eat the nectar on the Corkwood flowers, suck it up. It's the nectar of the flowers that we suck up.'

In European culture, "sucking" is associated mainly with babies, but in Warlpiri culture something like "sucking" appears to be seen also (perhaps even primarily) as a valued source of nourishment for adults. Thus, both the references to the "slurping" of kangaroo blood (for which, as we have seen, there is a separate word) and those to the "sucking" of honey and nectar are in keeping with the hunter-gatherer character of traditional Warlpiri life.

The Warlpiri Dictionary defines the verb *kuuny-nga-rni* ("suck, eat, drink") in terms of "making vacuum with muscles of lips and mouth", but this is clearly a scientific Anglo perspective, not an indigenous Warlpiri one. Presumably, what matters from a Warlpiri point of view is first, that the mouth is moving in a certain way, and second, that because the mouth is moving like this, parts of the substance in question, which is first inside something else, can move too, and as a result, can be subsequently inside this someone's mouth.

To better understand the Warlpiri concept of 'kuuny-nga-rni', which from the point of view of English looks like a strange cross between 'eating', 'drinking' and 'sucking', we need to understand, first, the English concept of 'sucking'.

6. The English concept of 'sucking' and its closest counterparts in Warlpiri

The English verb *to suck* (in its primary meaning, which I will call *suck*₁) has two main syntactic frames, both involving a "container" and one also its "contents", as illustrated in A and B below:

- A. *The baby went on sucking the bottle.*
 B. *He was sucking lemonade through a straw.*

Of these two, the first frame has a wider range of use, and I will focus on this frame first. It is certainly a major point of difference between *suck* and *drink* that while *suck* can be combined both with names of liquids and names of "containers", *drink* can only be combined with the former:

She was sucking/drinking milk from the bottle.
*She was sucking/*drinking the bottle.*

Thus, *sucking* implies that while it is the milk (juice etc.), not the container, that the "sucker" is interested in, nonetheless, he or she is doing something to the container, in order to extract the liquid from it. Of course in the case of *drinking*, too, the liquid is normally in some kind of container, but the conceptualization reflected in the word *drink* ignores the container: in the prototypical scenario of *drinking*, the liquid is easily accessible and the actor is seen as doing something to that liquid rather than to the container.

The relative inaccessibility of the liquid implied by the verb *suck* explains, to some extent, the need for a greater effort of the front and side parts of the mouth, and this fits in with the salient movements of the lips (and some other parts of the mouth). On the other hand, once the liquid is in the mouth, it is *drinking*, rather than *sucking*, which implies some effort, or at least some further action: the "drinker" needs to swallow the liquid. In the case of *sucking*, on the other hand, the amount of liquid which is in the mouth at any one time is very small, and when it goes down the throat this is not perceived as something that one "does to it".

In any case, *sucking* focuses on getting some liquid into one's mouth (a little bit at a time), and whether or not this liquid travels further into the body or not is not something that the speaker is focussing on. (One could even "spit out" what one has *sucked* out of the container). This is different from *drinking*, where what matters is taking some liquid into one's *body* (and keeping it there for some time), rather than merely taking it into one's *mouth* (and one could not "spit out" what one has *drunk*). *Sucking* suggests oral pleasure, whereas *drinking* suggests, rather, quenching one's thirst (and perhaps soothing one's dry throat).

The extended meaning of *suck* as in "sucking one's thumb" (*suck*₂) highlights all the points discussed above in relation to *suck*₁: the movements of some parts of the mouth, the focus on the "container" rather than the "content" and the "oral pleasure".

To account for all the aspects of *sucking* discussed above I propose the following explication:

Someone (X) was sucking something (Y) [e.g., a bottle]

LEXICO-SYNTACTIC FRAME

someone (X) was doing something to something (Y) with their mouth[M]
 for some time

because of this, something was happening to this something at the same time
 PROTOTYPICAL MOTIVATIONAL SCENARIO

people do something like this to something when it is like this:

there is something else inside this something
 this other something is something like water [M]
 they do something to this something with their mouth[M]
 because they want part of this other something to be for a short time
 inside their mouth[M]
 babies [M] do something like this to their mothers' breasts[M]

MANNER

when someone does something like this to something
 the same thing happens many times
 it happens like this:

this someone does something to this something with their mouth[M]
 when this someone is doing it, some parts of this someone's mouth[M]
 are moving as this someone wants
 because of this, a small part of this other thing moves inside this something
 because of this, after this, it is not inside this something anymore,
 it is inside this someone's mouth
 when it is in this someone's mouth, something happens to it
 because of this, after this, it is not inside this someone's mouth[M] anymore

POTENTIAL OUTCOME

if someone does something like this to something for some time

when there is something else inside it
 all of this other thing [i.e., all parts of it] can be for a short time inside this someone's mouth[M]

When *suck* is used in the other syntactic frame, in which the word for the contents rather than the container is the direct object, its explication will be closer to that of the Warlpiri word *kuuny-ngarni*, but it will still be different from it in some respects. Above all, the Warlpiri concept of 'kuuny-ngarni' is clearly a hyponym of the concept 'ngarni', whereas in English, the concept of 'sucking something from something' is not a hyponym of any other named concept. As the examples in the Warlpiri Dictionary show, in Warlpiri, the same activity can be described, in the same sentence, as *kuuny-ngarni* and *ngarni*. By contrast, in English, *sucking* and *drinking* tend to exclude each other, and so do *sucking* and *eating*, so that the English gloss of the Warlpiri sentence below sounds odd (in English):

Piriwa-rla ka-rnalu pama-lku nga-rni,
 corkwood-LOC PRES-1PL.EXCL.SUBJ delicacy-then "eat/drink"-NPST

kuny-kuny-nga-rni
 "suck out"- "eat/drink"-NPST

'We eat the nectar on the Corkwood flowers, suck it up.'

Arguably, in the explications of the Warlpiri words *kuuny-ngarni* and *kuny-kuny-ngari*, the verb *ngarni* itself should be used as a semantic molecule. But there are no semantic molecules (other than 'water' and 'mouth') which could be justifiably used in the explication of the English word *suck*, regardless of its syntactic frame.

Someone (X) was sucking something (Y) from something (Z)

LEXICO-SYNTACTIC FRAME

someone (X) was doing something (Y) with their mouth[M] for some time
because of this, something was happening to this something at the same time

PROTOTYPICAL MOTIVATIONAL SCENARIO

people do something like this to something when it is like this:
this something is something like water [M]
this something is inside something else
this someone is doing something to this something with their mouth[M]
because they want part of this something to be inside their body

MANNER

when someone does something like this to something
the same thing happens many times
it happens like this:

this someone does something to this something with their mouth[M]
when this someone is doing it, some parts of this someone's mouth[M] are moving
because of this, after this, a small part of this thing moves inside this other thing
because of this, after this, it is not inside this other thing anymore,
it is inside this someone's mouth[M]
when it is in this someone's mouth, something happens to it
because of this, after this, it is not inside this someone's mouth[M] anymore
it is somewhere else inside this someone's body [mouth?]

POTENTIAL OUTCOME

if someone does something like this to something for some time
when this something is inside something else
after some time all of it can be inside this someone's body

7. "Drinking" in another Australian language, Arrernte

In order to better understand the concept encoded in the English word *drink*, it will be useful to compare it not only with its closest counterparts in Kalam and

Warlpiri, but also with its counterpart in another well documented Australian language: Arrernte. As we have seen, neither Kalam nor Warlpiri distinguish lexically between "bodily intake" of liquids and solids, as English does, at least not in the case of substances which are readily accessible and which are normally (noticeably) swallowed. At the same time, Warlpiri has two compound verbs for, roughly speaking, consumption of liquids, applicable to substances which are usually not easily accessible and whose extraction needs to be slow and gradual and requires special movements of the lips and other muscles of the mouth.

Arrernte is closer to English than Warlpiri is in that it, too, makes a distinction between, roughly speaking, "consumption of solids" and "consumption of liquids", that is, a distinction comparable to that of *eating* and *drinking*. The word glossed in the Arrernte dictionary (Henderson and Dobson 1994) as "eat" is *arl kweme*, illustrated with sentences like the following ones (I will only give English glosses here):

'This fruit tastes really sweet when you eat it.' (p. 213)

'You can eat it raw.' (p. 212)

The word glossed by the Arrernte dictionary as "drink" is *antyweme*, illustrated, inter alia, with the sentence translated into English as follows:

'I drank too much water and now my stomach is upset.'

However, the full gloss for the relevant sense of the verb *antyweme* reads: "drink something; have a drink, sip, suck", and the illustrative examples include some which would normally not be translated into English with the verb *drink*. For example:

'The butterfly's (wings) are fluttering as it sips the nectar.' (p. 165)

'Ticks drink your blood.' (p. 166)

'The marchfly drinks [*antyweme*] blood by jabbing his long nose into the person's skin and sucking [*antyweme*] the blood up through it.

'Is your child still breastfeeding (lit. *antyweme*-ing 'the breast')?' (p. 166)

Both the examples and the Dictionary's gloss for the verb *antyweme* suggest that this verb is close not only to the English *drink* but also to the English *suck*, and the English-Arrernte part of the Dictionary offers *antyweme* as a gloss for *suck*, as well as for *drink*.

The verb *antyweme* is also used as part of the compound *ltyantyweme* (from *ltye* 'juice, sap, nectar' and *antyweme* 'drink/suck'), glossed as 'suck'. What can a verb mean if it refers, above all, to the bodily intake of liquids or semi-liquids (e.g., honey), if it is applicable to "blood-sucking" insects as well as to humans, and if it is also applicable to a baby sucking its mother's breast?

It seems clear that the meaning of *antyweme* is not identical to that of either *drink* or *suck*, but combines some semantic components of both these concepts.

Having studied all the examples offered in the Dictionary and all the clues, I would hypothesize that this meaning can be captured in the following explication:

Someone (X) was *antyweme*-ing ('drinking/sucking') something (juice, nectar; blood; mother's milk)

LEXICO-SYNTACTIC FRAME

someone (X) was doing something to something (Y) with their mouth[M]
for some time

because of this, something was happening to this something at the same time

PROTOTYPICAL MOTIVATIONAL SCENARIO

people do something like this to something when it is like this:

this something is something like water [M]

this something is inside something else

they are doing something to this something with their mouth[M]

because they want this something to be inside their body

MANNER

when someone does something like this to something
the same thing happens many times

it happens like this:

this someone does something to this something with their mouth[M]

because of this, part of this something moves

because of this, after this, it is not inside this other thing anymore,

it is inside this someone's mouth

when it is in this someone's mouth, something happens to it

because of this, after this, it is not inside this someone's mouth[M] anymore

it is somewhere else inside this someone's body

POTENTIAL OUTCOME

if someone does something like this to something for some time
after some time all of it can be inside this someone's body

As this explication shows, the Arrernte concept of 'antyweme' shares the following main component with the English 'drink': it refers to "bodily intake" of liquids. At the same time, it differs from 'drinking' because it does not refer to anything like "swallowing" (or "doing something to the liquid with one's mouth when it is inside one's mouth"), and because it refers to the presence of something like a container from which the liquid in question has to be removed. In these latter two respects, *antyweme* is different from the English *drink* but analogous to the English *suck*.

However, I have not included in the explication of *antyweme* two components which have been included in that of *suck*: the one referring to the movements of

the mouth and the one referring to the liquid moving "inside that other thing (the container)". If such specific manner components were included in the explication it would be difficult to explain why *antyweme* can refer to ordinary "intake of water" (i.e., to what would be called in English "drinking") and also, why this verb can be so readily extended to insects, in the case of which no "movements of the mouth" could be possibly observed or even imagined.

Interestingly, Arrernte has also another verb glossed by the Dictionary as "suck something, suck on something", and when used in a different syntactic frame, "suck stuff from something". The verb in question is *akweke-areme*. The examples provided refer to "sucking a flower" and "sucking the nectar from a flower". But a baby sucking its mother's breast is described by means of *antyweme* ('drink/suck'), not in terms of *akweke-areme* ('suck on').

My main conclusion concerning the Arrernte data is that while the language does draw a lexical distinction broadly speaking analogous to that between *eat* and *drink*, the Arrernte counterpart of *drink* is similar in some respects to the English *suck* rather than the English *drink* and that its construal includes a "container" from which the liquid needs to be extracted or removed before it can be introduced though the mouth into the body.

The link between the construal of activities which in English would be conceptually separated as either "drinking" or "sucking" appears to reflect a cultural interest in how consumable liquids can be obtained – a concern reflected in English only in the somewhat peripheral verb *suck*, not in the two basic categories lexicalized as *eat* and *drink*.

8. Conclusion

As we have seen, 'eat' and 'drink' are not universal human concepts. At the same time, the material discussed in this paper and coming from languages as different from English as Kalam, Warlpiri and Arrernte shows that all these languages have words, broadly speaking, comparable to the English words *eat* and *drink*. Such words are frequently glossed by linguists as "eat" and "drink", but clearly, such glosses are inaccurate and misleading, and glosses like "eat water" exoticise the concepts in question and make them incomprehensible, almost bizarre. They are also sometimes glossed as "ingest" or "consume", and clearly, such glosses (which suggest an abstract, technical and/or scientific perspective on the bodily activities involved) are also inaccurate and misleading. The approach illustrated in this paper is radically different from those two, because it relies on shared, universal concepts, and thus can avoid the pitfalls of scientification, eurocentrism, and exoticisation.

Thus, the conceptual categories 'eat' and 'drink' do not cut nature at its joints. The conceptualization of such activities depends, to some extent, on what is culturally salient in a particular society. The concepts of DOING and HAPPENING are universal, as are also PEOPLE, BODY, INSIDE, and the other sixty or so concepts specified in Table 1. But 'eat' and 'drink', while very common, are not universal.

Detailed lexicographic studies of non-European and not easily accessible languages such as Kalam, Warlpiri and Arrente can help speakers of English, including Anglophone scholars, to see the world in a new, non-Eurocentric, way. There is an important lesson here for colour studies, emotion studies, and many other areas of psychology and related disciplines (Wierzbicka 2008, in press a).

The more science becomes dominated by English the more it needs to seek what Russian formalists of the early twentieth century used to call "ostranenie" (the principle of "making strange", that is, of making the familiar look foreign). Detailed lexicographic studies of languages like Kalam, Warlpiri and Arrente can contribute significantly to that "ostranenie", which the globalized and English-dependent contemporary science badly needs. They can teach us – if anything can – that apart from the sixty-three empirically discovered universal semantic primes no other concepts can be taken for granted as culture-independent analytical tools – not even as seemingly "simple" and "natural" ones as 'eat' and 'drink'.

Abbreviations

1 = 1st person; 3 = 3rd person; ERG = ergative; EXCL = exclusive; IMP = imperative verb inflection; LOC = locative; NPST = nonpast verb inflection; OBJ = object; PL = plural; PRBS = present verb inflection; SG = singular; SUBJ = subject.

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