

Eating and Drinking

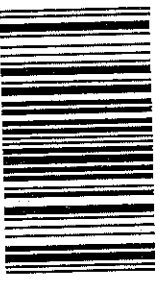
John Newman

This volume reviews a range of fascinating linguistic facts about ingestive predicates in the world's languages. The highly multifaceted nature of 'eat' and 'drink' events gives rise to interesting clausal properties of these predicates, such as the atypicality of transitive constructions involving 'eat' and 'drink' in some languages. The two verbs are also sources for a large number of figurative uses across languages with meanings such as 'destroy', and 'savour', as well as participating in a great variety of idioms which can be quite opaque semantically. Grammaticalized extensions of these predicates also occur, such as the quantificational use of Hausa *shida* 'drink' meaning (roughly) 'do X frequently, regularly'. Special lists discuss details of the use of these verbs in a variety of languages and language families: Australian languages, Papuan languages, Athapaskan languages, Japanese, Korean, Hausa, Amharic, Hindi-Urdu, and Marathi.

This volume is the third in a set edited by John Newman exploring the conceptualizations of basic and universal human activities such as giving, sitting, standing and lying, and eating and drinking, and the effects they have on language development: how they are coded, and what sorts of metaphonically-based grammaticalizations develop from the forms used to code these activities. This work is important in that it looks at fine details of structure and conceptualization in several languages not often covered in standard grammars, and adds greatly to the literature on ethnosyntax, that is, literature establishing the connections among cognition, social behaviour, and linguistic structure. In that it will be of value not only to linguists, but to anthropologists, psychologists, and sociologists as well."

Randy J. LaPelle, La Trobe University

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Volume 84

The Linguistics of Eating and Drinking
Edited by John Newman

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Edited by

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Preface

John Newman

This volume arose out of a call for papers on linguistic aspects of verbs with meanings comparable to the primary senses of English *eat* and *drink*, i.e., verbs with meanings relating to the ingestion of food and drink. Contributors were invited to discuss both the form and function of such verbs in specific languages or universally. The only theoretical stipulation was that contributions be functional, cognitive, or typological in their orientation. This way of compiling a collection of papers is comparable to the approach taken in compiling two earlier edited volumes: *The linguistics of giving* (Newman 1997) and *The linguistics of sitting, standing, and lying* (Newman 2002). These two volumes, together with the current volume, may be seen as all contributing to a better understanding of the usage of predicates which encode frequent, human activities or states, predicates one may call "basic". Activities such as eating and drinking are universal human activities which play a fundamental, life-sustaining role for humans. As such, one can expect that they would constitute important sources for metaphorical imagery, which indeed they do. The semantic characterization of 'eat' and 'drink' predicates, even in their most "straightforward" literal uses, is complex reflecting the highly multifaceted nature of the activities themselves. The underlying complexity of these activities and how the entities participating in these activities are affected result in interesting clausal properties of these predicates, too, in addition to any metaphorical extensions.

The chapter by Newman introduces the reader to a range of linguistic behaviors associated with 'eat' and 'drink' verbs cross-linguistically. He distinguishes the many components that constitute eating and drinking processes, and how the two processes differ, in a purely pre-linguistic way, reflecting on the experiences themselves. These components enter into the full semantic characterization of ingestion predicates and can play an important role in motivating aspects of usage. Newman considers aspects of the literal 'ingestion' use of such predicates, including generic predicates which cover both 'eat' and 'drink' senses and the morphosyntax which can accompany ingestion predicates. He also considers figurative and grammaticalized extensions of these predicates, seeking out motivation for such extensions, where possible (and it is not always possible) in the pre-linguistic, experiential realities of eating and drinking. Naess focuses on cross-linguistic phenomena

found in 'eat' and 'drink' clauses, which bear on the question of transitivity. She draws attention to the ways in which 'eat' and 'drink' verbs are atypical as transitive predicates, based on a variety of types of evidence: the existence of intransitive alternants; the capacity for 'eat' and 'drink' verbs to appear with absolutive (as opposed to ergative) marking in certain languages; causativization patterns where 'eat' and 'drink' pattern like intransitives; and the use of oblique-case marking for the Patient in some languages. Neess invokes the idea of an "affected agent" to characterize the unusual quality of the semantics of 'eat' and 'drink' predicates, i.e., the consumer is not only an agent of the activity, but is also invariably affected by the activity, through bodily sensations arising out of contact with the consumed entity. The "affected agent" semantics means that 'eat' and 'drink' verbs do not have "maximally" distinct Agent and Patient arguments which constitute the prototype for transitive clause structure. The Amberber chapter explores details of causativization patterns in a number of languages which reveal how 'eat' and 'drink' verbs may sometimes pattern like intransitive predicates in those languages (findings which also feature in Neess' chapter). Amberber reviews data from Amharic, Malayalam, Berber, Tariana, and other languages. In Berber, for example, transitive verbs cannot normally be causativized by a causative prefix *ss-*. However, as noted earlier by Guerssel (1986), and cited by Amberber, there is a class of verbs which, though used transitively, behave exceptionally and allow *ss-* causativization. Guerssel (1986: 36) refers to the class as the "eat class" which includes the verbs *tɛt* 'eat', *sw* 'drink', *ʃiawn* 'be satiated with food', and *tɛd* 'suckle'. These and other facts about ingestion predicates in various languages lead Amberber to propose a "co-indexing" of Agent and Goal (i.e., "self's mouth") in the Lexical Conceptual Structure representation of such predicates, building upon earlier ideas of Guerssel (1986) and Jackendoff (1990). The resulting representation feeds into a larger account of the transitivity and causativization facts with 'eat' and 'drink' verbs.

Wierzbicka applies the methodology of Natural Semantic Metatheory to 'eat' and 'drink' verbs in English, Kalam, and certain Australian languages. Wierzbicka considers the proper semantic characterization of Kalam *ʃib* which is used to cover the meanings of 'eat' and 'drink' (crudely put). For Wierzbicka, it would be inaccurate to gloss this word with something like 'eat/drink' since Kalam *ʃib* is claimed to be a unitary concept, not a disjunctive concept. Glossing it as 'consume' does not quite work either. *Consume* has a rather too abstract use to aptly capture the meaning of Kalam *ʃib* (cf. the unnaturalness of *I saw her consuming something*). Wierzbicka relies on the so-called "natural semantic metalanguage" to help her explicate *ʃib* and, for that matter, English *drink* and *eat*. Wierzbicka extends the discussion to two Australian languages, Warlpiri and Arrernte, again utilizing the metalanguage to help elucidate the meanings of ingestion predicates. The notion of 'suck' appears to play a significant role in the semantic characterization of

ingestion predicates in these two Australian languages and may be relatable to traditional cultural practices: honey and nectar obtained by a sucking action are valued sources of nourishment. In any case, the concept of 'suck' is closely tied up with the semantics of the Warlpiri verb *kuuny-nga-rni* 'suck, eat, drink' and Arrernte *antiyeme* 'drink, suck'. Aikhenvald also discusses languages of Papua New Guinea and Australia. She discusses data from Manambu (Papua New Guinea) where we find one generic verbal predicate *ka-* which, rather like Kalam *ʃib*, covers a range of meanings encompassing 'eat', 'drink', 'suck', 'breast-feed', and 'smoke'. While Aikhenvald (unlike Wierzbicka) is content to gloss *ka-* as 'consume' in her examples, she claims to find evidence for 'eat' as a central, or as some linguists might say, prototypical sense. For example, she finds no examples of *ka-* occurring in derivatives with meanings of 'drink' or 'smoke', though it occurs in a number of derivatives referring to various kinds of food. She takes this as evidence in support of the 'eat' sense being central to *ka-*. She proposes that we should see languages as being on a continuum in terms of the specificity or genericness of their verbal predicates. In the semantic domain of ingestion, this amounts to recognizing a continuum from languages which highly differentiate such predicates in terms of manner of ingestion or type of food/drink consumed to those which have one predicate to cover the whole domain of ingestion. Manambu, she claims, occupies a mid-way position. Aikhenvald also includes fascinating detail about cultural practices which are conceptualized in terms of figurative 'eating'.

Rice discusses comparative data on 'eat' and 'drink' verbs from the Athapaskan family of languages. Athapaskan languages utilize, to varying degrees, a classificatory verb system whereby verb stems classify a relational participant (usually the Theme or Patient) according to whether that participant is round/compact, flat/flexible, animate, a sticklike object, etc. Young and Morgan (1987: 251-263) report, for Navajo, 15 verbs stems of consumption, distinguishing, for example, *-kaah* 'consume/drink from open container' and *-t'aah* 'consume/drink from closed container'. The former would be used to describe drinking from a glass, the latter for drinking from a bottle. In a number of Athapaskan languages, the concepts of eating and drinking are expressed as variations of 'controlled handling' constructions, exploiting the rich classificatory system associated with such predicates. Thus, in Hupa, a morpheme *sa-* 'into the mouth' combines with the 'handle particles' verb stem to convey meanings like 'eat seeds by the handful', whereas the same *sa-* morpheme combines with the 'handle filled container' verb stem to give a meaning like 'eat from a bowl/spoon'. The classificatory verb system relating to the handling of objects is thus "co-opted", to use Rice's term, to encode the concepts of eating and drinking in Hupa. Rice also comments on intriguing differences in the behaviors of ingestion predicates with respect to their use in singular, dual, and plural forms. For example, in Dene Suliné, the more basic verbs 'eat' and

'drink' occur in a complete paradigm of singular, dual, and plural forms, whereas the more particularized verbs 'snack' and 'devour' do not. Finally, Rice reviews figurative uses of 'eat' and 'drink' in Athapaskan languages, especially their use in metonymies, e.g. the word for 'table' construed through reference to the function of the object 'on which people eat' in Koyukon.

Hook and Pardeshi discuss 'eat' constructions in Indo-Aryan languages. They compare, in particular, the behaviour of these verbs in Hindi-Urdu and Marathi and observe differing degrees to which these languages employ 'eat' in idiomatic uses (Marathi has about half as many 'eat' idioms as Hindi-Urdu, for example). They consider the historical influence of Persian (later and of shorter duration in the case of Marathi) to be a significant factor in accounting for the different degrees of 'eat' idiomaticity in modern-day Hindi-Urdu and Marathi. Hook and Pardeshi also consider the use of "vector verbs" with 'eat' in Hindi-Urdu. Vector verbs are grammaticalized uses of lexical verbs such as 'give', 'take', 'go', 'come', 'put' etc. which now serve as "aspectual attitudinal" auxiliary verbs. Interestingly, the vector verbs used with 'eat' are based on 'take' and 'go', these being the vector verbs that generally occur with "centripetal" verbs oriented towards the agent ('buy', 'take', 'grab' etc.) or verbs involving internal and experiential processes ('see', 'hear', 'understand' etc.). Both the inherent directionality of the eating event, where food is brought to the mouth of the eater, and the affected agent status of the eater make 'eat' very consistent with both the classes of centripetal and experiential verbs.

Yamaguchi reviews a number of linguistic aspects of Japanese 'eat' and 'drink' verbs, paying special attention to the earlier and present honorific status of each verb. For example, the verb *taberu*, neutral in its honorific status in modern Japanese, derives from an earlier *taburu*, a humble honorific counterpart to *tābu* 'to receive'. The sense of 'eat' has come to be associated with this earlier *taburu* construction referring to the giving of something from a superior to an inferior (perhaps comparable to the slightly formal or even stilted use of English *take* as in "Do you take hot food?"). Yamaguchi finds that the figurative uses of Japanese 'eat' and 'drink' verbs point to a bias towards negative, adverse states and suggests that this bias might reflect a broader cultural orientation. Interestingly, it is the historically older *kuu/kurau* 'eat' forms (marked as male, vulgar speech in their current literal uses) which exhibit more of the metaphorical, negatively nuanced usage than the historically more recent, and honorifically neutral, *taberu* 'eat'. **Song's** chapter discusses Korean 'eat' and 'drink' verbs. Korean *mek-*, glossed as 'eat', can also be used as a superordinate term to encompass either 'eat' or 'drink' meanings (cf. a more restricted version of this in Japanese where a verb *kurau* (male, vulgar) 'eat' can be used for certain 'drink' contexts, as discussed by Yamaguchi). He relates the wider distribution of *mek-*, occurring with the full range of objects possible with 'eat' or 'drink' senses, to the greater propensity for *mek-*, as opposed to *masi*

'drink', to undergo figurative extension. Song introduces a number of interesting socio-cultural observations in his attempts to motivate various idiomatic uses of Korean 'eat' and 'drink'. So, for example, *khong pap-ul mek-* means literally 'eat a bean meal' but is used idiomatically to mean 'be incarcerated', an extension based on the practice of feeding prisoners bean-based meals. Both Yamaguchi and Song build on the categories of figurative extension of these predicates introduced in Newman (1997).

Jaggar and Buba confront the dazzling range of figurative uses of Hausa (Chadic/Afroasiatic) 'eat' and 'drink' verbs. They see the figurative extensions of 'eat' as exhibiting mainly "controlling, dominating" characteristics, while the extensions of *shaa* 'drink' exhibit mainly "undergoing" characteristics. When used in the 'undergo' sense, *shaa* also takes on a durative, atelic aspect. Thus we find a contrast between *sun ci yaaƙi* 'they won the war' and *sun shaa yaaƙi* 'they have endured the war (for some time)'. The durative nature of *shaa* in such uses bears close comparison with the use of *shaa* as a 'quantificational' verb meaning (roughly) 'do X frequently, regularly'. The authors relate the frequentative use of *shaa* to properties associated with the experiential realities of drinking (as opposed to eating), e.g. the unbounded nature of mass substances like water and the relatively unobstructed ingestion associated with drinking (cf. also the discussion of Hausa in Newman's chapter). Hausa *ci* and *shaa* have been the subject of considerable interest (see the references in the chapter by Jaggar and Buba) on account of the multifarious sub-meanings and idiomatic uses and this chapter is an important addition to the literature on the subject, helping the linguist find order in the apparent chaotic nature of their uses. **Newman and Abera** review the properties of 'eat' and 'drink' verbs in another African language, Amharic (Semitic). Both *bəl-* 'eat' and *tət-* 'drink' verbs have a biconsonantal root structure, /b/ and /t/ respectively, as analyzed in the Semitic linguistic tradition, whereas most verbs in Amharic are triconsonantal. The biconsonantal root structure of *bəl-* and *tət-* is indicative of highly frequent and "basic" verbs in the language. The authors summarize the morphosyntax found with these verbs, including the unusual causativization patterning alluded to above. As Jaggar and Buba do, so Newman and Abera attempt to understand the apparent complexity of figurative usage in terms of a few key ideas. The authors categorize the figurative extensions into three main categories: internalization, destruction, and affected agent. These categories reflect components of the experiential realities of eating and drinking and it is the experiential realities which are seen as motivating the extensions in these categories.

Verbs encoding concepts of 'eat' and 'drink' offer a unique opportunity to observe the integrity of literal and figurative usage of a predicate. The factors that can play a crucial role in motivating the morphosyntax of these verbs, when used

to refer to actual ingestion, are also factors which appear to play a crucial role in motivating figurative and grammaticalized extensions. The image of food being destroyed in the act of eating, for example, provides a strong cognitive basis for taking food-like objects to be the Patient in a transitive construction with 'eat' verbs, as well as motivating a slew of 'destruction' idioms in the figurative extensions of 'eat' verbs. Drinking of a liquid invokes an image of relatively unobstructed intake of liquid, which itself undergoes no real physical change in the mouth. This image helps us to understand why Hausa has grammaticalized *šaa* 'drink', but not *ci* 'eat', to mean 'do X frequently, regularly' as well as helping us to understand why Hausa *šaa*, but not *ci*, is associated with durativity in its figurative extensions. The 'affected agent' status of a person eating or drinking motivates a number of atypical transitive properties of 'eat' and 'drink' clauses as well as figurative extensions in which the core of the meaning is more about an effect on the Agent rather than any destruction of the Patient, e.g., *to eat up admiration*.

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A cross-linguistic overview of 'eat' and 'drink'

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This chapter provides an overview of the range of linguistic properties associated with 'eat' and 'drink' verbs across languages and serves as an introduction to the whole volume. The chapter covers the lexicalization of these concepts and the syntax associated with 'eat' and 'drink' constructions. Figurative extensions of 'eat' and 'drink' constructions are common, in some languages even prolific, and have their sources in the simultaneous but distinct aspects of the acts of eating and drinking: the sensation of the consumer while ingesting and the destruction or disappearance of the entity consumed. These dual aspects of ingestion are relevant too, when it comes to motivating the atypical kinds of transitive constructions found with these verbs in some languages. Grammaticalizations of 'eat' and 'drink', though not particularly common, do occur and are also reviewed here.

1. Introduction

In this chapter, I review a range of properties associated with verbs with meanings which approximate the 'eat (food)' and 'drink (liquids)' senses of English *eat* and *drink*. Clearly, languages will differ in their ways of encoding such concepts and one should not expect that there will be distinct words for these concepts as one finds in English. Just the same, eating food and drinking liquids represent universal practices amongst humans and one can reasonably inquire about the linguistic expression of these concepts in any language. While it is convenient to begin with some discussion of these senses as found with English *eat* and *drink* in Newman (1997), the remainder of the chapter is a cross-linguistic comparison of verbs which carry meanings like 'eat (food)' and 'drink (liquids)'. The overview includes discussion of the lexicalization of such concepts, morphosyntactic properties of such verbs, and the polysemy, or polyfunctionality, of such verbs across languages, including grammaticalization. We begin, however, with a description of the central meanings of English *eat* and *drink*.

2. Central meanings

The central meanings of *eat* and *drink* relate to the intake of food and beverages

to refer to actual ingestion, are also factors which appear to play a crucial role in motivating figurative and grammaticalized extensions. The image of food being destroyed in the act of eating, for example, provides a strong cognitive basis for taking food-like objects to be the Patient in a transitive construction with 'eat' verbs, as well as motivating a slew of "destruction" idioms in the figurative extensions of 'eat' verbs. Drinking of a liquid invokes an image of relatively unobstructed intake of liquid, which itself undergoes no real physical change in the mouth. This image helps us to understand why Hausa has grammaticalized *shaa* 'drink', but not *ci* 'eat', to mean 'do X frequently, regularly' as well as helping us to understand why Hausa *shaa*, but not *ci*, is associated with durability in its figurative extensions. The "affected agent" status of a person eating or drinking motivates a number of atypical transitive properties of 'eat' and 'drink' clauses as well as figurative extensions in which the core of the meaning is more about an effect on the Agent rather than any destruction of the Patient, e.g., to *eat up admiration*.

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2. Central meanings

The central meanings of *eat* and *drink* relate to the intake of food and beverages

Table 1. Components of the central meanings of eat and drink

INTERNAL COMPLEXITY	<i>eat</i> and <i>drink</i> are dynamic, involving actions by a person which affect some other entity, but where the person also typically experiences a range of sensations
SPATIAL-TEMPORAL PROFILE	<i>eat</i> food is taken into mouth and moves through the digestive tract <i>drink</i> liquid is taken into mouth and moves through the digestive tract
ACTIVE ZONE	<i>eat</i> mouth, teeth, tongue, palate <i>drink</i> mouth, tongue, palate
FORCE DYNAMICS	<i>eat</i> forceful crushing and biting of food, controlled by person <i>drink</i> no change to liquid in the mouth, controlled by person
TYPICAL SOCIAL/CULTURAL SIGNIFICANCE	<i>eat</i> eating and drinking are vital to humans, are usually enjoyed, and are the basis for many social occasions; both can be the means to inducing altered physical and psychological states (e.g. drunkenness) <i>drink</i>

3. Lexicalizations

Eating and drinking have some properties in common, as observed above: they both involve the intake of something through the mouth and into the digestive tract; they are both vital to humans; and they are both usually enjoyed. Furthermore, these acts often occur as part of the same larger event, such as having a meal. All these considerations are probably relevant to the fact that one finds words which have the superordinate sense of 'ingest, consume', covering either eating or drinking. The English verbs *consume* and *ingest* are, of course, examples of this, but they belong to a more learned or more academic register of English than *eat* and *drink*, and so are not entirely appropriate translations (cf. Wierzbicka, this volume). Examples where a 'consume' verb covering both eating and drinking is an everyday word are Suchou *tɕ'itʃ*⁴, Zulu *dla*, Rumu *nana*, and Yir-Yoront *pay* (cf. Alpher 1991: 421-422), as well as the many examples discussed by Wierzbicka and Aikhenvald in this volume.

In a number of languages, the verb translating as 'eat' has an extremely wide variety of meanings (cf. the chapters by Wierzbicka, Aikhenvald, and Jaggar and Buba in this volume). The African languages Akan, Hausa, Ewe, and Zulu are such languages. One thorough description of the meanings of such a verb is that given by

into the mouth where one experiences the taste and texture of the entity. The two verbs involve quite different processes within the mouth, however. Eating typically involves crushing and chewing of food, with the teeth, tongue and the palate all helping to achieve this. The teeth in particular play a key role in the crushing of food, before the chewed-up food is passed down the throat. Drinking does not involve such vigorous action in the mouth and the teeth play no significant part, though there is still movement of the liquid facilitated by the tongue and palate through the mouth and down the throat. The verbs refer to basic needs of humans in so far as eating and drinking are the means to take in the sustenance the human body requires to survive. Apart from the physical necessity of eating and drinking, there is a further dimension to these acts which needs to be recognized, namely that eating and drinking are usually pleasurable experiences. Under normal circumstances, humans choose food and beverages which they will enjoy digesting. This can not always be controlled, but it is the clear bias in the way we eat and drink. Eating and drinking represent strong experiential models of sensual satisfaction. A further dimension relevant to these verbs is the fact that eating and drinking of certain substances can both lead to altered states of mind, intoxication, being "high" etc. The two verbs make a natural pair in terms of representing the two main ways we take in sustenance. I have summarized these informal and pre-theoretical observations about eating and drinking in Table 1. It is convenient to distinguish a number of categories which are relevant to a full appreciation of the experiential realities associated with these concepts, using English *eat* and *drink* as starting points for a fuller, cross-linguistic account. We distinguish the following descriptive categories which constitute part of the 'complex matrices' of English *eat* and *drink*, drawing upon ideas of Langacker (1987): the INTERNAL COMPLEXITY of the predicate (how many participants and the type of interaction); the SPATIO-TEMPORAL PROFILE (the evolution of the spatial configuration of the participants through time); the ACTIVE ZONE (the particular parts of the entities which represent the actual locus of interaction); the FORCE DYNAMICS (the extent to which force, coercion etc. is applied); the TYPICAL SOCIAL/CULTURAL SIGNIFICANCE (relevant aspects of the social and cultural significance of eating and drinking). In this table, no attempt is made to describe the many extended meanings that 'eat' and 'drink' verbs can have, including English. Later in this chapter, a variety of extended senses will be discussed from a cross-linguistic perspective.

It is clear that there are many diverse cultural practices surrounding eating and drinking. There are places specifically designed for eating and drinking and places where eating and drinking are excluded. Hooper (1976: 234) notes, for example: "Eating is prohibited in rural Tahitian Protestant churches and even the presence of food in the building (a loaf of bread, say, in a shopping basket) is regarded as unseemly and polluting."

Christaller (1881 [1933]) for Akan *di*. Christaller lists 26 major semantic categories for its uses and a total of 110 subcategories. To accommodate this range, Christaller defines *di* as meaning 'to take (in the hands); to handle; to use, make use of, employ'. Welmers (1973: 477), with reference to the same verb, gives it the general meaning 'partake of or participate in'. At the same time, Welmers (1973: 477) says that "just about any speaker of Akan will tell you [*di*] means 'eat'". These two semantic characterizations by Welmers illustrate Langacker's (1987) concepts of schematic meaning and prototype. A schematic meaning refers to one node of the semantic network of a lexical items which expresses a meaning fully contained in others, e.g., 'partake of or participate in' might be a schematic meaning with respect to Akan *di*. A prototypical meaning, on the other hand, is one which is experienced as representative of the whole category and which is the immediate source for semantic extensions, e.g., 'eat' would be the prototypical meaning of Akan *di*. Regardless of whether or not one can identify a single schematic meaning or one or more prototypical meanings for 'eat' and 'drink' verbs in a language, the polysemy associated with either of these verbs can be substantial and can present quite a challenge when it comes to deciding on how many distinct senses to recognize. Not surprisingly, in light of their typically extensive polysemy, 'eat' and 'drink' verbs have been a focus of studies which deal with questions of monosemy vs. polysemy (see Gouffé 1966; Monsen 1972; Williams 1991; and Jaggar and Buba, this volume).

Words for 'eat' and 'drink' may derive from more than one morpheme. In the Australian language Mayali, the verb 'to eat' is a monomorphemic form *ngu*, in the "ordinary" language. In the "mother-in-law" variety of the language, Gun-gurrng, the verb 'to eat' (and 'drink') is *yak-wa*, consisting of *yak* 'without, nothing' and *wa* 'to follow', so literally 'to nothing-follow' (N. Evans, p.c.). In Mayali ordinary language, 'drink' is also a bimorphemic *bo-ngu*, derived from *bo* 'liquid' and *ngu* 'eat' (N. Evans, p.c.). Rice (this volume) reports on the use of an incorporated 'into the mouth' morpheme *sa-* with various Athapaskan classificatory verb stems to express 'eat' and 'drink' meanings.

4. Syntax with central meanings

It is possible to have distinct transitive and intransitive verbs for eating and drinking (see Newman and Rice (2006) for some discussion of transitive and intransitive usage of the English verbs). Kiribatese has distinct forms for transitive and intransitive 'eat' and 'drink', illustrated in (1), based on Groves, Groves and Jacobs (1985).

- (1) a. *kana* 'eat' transitive versus *am'arake* 'to eat' intransitive
 b. *nima* 'drink' transitive versus *mooi* 'drink' intransitive

Transitive verbs in Lango (Noonan 1992: 125), shown in (2), typically have alternative and formally related intransitive forms which can be either "activity naming" or "secondary argument" using Noonan's terms.

- (2) a. *áčámó* *dék*
 1SG.eat_{TR}.PERF stew
 'I ate stew.' (Noonan 1992: 128)
- b. *áčámó*
 1SG.eat_{TR}.PERF
 'I ate it.' (Noonan 1992: 128)
- c. *áčémó*
 1SG.eat_{INTR}.PERF
 'I ate.' (Noonan 1992: 128)

In (2a) and (2b), the transitive 'eat' is used, while in (2c) it is intransitive 'eat' which is used. Notice that the transitive form in (2b) can be used without any nominal object. This happens when the food has been mentioned already or is understood from context and so translates best as 'I ate it', distinct from the intransitive use in (2c) which is translated simply as 'I ate'. The "activity naming" forms take a doer as the subject, but do not allow any syntactic object. These forms are used when reference to the thing affected is irrelevant to discourse. "Secondary argument" forms take the thing affected as the subject and make no reference to a doer. The 'eat' and 'drink' verbs exist in both transitive and "activity naming" intransitive forms, but lack a "secondary argument" form. Thus, we find *cámúú* 'eat (tr.)' and *cém* 'eat (intr.)'; *máttó* 'drink (tr.)' and *mító* 'drink (intr.)' (cf. Noonan 1992: 125).

The occurrence of both transitive and intransitive 'eat' and 'drink' in the world's languages, or even within the one language, suggests that eating and drinking can be easily conceptualized in either of two ways. On the one hand, eating and drinking can be viewed as an interaction between a person (one entity) and the food or drink (a second, distinct entity). This is the conceptualization underlying the transitive usage of the verbs 'eat' and 'drink'. On the other hand, there are aspects to eating and drinking which facilitate an intransitive encoding of these predicates. Eating and drinking can be viewed as processes in which the consumer is essentially experiencing the sensation of taste, satiation, pleasure or displeasure, etc. Although an entity such as food or drink is certainly present in the larger semantic frame, it is the consumer's experience of the event which might be profiled more by intransitive 'eat' and 'drink' verbs. 'Eat' and 'drink' verbs are, then, not so much about ingestion as they are about bodily sensation (cf. Naess' idea of an "affected agent" with 'eat' and 'drink', this volume). When one makes the consumer, as an experiencer, the focus (or the "profiled" component of meaning, using Langacker's 1987 term), then the amount, quality, nature, and even presence of the

food itself becomes less relevant. In this way, 'eat' and 'drink' verbs align with 'walk' and 'run' verbs. 'Walk' and 'run' verbs include the notion of a supporting surface in their larger semantic characterization (at least in their typical meanings), but this supporting surface is easily backgrounded or assumed, with the result that 'walk' and 'run' are typically encoded as intransitive predicates.

The fact that 'eat' and 'drink' can occur as either transitive or intransitive predicates in the world's languages already suggests that these verbs are not exactly typical transitive predicates. It turns out that this property of 'eat' and 'drink' verbs, i.e., their use as intransitive predicates alongside their transitive usage, is but one of a number of facts about these verbs, cross-linguistically, which mark them as atypical transitives. Amberber (2002) draws attention to the peculiar property of 'eat' and 'drink' verbs in a number of languages with respect to patterns of causativization. Amberber describes a recurring pattern of causativization whereby 'eat' and 'drink' verbs pattern in ways which are identical to how intransitive verbs form causatives, even when the 'eat' and 'drink' verbs are used in a transparently transitive manner (with overt direct object). Both 'eat' and 'drink' verbs exceptionally permit morphological causatives in Hausa, for example, when this possibility would normally only apply to base intransitives (cf. Jaggar and Buba, this volume, footnote 2). Næss (this volume) reviews a broad spectrum of properties of 'eat' and 'drink' verbs (attributable to the "affected agent" nature of the consumer) which point to these verbs being atypical, rather than typical, transitives. Furthermore, comparing 'eat' and 'drink'; there is reason to consider 'eat' as the more transitive of the two, even though both are relatively atypical transitive verbs cross-linguistically. Wierzbicka (1982: 774–776) already has drawn attention to how "unlimited" substances which are drunk, like water, cannot be totally destroyed, whereas substances which are eaten, like a sandwich, are typically "discrete, limited" and can be totally affected as part of the eating act. This distinction, according to Wierzbicka, has consequences for the acceptability of the deverbal *eat* vs. *drink* in the frame *have an X* in English. This construction appears to refer to events which focus on the agent and his/her experience and is incompatible with events in which the patient is strongly affected. The construction is therefore compatible with *drink*, i.e., *have a drink*, but incompatible with *eat*, hence **have an eat*. The difference that Wierzbicka alludes to is the AFFECTEDNESS OF O parameter in Hopper and Thompson (1980: 252) and would point to 'eat' being more transitive, in the Hopper and Thompson sense, than 'eat'. Other facts suggest that Hopper and Thompson's PUNCTUAL parameter also distinguishes 'eat' as the more transitive verb, compared with 'drink' (cf. the discussion of extension of 'eat' to perfectivity marking in Section 5 and the assignment of the feature [+ punctual] to some metaphorical uses of Hausa *ci 'eat'* in Jaggar and Buba, this volume).

With the intransitive verb uses of 'eat' and 'drink', a nominal referring to the food or drink can still appear as part of the construction, integrated as an oblique,

as in English *chew on a bone*, *sip at a drink* etc. The Kiribatense intransitive forms can appear with a second argument introduced by an "interposed *n*", as illustrated in (3b). The interposed *n* is not present in the case of true transitives. Groves, Groves and Jacobs (1985: 74) call this second argument a "pseudo object".

- (3) a. *E kana te ika.*
3SG eat.TR ART fish
'He/she/it ate the fish.'
(Groves et al 1985: 77)
- b. *Ko am'arake n te ben?*
2SG eat.INTR LINK ART coconut
'Did you eat coconut?'
(Groves et al 1985: 74)

The "interposed *n*" might be equated with the preposition *n* 'at, in, on' (Groves et al 1985: 65) or the possessive indicator *n*.

A common use of 'eat' verbs is to help form an expression for 'eat a meal, dine' through a combination with a word for some staple food, as in Mandarin *chīfān* 'have a meal' (<*chī* 'eat' + *fān* 'cooked rice'), Rumu *kei nana* 'to have a meal' (< *kei* 'sago' + *nana* 'consume, eat, drink'), and Yir-Yoront *may + pay* 'to eat' (< *may* '(vegetable) food' + *pay* 'eat'). It is also common to find the verbs forming fixed expressions indicating a manner, place, or style or eating, e.g., Mandarin *chī guānzi* 'eat at a restaurant', *chī kuàizi* 'eat with chopsticks', *chī shítáng* 'have one's meals in the mess', *chīsù* 'abstain from eating meat; be a vegetarian', *chīzhāi* 'practise abstinence from meat (as a religious exercise); be a vegetarian for religious reasons' (cf. English *eat Italian*, *eat out*, *eat in* etc.).

5. Extensions based on the perfectivity of 'eat'

'Eat', rather than 'drink' involves a change in the state of the food being eaten, from a whole to small crushed pieces. As such, the 'eat' verb is strongly perfective in nature. 'Drink', on the other hand, does not involve the same kind of effect on the liquid being drunk. Eventually liquid which is drunk does undergo change in its movement through the digestive tract, but within the mouth and throat, which I take to be the active zone of 'drink', there is no such transformation of liquid. This difference, already alluded to above, has ramifications for the potential of 'eat' and 'drink' to extend to other meanings. One difference in this respect is that 'eat', but not 'drink', provides an appropriate image for the completion of a change, just as 'drink' provides a source for continuity and repetitiveness (see the remarks about Hausa *shaa* 'drink' in Sections 6.7). Chepang (Tibeto-Burman, Nepal) *je?* 'eat' is a case in point. The verb appears to be the source for the verbal suffix *-je?*, which, as part of its meaning, conveys "a sense of completion or finality with regard to a

situation" (Caughley 1982: 97). At the same time, the suffix indicates satisfaction and pleasure towards a situation, a meaning which is prevalent with both 'eat' and 'drink' and which is discussed further in Section 6.4. The use of the suffix *-je?* is illustrated in (4).

- (4) a. *lw ?at-je?* *?aya*
right go-eat.SUFFIX therefore
'Right, go then (for good).'
(Caughley 1982: 97)
- b. *lw noh-je?* *je?-je?*
right take-eat.SUFFIX eat-eat.SUFFIX
'Take it then and eat it up!'
(Caughley 1982: 97)

In (4a), there is no reference whatsoever to eating as part of the overall meaning and the *-je?* suffix is only glossed as 'eat' to indicate its etymological source (as is done elsewhere in this book). In (4b) the double sequence of *je?-je?* represents a sequence of full verb 'eat' followed by its identical suffixal form. A similar kind of polysemy would appear to exist in Kachin. Caughley (1982: 113) suggests that Kachin *ma?*, which is used to mean 'to use up' and to indicate finality, is also cognate with Chepang *mak* 'consume, devour'.

6. Extensions based on internalization

Some metaphorical extensions of eating and drinking words are motivated by properties of the consumer in the process. The agent in eating and drinking serves as a strong image of "internalization", i.e., incorporating something into one's personal or private sphere. Firstly, there is the intake of food and drink from outside the body into the mouth. This stage involves a clear transition from being visible and outside the body to being no longer visible and inside the body. Secondly, there is the swallowing aspect which moves food and drink from being in the mouth, where it can be moved and controlled by the tongue (and still easily spat out of the body), to being in the intestines and eventually the stomach, where it is controlled by involuntary reflexes and processes beyond our conscious control, and requiring a more difficult and sometimes painful act to bring the food out of the mouth again. Note, also, that these two aspects are common to both eating and drinking. These two aspects are the basis for conceptualizing various kinds of events which one might classify as "internalization".

- (5) a. *koda-u* *zzyt* *t'at' t'-a*
hide-M.DEF oil drink.PERF-3SG.M.SBJ
'The hide absorbed oil!'/ 'The hide was soaked with oil.'
(Amharic)

- b. *zhè kuái dì* *bù chī shuǐ*
this plot land not eat water
'This plot of land absorbs little water.'
(Mandarin)
- c. *i chien-un mwulkam-i cal mek-hi-nta*
this cloth-TOP dye-NOM well eat-PASS-IND
'The cloth dyes well' or literally 'As for the cloth, the dye is eaten well.'
(Korean)

The taking in of something more abstract (words) is illustrated in the Korean example in (6a). Here, 'eat' is extended to refer to the act of listening and following verbal advice and it seems appropriate to include this under the general category of internalization. A comparable extension is the Mandarin expression in (6b).

- (6) a. *chelswu-nun emma mal-i an mek-hi-n-ta*
Chelsoo-TOP mother word-NOM NEG eat-PASS-PRES-IND
'Chelsoo does not listen to what mother says'. (Korean, p.c. Jae Jong Song)
- b. *chī-nuán* *bù chī-yīng*
eat-soft not eat-hard
'be open to persuasion, but not to coercion'
(Mandarin)

6.1 Extensions based on the sensation of the consumer

Other aspects of eating and drinking relating to the agent's role are: the hunger/thirst element; the work done in masticating, swallowing, digestion; the nourishment; and the enjoyable gustation accompanying the basic acts. In the set of extensions to be discussed in the following sub-sections, it is the role of the eater/drinker which motivates the extension, rather than the effect on the thing eaten. In these cases, one can construe the meaning as an internalization like the meanings just discussed. The meanings discussed below, however, also involve sensory experience (either pleasant or unpleasant) and for this reason I have separated them out from mere internalization. These meanings are typically found with human, or at least animate, referents.

6.2 Pleasant inhaling, smoking etc.

Verbs of eating and drinking may be extended to the intake of something physical, but not food or drink, into the body. A common extension of 'eat' and 'drink' verbs involves their use in expressions for smoking cigarettes, chewing tobacco etc. Enga, for example, uses *nengé* 'eat' in the expression *múf nengé* 'smoke

tobacco/cigarette' (Lang 1975: 178), while in Lango it is the verb 'drink' which is so used (Noonan 1992: 314). 'Drink' is also used for taking of medicine in some languages, e.g., Puluwat *wín* 'to drink, smoke, take medicine' (Elbert 1972: 210). In Mandarin it is *chī* 'eat', not *hē* 'drink', which is the verb used in the 'take medicine' expression *chī yào*. Note that Classical Chinese *chī* meant either 'eat' or 'drink' and its use in these expressions could be related to the earlier 'drink' sense.

In (7), it is air which is inhaled:

- (7) *I pace the earth, and drink the air, and feel the sun.*
(Housman 1896/1939: 72, Poem #XLVIII)

(7) refers to the enjoyment of breathing in air in the context of a poetic description of savouring life and the enjoyment of breathing also is metonymic for the enjoyment of life. Drinking liquid involves a more or less continuous flow of liquid into the body and in (7) *drink* has the nuance of taking in air in a plentiful, uninterrupted (and enjoyable) way. Similarly, Hausa *šāa iskáa*, literally 'drink wind', means 'go for a stroll' (Abraham 1962: 793; Jaggat and Buba, this volume, p. 243), though other purported meanings of this particular combination claimed in Abraham (1962: 793) are dubious (personal communication, Philip Jaggat).

6.3 Emotional/intellectual satisfaction

A less concrete type of internalization involves taking in external stimuli which add to and support one's emotional or intellectual state, as in (8).

- (8) *She was uncritically idolised by an army of fans, male and female. She ate up the adoration...*
(Marie Claire magazine, Feb. 1996: 176, on the actress Lana Turner):

Images of eating and drinking appear frequently in the poetry of Emily Dickinson used in ways like this. Patterson (1979: 31), referring to the "several hundred occurrences" of "oral symbolism", observes that "as a rule her oral symbols apply to affection or, more exactly, to romantic love". In (9), it is learning, books, knowledge etc. which is the object of her affection:

- (9) a. *He ate and drank the precious Words*
His Spirit grew robust – (Poem no. 1587, Johnson 1890: 658)
- b. *Strong Draughts of Their Refreshing Minds*
To drink – enables Mine
Through Desert or the Wilderness
As bore it Sealed Wine – (Poem no. 711, Johnson 1890: 349–350)

Despite some occasional uses of 'eat' as in (9) to refer to emotional, sensual etc. satisfaction, it is 'drink' which is more frequent in this figurative usage in English.

The American Heritage Dictionary, for example, includes the sense of 'take in through the senses, enjoy' for *drink*, but there is no similar sense given for *eat*. 'Eat' is extended to this meaning in the Dickinson poem cited in (9), but its use in conjunction with *drink* probably facilitates this particular extension. The examples with Mandarin *chī* 'eat' shown in (10) also illustrate the extension to pleasant emotional experience.

- (10) a. *chī* 'eat' + *hǎohuà* 'good words' = 'to savor/praise'
- b. *chī* 'eat' + *xiāng* 'fragrance; popular' = 'to be very popular'
- c. *chī* 'eat' + *dē* (connective) *kāi* 'open; public' = 'be popular'

Closely related to the extension to the emotional domain is the extension to the sexual domain. We see this in (11), which is naturally understood as meaning that the man wanted to engage in sex with the woman. Notice how the use of the *up* particle in *eat me up* is effective in emphasizing the completeness and fullness of the sexual interaction, making it akin to the sense of *dévoûr* which, of course, has a conventionalized sexual usage.

- (11) *He gave me a look – all the men did, but this was different – a look like he wanted to eat me up. A hungry look.* (De Ferrari 1990: 222, talking about a man who had fallen in love with the woman)

There is quite a variety of idiomatic 'eat' expressions in languages referring to enjoyment or satisfaction. Zulu *dlala* 'eat', for example, is extended to 'enjoy, delight in' as in *ukudlala amaxoxo* 'to enjoy a chat' (Doke et al. 1990: 151). Swadesh (1946: 336) reports that 'to kiss' is literally 'to eat mouth' in Chitimacha.

6.4 Chepang emotive 'eat' suffix

The Chepang verbal suffix *-je?*, discussed above in connection with perfective meaning, is used to indicate 'satisfaction and pleasure in respect to [the whole situation]' (Caughley 1982: 97). Caughley calls it a 'situational emotive' and suggests that it is an extension of *je?* 'eat'. A separate suffix *-ja*, which may be related to *je?* 'eat' or may have a distinct etymology (Caughley 1982: 98), is used with noun phrases to express affection for the referent. Examples of this are given in (12). In (12b), both the nominal suffix *-ja* and the verbal suffix *-je?* appear in a sentence where the morphemes are used ironically to express dissatisfaction and dislike (Caughley 1982: 97).

- (12) a. *?ow?* *wa?*-*ko?* *co?* *ɟʷal-je?*-*ʔaka-y?*
that bird-GEN child flee-eat-PAST-PL
'The young birds escaped (luckily).'

(Caughley 1982: 97)

- b. *ɲa-kay-ja neʔ-jeʔ-ʔa-ta-ɲʔ*
I-GOAL-EMOTIVE bite-eat.SUFFIX-PAST-GOAL-1EXCL
'It has bitten me!'
(Caughley 1982: 97)

6.5 To experience unpleasantness

In Enga, *nengé* 'eat' functions as a "classificatory verb" in combination with various predicates describing inner states. The main semantic category of constructions with *nengé* involve combinations to indicate an experience of something painful or unpleasant, as shown in (13). Examples of Amharic uses of 'eat' to refer to the experience of unpleasantness are given in (14).

- (13) a. *ingí nengé* 'growl (of stomach)'
b. *mámbu tángo nengé* 'bite lips; seem to do something wrong together'
c. *kaí nengé* 'be cold'
d. *mómo nengé* 'rot'
e. *popo nengé* 'be difficult'
f. *taá ikí nengé* 'be stingy'
g. *tándá nengé* 'afflict'
h. *tómbá nengé* 'be disagreeable, be angry'
i. *tómbó nengé* 'be belligerent'
j. *yatná nengé* 'be sick' (Lang 1975: 178)
- (14) a. *asar-e-n a-báll-a-ññ*
misery-my-ACC CAUS-eat.PERF-3SG.M.SBJ-1SG.OBJ
'He treated me cruelly.'
(Amharic)
- b. *makara-ye-n a-báll-a-ññ*
hardship-my-ACC CAUS-eat.PERF-3SG.M.SBJ-1SG.OBJ
'He gave me a hard time.'
(Amharic)
- c. *ar-e-n a-báll-a-ññ*
feces-my-ACC CAUS-eat.PERF-3SG.M.SBJ-1SG.OBJ
'He beat me badly./He defeated me./He made me suffer.'
(Amharic)

English expressions such as *eat humble pie* is comparable though it involves an additional metonymy relating to the literal sense of the object noun.

Wadley & Derr (1990) discuss the concept of 'eating sins' in an Indian (Hindu) community. Although there appear to be many complexities to the philosophy of life and morality as practised in this community, the main point relevant here is how one's actions, including mental acts such as desire, or *karma*, lead to retribution at a later time. Depending on whether the original actions were morally good or sinful, then the retribution will be good or bad. The metaphor used with this view of life is that one's actions bear fruits (*phal*) and the

retribution is then a matter of eating these fruits. In the cases discussed at some length by Wadley and Derr, evil actions on the part of one group of the community in previous years were believed to lead to a tragedy (a fire in which a number of people were killed). The people who suffered in this tragedy were 'eating the sins' of the past.

6.6 Adversative passive

In Hausa, 'eat' and 'drink' verbs may be used with verbal nouns as objects with the understood agent of the verbal noun being someone other than the sentential subject. Such uses could be translated as a passive in English, as illustrated in (15).

- (15) *yaa ci/shaa diukáa*
he.PAST eat/drink beat.VBNOUN
'He was severely beaten.'
(Abraham 1962: 137, 794)

Abraham (1962) includes these uses of *ci* and *shaa* under the general sense of 'undergo' (in the case of *shaa*) or 'undergo severely' (in the case of *ci*). The related entries for these meanings of the verbs in Abraham's dictionary suggest that the sense of 'endure, suffer' is a key feature of these uses, typified by the choice of the verbal noun *diukáa* based on *ɗookaa* 'beat up, thrash, hit'. While (15) could be analyzed as a kind of (agentless) adversative passive construction, semantically the use of 'eat' or 'drink' in such examples is not substantially different from the uses of these verbs with (non-derived) nouns referring to endurance of suffering (see Jaggar and Buba, this volume, for more discussion). Jaggar and Buba also point out that Hausa speakers who allow both 'eat' and 'drink' verbs in this construction indicate that there is an emphasis on the durative nature of the activity with *shaa* 'drink'.

Haspelmath (1990: 64, fn 9) reports similar (restricted) phenomena in Sinhalese and Modern Greek with the verb 'eat' used in conjunction with deverbal or verb-like objects, translating as (adversative) passives in English. Again the sense is just like the 'suffer' senses discussed in the preceding section, where the objects are simple nouns referring to something unpleasant. Haspelmath (1990: 41) also cites the use of Korean *meg-*'eat' as an adversative passive marker, suffixed to a verb, though Song (this volume) disputes Haspelmath's analysis. Song (this volume) emphasizes that *yok* in (16) is a noun, not a verb and, again, we are dealing with the sense of someone enduring something painful where the "something" is expressed as a noun.

- (16) *ku salam-un nam-uy il-lo yok-ul mek-ess-ta*
the man-TOP others-GEN business-because.of criticism-ACC eat-PST-IND
'The man received criticism because of someone else ('s fault').'

Haspelmath also cites the case of the passive markers in Kharia and Juang which have the same form as the morpheme 'eat' in those languages. Pinnow (1966: 112, 113), though apparently the source for Haspelmath's data from these languages, casts some doubt on whether the 'eat' morpheme is relevant to the development of the passive markers.

6.7 Hausa frequentative

As noted above, there are figurative uses of 'eat' and 'drink' verbs relating to emotional or intellectual enjoyment, satisfaction etc. In such uses, the verbs can easily connote a sense of exhilaration on the part of the experiencer as well as an abundance of whatever it is that is being experienced. Consider again the two examples below:

(17) *I pace the earth, and drink the air, and feel the sun.* (Housman 1896/1939: 72, Poem #XLVIII)

(18) *She was uncritically idolised by an army of fans, male and female. She ate up the adoration...* (Marie Claire magazine, Feb. 1996: 176, on the actress Lana Turner).

In (18), the reference to *drink the air* conveys amongst other things the sense of taking in something beneficial. In addition, *drink* connotes an unimpeded process and *the air*, without any restrictive qualification, refers to something available all around us in abundance. The resulting meaning suggests the taking in, at least potentially, of a large volume of air. In fact, the three verb phrases in the line – *pace the earth, drink the air, and feel the sun* – all share a component of meaning relating to the doing of something unfettered, unlimited, free of impediment. One would expect the sense of 'drink' to extend more easily to this kind of image compared with 'eat', owing to the fact that the act of drinking does not involve any of the chewing and biting which is an integral part of eating. Nevertheless, the *eat up* example in (19) illustrates a use of *eat* which is understood here to refer to the taking in of something⁶extensive, here, the flat-tery given by adoring fans.

These observations may be relevant to a better understanding of the use of Hausa *shaa* 'drink' with a more grammaticalized meaning of '(do) often, frequently'. The 'frequentative' or 'quantificational' use of *shaa* is illustrated in (19). All the examples in (19) are taken from Jaggar and Buba (this volume).

(19) a. *yaa shaa zuwada nan*
3MSG.PERF drink coming here
'He comes here regularly.' (lit. 'He has drunk coming here'.)

- b. *mun shaa kallon talabijin*
1PL.PERF drink watching of TV
'We've watched a lot of TV (... and seen enough).'
c. *naa shaa jiji*
1SG.PERF drink hearing
'I've heard (it) so many times.'
d. *naa shaa gayaa maka*
1SG.PERF drink tell 2M.SG.10
'I've told you so many times.'

Although the form of *shaa* in this use is identical to that in its full verb use, it requires a verbal noun (rather than, say, an infinitive) in a particular kind of complement structure, a feature which Jaggar (1977: 60) regards as characteristic of Hausa auxiliaries.

Hausa *shaa* 'drink' is very productive as a source for figurative extensions, including extensions with a sense like 'savour, enjoy' as in *shaa* 'drink' + *daadfi* 'pleasantness' = 'feel happy'. *Shaa* 'drink' + *iskaa* 'wind, air' is also possible and like its English counterpart refers to taking the air, going for a walk. The connotation of something being experienced over a relatively extended period of time is often present, too, with other extensions of *shaa* with direct objects such as shown below, again with examples from Jaggar and Buba (this volume).

- (20) a. *sun shaa yaaƙƙi*
3PL.PERF drink war
'They have endured the war (for some time).'
b. *naa shaa karoo da suu*
1SG.PERF drink collision with 3PL
'I've bumped into them now and again.'

The frequentative use of *shaa*, then, might be relatable to the sense of abundance and fullness found in other extensions of the same verb and ultimately motivated by the "unboundedness" inherent in drinking.

7. Extensions based on the destruction of food

We now turn our attention to extensions which are motivated by the effect of eating/drinking on the food/drink consumed, i.e., the thematic patient in the eating/drinking process. The role of food/drink in eating/drinking gives rise to quite a different set of extensions, compared with the agent-oriented extensions discussed in Section 6. The most striking feature concerning food/drink is that

it disappears from sight and is taken into an inaccessible part of the body. This is true of both food and drink. In the case of food, there is the further important fact, noted in Section 2, that the food is subject to mastication, involving chewing and biting, whereas with drink, this is not the case. Hence, verbs relating to eating (rather than drinking) are especially appropriate as sources for images of destruction. This is quite different from the "internalization" extensions of Section 6. The eater/drinker's role is to take something into the body; the effect on the food is the rather violent processing and transformation of food into digestible particles. This difference underlies the separation of meanings into those of Sections 6 and 7.

7.1 Physical destruction

An extension of 'eat' to 'physical destruction, injuring, overpowering' sense is common. It is possible in English (at least for some speakers) to say *We ate them!*, referring to a victory over another team in a sporting event. English *eat into* is used to refer to a corrosive chemical or physical event, as in *The acid ate into the metal*. In the example in (21) a gorge is conceptualized agentively, destroying mountain-side and thereby creating more gorge.

- (21) ... she found herself in the high little town called Adeje, from which the long Barranco del Infierno, the gorge called Hell's Valley, ate into the mountainside.
(Cherkawska 1990: 166)

In English, it is the combination of *eat* and *into* which is commonly used for this meaning. The central meaning of *into* involves a path from outside some delimited area through to the inside of the area. In the *eat into* combination, this image of a path into something helps to create the meaning of the gradual, incrementally destructive effect of some entity acting upon another. Some languages can extend the simple verb 'eat' to this kind of meaning without having to rely on additional morphemes. Zulu transitive *dlala* 'eat', for example, can be extended to 'eat into, rust, corrode, wear into' without any prepositional equivalent of 'into' (Doke et al 1990: 151). The idea of destruction is evident in the uses of the simple transitive Rurru *nana* 'consume, eat, drink' in combinations such as *yo nana* (literally 'village eat') 'to raid a village' and *yu nana* (literally 'ridge/island eat') 'to hunt over an island'.

Amharic has many conventional extensions of 'eat' with this kind of meaning, as illustrated in (22). With some of these extensions, as in (22a) and (22b), there is also an element of enjoyment or savouring of the event and so these expressions could also be categorized in the "emotional satisfaction" category discussed above.

- (22) a. *bell-ahu-t*
eat.PERF-1SG.M.SBJ-3SG.M.OBJ
'I defeated him.'
(Amharic)
- b. *bell-ahu*
eat.PERF-1SG.M.SBJ
'I won.'
(Amharic)
- c. *isat bell-a-at*
fire eat.PERF-3SG.M.SBJ-3SG.F.OBJ
'The fire burnt her.'
(Amharic)

In Enga and some other Papuan languages, 'eat' is used as the necessary classificatory verb in combination with various verbs, in particular with the verb 'steal'. In this construction it is used as an alternative to *nyi* 'take', as illustrated in (23) (Lang:1975:188). I take this to be an extension of 'eat' based on the idea of elimination of the object (from the possession of its rightful owner) and of taking something into the possession of the thief. It thus builds upon both perspectives of the (ingesting) eater and the (destroyed) food roles.

- (23) a. *páke ne-ngé*
steal eat-HAB
'to steal'
(Lang 1975: 103)
- b. *páke nyi-ngi*
steal take-HAB
'to steal'
(Lang 1975: 103)

Hooper (1976) discusses at length a Tahitian phrase '*amu toto* (literally 'eat blood') which refers to incest. *Toto* 'blood' is symbolic for kinship and one's kin is made up of those who, in some sense, share *toto*. The verb '*amu* 'eat' is extended here to refer to a negative, morally apprehensible way of interacting with kin. Hooper (1976: 241) understands the use of 'eat' in this phrase to refer to how incest (at least among the comparatively poor rural Tahitians) uses up the resources of kin, for whom marriage outside of one's kin group is held to be more advantageous in terms of rights and economic benefits than marriage within the group. The extension is therefore similar to the 'waste money, embezzle money' phrases discussed above.

7.2 Psychological torment

Psychological torment, distress, stress etc. may also be conceptualized in terms of eating, again reflecting the destructive effect that eating has on food consumed. The examples in (24) illustrate this extension. The idea of torment, stress etc. is

typically a continuous process or state, rather than instantaneous, and the continuous effect is achieved by the use of lexical items, verb particles, modifiers etc. Thus, the use of *away at...* in *eat away at*, as in (24a), adds the sense of a continuous, progressive aspect; in (26b), the modifying phrase *like a persistent toothache* etc. explicitly makes the process a long, continuous one.

- (24) a. *I've seen love do that to a woman, eat away at the heart of her until she's no more than skin and bone.* (De Ferrari 1990: 157)
 b. *The pain of it ate into her like a persistent toothache that no dentist could cure.* (Cherkawska 1990: 8)

Examples from Amharic in

- (25) a. *ball-a-ññ*
 eat.PST.PERF-3SG.M.SBJ-1SG.OBJ
 'He made me sick./I worry about him.' (Amharic)
 b. *saw-yaw anjät-e-n ball-a-ññ*
 man-that.DEF intestine-my-ACC eat.PERF-3SG.M.SBJ-1SG.OBJ
 'I feel sorry for that man.' (Amharic)

8. Extensions based on sensation and destruction

8.1 Eat one's words

Sometimes, we find metaphorical uses of eating/drinking verbs which build upon both agent-oriented and patient-oriented aspects of eating/drinking. To illustrate this, consider the idiomatic expressions *to eat one's words* 'to retract what one has said' and *to eat one's heart out* 'to suffer a particular kind of emotional pain as when one is denied a pleasure and must witness someone else enjoying that kind of pleasure'.

To eat one's words clearly involves the "destruction" sense discussed above in Section 7, building upon the effect of eating on the thematic patient. It is not that any concrete object is literally destroyed, of course, but rather it is the claims, allegations etc. which have previously been made which are cancelled out. *Words* in this expression is metonymic for the larger linguistic entities which are being withdrawn. At the same time, there is the image of an eater having to eat what has previously come out his/her mouth. The act of withdrawing one's claims is thus conceptualized through an unpleasant image of an eater eating something vile, akin to eating one's vomit. Clearly, from the agent's perspective, something very unpleasant is being experienced. Thus the one expression combines the sense of destruction of the thing affected and the sense of a person having to consume

something unpalatable. The full effect of the expression is achieved through the combination of both these aspects.

We see a similar intermingling of semantic effects in *to eat one's heart out*. Semantically, this is a very complex expression in the way the parts contribute to the overall meaning. For the present purposes, it is enough just to note how both agent-oriented and patient-oriented extensions of 'eat' are present. The agent orientation in the metaphorical extension of 'eat' relates to how the person suffers through having to eat something unpleasant. The patient orientation relates to the image of the destruction of the heart, which is here metonymic for one's feelings, passion etc. Again, the overall meaning builds upon the effect on the agent eating something unpleasant and the effect of the locus of emotions being destroyed. *Eat your bum* might be analyzed in a similar way.

8.2 Sexual intercourse

Eating can be a source concept for sexual intercourse, as in Hausa (*ci* 'eat; have sexual intercourse') and Zulu (*dlia* 'eat; have sexual intercourse'). In Ruma, for example, *nana* 'consume, eat, drink' is used with *tu* 'guts' to form *tu nana* 'to have sexual intercourse'. Also, we have already encountered sexual connotations in the use of English 'eat', repeated below:

- (26) *He gave me a look – all the men did, but this was different – a look like he wanted to eat me up. A hungry look.* (De Ferrari 1990: 222, talking about a man who had fallen in love with the woman)

A question arises as to which components of the act of eating are relevant to this extension. Sexual intercourse is a pleasurable experience in its prototypical form and hence we may analyze this extension as another example of the 'pleasurable experience' category of extensions. At the same time, there is a physical interaction with typical holding, clasping, penetration etc. These aspects relate more to the idea of the eater having a strong effect, physically, on the food being eaten. This component in the experiential reality of eating is, as we have seen above, a rich source of 'eat' extensions across languages, ranging from more aggressive meanings like 'conquer, destroy' to more subtle meanings like 'have an effect upon'. Sexual intercourse is sometimes metaphorized in images relating to strong physical effects (e.g. *screw, poke*) and the chewing and digestion of food could be seen as another such image.

Yir-Yoront is instructive here. Alpher (1991: 421–422) lists the meanings of Yir-Yoront *pay* in the following order: (1) bite; (2) eat; (3) drink, suckle; (4) bite (figuratively), pinch (5) sting (of stinging insects); (6) copulate with. Note that *pay* means 'bite' alongside 'eat', and other meanings such as 'pinch' and 'sting' relate to the destructive element in biting and eating rather than the sensual satisfaction associated with

eating. The Yir-Yoront pattern of polysemy with *pay* gives credence to the destructive element of eating as being a potentially relevant basis for the extension of 'eat' to 'copulate with'.

Note also that it is Hausa *ci* 'eat' which extends to 'have sexual intercourse with, not *shaa* 'drink' (according to Abraham 1962). This is significant because it points to some component of eating which is relevant to this extension, as opposed to some component of drinking. As noted earlier, a major point of difference between eating and drinking is that in the former there is a clear element of destruction (of the food) which is lacking in the latter. Hausa *shaa* is a productive source of extensions and in a number of cases either *ci* or *shaa* is possible, e.g., *yaa ci/shaa daukàa* 'he was severely beaten'. The fact that *ci*, but not *shaa* extends to 'have sexual intercourse with' suggests that the it is primarily the idea of impact on the patient, that is the object affectedness, that is the motivation for this extension. As in the previous section, so here, we should accept a multiplicity of motivations relevant to this extension of 'eat'.

9. 'Eat' and 'drink' as salient human concepts

The cross-linguistic overview of properties of 'eat' and 'drink' has focused on properties shared among languages and fails to give a picture of how an 'eat' or 'drink' verb is used in any one language. A number of chapters in this volume provide profiles of this kind. It is evident that either or both of these verbs can play a very extensive role in the formation of figurative and idiomatic expressions in some languages. I have referred to Akan *di* 'eat' in Section 3 already and how Christaller (1933 [1881]) recognized 26 major semantic categories for its uses and a total of 110 subcategories. Even for English *eat*, the online Oxford English Dictionary (2nd ed., 1989, with March 2007 Draft Additions) recognizes 19 major semantic categories and a total of 58 subcategories, albeit including some now archaic usages. Of course, lexicographers appeal to different criteria for sub-categorizing usage and one cannot make too much of actual numbers of senses or uses. Nevertheless, these numbers for 'eat' and 'drink' give some sense of how productive these verbs are in terms of their figurative usage. It is not uncommon to find similarly extensive entries for 'eat' and 'drink' in dictionaries of the world's languages. This is by no means unusual for such "basic" verbs since it is the basic verbs which present themselves as natural sources for figurative, metaphorical extensions.

As a specific example of one language in which these verbs play a prominent role in figurative usage, we may consider Hausa. In Hausa, the verbs *ci* 'eat' and *shaa* 'drink' appear to be particularly productive in figurative usage. For *ci* 'eat' alone, one Hausa dictionary (Abraham 1962: 136–138) identifies more than 20

distinct sub-meanings/uses and some of these sub-meanings in turn have further extensive sub-categorizations. So, for example, sub-meaning 26 in Abraham's dictionary consists of "proverbs", subcategorized into (a)–(z), with the (z) category alone subcategorized into 22 further sub-categories! While one might question the basis for some of Abraham's semantic distinctions (see the discussions about the differentiations of senses in the Hausa verb in Gouffé 1966; Monsen 1972; and Williams 1991) and not all of the metaphorical uses he cites are acceptable today (cf. Jaggar & Buba, this volume), one must in any case acknowledge that *ci* has an extremely wide range of meanings. I have repeated some of Jaggar and Buba's examples below, with my own semantic labels attached, to give a sense of how widespread the use of *ci* 'eat' is in Hausa.

(27) DYNAMIC PROCESS

a. *kàasuwàa tana* *cí*
market 3F.SG.IMPERF eating
'The market is in full swing' (lit. '... is eating')

b. *firi* *tana* *cí*
lamp 3F.SG.IMPERF eating
'The lamp is burning (eating).'

(28) DESTROY, CONSUME

a. *wútaa* *taa* *cínyee* *gidaa*
fire 3F.SG.PERF eat up house
'The fire destroyed the house.'

b. *wamán* *shirín* *zái* *ci* *kudú* *dá* *yawáa*
this plan.the FUT.3M.SG eat money with much
'This plan will eat up/consume lots of money.'

(29) INUNDATE

ruwaa *sun* *ci* *gàrri*
water 3PL.PERF eat town
'Water has flooded the town.'

(30) CONQUER

mu *cí* *sá*
1PL.PERF eat 3PL
'We really beat (ate) them.'

(31) BODILY HARM

a. *ciwò* *yana* *cínaa*
illness 3M.SG.IMPERF eating.of.1SG
'The illness is eating (at) me.'

I have attempted to sum up its [the Akan 'eat' verb's] uses under the general word for 'eat', but with other objects it refers among other things to using up or wasting money, taking a day off; having sexual relations with someone, accepting a bribe, inheriting goods, winning a victory, defeating an opponent, playing a game, holding an office, enduring suffering, making a bargain, living in some specified way, and so on at considerable length. *A language has not been well studied until the nature of such semantic ranges, if not an exhaustive list of all recordable collocations, has been noted.* [Welmers 1973: 477, my italics]

10. Conclusion

In this overview, I have tried to give some sense of how richly rewarding the linguistic study of the concepts of 'eat' and 'drink' can be. These concepts have not received a great deal of attention in the linguistics literature to date. Partly, this situation is a result of the relative neglect of the lexicon as a focus of interest in mainstream linguistics (though not in the sub-field of cognitive linguistics), in favour of syntax. There are important syntactic or morphosyntactic properties associated with 'eat' and 'drink' verbs in languages, particularly the unusual behaviour of 'eat' and 'drink' verbs in terms of their transitivity (cf. Amberber 2002 and Næss, this volume). But this behavior is relatively subtle and, I fear, has not come to the attention of many syntacticians. Furthermore, the lexical items corresponding to 'eat' and 'drink' are not particularly prone to grammaticalization in the world's languages, despite occasional instances where one could make claims for such (see above). Consequently, one does not usually have to deal with morphemes deriving from 'eat' and 'drink' in more syntactically oriented studies, unlike, say, 'give', 'take', 'sit', 'stand', and 'lie', all of which can play an important role in morphosyntax through their grammaticalized functions. A further consideration relevant to understanding the lack of attention given to concepts like 'eat' and 'drink', and one related to the neglect of the lexicon, is the marginal place of more figurative language, e.g., metaphorical usage, idioms, poetic language, in mainstream linguistics. Indeed, for many linguistics, such language is virtually outside of the field of linguistic study. It is only when one adopts a more inclusive view about the object of linguistic study that many of the observations reported on here come to the fore.

'Eat' and 'drink', though such commonplace concepts, are not monolithic concepts; rather, they are peculiarly complex in their multi-facetedness. Each of these concepts is comprised of components which can motivate aspects of their linguistic behavior, whether it be morphosyntactic or semantic behaviour. The biting and chewing activity associated with eating, for example, motivates the common transitivity of 'eat' verbs as well as the common semantic extension of 'eat' to

- b. *kòogii yaa cii sùt*
river 3M.SG.PERF eat 3MSG
'He drowned.' (lit. 'The river ate him!')

(32) EMOTIONAL HARM

- zàh cì kwàláfà*
FUT.1SG eat collar.of.2M.SG
'You'll regret it.' (lit. 'I'll eat (i.e., grab) your collar!')

(33) CONVINCING

- a. *mùn cìwoo kànsù*
1PL.PERF eat head.of.3PL
'We won them over.' (lit. 'We ate their head!')

(34) (POSITIVE OR NEGATIVE) EXPERIENCE

- a. *yaa cì dũũnyàa*
3SG.M.PERF eat world
'He'd seen it all and done it all.' (lit. 'He has eaten the world!')
- b. *naa cì wiyàa/wàhàlàa*
1SG.PERF eat trouble/difficulty
'I suffered trouble/difficulty.'

(35) SEXUAL INTERCOURSE

- Mùusaa yaa cì yaarinyàf*
Musa 3SG.M.PERF eat girl.the
'Musa had sex with the girl.'

(36) ABSORB

- zanèe yaa cì baabaa*
cloth 3SG.M.PERF eat indigo dye
'The cloth has taken (eaten) the indigo dye/is well dyed.'

Regardless of just how a linguist or lexicographer might decide to sub-group these meanings into more inclusive categories, or derive them from one or more central semantic prototypes, the productivity of *ci* 'eat' deserves recognition. Productivity, of course, is relative and one would need to investigate the extent of figurative usage of many verbs in Hausa to establish that *ci* is truly more productive than other verbs, or most other verbs, in this respect. Nevertheless, the facts for *ci* and *shaa* as given in dictionaries of Hausa, and the fact that both Hausa *ci* and *shaa* have been chosen as the basis for more theoretical studies of polysemy are strongly suggestive of these verbs showing unusually rich polysemy. It is this kind of productivity in another African language, Akan, which presumably led Welmers to conclude:

meanings like 'destroy' and 'conquer'. The sensation of taste, typically an enjoyable experience, on the part of the consumer as part of the act of eating motivates some atypical behaviours of 'eat' verbs in terms of the morphosyntax one might be led to expect with transitive verbs, most of which do not involve agents in this way. This same aspect of eating, i.e., the sensory affectedness of the consumer, motivates semantic extensions of 'eat' to meanings like 'experience', 'enjoy', and 'suffer'. Similar observations could be made about 'drink'. In other words, I maintain that the raw, experiential reality associated with the acts of eating and drinking has a role to play in helping linguists to better understand why it is that 'eat' and 'drink' verbs behave the way they do across languages. Not all of the cross-linguistic linguistic facts relating to these concepts can be reduced to the experiential realities, of course, but a number of facts can be so motivated. Even for Hausa where we have a superficially bewildering array of uses of 'eat' and 'drink', it is possible to motivate many of the relevant facts. Jaggar & Buba (this volume) sum up their own findings about the figurative extensions with the observation: "In prototypical cases we have demonstrated that the meaning transfers are directly and naturally grounded in physiological realities." In other words, the linguistic study of 'eat' and 'drink' concepts across languages is best served by an approach which allows for experiential, extra-linguistic realities to motivate aspects of linguistic behavior.

Abbreviations

ACC = accusative; ART = article; CAUS = causative; DEF = definite; EXCL = exclusive;
 F = feminine; FUT = future; GEN = genitive; HAB = habitual; IMPERF = imperfective;
 IND = indicative; IO = indirect object; INTR = intransitive; LINK = linker;
 M = masculine; NEG = negative; NOM = nominative; OBJ = object; PASS = passive;
 PERF = perfective; PL = plural; PRBS = present; SBJ = subject; TOP = topic;
 TR = transitive; VBNOUN = verbal noun.

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How transitive are EAT and DRINK verbs?

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This paper examines the transitivity properties of EAT and DRINK verbs crosslinguistically, and shows that they tend not to pattern with prototypical transitive verbs, but show various properties characteristic of intransitives. This is explained in terms of the transitivity model developed in Næss (2007), where a prototypical transitive clause is defined as a clause showing maximal semantic distinction between the agent and patient in terms of their role in the event. A core semantic characteristic of EAT and DRINK verbs is having an affected agent: eating and drinking are acts performed by an agent in order to achieve an effect on himself. Since affected agents are not maximally semantically distinct from patients, EAT and DRINK verbs are not prototypically transitive.

1. Introduction

Verbs meaning 'eat' and 'drink' are often taken to be among the most prototypical transitive verbs in a language; for example, Andrews (1985: 68) cites *eat* along with *kill* and *smash* as an example of a "primary transitive verb". This is obviously because EAT and DRINK verbs conform to the generally accepted understanding of what constitutes a transitive verb, namely a verb taking a volitional Agent and an affected Patient argument; it is almost impossible to construe the acts of eating and drinking as being performed involuntarily, and things eaten or drunk are affected to a very high degree.

Nevertheless, crosslinguistic data shows that EAT and DRINK verbs in fact show a variety of properties characteristic of intransitive verbs in a wide range of languages. This tendency for EAT and DRINK verbs to deviate from the transitive prototype suggests not only that such verbs have been too little studied, but also that the rough definition of a prototypical transitive verb given above is not entirely accurate. This paper will propose that the property which makes EAT and DRINK verbs less than prototypical transitive verbs is the fact of their having an affected agent participant. I will propose that it is a crucial property of a fully transitive construction that its participants be **maximally semantically distinct** in terms of the roles they play in the event (Næss 2007); an affected agent is not maximally

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.

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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,

Arnauld, 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.uned.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 at the meanings of lexical units (not at the level of lexemes) – Exponents of primes may be words, bound morphemes, or phrases – They can be formally complex – They can have different morphosyntactic properties, including word-class, in different languages – They can have combinatorial variants (allotones) – 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 *ʔb-*, 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. *ñibin* *agen*, *yuurť* *gs-ap*. When I try to eat it hurts. (lit. When I say 'I'll eat!' pain keeps happening.) *ñg pagen*, *apek ñibin*. When I suck the liquid it comes up (through the straw) and I drink it. *Tap etp ñbsay?* 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 ñbsay?* "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 *ñib-*, 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 *ñib-*, for example, as in "drown in the ocean, lit. consume sea-water". But why can't we say that in its primary meaning *ñib-* means the same as *consume* (in its literal sense, that is, "consume by mouth")?

The intuition behind glossing *ñib-* 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 *ñib* 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, *ñib* 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 *ñib* as 'eat/drink' than as 'consume'. But clearly, this cannot be the end of the story. From a Kalam perspective, 'ñib' is a unitary conceptual category, not a disjunctive 'eat or drink'. To capture this unitary meaning of *ñib* 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 *ñib* 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 *ñib* 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 *ñib* ('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 motivational scenario": 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*, *botle*, *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 statable 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)

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 *ġb* 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 *ġb*.

As for the explication of *drink*, it is much closer to that of *ġb*, but unlike the explication of *ġb*, 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 *ġb*- through the prism of the English concepts 'eat' and 'drink'. Eating and drinking are universal human activities, but so is *ġb*-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 *ġb*-, 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 (*mivaku*) 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:

<i>Maliki-ri</i>	<i>ka-Ø</i>	<i>kuyu</i>	<i>nga-rni</i>	<i>yarnunjuku-rlu.</i>
dog-BRG	PRES-3SG.SUBJ	meat	"eat/drink"-NPST	hungry-BRG
'The hungry dog is eating the meat.'				
<i>Ngapa-ju</i>	<i>yu-ngka</i>	<i>yi-rna</i>	<i>purra-rlu</i>	<i>nga-rni.</i>
water-1SG.OBJ	give-IMP	result-1SG.SUBJ	thirsty-BRG	"eat/drink"-NPST
'Give me some water to drink as I am thirsty.'				
<i>Ngapa-rlangu</i>	<i>miyi-rlangu</i>	<i>kuyu-rlangu</i>	<i>ka-Ø</i>	<i>nga-rni.</i>
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 *yilipi-wirri-rni*, glossed as 'drink, drink up, slurp up, lap up, sip, suck up', and defined as follows: "xBRG 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 Wangaya/buwan 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:

Yilipi-wirri-rni is what they do to kangaroo blood. Yirrimiji is what we call the blood of kangaroos. The word *yilipi-wirri-rni* 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 ngajuluru yilipi-wirri-rni yirrimiji.

'I drink up the blood of the kangaroo.'

Yilipi-wirri-rni 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 *yilipi-wirri-rni* 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 *yilipi-wirri-rni* 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 *yilipi-wirri-rni* ('to slurp, like kangaroo blood')

Someone (X) was *yilipi-wirri-rni*-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

when someone does something like this to something

the same thing happens many times

MANNER

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-wirrpirri* 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*, Pijantjatjara/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 view⁶ 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: xεrg (=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 ngajulurulu.

'Hurrah! Let me eat some honey. I'll eat some.'

kuunykuuny-nga-rni. English: suck (out/up), draw out/up (with lips), suck on.

Definition: xεrg (=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 kunykuuny-ngarni yangka maru pama.
 'We pick it, the parawuju flower and we suck out that black nectar.'

Piriwarla karnalu pamalku ngarni, kunykuuny-ngarni. Pamanya karnalu yurrukulju kunykuuny-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 *suck₁*) 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*₁) 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):

<i>Piriwa-rla</i>	<i>ka-rnalu</i>	<i>pama-ku</i>	<i>nga-rni,</i>
corkwood-LOC	PRAS-1PL.EXCL.SUBJ	delicacy-then	"eat/drink"-NPST
<i>kurykury-nga-rni</i>			
"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-ngarni*, 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 *lyantyweme* (from *lye* 'juice, sap, nectar' and *antyeme* '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 through 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.

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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; PRES = present verb inflection; SG = singular; SUBJ = subject.

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