

Lexical-Semantic Categorisation of ‘Vegetable’ in English and Igbo: Hyponymy, Cultural Taxonomy and Lexicalisation

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Abstract

This study examines the lexical-semantic categorisation of *vegetable* in English and Igbo, with particular attention to hyponymy, co-hyponymy and culturally conditioned category boundaries. Although the referents discussed are generally familiar across the two speech communities, the lexical organisation of these referents does not correspond neatly across the two languages. The study adopts a qualitative contrastive design within structural lexical semantics, supplemented by insights from culturally situated theories of categorisation. Primary data were obtained through interviews with 26 Igbo speakers comprising 10 foodstuff and vegetable sellers in Abakaliki and Enugu, 12 older speakers from Ishiagu, Ebonyi State, and four Igbo scholars. Secondary materials were used to establish English category labels and to cross-check selected ethnobotanical identifications. The analysis shows that English conventionalises several intermediate categories within the culinary domain of *vegetable*, including *leafy vegetables*, *root vegetables*, *cruciferous vegetables* and *alliums*. Mushrooms also participate in the broader English culinary classification of vegetables, although they are biologically fungi and therefore represent a functional rather than strictly botanical inclusion. In the Igbo data, by contrast, the category most closely corresponding to everyday *vegetable* is strongly centred on *ákúkwó nri* ‘edible leaf/leaves used as food’. Items categorised as root vegetables, alliums or mushrooms in English are frequently assigned to different culturally salient classes in Igbo, including tubers, spices/seasonings and *éró* ‘mushrooms/fungi’. The findings demonstrate that cross-linguistic differences in food vocabulary arise not merely from lexical gaps but from differences in categorisation, culinary practice and lexicalisation. Contact-induced borrowing further expands the Igbo food lexicon without necessarily reproducing the English category structure.

Keywords: lexical semantics, hyponymy, vegetable terminology, Igbo, cultural categorisation, food lexicon, lexicalisation

1.0 Introduction

Human languages do not simply provide different labels for an otherwise identical division of reality. They also reflect, to varying degrees, how speech communities identify, organise and conventionally talk about objects, activities and experiences. Lexical semantics is concerned with such relationships within the vocabulary of a language, including synonymy, antonymy, meronymy, polysemy and hyponymy. Of particular importance to the present study is hyponymy, the hierarchical sense relation in which the meaning of a more specific lexical item is included within that of a more general item.

Thus, in ordinary English, *carrot* may be classified as a kind of *vegetable*, while *vegetable* functions as a superordinate term in relation to *carrot*. More narrowly, *carrot* may be treated as a *root vegetable*, producing a hierarchy such as:

vegetable → root vegetable → carrot

The relation is asymmetrical. If something is a carrot, it can normally be described as a vegetable within the relevant culinary classification, but something described as a vegetable is not necessarily a carrot. Lyons (1977) treats such hierarchical relationships as an important dimension of lexical organisation. Similarly, Cruse (1986) explains hyponymy as a relation of semantic inclusion that frequently structures lexical fields into progressively more specific categories.

The apparent simplicity of such examples, however, becomes problematic in cross-linguistic comparison. Categories that appear self-evident in one language may not have exactly corresponding lexical boundaries in another. Wierzbicka (1984), for example, demonstrates that everyday classificatory vocabulary cannot always be reduced to rigid scientific taxonomies. Some superordinate terms group referents according to function, cultural practice or human interaction rather than solely according to biological relationships. This observation is especially relevant to food vocabulary.

The word *vegetable* provides an instructive example. It is not, in ordinary usage, a botanical taxon comparable to a botanical family, genus or species. Rather, it is substantially a culinary and cultural category. Different plant parts – including leaves, stems, roots, bulbs, tubers, flowers and fruits – may be called vegetables depending on how they are prepared and consumed. Mushrooms may also be grouped with vegetables in culinary discourse even though mushrooms are fungi rather than plants. Consequently, a semantic analysis of *vegetable* must distinguish scientific classification from folk and culinary categorisation.

Recent cross-cultural research supports this approach. Mazzuca and Majid (2023) show that semantic representations of food can differ across cultural communities because food concepts are shaped partly by habitual experience, preparation practices and culturally salient groupings. Food terminology therefore provides particularly productive evidence for studying the interaction between lexical structure and culture.

The present study compares the lexical-semantic organisation of selected vegetable terms in English and Igbo. Its central argument is not that one language possesses “more vegetables” or a richer vocabulary in an absolute sense. Rather, it examines how referents that participate in the English lexical field of *vegetable* are categorised and lexicalised in Igbo.

The initial data reveal a striking contrast. English conventionally recognises intermediate categories such as *leafy vegetable*, *root vegetable*, *cruciferous vegetable* and *allium*. In the elicited Igbo data, however, the closest everyday category corresponding to *vegetable* is strongly associated with *ákwúkwọ nri*, literally ‘leaf/leaves for food’. Many English “root vegetables” are treated instead as tubers, roots or spices in Igbo culinary knowledge. Alliums are predominantly understood as seasonings, while mushrooms constitute a separate class, *éró*. These differences make the vegetable domain useful for examining the relationship among hyponymy, lexicalisation and cultural categorisation.

1.1 Objectives of the Study

The study seeks to:

1. identify the principal intermediate categories occurring within the selected English lexical field of *vegetable*;
2. document the Igbo lexical forms corresponding to selected members of those English categories;
3. determine how the same referents are categorised within the elicited Igbo food lexicon;
4. examine the extent to which hyponymic relations correspond or differ across English and Igbo; and
5. account for the roles of culinary culture, borrowing and lexical adaptation in the observed differences.

1.2 Research Questions

The study addresses the following questions:

1. What hyponymic and co-hyponymic relationships characterise the selected English vegetable terms?
2. How are corresponding referents named and categorised in Igbo?
3. Where do the category boundaries of English and Igbo converge or diverge?
4. What role does language contact play in the lexicalisation of non-indigenous food items in Igbo?

2.0 Literature Review

2.1 Lexical Semantics and Sense Relations

Lexical semantics examines the meanings of lexical items and the systematic relationships that hold among them. One of the central insights of structural approaches to meaning is that lexical items acquire part of their semantic value through their relationships with other lexical items within the linguistic system. Saussure's relational conception of linguistic value provided an important foundation for structuralist approaches to language (Saussure, 1983 [1916]). Later work in lexical semantics developed more explicit accounts of lexical fields, semantic relations and hierarchical organisation.

According to Lyons (1977), vocabulary can be structured through different sense relations, including synonymy, opposition and hyponymy. Such relations provide evidence that lexical meaning is not simply a collection of independent dictionary definitions. A lexical item occupies a position in relation to other members of the lexical field.

Geeraerts (2010) similarly observes that theories of lexical semantics have consistently been concerned with the ways in which conceptual categories become linguistically organised. While later approaches differ from classical structural semantics in significant respects, the principle that lexical meanings should be investigated relationally remains fundamental.

The present study therefore treats English and Igbo vegetable terms not as isolated names but as components of larger lexical-semantic systems.

2.2 Hyponymy, Superordination and Co-hyponymy

Hyponymy is a hierarchical relationship of semantic inclusion. Cruse (1986) illustrates the general principle through lexical structures in which a more specific term is included within a more general term. Thus, *rose* is conventionally a hyponym of *flower*, while *flower* functions as its superordinate

or hypernym. Other flowers occurring at approximately the same hierarchical level as *rose* are its co-hyponyms.

The same reasoning can be applied to a food taxonomy:

Vegetable → **root vegetable** → $\left\{ \begin{array}{l} \text{carrot} \\ \text{beet} \\ \text{turnip} \end{array} \right\}$

Here, *root vegetable* is a hyponym of *vegetable* while simultaneously functioning as a superordinate of *carrot*, *beet* and *turnip*. The three latter terms are co-hyponyms relative to the immediate superordinate *root vegetable*.

Hyponymy is generally tested through asymmetric entailment. For instance:

This is a carrot → This is a vegetable.

The reverse entailment does not hold:

This is a vegetable $\nrightarrow$ This is a carrot.

Lyons (1977) stresses the relevance of such hierarchical lexical organisation, while Cruse (1986) provides an extensive treatment of hierarchical relations in lexical semantics.

Not every category, however, produces a perfectly branching taxonomy. A lexical item may participate in more than one classification depending on the classificatory principle involved. *Radish*, for example, can be grouped with root vegetables because the root is eaten, but it is also a member of the Brassicaceae and therefore participates in a cruciferous grouping. *Onion* may be grouped with alliums but may also occur in broad culinary lists of underground vegetables. Such cases create cross-classification or polyhierarchy.

This observation is important because the original dataset contains several such overlaps. They should not be treated as analytical errors; rather, they reveal that everyday food classifications operate with several criteria simultaneously.

2.3 Categorisation, Culture and the Food Lexicon

Strict hyponymic taxonomy cannot account for every form of everyday categorisation. Wierzbicka (1984) argues that some apparent supercategories do not simply mean “a kind of X” in the taxonomic sense. Human categories may be organised around use, function, appearance or culturally established practice.

Food vocabulary is particularly sensitive to such influences. What counts as a vegetable is partly determined by culinary convention. A plant can belong to one scientific category while its edible part belongs to a different culinary category. A tomato, for example, may be botanically a fruit while functioning as a vegetable in many culinary contexts. Mushrooms provide an even clearer case because they are fungi biologically but are regularly handled alongside vegetables in culinary classification.

Berlin's (1992) work on ethnobiological classification demonstrates that communities develop systematic folk classifications of plants and animals. Such systems need not coincide exactly with scientific taxonomy to be internally coherent. They represent culturally meaningful ways of organising biological and environmental knowledge.

Cross-cultural semantic evidence similarly indicates that food categories are partly experience-dependent. Mazzuca and Majid (2023) found differences between Italian and English-speaking participants in the semantic representation of food categories. Their findings reinforce the proposition that even apparently familiar categories such as fruits and vegetables may be structured partly by cultural experience.

The implication for the present study is fundamental: differences between English and Igbo should not automatically be labelled lexical deficiencies. A referent may be well known and precisely named in Igbo while belonging to a different semantic domain from the English category in which it occurs.

2.4 Indigenous Leafy Vegetables and Igbo Food Culture

Ethnobotanical research confirms the prominence and diversity of leafy vegetables in southeastern Nigerian food systems. Ogbu et al. (2011) documented indigenous leafy vegetables across southeastern Nigeria and recorded vernacular names, uses and patterns of cultivation. Their survey demonstrates that the region possesses a substantial repertoire of locally recognised edible leaves belonging to numerous botanical families.

Onyeka and Nwambekwe (2007) similarly investigated green leafy vegetables commonly consumed in southeastern Nigeria, including *ùtázi*, *nchánwú*, *ònúgbù*, *úgú*, *òhà* and *ùkází*. The significance of *Telfairia occidentalis* (*úgú*) within Igbo food culture has also been documented ethnobotanically. Akoroda (1990) describes its longstanding importance as a leafy and seed vegetable in Igbo dietary and agricultural practices.

These studies are relevant because they independently support an important pattern found in the present interviews: lexical differentiation is particularly rich in the domain of edible leaves that are culturally central to Igbo cuisine.

This lexical richness should therefore caution against interpreting the narrower category boundary of *ákwúkwó nri* as evidence that Igbo possesses an impoverished food vocabulary. On the contrary, culturally salient subdomains may be highly elaborated.

2.5 Hyponymy in the Igbo Lexicon

Previous semantic studies also demonstrate that Igbo lexical fields can exhibit elaborate hyponymic structures. Onwukwe (2015), for example, examines verbs of cooking in Igbo and identifies a general cooking term together with more specialised verbs whose selection is partly determined by the type of food or cooking process involved. The study shows that lexical-semantic relations in Igbo can be highly differentiated within culturally important experiential domains.

This finding is significant for the present investigation. If the English category *vegetable* is broader than the closest everyday Igbo equivalent, the difference cannot simply be attributed to an inability of Igbo to construct hierarchical lexical relations. Rather, the two languages have lexicalised the relevant conceptual space differently.

2.6 Mushrooms as a Distinct Ethnobiological Domain

The semantic treatment of mushrooms provides another useful point of comparison. Okhuoya et al. (2010) document numerous Nigerian mushroom species and discuss their use as food and medicinal resources. Biologically, mushrooms are fungi. Within the present Igbo data, *éró* similarly forms a recognisable domain distinct from *ákwúkwó nri*.

Consequently, the inclusion of mushrooms under *vegetables* in some English culinary classifications and their exclusion from *ákwúkwó nri* in Igbo should be understood as a difference in classificatory criteria. English culinary discourse may group mushrooms functionally with vegetables, while Igbo maintains an overt lexical distinction between edible leaves and mushrooms.

2.7 Theoretical Framework

The study adopts a structural lexical-semantic framework, supplemented by insights from cultural and ethnobiological categorisation.

Structural lexical semantics is appropriate because the study is concerned primarily with relations among lexical items—particularly superordination, hyponymy and co-hyponymy. The relational conception of language associated with Saussure (1983 [1916]) provides the broad intellectual foundation, while the more explicit treatments of lexical relations in Lyons (1977) and Cruse (1986) provide the immediate analytical tools.

The analysis nevertheless avoids assuming that every food category constitutes a rigid biological taxonomy. Wierzbicka's (1984) work on human categorisation and Berlin's (1992) work on ethnobiological classification provide the complementary insight that culturally meaningful categories may organise the world differently from scientific classifications. This is especially important for the concept *vegetable*, whose everyday meaning is strongly connected to culinary practice.

Accordingly, three analytical questions guide the study:

1. Lexical inclusion: Does a term occur as a more specific member of a broader lexical category?
2. Cultural classification: Does the speech community conventionally treat the referent as belonging to that food category?
3. Cross-linguistic correspondence: Does the same referent occupy approximately the same position in the English and Igbo lexical systems?

This combined framework allows the analysis to distinguish differences in vocabulary from differences in category structure.

3.0 Methodology

3.1 Research Design

The study employs a qualitative, descriptive and contrastive lexical-semantic design. It compares the categorisation of selected food referents within English and Igbo rather than attempting a quantitative measurement of the entire vegetable lexicon of either language.

The English categories examined are leafy vegetables, root vegetables, cruciferous vegetables, alliums, and mushrooms as a culinary-associated category.

The analysis deliberately distinguishes between culinary classification and botanical classification because the two do not always coincide.

3.2 Sources of Data

The study combines primary and secondary data.

Primary Igbo data were obtained through interviews with 26 speakers. The participants consisted of:

- 10 women engaged in the sale of foodstuffs and vegetables in Abakaliki and Enugu;
- 12 older speakers from Ishiagu in Ebonyi State; and
- four Igbo scholars.

The participant groups were selected because of their expected familiarity with Igbo vocabulary, traditional foods and contemporary market terminology. The sampling is therefore more appropriately described as purposive rather than statistically random.

Secondary sources were consulted for theoretical information, English category labels, ethnobotanical background and the verification of selected plant and mushroom identifications.

3.3 Data Analysis

The lexical items were analysed in four stages.

First, the selected English terms were organised according to their commonly occurring intermediate culinary categories. Second, the corresponding Igbo lexical forms supplied in the interviews were identified. Third, participants' culturally relevant classifications were compared with their English counterparts. Finally, apparent loans and adaptations were examined as evidence of lexical expansion through contact.

The analysis focuses on lexical-semantic relationships rather than nutritional or medicinal properties. Claims concerning therapeutic effects originally associated with some plants are therefore excluded because they are not required to answer the linguistic research questions.

3.4 Scope and Limitations

The study does not claim that the 26 participants represent every Igbo dialect or every Igbo-speaking community. Igbo displays substantial dialectal variation, and food terminology may vary across localities. Forms reported here should consequently be interpreted as part of the elicited dataset rather than as categorical claims that all Igbo speakers use exactly the same terms.

A further limitation is that the English and Igbo data are not perfectly symmetrical. The Igbo forms are substantially interview-based, whereas the English categories are additionally supported by reference and scholarly materials. The study should therefore be understood as a contrastive lexical-semantic investigation rather than a controlled psycholinguistic experiment.

4.0 Data Presentation and Analysis

4.1 The General English Category

The English data produce the following broad structure:

VEGETABLE

- a) Leafy vegetables
- b) Root/underground vegetables
- c) Cruciferous vegetables
- d) Alliums
- e) Mushrooms – culinary association rather than strict botanical membership

The first important observation is that these categories are not mutually exclusive. Classification may be based on the edible plant part, botanical family or culinary function.

Table 1: Selected English Intermediate Categories and Members

Intermediate category	Selected members in the dataset
Leafy vegetables	bitter leaf, <i>ukazi</i> , fluted pumpkin, cocoyam leaves, eggplant leaves, scent leaf, African black pepper leaves, waterleaf, <i>atama</i> , <i>oha</i> , <i>utazi</i> , spinach/amaranth
Root/underground vegetables	potato, carrot, beet, turnip, radish, ginger, turmeric, onion, garlic, fennel, rutabaga
Cruciferous vegetables	broccoli, cauliflower, Brussels sprouts, cabbage, kale, bok choy, arugula, radish, turnip, watercress
Alliums	onion, garlic, leek, shallot, chives, spring onion, elephant garlic, ramps
Mushrooms	reishi, split-gill mushroom, pink cup mushroom, scaly sawgill, king tuber mushroom, paddy straw mushroom, wood ear mushroom, termite mushroom and related edible fungi

The table illustrates polyhierarchy. Onion and garlic occur among alliums and may also appear in broad classifications of underground vegetables. Radish and turnip occur among root vegetables

and cruciferous vegetables. Consequently, the structure cannot be represented as an absolutely exclusive tree.

This is expected in culinary semantics because different principles of classification intersect.

4.2 *Ákwúkwó Nri* and the Igbo Vegetable Domain

The strongest category identified in the Igbo interviews is *ákwúkwó nri*, literally interpretable as ‘leaf/leaves for food’. It encompasses numerous edible leaves traditionally associated with soup and related dishes.

Table 2: Major Leaf-Based Items in the Elicited Igbo Data

English/common description	Igbo term	Botanical identification where established
Bitter leaf	ònúgbù	<i>Vernonia amygdalina</i>
Ukazi	ùkází	<i>Gnetum africanum</i>
Fluted pumpkin	úgú	<i>Telfairia occidentalis</i>
Cocoyam leaves	ákwúkwó édè	<i>Colocasia esculenta</i>
Eggplant/garden-egg leaves	ákwúkwó ànàrà	<i>Solanum macrocarpon</i>
Scent leaf	nchánwú/àhújì	<i>Ocimum gratissimum</i>
African lettuce	ìbèrè	<i>Launaea taraxacifolia</i>
African black pepper leaves	úzízà	<i>Piper guineense</i>
Waterleaf	respondent-reported local forms	<i>Talinum triangulare</i>
Atama	àtámà	<i>Heinsia crinite</i>
Oha	òhà	<i>Pterocarpus mildbraedii</i>
Utazi	ùtází	<i>Gongronema latifolium</i>
Green/amaranth-type vegetable	ìnìnè	<i>Amaranthus</i> spp.

The distribution corresponds substantially with ethnobotanical research from southeastern Nigeria. Ogbu et al. (2011) document a wide range of indigenous leafy vegetables and their vernacular names, while Onyeka and Nwambekwe (2007) discuss commonly consumed leaves including *ùtázi*, *nchánwú*, *ònúgbù*, *úgú*, *òhà* and *ùkází*.

Akoroda (1990) further demonstrates the special importance of *úgú* (*Telfairia occidentalis*) within Igbo food culture. Such evidence supports the interpretation that the edible-leaf domain is both culturally salient and lexically elaborated.

It is therefore more accurate to say that the everyday Igbo category corresponding most closely to the prototypical meaning of vegetable is strongly leaf-centred than to claim simply that “Igbo has only one hyponym for vegetable.”

The latter formulation confuses hierarchical levels. *Ákwúkwó nri* itself behaves as a superordinate relative to numerous specific edible-leaf terms such as *ònúgbù*, *úgú*, *òhà* and *ùtázi*.

Thus:

ákwúkwó nri → $\left\{ \begin{array}{l} \text{ònúgbù} \\ \text{úgú} \\ \text{ùkází} \\ \text{òhà} \\ \text{ùtázi} \\ \text{nchánwú} \\ \text{etc.} \end{array} \right\}$

These specific terms are therefore co-hyponyms within the relevant Igbo lexical field.

One item in the original dataset, *éwà*, was matched with “huckleberry” and *Vaccinium parvifolium*. That botanical identification is not sufficiently secure for the southeastern Nigerian context and is consequently not used as evidence in the present analysis. The lexical form may be retained for subsequent field verification.

Okra (*ókwùrù*) also requires separate treatment. Although included with leafy vegetables in the original dataset, the commonly eaten portion of okra is its pod rather than its leaf. Its presence in the larger food domain is significant, but it should not be classified botanically as a leafy vegetable. This case further demonstrates the difference between culinary function and plant-part classification.

4.3 English Root Vegetables and Their Igbo Categorisation

The contrast becomes clearer when English root and underground-vegetable terminology is considered.

Table 3: Root/Underground Vegetable Terms and Igbo Categorisation

English term	Igbo form in the dataset	Predominant status in the elicited Igbo food classification
Potato	<i>jí ókú / jí ñwánkálù</i>	tuber/yam-related food
Onion	<i>Àlibàsà</i>	seasoning/spice
Ginger	<i>Jínjà</i>	spice/seasoning
Turnip	<i>Tùnútúpù</i>	introduced/foreign food item
Beet	<i>bíitù / édè íhíe</i>	introduced root item
Garlic	<i>Gálíkì</i>	spice/seasoning
Radish	<i>ràdàsì / ósè òbàrà</i>	introduced root/seasoning item
Fennel	<i>fènùl</i> and reported descriptive forms	herb/seasoning
Carrot	<i>Kárót</i>	introduced food item
Turmeric	<i>tùmeríkì</i> ; also dialectal/local forms reported	Spice
Rutabaga	<i>swédè / rútabágà</i>	introduced food item

The most important example is potato. In English culinary classification, potato is routinely grouped with root or underground vegetables. In the Igbo forms *jí ókú* and *jí ñwánkálù*, however, the lexical component *jí* associates potato conceptually with yam/tuber foods.

This difference is not merely terminological. It indicates distinct pathways of categorisation.

The English speaker may organise the item through a hierarchy resembling:

vegetable → root/underground vegetable → potato

The elicited Igbo classification instead places it closer to:

tuber/yam-type food → jí → jí ókú / jí n'wánkálù

The referent is therefore known in both speech communities, but its location within the lexical taxonomy differs.

Ginger, turmeric, onion and garlic provide comparable examples. Although they may occur in broad English vegetable classifications, the elicited Igbo responses associate them primarily with seasoning or spice functions. Their semantic categorisation is therefore strongly influenced by culinary use.

This supports Wierzbicka's (1984) argument that human categorisation cannot always be reduced to a single hierarchy of biological kinds.

4.4 Cruciferous Vegetables

The English category *cruciferous vegetable* combines botanical and culinary knowledge and is associated principally with members of Brassicaceae.

The original dataset contains the following examples:

Table 4: Cruciferous Items and Corresponding Igbo Forms

English term	Igbo/contact form reported
Broccoli	<i>Brókòlì</i>
Cauliflower	<i>kólífláwà</i> and reported variants
Brussels sprouts	<i>óbéré kábéejì</i> / <i>brüssèl</i>
Cabbage	<i>Kábéejì</i>
Kale	<i>Kale</i>
Bok choy	'Chinese <i>kábéejì</i> '
Arugula	<i>Arugula</i>
Radish	<i>ósè òbàrà</i> / <i>ràdàsì</i>
Turnip	<i>Tùnútúpù</i>
Watercress	<i>Wótákrés</i>

Unlike *ònúgbù*, *úgú*, *òhà* and other longstanding southeastern Nigerian leafy vegetables, many of these terms are associated with relatively recent or contact-mediated food practices in the present dataset. Their Igbo names accordingly show different degrees of borrowing, phonological adaptation, direct retention or descriptive naming.

It would nevertheless be inaccurate to conclude that an item is “not a vegetable in Igbo” merely because the English intermediate category *cruciferous vegetable* lacks a widely established Igbo equivalent. A speaker may recognise cabbage, cook it and name it without possessing a lexicalised category equivalent to English *cruciferous vegetable*.

This distinction between referential knowledge and category lexicalisation is central to the study.

Another significant feature is overlap. Radish and turnip occur in both the root and cruciferous sets. The category *root vegetable* classifies them partly according to the consumed plant part, whereas *cruciferous* ultimately reflects botanical affiliation. Everyday English therefore permits the same referent to participate in different lexical hierarchies depending on the classificatory purpose.

4.5 Alliums

The English dataset contains the category *allium vegetables*, represented by onion, garlic, leek, shallot, chives, spring onion, elephant garlic and ramps.

Table 5: Selected Alliums and Igbo Forms in the Dataset

English term	Igbo/contact form
Onion	<i>Àlibàsà</i>
Garlic	<i>Gálikì</i>
Leek	<i>líkì</i> ; also descriptive forms
Shallot	<i>Shálótù</i>
Chives	<i>chives</i> and reported descriptive forms
Spring onion	reported local/contact forms
Elephant garlic	<i>gálikì nnukwu</i>
Ramps/wild leek	<i>Ramps</i>

From a lexical-semantic perspective, what is important is not simply whether Igbo has words for these referents. Several have names. Rather, participants generally associated familiar members

such as onion and garlic with the functional domain of seasoning or spices rather than with the prototype represented by *ákwúkwó nri*.

The category boundary can consequently be represented approximately as follows:

English

VEGETABLE → $\left\{ \begin{array}{l} \text{alliums} \\ \text{onion} \\ \text{garlic} \\ \text{leek} \\ \text{shallot} \end{array} \right\}$

Elicited Igbo food classification

FOOD/COOKING INGREDIENTS $\left\{ \begin{array}{l} \text{seasonings/spices} \\ \text{àlibàsà} \\ \text{gálíkì} \\ \text{other contact-mediated items} \end{array} \right\}$

The crucial contrast is therefore structural rather than referential.

4.6 Mushrooms: *Éró* as a Separate Category

Mushrooms provide perhaps the clearest evidence that the comparison involves cultural classification rather than simple translation.

The Igbo term *éro* functions as a category for mushrooms, under which several more specific names occur in the dataset.

Table 6: Selected Mushroom Terms

English/common name	Igbo name reported
Reishi-type mushroom	<i>éro àlà</i>
Split-gill mushroom	<i>éro nkúmè</i>
Pink cup mushroom	<i>Ányámmírí</i>
Scaly sawgill mushroom	<i>éro jí</i>
King tuber mushroom	<i>éro ísí</i>

English/common name	Igbo name reported
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Paddy straw mushroom	<i>éró óká</i>
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Wood ear mushroom	<i>éró ñtí</i>
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Fan-shaped jelly fungus	<i>éró mmírí mmírí</i>
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Upright coral-type mushroom	<i>éró óbà</i>
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Tiny termite mushroom	<i>éró ùtòrò/èbù</i>
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Golden ear-type mushroom	<i>éró ñtí ólàèdò</i>
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Several mushroom species recorded in Nigeria are established in the literature. Okhuoya et al. (2010), for example, document edible Nigerian mushrooms including *Lentinus squarrosulus*, *Pleurotus tuber-regium*, *Volvariella volvacea* and *Auricularia auricula-judae*.

The linguistic point is that the Igbo lexicon does not require *éró* to be a type of *ákwúkwó nri*. Instead:

Éró	→	$\left\{ \begin{array}{l} \textit{éró ñtí} \\ \textit{éró jí} \\ \textit{éró óká} \\ \textit{éró nkúmè} \\ \textit{etc.} \end{array} \right\}$
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Éró therefore functions as an independent superordinate with its own hyponyms.

This differs from broad English culinary practice in which mushrooms may be grouped with vegetables for purposes of shopping, recipes, nutrition or menu organisation. Scientifically, English *mushroom* is of course not a botanical hyponym of *vegetable*. Its inclusion is a culinary or functional association.

The finding strengthens the argument that lexical-semantic analysis must distinguish scientific taxonomy, folk taxonomy and culinary classification.

4.7 Borrowing and Lexical Adaptation

Language contact is visible throughout the data. Terms such as *gálíkí*, *kárót*, *brókòlì*, *kólífláwà* and *ràdásì* display varying degrees of resemblance to external source forms and are associated with foods introduced or popularised through intercultural contact.

Borrowing in this context performs at least two functions.

First, it supplies a convenient name for a referent that has entered the community's food environment. Second, phonological and orthographic adaptation can gradually integrate the item into the receiving language.

However, borrowing a name does not necessarily entail borrowing the entire source-language taxonomy.

An Igbo speaker may borrow or adapt the lexical form corresponding to *garlic* without automatically adopting the English hierarchy:

vegetable → allium → garlic

The borrowed item may instead enter an existing functional class of spices or seasonings.

This distinction is crucial because lexical borrowing and semantic categorisation operate at different levels.

4.8 Category Overlap and Polyhierarchy

The dataset contains several items that belong to more than one possible class.

For example:

- radish occurs among root vegetables and cruciferous vegetables;
- turnip occurs among root vegetables and cruciferous vegetables;
- onion and garlic occur among alliums and broad underground-vegetable classifications;
- scent leaf and *úzízá* leaves can function simultaneously as leaves and seasonings;
- mushroom may be treated as a vegetable in culinary organisation while remaining a fungus biologically.

Such examples show that natural-language taxonomies are not always simple trees with mutually exclusive branches.

Cruse's (1986) discussion of lexical hierarchies provides a useful starting point, but food terminology also illustrates the need to consider the criterion underlying a particular hierarchy. One classification may focus on plant part; another may focus on botanical affiliation; yet another may depend on culinary function.

The apparent inconsistencies therefore provide valuable semantic evidence.

5.0 Discussion

The findings reveal that the principal difference between English and Igbo in the present domain is not the existence versus absence of names. Rather, the languages differ substantially in how named referents are grouped into culturally conventional categories.

English lexicalises several intermediate categories associated with *vegetable*. Terms such as *root vegetable*, *leafy vegetable*, *cruciferous vegetable* and *allium* allow speakers to create relatively fine-grained subdivisions of the larger culinary domain. The classifications themselves draw on heterogeneous criteria: edible plant part, botanical affinity and culinary convention.

The Igbo data reveal a different pattern. The most salient category corresponding to the everyday prototype of vegetable is *ákwúkwó nri*. This category is strongly associated with edible leaves traditionally used in soups and other dishes. Beneath this superordinate exists a rich inventory of co-hyponyms, including *ònúgbù*, *úgú*, *ùkází*, *òhà*, *ùtází*, *nchánwú* and others.

This finding is consistent with ethnobotanical scholarship. Ogbu et al. (2011) document substantial diversity among indigenous leafy vegetables in southeastern Nigeria. Similarly, Onyeka and Nwambekwe (2007) identify a range of culturally important green leafy vegetables from the region. The specific importance of *úgú* within Igbo food systems is independently established by Akoroda (1990).

The lexical density of the edible-leaf domain can therefore be interpreted in relation to cultural salience. Communities tend to develop distinctions that are useful within recurrent patterns of experience and social practice.

Mazzuca and Majid (2023) provide contemporary experimental support for the broader proposition that cultural experience shapes semantic representations of foods. Their work shows that differences in food practice can correspond to differences in how speakers organise food concepts. The English–Igbo differences identified here are compatible with this perspective.

The findings also reinforce Wierzbicka's (1984) warning against assuming that all everyday supercategories constitute rigid “kind-of” taxonomies. The English word *vegetable* is itself a heterogeneous culinary category. A mushroom is not botanically a kind of vegetable; potato is a stem tuber rather than a botanical root; ginger and turmeric are rhizomes; onions and garlic are bulbs. Yet ordinary culinary classification may group such items under vegetables or vegetable-related subcategories.

It would therefore be inappropriate to use English classification as an objective scientific standard against which Igbo must be measured. What is required is comparison between two lexical-cultural systems.

The Igbo treatment of mushrooms illustrates this particularly well. In the present data, *éró* forms its own category with numerous subordinate terms. Okhuoya et al. (2010) likewise demonstrate the diversity and importance of mushrooms in Nigeria. Rather than representing lexical absence, the independent Igbo category *éró* constitutes a different organisation of the semantic field.

The findings also challenge the assumption that English possesses “more hyponyms of vegetable” simply because it has a larger published literature on food. The present methodology cannot establish such a causal relationship. What the data do establish is that English and Igbo place different boundaries around the relevant categories.

Similarly, the data do not support the suggestion that Igbo lexical categorisation is inherently less elaborate. Onwukwe's (2015) analysis of Igbo cooking verbs demonstrates substantial lexical-semantic differentiation in another food-related domain. The present data themselves reveal numerous specific edible-leaf and mushroom terms.

The difference can therefore be characterised as one of asymmetrical lexical elaboration. English has developed conventional intermediate labels for several vegetable-related groupings, whereas Igbo displays particularly rich lexical elaboration among culturally prominent leafy vegetables and mushrooms.

Borrowing introduces an additional dimension. Contact-mediated items such as *gálíkì*, *kárót* and *brókòlì* expand the inventory of available lexical forms. Nevertheless, the category into which the borrowed referent is incorporated may remain culturally Igbo. A new lexical item can therefore be phonologically adapted without reproducing the complete semantic hierarchy of its donor language.

This distinction has implications for lexicography. A bilingual dictionary should not assume that giving an English word and an Igbo equivalent necessarily establishes semantic identity. For culturally sensitive categories, dictionaries may need explanatory information concerning use and classification.

For example, translating *vegetable* simply as *ákwúkwó nri* may work in contexts where leafy vegetables are intended but may produce semantic difficulties where English *vegetable* includes potatoes, carrots, onions or mushrooms. Conversely, translating every English vegetable term as a subtype of *ákwúkwó nri* would impose the English taxonomy on Igbo.

The findings therefore have implications for translation, bilingual lexicography, language teaching, terminology development and the documentation of indigenous ecological knowledge.

6.0 Summary of Findings

The study makes the following principal findings.

First, the English culinary domain of *vegetable* contains several conventional intermediate categories. Within the dataset, these include leafy vegetables, root/underground vegetables, cruciferous vegetables and alliums. Mushrooms also participate in a broader culinary association with vegetables, although they do not belong to the category botanically.

Second, the Igbo data do not reproduce these intermediate categories on a one-to-one basis. The closest highly salient category is *ákwúkwó nri*, whose members are predominantly edible leaves.

Third, *ákwúkwó nri* is itself a superordinate with numerous co-hyponyms. It is therefore inaccurate to describe “leafy vegetable” as the single Igbo hyponym of *vegetable*. The more important observation is that the Igbo category boundary is different from the English one.

Fourth, referents that English groups as root vegetables may be classified in Igbo as tubers, spices, seasonings or relatively recent introduced foods. Potato is especially revealing because the forms *jí ókú* and *jí nwánkálù* associate the item lexically with the tuber/yam domain.

Fifth, mushrooms constitute an independent Igbo semantic field headed by *éró*. They therefore need not be subsumed under *ákwúkwó nri*, although English culinary classifications may place mushrooms together with vegetables.

Sixth, English categories overlap. Radish and turnip can be both root vegetables and cruciferous vegetables, while onion and garlic participate in the allium category as well as broad classifications of underground vegetables. The semantic structure is consequently polyhierarchical rather than a perfectly exclusive taxonomy.

Seventh, borrowing has expanded the Igbo food lexicon. Borrowed or adapted names, however, do not necessarily bring the complete source-language classification with them.

Finally, the contrast between English and Igbo should not be described as a contrast between a lexically rich language and a lexically deficient one. Both languages display elaboration in culturally salient domains, but they organise the conceptual field differently.

7.0 Conclusion

This study has examined the lexical-semantic categorisation of selected vegetable terms in English and Igbo through the concepts of hyponymy, superordination, co-hyponymy and culturally situated

categorisation. The analysis demonstrates that apparently straightforward lexical categories may conceal substantial cross-linguistic differences.

English employs a broad culinary category *vegetable* and conventionalises several intermediate subdivisions within it. The elicited Igbo system, by contrast, places particular emphasis on *ákwúkwó nri*, the domain of edible leaves, while assigning many English root vegetables, alliums and mushrooms to other culturally meaningful food categories.

The central implication is that translation equivalence does not entail taxonomic equivalence. Two languages may name the same referent but position it differently within their lexical systems. Conversely, the absence of an exact superordinate or intermediate category does not indicate absence of knowledge about the referent.

The study therefore supports a culturally sensitive approach to lexical semantics. Food terminology emerges from the interaction of biological reality, culinary practice, historical contact and linguistic categorisation. The English and Igbo systems overlap because speakers encounter many of the same referents, but they diverge because the referents have not necessarily acquired identical cultural and lexical relationships.

Further research should broaden the participant base across Igbo-speaking communities in Abia, Anambra, Ebonyi, Enugu, Imo and neighbouring areas. A larger study could combine free-listing, sorting tasks, acceptability judgements and ethnographic interviews to determine more precisely which items speakers consider prototypical members of categories such as *ákwúkwó nri*, *mgborogwu*, *jí*, *ngwa nri* and *éró*. Dialectal comparison would also help determine which of the lexical forms reported in the present study are widespread, localised, borrowed or recently emerging.

Such documentation would have value beyond theoretical semantics. It could contribute to Igbo lexicography, terminology development, food and plant documentation and the preservation of indigenous ethnobiological knowledge.

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