76. Semantic Codability in Folk Taxonomy: A Cultural-Linguistic Perspective¹

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Abstract

A language definition is presented in the introduction without further detailed explanation, but it is given to show how language is viewed from a general perspective that encompasses most of its domains. Every word or phrase in this definition may rightly correspond to an independent branch in language studies. The aim of this study is to investigate the codability of meaning through examples taken from the dialect of a countryside in Marib, Yemen, specifically words related to animals and plants. The assumption in this study is that if the connotational features of meaning components are coded within the meaning of words, then these words are coined according to the need of the speaking community. As languages differ in selecting criterial features, they also differ in forming designata that pertain to the same extra-linguistic world. The main question in this study is: What is the nature of folk semantic codability? Is it a taxonomy or a partonomy? This 'semantic codability' of a word is the cause for non-equivalence in translation across languages. The emic perspective—description without analysis—was implemented in this study. Vocabulary related to domestic animals and wild plants were analysed by looking into their hierarchal relations. The relationship between words and concepts are also reviewed to exemplify their existence and frequencies in a language community due to interests, needs, concerns of that community. It is found that the purpose of semantic codability is to create specific labels (subordinates) for a general concept (superordinate), where this purpose plays a part as an economic communicative technique. There is a lack of richness among words related to animals' taxonomies, which we rationalize to lack of interest in the language community. The conclusion is that semantic codability is driven by need and frequency of use, whether for taxonomy or partonomy.

Keywords: cultural linguistics, codability, vocabulary, taxonomy, partonomy

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Halk Taksonomisinde Anlamsal Kodlanabilirlik: Kültürel-Dilbilimsel Bir Bakış Açısı 3

Öz

Giris bölümünde daha ayrıntılı bir acıklama yapılmadan bir dil tanımı sunulmustur, ancak dilin alanlarının çoğunu kapsayan genel bir perspektiften nasıl görüldüğünü göstermek için verilmiştir. Bu tanımdaki her kelime veya kelime öbeği haklı olarak dil calısmalarında bağımsız bir dala karsılık gelebilir. Bu çalışmanın amacı, Yemen'in Marib kentindeki bir kırsalın ağzından alınan örneklerle, özellikle hayvanlar ve bitkilerle ilgili kelimeler üzerinden anlamın kodlanabilirliğini araştırmaktır. Bu çalışmadaki varsayım, anlam bileşenlerinin çağrışım özellikleri kelimelerin anlamı içinde kodlanmıssa, bu kelimelerin konusan topluluğun ihtiyacına göre türetildiğidir. Diller ölcüt özelliklerini seçmede farklılık gösterdikleri gibi, aynı dil dışı dünyaya ait designata oluşturmada da farklılık gösterirler. Bu calısmadaki ana soru sudur: Halk anlamsal kodlanabilirliğinin doğası nedir? Taksonomi mi yoksa partonomi mi? Bir kelimenin bu 'anlamsal kodlanabilirliği', diller arasında ceviride esdeğerlik olmamasının nedenidir. Bu calısmada emik perspektif - analizsiz açıklama uygulanmıştır. Evcil hayvanlar ve yabani bitkilerle ilgili kelime dağarcığı, hiyerarşik ilişkilerine bakılarak analiz edilmiştir. Sözcükler ve kavramlar arasındaki ilişki de gözden geçirilerek bir dil topluluğunun ilgileri, ihtiyaçları, kaygıları nedeniyle bir dil topluluğundaki varlıkları ve sıklıkları örneklendirilir. Anlamsal kodlanabilirliğin amacının, bu amacın ekonomik bir iletişim tekniği olarak rol ovnadığı genel bir kavram (üst) icin belirli etiketler (astlar) oluşturmak olduğu bulunmuştur. Hayvanların taksonomileri ile ilgili kelimeler arasında zenginlik eksikliği var, bunu dil topluluğuna ilgi eksikliği olarak rasyonalize ediyoruz. Sonuç, anlamsal kodlanabilirliğin, taksonomi veya partonomi için olsun, kullanım ihtiyacı ve sıklığı tarafından yönlendirildiğidir.

Anahtar Kelimeler: kültürel dilbilim, kodlanabilirlik, kelime hazinesi, taksonomi, partonomi

1. Introduction

Anthropological linguistics is concerned with investigating the relationship between language and culture. Language, as a specific tool of communication within a particular community, is cultural. Palmer. and Sharifian (2007, p. 1) view language as "a cultural activity and, at the same time, an instrument for organizing other cultural domains. ... Language is shaped not only by special and general innate potentials, but also by physical and sociocultural experiences." A new definition of language is presented here, which is based on two different definitions (Bussmann et al., 1998, p. 627; Richards & Schmidt, 2002, p. 283). This definition states that language can be defined as a system of an acquired cognitive ability of a structured sound arrangement (or its written representation) to form larger units through which communication purposes in a language community are conventionally established and maintained.

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Mišić (2004, p. 3) states that anthropological linguistics "studies language variation and use in relation to the cultural patterns and beliefs and relies heavily on theories, methods and findings of anthropology." Anthropologists agree on the nature of culture and that it has several characteristics such as: acquisition, sharing, norms, values, arts, achievements, customs, and traditions; it is created by action, and is maintained by interaction (Haviland, 1999). Since language is considered part of culture, so that much of the culture is transmitted through language. Culture, then, becomes meaningful through language, or that language embeds much of the culture (Salzmann et al., 2012).

The fact that different races have different languages could be true in various regions in the past, but nowadays it is not the norm that each race has its own language as long as there are nations which adopt the language of others. Some nations and races worldwide (existing in one country) use more than a language. As culture is shared, so is language, not only among its speakers but among co-existing cultures and ethnicities. This adoption reinforces the fact that language is not genetically transmitted. The capability of language acquisition is genetic and its acquisition is genetically supported. What is genetic and innate is the ability of acquisition (Meisel, 2011; VanPatten et al. 2020).

The relationship between language and culture overlaps among different areas of language studies, mainly sociolinguistics, pragmatics, ethnography of speaking, discourse analysis, ethnosemantics, and cognitive linguistics. This relation has become the focus of what is known to be 'cultural linguistics' (Sharifian, 2014; 2017). Ethnosemantics deals with the terminology and vocabulary used to codify and classify these categories. Kephart (2006, p. 865) defines ethnosemantics as "the scientific study of the ways in which people label and classify the social, cultural, and environmental phenomena of their world". Cultural linguistics "explores the interface between language, culture, and conceptualization" (Sharifian, 2014, p. 100). According to Sharifian, the term 'cultural linguistics' was probably first introduced by Langacker (1994) to emphasize "the relationship between cultural knowledge and grammar." Palmer (1996) uses the term 'cultural linguistics' to name the resultant blend of cognitive linguistics and anthropological linguistics. Cultural linguistics is perceived to have a direct relation with cognitive linguistics, which in turn builds on studies related to Boasian linguistics, ethnosemantics, and ethnography of speaking (Sharifian, 2014). This paper should fall in this field (ethnosemantics and cultural linguistics), mainly the domains of semantic codability and folk taxonomy.

The purpose of this study is to investigate the codability of meaning through examples of cultural conceptualization taken from Maribian (Arabic) dialect of words related to animals and plants. These examples are merely limited to illustration, not a full-scale investigation. Such vocabularies are taken from the author's governorate of Marib, Yemen, where Arabic is the mother tongue for the whole population. The purpose is not to show the relationship between language and the environment, but to study the codability of concepts that reflect the needs of a language community within a physical and cultural environment. For the sake of clarifying semantic codability a brief explanation is presented, although it is not a technical definition, it should serve the purpose of this study. Codability is the process of naming entities to add extra distinctive attributes in order to differentiate them from their class and at the same time to retain their affiliation to their class; the process of adding may be based on colour, size, movement, age, or stages of growing, and in relation to things, events, experiences, and states. The final product of this process should result in a new, but similar, concept to the original, and basic, concept.

The main idea of this paper supports Sapir (1912, p. 228) who states that it "is the vocabulary of a language that most clearly reflects the physical and social environment of its speakers". He goes on to argue that "it becomes evident that the presence or absence of general terms is to a large extent dependent on the negative or positive character of the interest in the elements of environment involved"

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(Sapir, 1912, p. 230). Sapir's argument explains why vocabularies in a certain cultural or social environment are created or coined. The interest here is to show how variants or 'specifics' of a general term are conceptualized, and semantically coded, in folk taxonomies for domestic animals and plants. According to Sapir (1912), it is not the existence of an animal but the interest of the community in that animal "before the language of the community is called upon to make reference to this particular element of the physical environment" (pp. 227-228).

To expand this statement, the interest can be generalized to other things, ideas, actions, qualities, and descriptions. A general term is created —as basic— according to need, then its variants are semantically detailed further in new synonymous words according to interest and frequency of use. Take for instance words like laugh, giggle, smile, chuckle, ... etc. Sapir (1912, p. 228) asserts that the "complete vocabulary of a language may indeed be looked upon as a complex inventory of all the ideas, interests, and occupations that take up the attention of the community". Kess (1992) argues in the same manner stating that as vocabulary is "an inventory of a given culture, language will typically represent what a given society concerns itself with" (p. 223). Vocabulary is expanded in many ways including: coinage, derivation, metaphorical and semantic extensions, borrowing and loan translation. It is evident, then, that more advanced and complicated societies tend to have much richer vocabularies to fulfill their various needs and interests in their culture. The English language is a perfect example as a world lingua franca of technology, education, tourism and trade. Lexis in a language is the total sum of vocabularies and their meanings. As Danesi (2004, p. 71) rightly observes that "As life becomes more complex, people devise or borrow new words to describe new ideas and things, and they change the meanings of existing words to fit new circumstances."

The study of meaning may analyse one or more of the word knowledge components, either in isolation or in combination with other words (or phrases and sentences). Subsequently, in a literate society, word knowledge can have several components: conventional meaning, established collocation, intelligible pronunciation, accepted orthography, morphology, derivation, grammar, use, style, and etymology. Nevertheless, the study of word meanings in context may lead to extra meanings associated to cultural practices and language context. Thus, meaning is created from what speakers know about a word and/or they can make judgement about words (and sentences of the language). In brief, meaning of words in isolation is our reference in this paper. Since some terminologies pertaining to semantics are used in this study, it is imperative to shed some light on three major divisions related to word semantics, namely: designation, connotation, and range of application. Following Zgusta (2010), these three lexical components are summarized below.

Designation refers to the relations between single words and the single parts of the extra-linguistic world as conceived by the speaker of a language. Designation in this sense is equal to meaning. The single parts of the world referred to are called denotata (plural of denotatum). As there is no direct relation between words and their denotata, there comes the disignatum (or sense). Therefore, a word's sense is understood through its denotatum. Designatum consists of the criterial features corresponding to the defining attributes/qualities. Therefore, as languages differ in selecting criterial features, they also differ in forming designata that pertain to the same extra-linguistic world, as in words of colour and kinship. This is the first step of the semantic codability of a word. It is the cause for non-equivalence in many occurrences in translation across languages. Words are arbitrary symbols created and coded according to needs and interests.

Connotation is the additional meaning value assigned to a word, besides its original meaning. This connotational meaning is culturally established and reinforced. Native speakers acquire it through associative contexts or through explanation and experience. Synonymous words or phrases show some

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kind of sense relation, but are differentiated via their connotational meaning. For instance, the definitional element which the following words share, is 'bad quality': cheap, gimcrack, tacky, tawdry, and trashy. Finally, there is the range of application which limits the use of words to certain contexts and adds to the designational and connotational meaning. The following words for 'payment' are a good example: allowance, charge, cost, fare, fees, fine, levy, price, salary, stipend, tariff, tax, wages and so on.

2. Rationale and questions of the study

Based on what has been stated above, codability is a matter of degree. That is, things that are highly codable in one language may not be so in other languages. Cultural interests and needs, not only influence codability, but also frequency of use and pattern of usage. Danesi (2004) considers codability as a matter of categorization, not of perception, where, for example, "Hawaiian culture involves putting all relatives of the same sex and age into the same category" (p. 141). This paper intends to discuss the words used to describe domestic animals in the Maribian community, Yemen (see Table 2). Moreover, the semantic codability of words symbolizing yields (products) of desert trees are also discussed.

It should be borne in mind that codability is not uniform throughout the whole language community, let alone its uniformity in different cultures. A particular group within a larger community may use the flexibility of the language productive system to increase their vocabulary according to their needs in many daily-life situations. Incidentally, Arabic, as an example of diglossia, represents a complicated case of codability, which can be of dual use: informal, limited function as in regional or social dialects, and widespread use as in formal standard Arabic. For instance, speakers of different Arabic dialects produce different words for the same lexeme. Hence, communication will be affected considerably, and may subsequently be impaired. Standard Arabic, however, is what makes communication possible and intelligible through its uniformity across the large Arab speaking communities. All this may partially explain the nonequivalence of many words across languages.

In sum, when one knows the meaning of a word, one should know the concept which that word symbolises, but sometimes as humans we know many concepts (as entities) that we encounter in life but we do not know the vocabulary for those concepts/things, particularly if those concepts fall beyond our interests and needs, or simply they do not exist in our culture or environment. That is why different cultures codify new words for concepts they need to occasionally talk about. For instance, in my region people do not have crocodiles, but they learned the word and the concept at school, but they still call 'crocodiles' and 'alligators' *crocodiles* /təməsi:ħ/. Both reptiles, though represent two different concepts, are coded as one concept in my region due to their 'shape' similarity. The fine details are beyond the 'interest' or scope of this paper. The focus here is laid on investigating the semantic codability of vocabularies related to domestic animals and desert plants. In this paper, the following questions are raised:

- What is the nature of folk semantic codability? Taxonomy or partonomy?
- Why do variants of a general term exist? Is it a need for survival or merely the existence of things in their environment?

3. Semantic codability and concepts

Let us briefly explain how meaning is created in order to simplify the term codability, at least for the purpose of this study. Following Ogden and Richards' approach, the word 'uncle' (as a symbol) refers to a member or a relative in the hierarchy of kinship (the referent/category) and by relating the word to this 'member', the meaning (or thought/concept) is created which becomes *shared* and *common* in the speaking community (Ogden & Richards, 1927).

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The word 'uncle' is defined in English monolingual dictionaries as "the brother of your mother or father, or the husband of your aunt" (Sinclair, 1987, p. 1583). This word has three senses: (1) maternal uncle, (2) paternal uncle, and (3) aunt's husband. Each sense is created via its relation to the referent member in the 'kinship'. In Arabic, the first sense is covered with one word, /x el/—and the second is covered with another, $/\Box m/$. The word $/\Box m/$, has two semantic extensions in Arabic: the first extension covers the meaning of the third sense of the English word 'uncle', and the second semantic extension is used to politely address any elderly male whoever he might be. Braisby (2005, p. 164) asserts that "concepts behave differently from words, where concepts do not have multiple senses, since they are general ideas about particular categories". This definition of concept is similar to a particular 'sense' meaning of a word. Thus, several concepts or senses may be linked to the same word.

Again, the word 'uncle' in language is a structural unit called *lexeme*, and its semantic unit is viewed in this study as a *concept*. Definitions of words focus on providing a concise and technical summary of this 'concept' as a sense. To illustrate all this, the words 'book' and 'shop' are two different lexemes representing two different concepts, and the phrase 'bookshop' is another lexeme representing another, and different, concept. 'Bookshop', though a compound word, is not said to have two lexemes, but having one specific concept or sense. This theoretical distinction is crucial when explaining the non-equivalence in translation between languages, particularly words of cultural orientation.

The use of the term concept in the above context is of a nonlinguistic, psychological orientation or representation, where "the intensions of concepts are related to their extensions" (Hampton, 1999, p. 177). In other words, the multiple meanings of a polysemous word will create different concepts according to their contextual occurrence or usage. However, sometimes many different words within the same language may refer to one particular 'concept', excluding those words of synonymous meanings, which are termed (above) as connotational. The concept of 'CAT' in Arabic can be referred to by any of the following words (ordered by frequency): $/q\Box t^-$, $/d\Box m/$, $/h\Box r/$, $/b\Box s/$, and $/b\Box s\Box m/$. Interestingly, these different words are not used to refer to different cats of different colours, sizes or ages, as it is the case for camels or dogs based on their colours, ages, genders. Moreover, not all Arabic speakers know these words because they exist in different region except for the word $/q\Box t^-$ / which exist in all Arabic dialects (due to the frequent use of Standard Arabic). For the sake of explicating what is meant by interest, need, concern, or existence, some few words for camels are given in Figure 1.

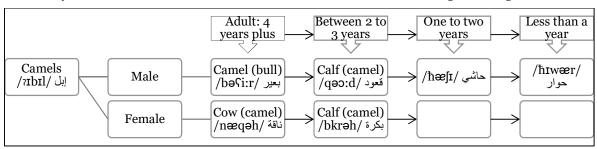


Figure 1 Example of some Arabic (Maribian dialect) names for camels according to age and gender

Concepts are stored in frames in the memory whether for experience or knowledge or meanings. These types of data structure representations (frames) are called schemata (Rumelhart, 1980) A schema (the singular form of schemata) is defined as "a data structure for representing the generic concept stored in memory [...] meanings are encoded in terms of the typical or normal situations or events that instantiate the concept" (Rumelhart, 1980, p. 34). In cognitive psychology, the term "scripts" is used to refer to the subclass of schemata (Schank & Abelson 1977). Therefore, it is assumed that codability of concepts for animals, for example, is based on perception of the referents in the real world. Whether the codability is

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schematic or conceptual, societies in many times need to codify certain features for animals, where such features are difficult to define. One good example, can be of the difference between a mule and a horse. We judge our understanding of the word 'mule' by comparing its salient 'features' (or specifications) to the word 'horse' since both share a partial schematicity, and the word horse and its referent are more frequent.

Tuggy (2007, p. 83) explains that a "schema is a superordinate concept, one which specifies the basic outline common to several, or many, more specific concepts". Concepts, then, can be said to be stored as cognitive units creating a prototype of a concept, whose schema is being revised or modified via experience when facing different instances, or representations, of the same stored concept. Similarity among new instances with the previously-acquired 'stored concept', has an effect in creating a cognitive unit, and thus fostering its schema. For Schmid (2007), these cognitive units are "entrenched and their activation automated to the extent that they have been used before" (p.118). It seems that words in folk taxonomies are entrenched via high frequency of use where their needs as cognitive units are high.

4. Folk taxonomy and partonomy

For the sake of coherence and cohesion, this section is introduced with one more example to clarify the relationship between codability and concepts. Consider the sentence, 'This camel is older than this camel'. The word 'camel' is the concept type, whereas its occurrences in the second and seventh positions are tokens of the same type/concept, but not necessarily of the same referent. Tokens of the word 'camel' in the previous sentence "refer to specific instances of general concepts, rather than to the general concepts themselves" (Whittlesea, 1997, p. 361). However, the meaning of the concept 'camel' remains the same, and any change in the term (using another word as a replacement or applying a modification), will reflect a 'new' codability applied to represent the intended defining features or attributes. Again, consider reading the same sentence with two replacements from Table 1 above: 'This $b \square \square i:r$ is older than this $n n q \square h$ ' (This [male] camel is older than this [female] camel). The concept of the 'camel' as an animal remains the same, but the replacement of words reflects the codability of gender.

Murphy and Lassaline (1997) would consider the Arabic word $/\Box\Box b\Box l/$ (camels) as superordinate or general term, the words $/b\Box\Box i:r/$ and $/n\omega q\Box h/$ as basic, and the words $/q\Box\Box:d/$ and $/bkr\Box h/$ as subordinate or specific. They assert that "subordinates generally indicate changes in the features from those usually expected in the basic category, but they preserve the general parts and functions associated with their basic category. They are useful in making fine distinctions when called for" (Murphy & Lassaline 1997, p. 112). Specific labels, based on subtle attributes, are generally useful and important for the language community to differentiate members of the same general (superordinate) category particularly when high frequency of use occurs to fulfill life needs. Rosch (2002) argues that "What attributes will be perceived given the ability to perceive them is undoubtedly determined by many factors having to do with the functional needs of the knower interacting with the physical and social environment" (p. 253). Though subconsciously created, it is driven by needs, and thus plays a part as an economic communicative technique. You need to say $/q\Box\Box:d/$ to mean "a young male camel". In the following row, the more we move to the right the younger the 'male camel' we name, or mean via 'age codability':

$$/b\Box\Box i:r/ \rightarrow /q\Box\Box:d/ \rightarrow /\hbar \omega fi/ \rightarrow /\hbar I \ w\omega r/$$

After this introduction, I will briefly review the notion of partonomy and taxonomy as the foundation for my discussion. Partonomy occurs when a part stimulates its whole, where that 'whole' as a concept is systematically made of more than one part, provided that these parts are coded in the language of the

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community. Brown et al (1976) define partonomy as a "system of parta related by 'part of' inclusion ... A partonomy, like a folk taxonomy, typically possesses a 'unique beginner' which is the most inclusive parton in it" (p. 81). Brown (1976) explains that "the most significant difference is that partonomies are based on 'part of' relationships, while taxonomies are based on 'kind of' relationships" (p. 400). Taxonomy occurs when a hierarchy is perceived for the general classes and that their subordinates are categorically related to each other by means of inclusion. For Rosch (2002), "A taxonomy is a system by which categories are related to one another by means of class inclusion. The greater the inclusiveness of a category within a taxonomy, the higher the level of abstraction" (p. 254). These categories are labeled with names within the language community. Rosch (2002) clarifies that these "categories tend to become defined in terms of prototypes or prototypical instances that contain the attributes most representative of items inside and least representative of items outside the category" (pp. 253-254).

Brown et al. (1976) view folk taxonomies as groupings or segregates which "are derived in terms of how native informants state the propositional relationship 'class inclusion' to hold among named categories of things" (p. 73). Folk taxonomies can have five levels in a hierarchy where one or two ranks would make a level (Berlin, 1992; Berlin et al., 1973). Hunn and Brown (2011) explains that the "folk-taxonomic structure is a set of categories or taxa arranged so that every taxon is included within one and only one higher order class, up to the unique beginner or kingdom category" (p. 326, italics in original). The ethnobiological classification, or folk taxonomy, as proposed by Berlin et al. (1973) may be summarized as follows:

- **Unique beginner**: the inclusive folk taxon which is used as a premodifier in folk taxonomy as in 'plant' taxonomy, or 'animal; taxonomy.
- **Life form**: a high level of plants, animals, or birds that share some general characteristic in morphology, such as tree, or mammal.
- Generic rank: the most common basic level on which the elaborated hierarchy is built, for example: dogs, camels.
- Specific species: usually separated from each other by a few characteristics or perceived attributes.
- **Varietal type**: more specific type of a generic or specific species.

5. Methodology

Anthropologists believe it to be a convenient way to study language through culture, or indeed to study culture through language (see Duranti, 1997, Chapter 4). They distinguish two ways of interpreting culture, following Pike's (1967) distinction: the **emic** perspective—description without analysis, following *phonemic*—and the **etic** perspective—description and analysis, following *phonetic* (Harris, 1976). Native people of a society have an *emic* understanding of their culture, whereas people from outside their community have an *etic* understanding of that society's culture. The 'etic' observational method represents the inductive approach that a linguist or an investigator implements to arrive to the rules that govern the language structure or intended meaning of words (general data reveal the specific rules underlying their internal structure). The 'emic' structural method represents the deductive approach which accounts for the linguistic behaviour and the community common knowledge of word meanings (the specified linguistic competence explains the linguistic performance—specific to general).

This brief introduction is to reiterate that this study is not from an outsider investigator to study a different community culture or language (an etic approach). It is an insider's study to discuss codability in folk taxonomy within the domain of cultural linguistics (an emic approach). However, it may be

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viewed as a combination of both the emic and the etic approaches: an emic-descriptive data explained via an etic-analysis. No field visits or semi-structured interviews were conducted. Nonetheless, provided that the researcher was an outsider, the following method would, hypothetically, be applied. Techniques should be simple and direct to elicit information, as recommended in Albuquerque et al (2014). Semi-structured interviews (and informal interactions) with local farmers in the field during my visits to villagers in the concerned area. Data collection should be limited to words of farm animals and farm plants (as well as related vocabulary to grazing and pasture). The Arabic language would certainly be the medium of communication. The vocabulary of animals would be the focus of these interviews to elicit words falling into the folk taxonomy, while the vocabulary of plants would be directed towards the elicitation of words falling into the folk partonomy. Some sample questions could be used as follows:

- What is this? What is its name? Is there another word for it?
- What kind of animal/plant is it?
- What is the name of its X baby? Male or female?
- What is the difference between X and Y?
- Can you tell the names of these parts of X?

There was, of course, no need for the lengthy preparation recommended for a specialist anthropologist (Salzmann et al., 2012, pp. 27-30). The main purpose of this paper is to discuss the notion of codability from a cultural perspective. The assumption would be that taxonomy will prove systematic because it is common and frequent, while those vocabularies of partonomy would prove non-systematic or non-existing because they are less common and less frequent than those of taxonomy. Partonomy in this assumption is perceived as 'specialized vocabulary'. In the following paragraphs, I will present enough data to pave the way for answering the study questions:

- 1. What is the nature of folk semantic codability? Taxonomy or partonomy?
- 2. Why do variants of a general term exist? Is it a need for survival or merely the existence of things in their environment?

In reporting single words, phonetic transcription is used in place of English transliteration for Arabic words. Certain Arabic language sounds do not exist in the English language. These are presented in Table 1. Description pf Arabic sounds is based on Glanville (2018). The Arabic (orthographic) letter as a sound is followed by the IPA symbol along with its phonetic description.

Table 1 Ten Arabic sounds and their phonetic description

Arabic	IPA	Sound description	Arabic	IPA	Sound description
ç	?	Glottal stop	ق	q	Voiceless uvular stop
ع	٢	Voiced pharyngeal fricative	ص	Sʻ	Voiceless emphatic dental fricative
۲	ħ	Voiceless pharyngeal fricative	ض	ď	Voiced emphatic dental stop
خ	X	Voiceless velar fricative	ط	ť	Voiceless emphatic dental stop
غ	γ	Voiced velar fricative	ظ	ð'	Voiced emphatic interdental fricative

6. Data and analysis

6.1 Animals

The examples reported in this study serve as our data for analysis and discussion regarding folk semantic codability. It is divided into two sections: (i) animals for taxonomy and lexical hierarchy in naming domestic animals, and (ii) wild plants for examples related to partonomy (or meronymy-holonymy relation). The animal classification in the Maribian dialect fit with that of a folk taxonomy proposed by Berlin et al. (1973). The context of this classification goes back half a century ago, before the introduction of television and its documentaries on animals, for instance. Each of the following figures presents a type of domestic animals as examples of codability. An English translation is given where possible. Whether the term is generic, or specific, its phonetic transcription is given and then followed by its Arabic orthographic representation. Wild animals are excluded for one simple reason, that is, they lacked such a lexical hierarchy. The wild animal used to be described by one single generic term for both males and females, whether adults or young. Domestic animal completely fit the ranking, probably due to interest and frequent use, therefore, the community needed to codify these different 'creatures' with different vocabulary.

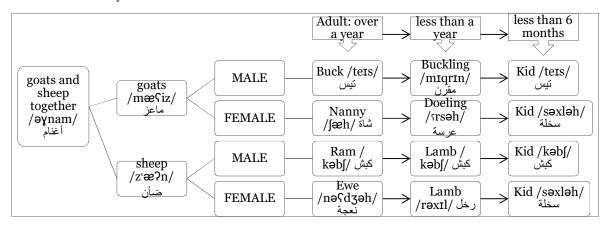


Figure 2 Lexical hierarchy of goats and sheep in the Maribian dialect

The English equivalence is taken from standard English. I cannot judge their frequency in the Englishspeaking community. In Figure 2, the reader may note that the early life stages of female sheep and goats have specific words but not the male ones. This can be justified by the fact that the community people preferred to keep them for reproduction and breeding. Male sheep and goats were mostly used for trade. The opposite may be true for beef cattle and donkeys, where the interest for males was connected to 'utility'. Donkeys in general were used for field work, but male donkeys were used for carrying and travelling as well (Figure 3). On the other hand, calves were slaughtered for their veal and were sold quite young or during their adolescence stage. Therefore, the community coded two terms for young bulls, but only one term for young cows (Figure 4).

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Semantic codability in folk taxonomy: A cultural-linguistic perspective / Alwalss, B. A.

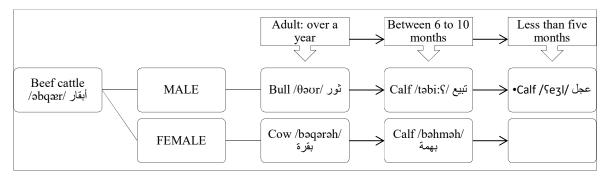


Figure 3 Lexical hierarchy of beef cattle in the Maribian dialect

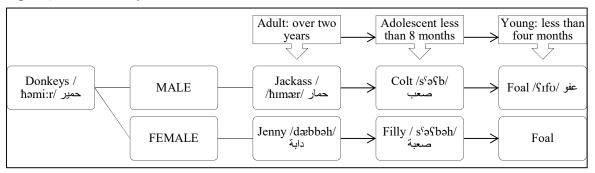


Figure 4 Lexical hierarchy of donkeys in the Maribian dialect

Horses in this context, as presented in Figure 5, present an interesting case. To the contrary of camels, young male horses had no special term for reference, except for young female horses. Though the English language have designations for these 'young' horses, it does not differentiate between their genders. The simple reason is that camels by far outnumbered horses in Marib, Yemen, either in the past or the present.

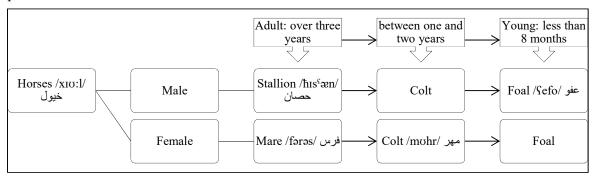


Figure 5 Lexical hierarchy of horses in the Maribian dialect

6.2 Wild plants

Partonomy is explained as when a parton is labeled to indicate a part of a whole. Sometimes this is not the case, where parton can indicate a whole but not as precise as another parton for a specific whole. In Arabic as well as English, words like tail, udder and muzzle can be parts of the body of any of these animals: horse, donkey, goat, sheep, and camel. The perception of their functions and their positions unifies a single concept, though their shapes and sizes differ enormously. However, in Arabic, but not in English, 'nails' of domestic animals have different names: $/m\Box ns\Box m/$ for camels. $/\hbar\omega f\Box r/$ for horses and donkeys, $/d^{\varsigma} / lf/$ for cattle, goats and sheep. The conceptualization of similar shapes produced the

same terminology for different animals, as for $/\hbar\omega f\Box r/$ and $/d^c r/lf/$ above. Another reason may that shepherds and farmers are interested in identifying animals by their footprints, for instance, when they trespass their properties for grazing. In brief, the conceptualization process directs the semantic codability in the folk terminology for domestic animals and their parta. A clear example is that of figs: green figs are called /ti:n/, and black figs (which are normally smaller in size) are called $/b\Box l\Box s/$ in my regional Arabic dialect. Though 'black figs' are originally figs (ti:n), but the word $/b\Box l\Box s/$ is used as a matter of codability so as to conceptualize the 'black figs' and differentiate it from the 'green figs', as raisins would aid to conceptualize 'dried grapes'.

In this context, I will use the semantic term 'meronymy' in place of partonomy. Holonymy (as the opposite of meronymy) is prevailing in tree names, where the part is a main constituent of the whole, as in fig-trees, grape-trees, orange-trees, mango-trees, etc. Two lexemes to designate one concept. One exception that I found in my region is that for the palm-tree, there is one single lexeme $/n \square xl \square h/$ which refers to one concept. The dates as fruits (or products) of the $/n \square xl/$ (plural of $/n \square xl \square h/$) have several terminologies according to their stages of growth towards the 'ripe' (final) stage. Here are the common stages, listed from the early stage to the final stage: $/t^c \ni l \cdot f/$, /balah/, $/z \square ho/$, $/rat^c \ni b/$, and $/t \square mr/$ (the last word means dates in English). What is remarkable is that farm trees (as holonyms) and their products (as meronyms) have the same lexeme, whereas wild trees (as holonyms) have names that differ from their products (as meronyms). Table 2 shows such a difference in the phonetic transcription. Accordingly, I classify 'palm-trees' $/n \square xl/$ as desert plants, claiming that it was treated as a wild plant in the past before modern horticulture. It can bear drought more than, say, orange trees.

Table 2 Codability of products of wild plants versus farm trees

Plants	Phonetic Transcription	Latin	Product in Arabic	Phonetic Transcription	Tree Type
راك	/ra:k/	Salvadora persica	برير	$/b\Box ri:r/$	Desert
سلم	$/s\Box l\Box m/$	Acacia ehrenbergiana	برم	$/b\Box r\Box m/$	Desert
سمر	$/s\Box m\Box r/$	Acacia tortilis	حبل	/ħebɪ l/	Desert
بلد	$/\Box elb/$	Ziziphus spina-christi	دوم	$/d\Box\Box m/$	Desert
عشر	$/\Box\Box\Box r/$	Calotropis Procera	كرف	$/k\Box r\Box f/$	Desert
Figs تين	/ti:n/	Ficus carica	تین	/ti:n/	Farm
عنب Grapes	$/\Box en\Box b/$	Vitis vinifera	عنب	$/\Box en\Box b/$	Farm
Pomegranates رمان	/r□mæn/	Punica granatum	رمان	/r□mæn/	Farm
برتقال Oranges	$/b\Box rt\Box qwl/$	Citrus sinensis	برتقال	$/b\Box rtuqwl/$	Farm
حبحب Water melon	/ћл bћл b/	Citrullus lanatus	حبحب	/ћл bћл b/	Farm

The codability technique is prevailing in all languages. English, for example, uses different verbs to designate animal sounds (Table 3). Identifying wild animals in darkness via their sounds can be considered as a useful technique of alert or protection for people living in villages surrounded by wild animals. These words, as symbols, stand for (or refer to) the actual sound index. Index in this context refers to those signs whose signifiers are perceived to be a part of the signified or a contiguity of it; the index reveals a direct connection between the sign and its source. Examples of an index may include footprints, sounds, and odours (Sebeok, 2001).

Semantic codability in folk taxonomy: A cultural-linguistic perspective / Alwalss, B. A.

Table 3 An example of semantic codability for sounds of some animals and birds in English

bark	dogs	gibber	apes	laugh	hyena	squeak	mice
bellow	oxen	growl	bears	mew	cats	talk	parrots
bleat	sheep	grunt	camels	neigh	horses	trumpet	elephants
bray	asses	hiss	snakes	roar	lions	twitter	birds
croak	frogs	howl	wolves	scream	hawks	yelp	puppies

7. Discussion

It is evident that semantic codability will affect translation between languages but not to the extent of a purely cultural term, which may not find an equivalent. Words are first produced as generic terms, then they are coded into other sub-categories. In other words, they are branched into new words derived by common need. For example, the verb 'speak' may be considered the generic term, but when we commonly post-qualify it with 'speaking loudly' or 'speaking with a low voice' then the other two verbs are coded as 'cry' and 'whisper' respectively. Semantic codability is useful not only that it fulfils needs, but it also serves as an economic technique in any language. Blending in morphology is another example of semantic codability, as in *smog* and *brunch*.

Semantic codability is facilitated by primary subtle factors such as similarity, size, material, process, shape, and utility. Moreover, there are the secondary factors, such as age, gender, sound, smell, taste, and touch. Secondary factors demand codability across language and cultures, whereas additional subtle factors remain optional derived by need. However, one or more of these factors is used as an essential defining feature in categorization or conceptualisations. Another example is related to birds. Certain features, for a non-specialist, make them easy to identify (or conceptualise). Apart from qualities of being able to fly and lay eggs, these features may include feathers, peaks, two legs, rounded eyes, claws and shape (outer morphological appearance). Names assigned to birds are based on a difference of one or more of these features, such as their size or shape of their peaks, the length of their legs, the colour of their feathers. Interestingly, though there are different sizes and colours of 'eggs' they are still called 'eggs' because of their 'iconic' shape.

In conclusion, our assumption about the systematicity of folk taxonomy was not supported, because there was fluctuation in richness of available vocabularies for animal classification. This applies to partonomy, too. Semantic codability was perceived to be driven by need and frequency of use, whether for taxonomy or partonomy. Even if 'things' exist, but they do not attract the interest of the language community, speakers tend to ignore them and may generalise a term for a variety of things which have the same nature and environment. Visitors from the city have no words for the different herbs grown in the desert, but people in my countryside have, though a lot of them exist in their surrounding environment. They have no words for them for two reasons (as discussed above): first these herbs do not exist in their direct environment, and second, they have no interest. In other words, it *need* that is missing, where these herbs are the focus of daily communication.

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