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Faculty of Arts and Language

**Department of English** 



## Constructing the Prototypical Structure of Concrete

**Concepts in Algerian Arabic as Spoken in Tiaret** 

The Case of male and female Second Year EFL

University Students at Ibn Khaldoun University

A Dissertation Submitted in Partial Fulfilment of the Requirements for the Degree of Master in Linguistics

| <b>Submitted by:</b><br>Djihane Ismahane Berriah<br>Wafa Bellal | <b>Board of Examiners</b> | <b>Supervised by:</b><br>Dr. Naima Boukhelif |  |
|-----------------------------------------------------------------|---------------------------|----------------------------------------------|--|
| Dr. Naima Sahlli                                                | Chairman                  | Ibn Khaldoun University-Tiaret               |  |
| Dr. Naima Boukhelif                                             | Supervisor                | Ibn Khaldoun University-Tiaret               |  |
| Dr. Louiza Belaid                                               | Examiner                  | Ibn Khaldoun University-Tiaret               |  |

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#### Dedication

This work is dedicated to

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#### Dedication

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I would also like to dedicate this work to my parents for their love and support

Bellal Wafa

EFL: Teaching English as Foreign Language

F: Female Students

M: Male students

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#### Abstract

The primary purpose of current study is to investigate the relationship between gender and semantic categorization of a set of concrete concepts used in Algerian Arabic. This study seeks to find out the extent to which gender may influence the prototypical semantic structure of the concept "bird", "furniture", "weapon", "vehicle", "cosmetic", and "sewing". This study aims to examine the semantic features and members that male and female students, at Ibn Khaldoun university, use to conceive these concepts and the prototypical structure of these features and members. To reach the objectives of this research work, two experiments were conducted with fifty male and fifty female second year EFL university students. In the first experiment, the participants were asked to list all the attributes and the semantic entities that come to their minds when hearing, reading, or using the concepts "bird", "furniture", "weapon", "vehicle", "cosmetic", and "sewing". In the second experiment, the participants were asked to rate, the extent to which the attributes and the semantic entities, listed in the first experiment, represent the target concepts. The results of the study revealed that gender influences poorly the semantic conceptualization of some concrete concepts; however, it plays a significant role in the semantic structure of other concepts.

*Keywords*: Categorization, gender, prototypical structure, semantic features, semantic entities

#### **General Introduction**

Meaning has a significant role in people"s language. One cannot use or talk about a particular object, if he/she does not know what it means. Without meaning, there would be no language. To conceive the meaning of particular concepts, people unconsciously group them, based on common characteristics, into categories. Inside these categories, concepts are classified from the most representative ones to the least representative ones. This process of categorization, which is called by Rosch (1978) the prototypical structure, helps people to define these concepts and use them in their daily life interaction.

The way people categorize concepts seems to be influenced by many factors like age, and social culture. The way old people conceptualize concepts, for instance, is different from young people "conceptualization. It is widely argued by many scholars and researchers that males" language is different from females" language. Several studies have been conducted to examine the similarities and the differences between males and females" linguistic patterns. However, how males and females prototypically conceptualize semantic categories to conceive their meaning has not been discussed. This leads us to wonder about how males and females prototypically construct the semantic structure of concrete concepts.

#### **1. Research Motivation**

Since the development of Rosch''s process of categorization, numerous studied have been proposed to examine the prototypical structure of both concrete and abstract concepts. However, it has been noticed that most of these studies, if not all of them, neglect the role of gender in the prototypical structure of these concepts. This motivates us to examine the extent to which males and females may differ in the way they conceive concrete concepts.

#### 2. Research Aim

The primary aim of the study is to examine the role of gender in constructing the prototypical structure of concrete concepts. This study seeks to:

- Determine the semantic features and members that male and female second year EFL university students use to conceptualize the concrete concepts ",bird", ",furniture"
   ", "weapon", ",vehicle", ",cosmetic", and ",sewing".
- 2. Extract the similarities and the differences between the male and the female students regarding the members and the semantic features used to conceptualize the concrete concepts.
- 3. Investigate the prototypical structure of the semantic features and the members used by the male and the female students to conceive the concrete concepts.

#### 3. Research Questions

The current study attempts to answer the following questions:

1. What are the semantic features and members that male and female second year EFL university students use to conceptualize the concrete concepts "bird", "furniture", "weapon", "vehicle", "cosmetic", "sewing"?

2. What are the similarities and the differences between the male and the female students regarding the semantic features and the members used to conceptualize the concrete concepts?

3. To what extent does gender influence the way the male and the female students prototypically structure these semantic features and members?

#### 4. Hypotheses

As an attempt to answer the questions listed above, the following hypotheses are assumed:

- 1. The male and the female second year EFL university students use several attributes and semantic entities to to conceptualize the concrete concepts "bird", "furniture" "weapon", "vehicle", "cosmetic, and "sewing".
- 2. The male and the female second year EFL university students may use similar semantic attributes to structure the concepts "bird" and "furniture". However, they use different attributes and semantic entities to conceptualize the concepts "weapon", "vehicle", "cosmetic, and "sewing".
- **3.** Gender has a significant role in the prototypical structure of the semantic features and the members used by the male and the female students to construct the six concepts.

#### 5. Significance of the Study

According to the best of the researchers" knowledge, the relationship between gender and semantic categorization has not been examined yet. Though many researchers examined the prototypical structure of some abstract and concrete concepts, these researchers did not investigate how gender may influence the structure of semantic categories. Thus, the significance of this study lies in its being the first scientific work that attempts to extract gender prespective of second year EFL university students prototypically construct concrete concepts in Algerian Arabic.

Moreover, the current study might be significant because it is the first attempt that offers a coherent application of the prototype theory to the study of meaning in Algerian Arabic. Besides, the results of this study can be used to enrich the literature that focuses on the prototypical structure of semantic categories.

#### 6. Research Methodology

To collect the data, two research experiments were conducted with fifty male and fifty female second year EFL university students, at Ibn Khaldoun university of Tiaret. The participants were randomly selected. In the first experiment, the male and the female students were asked to list the semantic features and the members they use when hearing, using, or reading the concepts "bird", "furniture" "weapon", "vehicle", "cosmetic, "sewing". In the second experiment, the participants were asked to prototypically structure the features and the members they listed in the first experiments.

#### 7. The structure of the Dissertation

To conduct this research, three chapters are designed. The first chapter is theoretical. It critically reviews the previous studies that have relation to the theme of this dissertation. The second chapter is practical. It is devoted to detail the research setting, the participants, and the design of the experiments. Chapter three is dedicated to present, analyse and discuss the results obtained from the two experiments.

# Chapter One Categorization and Gender

#### Introduction

This chapter is theoretical. It critically reviews the process of semantic categorization and gender theories. The chapter, first, defines the filed "semantics" and describes the term meaning by taking into consideration different theories and types of meaning. Then, it traces briefly how the study of meaning has been approached in different semantic schools. The chapter also discusses how the classical theory of categorization examined meaning, and provides a detail explanation of Rosch" prorotype theory. Moreover, the chapter describes the notion of gender and explains how different gender theories examine the relationship between gender and language. At the end, the chapter reviews some relevant studies.

#### 1.2.

#### Semantics

The word semantics is derived from the Greek verb *sēmainō* which refers to "to mean" or "to signify" (Britannica n.d.). According to Nordquist (2020) the term semantics (with its actual sense) was first coined by the French linguist Michel Bréal (1897) who is considered as the founder of modern semantics. Semantics is a branch of linguistics that examines how words, phrases and sentences may convey meanings. Semantics "is the study of linguistics meaning.... not with the arrangement of their syntactic parts or with their pronunciation" (Katz, 1972, p.1). It is "the study of MEANING in LANGUAGE" (Hurford et al, 2007, p. 1). More precisely, it investigates how "meaning communicated through language" (Saeed, 2016, p.3). Kreidler (1998, p.) referred to linguistic semantics as "the study of how languages organize and express meanings". In addition to the study of meaning, Semantics also examines the historical development of word meaning across time (Campbell, 1998).

To communicate with others, people usually express their thoughts and ideas through meaningful messages. They combine a set of sound patterns to form words, phrases and sentences that have specific meanings. These words, phrases and sentences are used to convey what is in their minds. The ability to create meaningful words, phrases and sentences is the primary concern of semantics. This later is a level of linguistic analysis where meaningful words, phrases and sentences are analysed (Bagha, 2011). Thus, one can say that this level of linguistic analysis concerns itself with "giving a systematic account of the nature of meaning" (Leech, 1981).

Semantics as opposed to pragmatics, which focuses on beyond what literally is said, examines the literal meaning of language. That is, the primary aim of semanticists is to explore the way people use linguistic items to construct meaningful messages without taking into consideration exteralinguistic factors (Saeed, 2016). To put it in another way, semantics "is about how grammatical processes build complex meanings out of simpler ones" (Portner, 2006, p.137).

#### **1.3. What is Meaning?**

Meaning plays a salient role in any communicative interaction. Without meaning, one''s words, phrases and sentences are useless. In fact, "without meaning there will be no language" (Parded, 2016, p.11). People cannot express their thoughts, ideas, feelings, wants, and desires without meaningful speech acts. It is obvious that "meaning is practically everything. We always see the meaning as we look, think in meanings as we think, act in terms of meaning when we act. Apparently, we are never directly conscious of anything but meanings" (Morris, 1946, p.19). Langacker (1987, p.12), goes further by claiming "the centrality of meaning to virtually all linguistic concerns". For him, "Meaning is what language is all about; the analyst who ignores it to concentrate solely on matters of form severely impoverishes the natural and necessary subject matter of the discipline and ultimately distorts the character of the phenomena described" (Langacker, 1987, p.12).

According to Morris (1946, p. 19) "meaning signifies any and all phrases of sign-process (the status of being a sign, the interpreted, the fact of denoting, the signification) and frequently suggest mental and valuation process as well"

Meaning has become the primary concern to a number of philosophers, scholars, and semanticics, such as Ogden and Richards (1923); Saussure (1974); Lyons (1977), and Leech (1981)...etc., who have tried to examine what meaning is. To this end, various perspectives and theories have been proposed to describe meaning. Though the study of meaning was established as an autonomous academic discipline in the early 19<sup>th</sup> century, the nature of meaning was described in the late fifth century BC when Plato''s dialogue "Cratylus" was introduced. The dialogue is about "the correctness of names". In this dialogue, two viewpoints, regarding the nature of language, were proposed: "conventionalism" and "naturalism". The conventionalist view was held by Hermogenes who argues that the relationship between the words and the things they refer to is arbitrary. By contrast, the naturalist view which was maintained by Cratylus holds that words are natural descriptions of the things they represent. (Geeraerts, 2010).

Plato''s dialogue has influenced other scholars to think more about meaning. Most of these thinkers argued that the meaning of a word is more than just the name it describes, but it is about the mental image or the concept that exists in the mind (Geeraerts, 2010; Bagha, 2011). The main advocate of this perspective is Ferdinand de Saussure (1974) who emphasized that the study of meaning is part of semiotics. Saussure argued that the relationship between a linguistic form (signifier) and the thing it represents (signified) is arbitrary<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Saussure (1974). Course in General Linguistics. Edited by Charles Bally and Albert Sechehaye, translation by Wade Baskin. Glasgow: Fontana/Collins. (First published 1915 as Cours de Linguistique Genérale . Paris: Pyot.)

#### **1.3.1.** Theories of Meaning

To describe the nature of meaning, several theories have been introduced, the main theories are: The definition theory; the description theory; and the reference theory. The definition theory holds that to describe the meaning of a linguistic expression, one should provide a definition for this linguistic expression (Saeed, 2016).

The description theory, which was proposed in works of Searle (1958); Russell (1967); and Frege (1980), has been used to describe the meaning of proper names. That is why it is called the descriptivist theory of proper names. This theory claims that to arrive at the meaning of a proper name, one should take into consideration a set of descriptions which are used to constitute the meaning of this proper name (Bagha, 2011; Saeed, 2016).

The reference theory stresses that the meaning of a given word is related to thing it represents or the entity it picks out in the real-world. The main advocates of this theory are the philosophers John Stuart Mill, Bertrand Russell, and Saul Kripke. Ruth Kempson (1977, p. 13) (as cited in Saeed (2016, p. 29)) assumed that in this theory:

- a. Proper names denote individuals
- b. Common names denote sets of individuals
- c. Verbs denote actions adjectives
- d. Properties of individual"s adverbs denote properties of actions

#### 1.3.2. Types of Meaning

To describe the nature of meaning, Leech (1981) proposed seven types of meaning, namely: Conceptual meaning, connotative meaning, social meaning, affective meaning, reflective meaning, and thematic meaning.

#### a. Conceptual Meaning

Conceptual meaning is also known as denotative meaning. This type of meaning examines words in terms of a set of features in the same way phonology uses distinctive features to describe sounds. In phonology, a sound either possesses or lacks a particular feature. If it has the feature, it is marked as (+), while if it lacks the feature, it is marked as (-). For example, the sound /d/ is described as having the following contrastive features: [+alveolar], [+ voiced], [+ stop], [-nasal]. Another example is the sound /p/ which is described as can [- voiced] [+bilabial] [+plosive]. The distinctive features used in phonology can be used in similar way to express conceptual meaning. That is, to provide the meaning of a particular word, a set of features is developed, these features contrast the meaning of this word from all other possible words. For instance, consider the term "boy". According to the conceptual meaning, this term can be described by three main features which are [+ human], [-female], [-adult]. Moreover, one can specify the word tree as having the features [-human], [+concrete].

In addition to features, conceptual meaning examines the meaning of phrases and sentences in terms of the constituents that build these phrases and sentences. Studying conceptual meaning in terms of contractiveness and structure implies looking at it from a paradigmatic and syntagmatic perspective. Therefore, unlike the other six types of meaning, conceptual meaning derives its meaning from logical connections rather than through connections to external languages (Leech, 1981).

#### b. Connotative Meaning

Connotative meaning is concerned with the communicative significance that an expression carries over and beyond its simply literal meaning. According to Leech (1981), Connotative meaning is open-ended and ambiguous, in contrast to conceptual meaning, which is determined. For, him, Unlike conceptual meaning, which is defined using a small number

of symbols (contrastive features), connotative meaning cannot be determined in a comparable manner (Leech, 1981).

#### c. Social Meaning

Social meaning looks at word meaning as being influenced by social context. The social circumstances are clearly visible in the personal interactions between speakers and hearers, which usually involve the use of language that is indicative of social position. Consider the following two utterances discussed by Pardede, (2016):

1. "They chucked the stone at the cops, and then did a bunk with the loot".

2. "After casting a stone at the police, they absconded with the money".

Though the two utterances express the same meaning, the first one could be used by two criminals talking to each other, while second could be used by a chief inspector in his official report. It seems that the social position of speakers allowed for the possibility of alternative word usage. According to Leech (1981), the higher a speaker's social position is , the harder is his/her speech to be understood. In contrast, the more commonplace phrases he/she uses in his/her statement, the lower his/her social level is.

An utterance that conveys social meaning is considered as having "illuctionary force" (Leech, 1981). That is, it may be interpreted as a request, an assertion, an apology, etc. For instance the utterance "I haven"t got a plate" which is used in the context of a restaurant (spoken to the waiter), has a request connotation. This utterance can be interpreted as "please bring me a plate".

#### d. Affective Meaning

Affective meaning is defined as meaning that reflects the speaker's unique emotions, including his perspective on the subject of the expression (Leech, 1981). For instance, to encourage people to stay quiet, one might say: I'm so sorry to interrupt, but I was wondering if you would be so kind as to lower your voices a little. Politeness is important in this situation. Other elements, like voice tone, play a significant role too.

#### e. Reflective Meaning

Reflective meaning refers to a type of meaning that has more than one conceptual meaning. Some words have more polysemous senses. When someone uses one of these words to denote a particular sense, the word ,,other senses may involve in the interpretation process.

#### f. Collective Meaning

Collective meaning refers to terms that are thought to be separate lexical items but have similar meanings, for instance the terms "big" and "large", and "pretty" and "handsome". It is true that some words have almost the same meanings, however, this does not mean that they can be used interchangeably in all contexts (Leech, 1981). For instance, the word "pretty" collocates with – girls, woman, village, gardens, flowers, etc,. Thus, to qualify these concepts, one canot use "handsom" intead of pretty. On the other hand, the word "handsome" collocates with – "boys" men, etc. Therefore, it seems semantically odd if someone says "pretty man".

#### g. Thematic Meaning

The way a speaker or writer arranges his/her words to communicate a particular message refers to thematic meaning. This type of meaning is about how addressers may use different

word choice, word order, and sequencing to convey different communicate values. Consider the examples below:

1) Chomsky introduced the minimalist program

2) The minimalist program was introduced by Chomsky

The two sentences have the same conceptual meaning but different communicative values. In the first sentence "who introduced the minimalist program is more important", but in the second sentence "What Chomsky intordcued is more important"

#### 1.4. Semantic Frameworks

Since the development of word meaning as an academic discipline, several theoretical frameworks have come to light to study meaning. The major ones are: Historical-philological semantics, structuralist semantics, generativist semantics, and cognitive semantics.

#### 1.4.1. Historical-Philological Semantics

Historical philological semantics is considered as the first approach to the study of meaning. This framework which dominated the scene from 1850 to 1930 examines semantic change. More precisely, it studies the diachronic development of word meaning. This approach which traces the historical change of word meaning across time seeks to identify the origins of word meaning, the different meanings a word may develop through time, and the mechanisms involved in semantic change such as metaphor, metonymy, generalization, specialization...etc., It seems that historical philological semantics focuses on describing what and how semantic change may take place without explaining the reason (s) behind this change (Geeraerts, 2010).

#### **1.4.2.** Structuralist Semantics

Structuralist semantics is a framework of word meaning that dominated the discipline from 1930''s to 1960''s. This framework was influenced by Ferdinand de Saussure''s 1916 paper "Cours de Linguistique Generale," which initiated the structuralist linguistic movement. Structuralist semantics rejects the diachronic development of word meaning proposed by the historical-philological framework, and stresses the synchronic examination of word meaning. Unlike the previous framework, structuralist semantics proposes systematic ways to study meaning. It analyses the meaning of a particular word in terms of other related meanings. The fundamental principle of structural semantics is that words have relational meanings. That is, a word's semantic relation to other words in the same lexical field determines what that word means (Matthews, 2001).Within structural semantics, several theories have been proposed like, componential analysis, lexical field theory, and relational semantics (Geeraerts, 2010).

#### 1.4.3. Generativist Semantics

Generativist semantics is a semantic framework that has been introduced in the mid 1960"s. This semantic approach was influenced by Chomsky"s transformational generative grammar (Karim, 2011). Generativist semantics introduces formal methods to account for word meaning. Within this approach, meaning is directly accounted for instead of describing it through syntactic structure. The main advocates of this framework is Jerrold Katz and Jerry Fodor<sup>2</sup> who integrate the theory of componential analysis into generative grammar. That is why generativist semantics is sometimes known as Katzian semantics. It is true that generativist semantics uses some principles of structuralist semantics, however, unlike structuralist semantics, this framework argues for the mentalist conception of meaning (Geeraerts, 2010).

<sup>&</sup>lt;sup>2</sup> Katz and Fodor combines componential analysis with formal logic in their paper "The Structure of a Semantic Theory" in 1963.

#### 1.4.4. Cognitive Semantics

Cognitive Semantics is a psychological and cognitive semantic framework that was introduced in 1980"s. Cognitive semantics is a maximalist approach to the study of word meaning. Within this framework, meaning is analysed in relation to human cognition. Unlike the previous frameworks which reject the role of context in developing word meaning, cognitive semantics maintains that the world that people experience as embodied human beings play a significant role in the structure and the conceptualization of meaning. Within cognitive semantics, various theories were proposed including prototype theory, the conceptual theory of metaphor, and idealized cognitive models.

In addition to word meaning, cognitive semantics brought to the fore again the study of semantic change. Unlike structuralsit semantics and generativist semantics which examine meaning at a particular point in time; cognitive semantics gives more attention to the diachronic development of word meaning across time. It examines what, how, and why semantic change may occur. That is why cognitive semantics is considered by a number of semanticists as the most popular framework that offers a coherent and relevant way to approach word meaning (Geeraerts, 2010).

#### 1.5. Categorization

Since the development of the cognitive semantic framework, categorization has been considered as one of the essential processes that help to structure and conceptualize meaning. Everything in this world is subject to categorization such as objects, actions, and feelings.

People usually categorize entities to understand their meanings and be able, therefore, to talk about them (Evans and Green, 2006). This suggests that categorization is the fundamental mental mechanism that simplifies the individual's experience of the world and lowers the burden on memory and promotes the effective storage and retrieval of information

(Jacob, 2004). Rosch (1978, p.3) clearly stated that "one purpose of categorization is to reduce the infinite differences among stimuli to behaviorally and cognitively usable proportions". Categorization refers to "the process of dividing the world into groups of entities whose members are in some way similar to each other" (Jacob, 2004.p518). Auwera and Gast (2010: 166) pointed out that a category is "the label for a set of entities that share one or more properties and that are thus to some extent similar".

Though the study of categorization has received much attention recently, categorization was first studied by Aristotle whose approach was used by various structuralist semantisits (Smith and Medin, 1981). However, at the beginning of the 1970"s, a new theory of categorization was introduced, namely the prototype theory.

#### **1.5.1.** The Classical Theory

Traditional Categorization is based on the idea that any category can be defined by a set of determined criteria (Smith & Medin, 1981). According to this theory, each member in a given category is believed to share the essential features or characteristics used to define this category (Jacob, 2004). To put it in other words, to be part of a particular category, members are checked against a set of attributes. The members which have all the attributes used to define the category are considered as elements of this category and occur inside it. By contrast, the members that do not have at least one attribute are classified outside the category. To understand more, consider for instance the category "bird" (Jacob, 2004). This category is defined by the following features (Jakob, 2004.p521):

- a. Laying eggs
- b. Having wings
- c. Flying
- d. Building nests in high locations

An entity x is considered as a bird if it meets all the four features listed above. Intrestingly, if this entity lacks one feature, such as flying, it is not considered as a bird. This means that any entity which can not fly, is not classified as a bird, though it has wings, lays eggs and builds nests in high locations. Besides, the features listed above suggest that no one bird can be more typical or more representative of the category than any other bird because all members of the category have the same set of characteristics. It seems that a parrot, a pigeon, and a puffin are equally classified members within the category "bird" (Jakob, 2004).

According to Lakoff (1987), the classical theory of categorization is "feature checking" theory which implies that "every member of the category must exemplify the complete set of defining features" (Jacob, 2004.p521).

The "classical theory of categories" is the assumption that a category is determined by a collection of defining criteria. This theory is based on the following criteria (Smith & Medin, 1981; Taylor, 1989):

1. A category's primary purpose is to serve as a concise representation of all the entities within it.

2. To determine membership within the category, each of the fundamental features that comprise the category's intention must be present, either individually or collectively.

3. If a category (A) is nested within the superordinate category (B), the features that define category (B) are contained within the set of features that define category (A).

4. Categories are clear cut at the edge

5. Members of a given category are equal entities.

The classical theory of categorization was accepted to be valid and affective model for a long time. However, in the mid-seventies of the last century, a number of scholars, such as Rosch (1973), Rosch and Mervis (1975), and Lakoff (1987) criticized the classical theory of categorization for mainly three reasons. First, the classical theory considers categories as boxes used to classify members without taking take into consideration the role of cognitive processes that help human beings to conceptualize the categories and structure the members within these categories (Lakoff, 1987). Second, According to many scholars, it is difficult and sometimes impossible to choose the right features to define a particular category. Third, the members of a given category cannot be equally represented. That is, within any category members do not have the same features. Some members may share some features with other members, but they may lack other features, like in the case of penguin which lacks the feature "flying" (Rosch and Mervis, 1975; Rosch, 1978).

The problems of the classical theory inspired Rosch and her colleagues to investigate the internal structure of categories. To this end, numerous experiments were conducted (Rosch, 1973; Rosch and Mervis, 1975; Rosch et al., 1976; Rosch, 1977; Rosch 1978). As a result, a new theory of categorization was introduced. This theory is called the prototype Theory.

#### **1.5.2.** The Prototype Theory

The prototype theory was first emerged in the field of cognitive psychology. This theory stresses the role of human cognition. It explains in details how human beings conceptualize semantic categories and classify members within these categories. The prototype theory maintains that any category is structured in relation to salient members called "prototypes" (Rosch, 1973).

#### 1.5.2.1. The Structure of Categories

The prototype theory holds that the structure of any category is based on two dimensions: The vertical and the horizontal dimension (Rosh et al., 1976; Rosch, 1978).

**1.5.2.1.1.** The Vertical Dimension. The vertical dimension refers to "the level of inclusion in the category" (Rosch, 1978, p.253). In any category, one can identify three essential levels: The subordinate level, the basic level and the superordinate level. The first level is included in the second one which is in turn included in the third level. For instance, the entities "desk lamp", "lamp" and "furniture" are different members of the same category, but each member belongs to a particular level of categorization: "desk lamp" which is considered a subordinate member is kind of ( included in) the basic member "furniture". This suggests that the three levels are related to each other as a taxonomic system.

Rosch"s experiments have shown that the basic level is the preferred naming level and the most informative level where most of human beings" knowledge is stored. Rosch (1978) argued that members at the basic level have the highest degree of signal validity. By contrast, members at superordinate and subordinate levels have low signal validity because they share few attributes in common, and most of their common attributes are inherited from the members at the basic level. This explains why members at the basic levels are most of the time used as conceptual images to represent a category as whole. For instance, if you ask someone who is sitting on a garden chair ,,what are you sitting on". He/she probably respond using the basic term ,,chair" instead of the subordinate term ,,garden chair" or the superordinate term ,, furniture".

**1.5.2.1.2.** The Horizontal Dimension. The horizontal dimension is about "the segmentation of categories at the same level of inclusiveness" (Rosch, 1978, p. 253). This dimension explains the way members at a particular level are organized. According to Rosch and her colleagues, members, within categories, are classified according to the attributes (i.e., the features) they share with other members. Some members may have more attributes in common, while others may possess fewer attributes. This means that, attributes of any

category "do not occur uniformaly" (Rosch et al, 1976: 383), as claimed by the classical theory. Rosch and her colleagues (1976, p.383) argued that "some pairs, triples, or tuples are quite probable, appearing in combination sometimes with one, sometimes another attribute; others are rare; others logically cannot or empirically do not occur".

Rosch maintained, based on her experiments, that, in any category, there is member that share much attributes in common with the other members in the same category. This member which is considered as the prototypical member is used to define the category. According to Rosch (1978), the prototypical member of any category is selected based on people's judgments. That is, people choose the attributes of one member in a category and consider them as the best attributes that are used to classify other members in the same category.

Though it was introduced as cognitive psychologist theory, the prototype theory has been increasingly used in semantics because it examines semantic categories in a new way (Geeraerts, 1989; Murphy, 2002). This theory holds that the semantic structure of categories is influenced by prototypicality and salience.

#### 1.5.2.2. Prototypicality and Salience

The prototype theory analyses semantic categories in a totally different way from the classical theory. According to the prototype theory, prototypes or prototypical members of any semantic category play a salient role in describing the structure of this category. Interestingly, this new perspective reveals that the semantic categories show degrees of prototypicality, allow family resemblances, and have fuzzy boundaries (Geeraerts, 2010).

**1.5.2.2.1. Degrees of Typicality.** According to the prototype theory, semantic categories are not described in relation to predetermined features; instead they "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" (Rosch, 1978:253-254). This means that "prototypical categories exhibit degrees of category membership" (Geeraerts, 2016, p. 6). Prototypiclaity refers to the extent to which members of a particular category may resemble the prototype of this category (Geeraerts, 1988). In any semantic category, members are asymmetrical organized from the most prototypical member to the least prototypical one. The organization of the members within a semantic category. This suggests that, within any semantic category, some members are high on prototypically; while others are low (Geeraerts, 2010).

Evidence to support the idea of "degrees of prototypicality" was explained by Rosch (1975) who conducted an experiment to examine the structure of the category "bird". Rosch found that various members are listed as birds. These members differ in their degrees of prototypicality: While "sparrow" is listed and rated as the most prototypical member of the category "bird"; "bat" is considered as the least prototypical member.

**1.5.2.2.2. Family Resemblance.** Unlike the classical theory which holds that members of a particular category must share the same features used to define the category; the prototype theory maintains that entities within any semantic category exhibit family resemblances to other entities of the same semantic category.

"A family resemblance relationship consists of a set of items of the form AB, BC, CD, DE. That is, each item has at least one, and probably several, elements in common with one or more items, but no, or few, elements are common to all items" (Rosch & Mervis 1975, p. 574-5).

According to Rosch and Mervis (1975), each member in a semantic category does not necessarily share with the other members the same features. Instead, it may share one, two or

more features. For them, an entity that shares just one feature with other entities in a particular category can be considered as a member of this category. This suggests that members in semantic categories are unequal entities.

An example of a category whose members exhibit family resemblances is the category "bird". In this category the members "robin", "ostrich", and "bat" are birds but they do not share the same features. Each member has some (not all) features in common with the other members.

**1.5.2.2.3. Fuzzy Boundaries.** The prototype theory argues that semantic categories have fuzzy boundaries. Rosch clearly stated that categories "do not have clear cut boundaries" (Rosch, 1978, p. 259). According to Rosch and her colleagues, it is true that human beings classify the members of a category by making a specific relation to the prototype that best represent the category, however, this does not mean that the features or the attributes of this prototype can be used to define the category this is because of the neighbouring categories that may influence the structure of the category. In this regard, Taylor (2011, p. 652) stated that

"An entity may be judged to be a member of a category only to a certain degree depending on its distance from the prototype. The category, as a consequence, will have fuzzy boundaries, and degree of membership in one category will inversely correlate with degree of membership in a neighbouring category".

#### 1.6. Gender

In the past, the single term used to describe both the physical characteristics of males and females as well as the different social roles that men and women played was sex. Later, it was recognized that the term "sex" does not accurately reflect the diversity of human expression, cultural behavior, and social context. That is to say, for individuals who wanted to discuss how cultural norms or traditions are formed and how they might change, "the terms male and female became questionable terms and ways of understanding difference" (Shukri,2014, p.2).

"Gender is not something we are born with, and not something we have, but something we do" (West and Zimmerman 1987), The idea of gender was required to explain how men and women are divided into categories by society in order to differentiate what men and women are expected to do, how they are supposed to act, and what value is placed on each category (Shukri, 2014). "The modern English word gender comes from the Middle English gender, gendre, a loanword from Anglo-Norman and Middle French gendre" (Siam,2020)

The term "gender" was introduced by John Money in the 1940"s, and it became used in the social sciences from the late 1960"s (Unger, 1979). However, the second-wave feminism, which brought attention to sexual differences in society as well as the patterns of social difference and inequality that emerged, is usually credited with the genuine creation of gender as a concept on its own (Shukri, 2014). Gender is constructed in individual, interactional, and structural ways to create environmental constraints and opportunities that usually benefit men more than women (Blackstone, 2003)

#### **1.6.1.** Approaches to Gender

With the rise and growth of feminism, the relationship between gender and language has become a field of interest for a number sociolinguists. As a result, three main approaches have been introduced to examine the relationship between gender and language. These approaches are the deficient, the dominance, and the difference approach.

#### 1.6.1.1. The Deficient Approach

A key proponent of the deficient theory is Robin Lakoff who introduced her article "Language and Women's Place" in 1975. According to Lakoff, language reflects both strengthens social convention. For her, men"s language is different from women"s language because of the diverse social roles theyplay in the society. Lakoff claimed that male speech patterns, in patriarchal societies, are seen as norms and criteria whereas female speaking patterns are seen as deviations and intentions, suggesting that a woman is in fact an imperfect individual that lives in society. Moreover, she notes that "role socialization is the cause of the defection of female language" (Lakoff, 1996, p.).

This approach was criticized because it implied that women's language was inherently flawed and that if theywanted to be taken seriously, theyneeded learn to talk like men. (Jennifer Coates. 2004).

#### 1.6.1.2. The Dominance Approach

The dominance approach notes how "language patterns are interpreted as manifestations of patriarchal social order" (Talbot 2010, p. 98), which maintains and reproduces the exploitation of women and the dominance of males. Within this approach, males are perceived as being dominant, whereas females are perceived as being supportive. "Women use different devices in their speech such as filers, tag questions as an attribute of interaction with men" (Aljohani.2016, p.107). In whatever situation they face, men will be forceful and use their voice as a tool to communicate their authority and concern. Because of their comparable speaking patterns, women always keep their reactions to their feelings to themselves and prefer sharing with other women (Tannen, 1990).

The dominance approach explains the difference between males ad females" language by taking into consideration their social positions in the society. This approach maintains that the social dominance of men extends to conversations where they emerge as key decision makers, leaving the females playing a supportive role in particular discussions (Aljohani,2016).

#### 1.6.1.3. The Difference Approach

The difference approach, which is also known as the cross-cultural approach, advocates claim that there are underlying variations between how men and women engage to language, likely as a result of different socialization and early (childhood) experiences (Tannen, 1990).

According to the proponents of the different model boys and girls develop, tn early sex-segregated behaviors, "genderlect" (Maltz and Broker, 1982), which is carried into adulthood and is the primary cause of misunderstanding between two gender groups. The difference between male and female language usage is so significant to cross-gender model proponents who consider it to be a cross-cultural difference. In this regard, Alami (2016, p. 251) argued that "the difference approach places emphasis on the idea that women and men belong to two different sub-cultures".

The difference approach considers the ,,,,two cultures'' account of male and female socialization'' (Talbot, 2010, p. 99), where men and women engage in different yet equally valid ways. Women prefer to build solidarity through formal features including cooperative conversational floors, collaborative discourse, and good politeness in single-sex interactions (Potter, 2017). By contrast, Men engage in conversation as a competition. As a result, they prefer to take the initiative in a discussion by, for example, cracking a joke, sharing knowledge, or exercising a skill, which Tannen (1990) refers to as "report talk" (public speaking). This type of talk is different from "rapport talk" (private speaking), which most women use to build relationships and a sense of community(Tannen, 1990, p. 74-95).

#### 1.7. Review of Related Literature

Since the inception of the prototype theory as valid and useful theory of categorization, a number of researchers have examined the prototypical analysis of both abstract and concrete concepts,. However,, Most of these studies if not all of them did not

take the role of gender into consideration. That is, they did not examine the extent to which males and females may differ in the prototypical structure of concrete and abstract concepts.

One the interesting studies that examines the prototypical structure of semantic categories is the one conducted by Basile (2007) who examined how culture may influence people to determine the degrees of prototypicality of four conceret categories. These categories are vehicles, clothes, vegetables, and furniture. The cultures examined in this study are the European Culture and the North American Culture. To conduct this study, the researchers asked ten Europeans and ten North Americans to rate, using a seven-point scale, the degrees of prototypically of the members of each category. The results of the study revealed that the two groups conceptualize the four concepts in different way. According to Basile, this difference may due to the daily-life experience of each group.

Another study was carried out by Weiser and his colleagues (2014) who investigated the way people conceptualize the abstract concept ,,infidelity". The aim of this study is to find out whether this abstract concept has a prototypical structure. To conduct this study, the researchers conducted four experiment with 436 participants. In the first experiment, the researchers asked the participants to mention the features of infidelity. Then, they asked them, in the second experiment, to rank the degrees of prototypicality of the features mentioned in the first experiment. After that, the participants were asked, in the third experiment to recall the features they mentioned earlier. In the fourth experiment, the researchers asked the participants to use the features they listed in the first experiment and generate narratives about the concept ,,infidelity". The results of this study demonstrated that the concept ,,infidelity" can be understood bay taking into consideration a number of features which differ in their degrees of typicality. While some features are central, others are peripheral. The results also revealed that the central features are the only features used to generate narratives about the concept ,,infidelity". Six years later, Ajaleen and Al-Khanji studied the prototypical structure of the abstract concept "freedom" and the concrete concept "drinks". The aim of this study is to examine whether Jordanian people construct these concepts in a different way from the way American people think about them. To conduct the study, the researchers, used two experiments. In the first experiment, the participants whose total number is 117 were asked to generate the features of the two concepts and the members that they think represent the two concepts, In the second experiment, the participant whose total number is 157 were asked to rate, using a six-point scale, the degrees of prototypicality of the features and the examples generated in the first experiment. The results of this study revealed that the features and the examples used by Jordanian people to construct the two concepts "freedom" and "drinks" are different from those used by American people. The results also demonstrated that the hieratical structure of these concepts differ from one group to another.

#### 1.8. Conclusion

Prototype theory has been considered by many scholars and researchers as relevant theory to examine the semantic structure of categories. Unlike the classical approach, the prototype theory conceives semantic categories in terms of prototypical semantic entities. The chapter provided a detail description of Rosch" prototoype theory. It critically discussed the differences between this theory and the classical theory of categorization. Moreover, the chapter described the term gender and summarized the main theories of gender that examine males and females" language. Finally, the chapter reviewed bravely some studies.

# Chapter Two Research Methodology

#### **2.1. Introduction**

This chapter is practical. It describes the research protocol used to conduct the two experiments to collect data. First, it explains the rationale behind selecting the concepts "bird", "furniture", "weapon", "vehicle", "cosmetic", and "sewing" . Then, it describes the research setting. The chapter provides detail information on where and when the experiments took, and the participants involved in the experiments. Moreover, the chapter illustrates the design of the two experiments. At the end, the chapter present methods of data analysis.

## 2.2. Research Aims

As mentioned in the general introduction, the present study seeks to investigate the way gender influences the semantic prototypical structure of a set of concrete categories. The primary aim of this study is threefold: (1) To find out the semantic features and the semantic entities (i.e., members) that male and female Algerian people use to determine the meaning of the concrete concepts "bird, "furniture", "weapon", "vehicle", "cosmetic", and "sewing", (2) to determine the similarities and the difference between male and female Algerian people regarding the semantic features and the semantic entities they use to structure these six concrete concepts, and (3) to examine the degrees of prototypicality of the semantic features and the semantic entities used by male and female Algerian people to conceptualize the concepts "bird", "furniture", "weapon", "vehicle", "cosmetic", and "sewing".

#### 2.3. Research Design

To examine the extent to which gender may influence the semantic prototypical structure of concrete categories, a set of criteria was established:

1. Two concrete concepts that both males and females may think about them in the same way.

- 2. Two concrete concepts that males are believed to know more about them than do females
- Two concrete concepts that females are believed to know more about them than do males.

The rationale behind the criteria above is to choose the appropriate concepts that can be used to examine the stereotype that people have about how males and females determine the meaning of some concepts. Many people as well as researchers maintain that males and females, because of their sociocultural socialization, think about some concepts in different way. Thus, to investigate this stereotype, and determine the similarities and the differences between males and females'' semantic structure of concrete concepts, the following semantic concepts were selected: "bird", "furniture", "weapon", "vehicle", "cosmetic", and "sewing". Each two concepts satisfy one of the criteria listed above:

- a. The concepts ",bird" and ",furniture" meet the first criterion.
- b. The concepts "weapon", and "vehicle" meet the second criterion.
- c. The concepts "cosmetic", and "sewing" meet the third criterion.

To conduct the present research, both the quantitative and the qualitative approach were selected. The first approach was used to quantify precisely the semantic features and the semantic members that both male and female Algerian people may use to structure the six concrete concepts mentioned above and the prototypical structure of these features and members. To this end, tow experiments, based on the work of Fehr and Russell (1984), were conducted with one hundred second year university students who study English at Ibn khaldoun university of Tiaret. The second approach was used to critically discuss the results obtained from the two experiments.

#### 2.4. Research Setting

The present research was carried out at Ibn Khaldoun University of Tiaret. More precisely, it was carried out at the English Department. The first experiment was conducted with second year university students on March, 14, 2022, in their classrooms. The students were excited to participate in the experiment which took three days to be completed.

Regarding the second experiment, it was conducted with the same students who participated in the first experiment. The experiment was carried out on May, 15<sup>th</sup>, 2022, during the examination week of the second semester. Unlike the first experiment, the second experiment took one week to conduct because not all the students were available at the same time.

## 2.5. Participants

As mentioned earlier, one hundred second year EFL university students were selected to be the representative sample of this study. The students were randomly selected. The participants were equally divided, on the basis of their gender into two groups. The first group includes 50 male students, while the second contains 50 female students. Gender is considered as an essential factor in this study because the aim of this research is to examine the extent to which gender may influence the semantic prototypical structure of a set of concrete concepts.

It is worth mentioning that other factors, such as the age of the students, their social class, and their level in English, were not taken into consideration. These factors are beyond the primary aim of the present study. The participants involved in the two experiments are described in table (1) below.

| Experiments   | Number of the Participants   | Gender                 |
|---------------|------------------------------|------------------------|
| Experiment 01 | 100 Second Year EFL students | 50 males<br>50 females |
| Experiment 01 | 100 Second Year EFL students | 50 males<br>50 females |

Table 01: The number of the participants involved in the two experiments

## 2.6. Methods of Data Collection

To conduct this research, two experiments were used with the second year EFL university students. The two experiments are based on the work of Fehr and Russell (1984).

#### **2.6.1. Experiment 01**

Experiment one was conducted to investigate the impact of gender on generating the semantic features and the semantic members of concrete concepts. In this experiment, the participants were asked to provide all the possible semantic attributes and members that come to their minds when they read, hear, see, or use the target concepts.

In this experiment, the male and the female students were given two sheets of paper, each of which contains a table of 6 columns. Each column is devoted to one of the six target concepts. In the first paper sheet, the participants were asked to list the semantic attributes of each concept; while in the second, they were required to write down the semantic entities. At the end of the experiment, the participants were asked to write their first names or nicknames at the end of each sheet of paper to make sure that the same participants would participate in the second experiment. The first experiment was conducted in Arabic. The participants were asked to list the semantic features and the members in Algerian Arabic. In addition to this variety, the participants were also allowed to use Standard Arabic, French, or English, especially, in cases where they found difficulties to write some semantic features or members in Algerian Arabic.

After collecting the lists, the next step was to organize the data obtained from the first experiment in order to conduct the second experiment. To do this, the semantic features and the members of each concept were examined one by one. It was noticed that some semantic features and/or members were listed in different morphological forms, or expressed in different synonymous terms. In this case, only one form was used. Then, all the semantic features and members of each concept were organized, on the basis of their frequencies; from the most frequently listed items to the least frequently listed ones. The total number of the semantic features and members obtained from the first experiment (after the organization) was 249. The number of the semantic features and members of each concept and members of each concept is presented in table (2) below.

| Concepts    | Semantic Features | Members |
|-------------|-------------------|---------|
| > Bird      | 20                | 28      |
| > Furniture | 25                | 21      |
| > Weapon    | 23                | 24      |
| > Vehicle   | 21                | 15      |
| > Cosmetic  | 14                | 26      |
| > Sewing    | 16                | 16      |
| Total       | 119               | 130     |

Table 02: The number of the semantic features and members of each concept

## 2.6.2. Experiment 02

Experiment two was conducted to determine the way the male and the female students prototypically structure the semantic features and the members generated in the first experiment. All the features and the members generated in the first experiment were used in the second one. In this experiment, the semantic features and members of each concept were classified in two separate tables.

The next step was to ask the participants to classify the semantic features and the members they generated in the first experiment according to the extent to which these semantic features and members represent the concept they belong to. To classify the semantic features and members, a 7-point raring scale was used. The values used in this scale range from 7 to 1 as follow:

- > 7- Very good representative example of the concept
- ➢ 6- Good representative example of the concept
- ➤ 5- Fairly good representative example of the concept
- ➤ 4- Fairly poor representative example of the concept
- ➢ 3-Poor representative example of the concept
- 2-Very poor representative example of the concept
- ➢ 1- Not a representative example of the concept

It is worthmentiong that this experiment was conducted in Arabic. Most of the semantic members and features used in the second experiment were written in Algerian Arabic (the language used by the participants in the first experiment to list the features and members). However, other terms were written, according to the language used by the participants to list these terms in the first experiment, in Standard Arabic, French, or English.

#### 2.7. Method of Data Analysis

To analyze the results obtained from the first experiment, the frequency of each semantic feature and member listed by the male and the female students is manually counted. Regarding the findings of the second experiment, the researchers count manually how the males and the females rate, based on the 7-point scale mentioned above, each semantic feature and member. It is worthmentiong after conducting the first and second experiment, all the semantic features and members were translated into English to analyze and discuss them.

## 2.8. Conclusion

The chapter illustrates the research methodology used to conduct this scientific work. It outlined the criteria used in data selection. The chapter also detailed the process of data collection. It described the research setting, the participants, and the design of the experiments. Moreover, the chapter briefly summarized the methods used to analyse the data.

# Chapter Three Results and Discussion

#### **3.1. Introduction**

This chapter describes and analyses the results obtained from the two experiments. It presents the semantic features and the members used by the male and the female students to conceptualize the concepts "bird", "furniture", "weapon", "vehicle", "cosmetic", and "sewing", and analyses them in relation to Rosch"s prototype theory. To this end two section are used. The first section describes and analyses the semantic features and the members used by the male and the female students to structure the concepts mentioned above. The second section presents and analyses the prototypical structure of these semantic features and members. At the end, the chapter critically discusses the results of the two experiments.

## **3.2. Data Analysis**

## **3.2.1.** Features and Members generated to conceptualize the concrete concepts

This section presents and analyses the semantic features and the members used by the male and the female second year EFL students when hearing, using, or reading the concepts ",bird", ",furniture", ",weapon", ",vehicle", ",cosmetic", and ",sewing".

### 1. Bird

#### Semantic Features

Table 03: Features used to conceptualize the concept "bird"

| Features          | Males | Females |
|-------------------|-------|---------|
| Feathers          | 80%   | 78%     |
| Beak              | 54%   | 48%     |
| Legs              | 12%   | 14%     |
| Wings             | 60%   | 54%     |
| Chrip             | 12%   | 28%     |
| Bieng able to fly | 16%   | 26%     |
| Colored           | 2%    | 10%     |
| Nest              | 4%    | 10%     |
| Crown             | 2%    | 8%      |
| Claws             | 14%   | 4%      |

| Eggs    |    | 6% |
|---------|----|----|
| Neck    | 4% |    |
| Peace   | 4% |    |
| Sky     | 2% | 2% |
| Wheat   | 2% | 2% |
| Freedom | 2% | 2% |
| Tail    | 2% |    |
| Trees   | 2% |    |
| Eyes    | 2% |    |
| Sea     | 2% |    |

Concerning the features used to conceptualize the concept "bird", Table (3) shows that most than 60% of both the male and the female students list the features "feathers" and "wings". The table also shows that the features "beak", "legs", "chirp", "being able to fly" are less frequently mentioned by the two genders. Moreover, both genders list, least frequently the features "colored", "nest", "crown", "claws, "sky", "wheat", "freedom". The table also shows that the features "neck", "peace", "freedom", "tail", "trees", "eyes", and "sea" are mentioned only by the males, while feature "eggs" is listed only by the females.

## Semantic Members

| Members      | Males | Females |
|--------------|-------|---------|
| Pigeon       | 50%   | 60%     |
| Canary       | 42%   | 38%     |
| Eagle        | 36%   | 20%     |
| Parrot       | 22%   | 24%     |
| Chicken      | 20%   | 22%     |
| Crow         | 20%   | 24%     |
| Hawk         | 22%   | 10%     |
| Duck         | 14%   | 16%     |
| Норрое       | 4%    | 6%      |
| Sparrow      | 10%   | 24%     |
| Streptopelia | 10%   | 10%     |
| Cock         | 10%   | 4%      |
| Stork        | 8%    | 4%      |
| Goldfinsh    | 6%    | 8%      |
| Peacock      | 2%    | 8%      |
| Chick        | 2%    | 8%      |
| Bat          |       | 8%      |
| Goose        | 6%    | 6%      |
| Squab        | 6%    |         |

Table 04: Members used to conceptualize the concept "bird"

| Swallow Bird |    | 6% |
|--------------|----|----|
| Owl          | 4% | 4% |
| Budgie       | 4% | 4% |
| Ostrich      | 4% |    |
| Quail        | 4% |    |
| Jay          | 4% |    |
| Male Pigeon  | 4% |    |
| Partridge    |    | 4% |
| Woodpecker   | 2% | 2% |

The results reveal that the members "pigeon", "canary", "eagle" "parrot", "chicken", "crow" are frequently listed by both the male and the female students. However, the members "duck", "hoppoe", "sparrow", "streptopelia", "cock", "stork", "goldfinch", "peacock", "chick", "owl", "budgie", "goose", and "woodpecker" are least frequently listed by the two genders. The results also indicate that the females, unlike the males, provide three members which are "bat", "swallow bird", and "partridge"; while the males generate the members "ostrich", "squab" "quail", "jay, and "male pigeon". These members are not mentioned by the females.

# 2. Furniture

#### Semantic Features

Table 05: Features used to conceptualize the concept "furniture"

| Features           | Males | Females |
|--------------------|-------|---------|
| Wood               | 66%   | 56%     |
| Fabric             | 20%   | 20%     |
| Iron               | 14%   | 22%     |
| Glass              | 16%   | 18%     |
| Plastic            | 10%   | 12%     |
| Legs               | 8%    | 4%      |
| Decoration         |       | 14%     |
| Comfort            |       | 8%      |
| Heritage           |       | 4%      |
| Cooking            | 2%    | 2%      |
| Wool               | 8%    | 6%      |
| Sleeping           |       | 4%      |
| Copper             | 4%    | 2%      |
| Cleaning Materials |       | 4%      |
| Varnish            |       | 2%      |

| Silk            | 4% |    |
|-----------------|----|----|
| Leather         |    | 2% |
| Colors          |    | 2% |
| Feathers        |    | 2% |
| Sitting         | 4% |    |
| Aluminium       | 4% |    |
| Crystal         | 2% |    |
| Cardboard Paper | 2% |    |
| Home            | 4% |    |
| Sponge          | 2% |    |

Table (5) reveals that "wood" is the most frequently listed feature. 66% of the male students and 56% of the females mention this feature. The table also shows that "fabric", "iron", "glass", and "plastic" are less frequently listed by both genders, while the features "legs", "cooking", "wool", and "copper" are the least frequently listed attributes. Besides, there are some features which are generated only by the males; while others are mentioned by the females. The features which are provided by the first group are "silk", "sitting", "aluminium", "crystal", "cardboard paper", "home", and "sponge". The attributes that the second group provide are "decoration", "comfort", "sleeping", "cleaning materials" "varnish", "leather", "colors", and "feathers"

# Semantic Members

| Members          | Males | Females |
|------------------|-------|---------|
| Chair            | 72%   | 54%     |
| Sofa             | 22%   | 54%     |
| Wardrobe         | 6%    | 8%      |
| Table            |       | 56%     |
| Desk             | 2%    | 12%     |
| Closet           | 24%   | 22%     |
| Painted Picture  | 4%    | 6%      |
| Pillow           | 6%    | 18%     |
| Bed              | 26%   | 16%     |
| Kitchen Utensils | 6%    | 8%      |
| Shelf            |       | 2%      |
| Carpet           | 2%    | 12%     |
| Cooker           |       | 2%      |
| Chandelier       | 4%    | 2%      |
| Bookcase         |       | 4%      |

Table 06: Members used to conceptualize the concept "furniture"

| Curtains     |    | 4%  |
|--------------|----|-----|
| Vase         | 4% | 4%  |
| Refrigerator | 2% | 8%  |
| Window       |    | 4%  |
| TV           |    | 10% |
| Heater       | 2% |     |

As indicated in the table (06) above, 72% of the male students and 54% of the females list the member "chair". They also mention, less frequently, the members "closet" and "bed". Regarding "wardrobe", "desk", "painted picture", "pillow", "kitchen", "utensils", "carpet", "chandelier", "vase", and "refrigerator", the table shows that less than 20% of the participants of both genders mention these members. However, when it comes to the member "sofa", the findings demonstrate that the females list this member more than do the males. Moreover, 56% of them provide the member "table" which is not mentioned by the males. In addition to "table", the females list other members like "shelf", "cooker ", "bookcase", "curtains", "window", and "TV". These members are least frequently mentioned.

## 3. Weapon

## Semantic Features

| Features   | Males | Females |
|------------|-------|---------|
| Bullet     | 50%   |         |
| Iron       | 42%   | 16%     |
| Killing    | 10%   | 28%     |
| Wood       | 28%   |         |
| War        | 8%    | 24%     |
| Gunpowder  | 20%   | 16%     |
| Blood      | 6%    | 18%     |
| Ammunition | 16%   |         |
| Injury     | 2%    | 12%     |
| Defense    |       | 10%     |
| Fire       | 8%    | 6%      |
| Death      |       | 8%      |
| Sharp      | 6%    | 2%      |
| Slaughter  |       | 6%      |
| Explosion  | 4%    | 4%      |
| Black      | 4%    | 4%      |

Table 07: Features used to conceptualize the concept "weapon"

| Copper        | 4% | 2% |
|---------------|----|----|
| Army Games    |    | 4% |
| Smoke         | 4% |    |
| Confrontation |    | 2% |
| Criminal      |    | 2% |
| Shot          |    | 2% |
| Treason       |    | 2% |

The results show that 50% of the male students generate the feature "bullet". This attribute is not mentioned by the females at all. Concerning less frequently listed features, the findings indicates that both genders mention the features "iron", "killing", and "gunpowder". Moreover, less than 20% of both genders list the members "blood", "injury", "fire", "sharp", "explosion", "black", and "copper".

The results also reveal that there are difference between the males and the females, regarding the generation of some members. While the males list the members "wood", and "ammunition", the females provide the members "defence", "death", "slaughter", "army" games" "confrontation" "criminal", "shot" and "treason". These members are least frequently listed.

## Semantic Members

| Members       | Males | Females |
|---------------|-------|---------|
| Gun           | 48%   | 86%     |
| Knife         | 34%   | 56%     |
| Kalashnikov   | 22%   | 36%     |
| Musket        | 22%   | 32%     |
| Sword         | 26%   | 24      |
| Bomb          | 22%   | 10%     |
| Ak-47         | 22%   |         |
| Bowie Knife   | 16%   | 10%     |
| Tank          | 8%    | 14%     |
| Folding Knife | 6%    | 10%     |
| Sniper Rifle  | 4%    | 08%     |
| Rocket        | 6%    | 02%     |
| Blade         |       | 6%      |
| M16           | 6%    |         |

Table 08: Members used to conceptualize the concept "weapon"

| MP40    | 4% |     |
|---------|----|-----|
| M6      | 4% |     |
| AK-45   | 4% |     |
| Bazooka | 4% |     |
| Spear   |    | 02% |
| AKM     | 2% |     |
| UMP     | 2% |     |
| M1014   | 2% |     |
| Spas 12 | 2% |     |
| M411    | 2% |     |

Table (8) demonstrates that 48% of the females and 86% of the males generate the member "gun". Other members are frequently listed by the two genders like "knife", "Kalashnikov", and "musket". Regarding the less frequently listed members, the participants, (males and females) mention "sword", "bomb", and "bowie knife". However, the members "tank", "folding knife", "sniper rifle", and "rocket" are least frequently listed.

In addition to the members mentioned above, there are some members which are listed only by the males like "Ak-47", "M16", "MP40", "M6", "AK-45", "bazooka", "AKM", "UMP4, "UMP", "M1014", "spas 12", and "M411". The females also provide their own members like "blad" and "Spear". Both the males and the females" members are least frequently mentioned

# 4. Vehicle

#### Semantic Features

Table 09: Features used to conceptualize the concept "vehicle"

| Features       | Males | Females |
|----------------|-------|---------|
| Wheels         | 32%   | 34%     |
| Mobility       | 10%   | 26%     |
| Engine         | 24%   | 10%     |
| Steering Wheel | 14%   | 20%     |
| Travel         | 10%   | 20%     |
| Iron           | 2%    | 20%     |
| Speed          | 2%    | 20%     |
| Gasoline       | 20%   | 12%     |
| Glass          | 16%   | 16%     |
| Mirror         | 12%   | 12%     |
| Brakes         | 4%    | 10%     |
| Arrival        |       | 10%     |

| Chair     | 10% | 8% |
|-----------|-----|----|
| Honk      |     | 8% |
| Smoke     | 4%  | 6% |
| Seat belt | 4%  | 2% |
| Headlight | 4%  |    |
| Elegance  |     | 2% |
| Luxury    | 2%  | 2% |
| Tourism   |     | 2% |
| Colors    |     | 2% |

The results in table (09) reveal that the features "wheels", "mobility", "engine", "steering wheel" "travel", "gasoline", "glass", and "mirror" are frequently listed by both the male and the female students, while the attributes "brakes", "chair", "smoke", "seat belt", "luxury" are least frequently mentioned by the two genders. The results also demonstrate that 20% of the females mention "iron" and speed", while just 2% of the males generate these two features. Moreover, there are some members which are listed only by the females like "arrival", "honk", "elegance", tourism, and "colors". These features are the least frequently mentioned ones.

## Semantic Members

| Members    | Males | Females |  |  |
|------------|-------|---------|--|--|
| Car        | 56%   | 74%     |  |  |
| Motorcycle | 58%   | 22%     |  |  |
| Airplane   | 24%   | 42%     |  |  |
| Bus        | 32%   | 34%     |  |  |
| Truck      | 28%   | 30%     |  |  |
| Bicycle    | 6%    | 30%     |  |  |
| Steamship  | 2%    | 26%     |  |  |
| Train      | 10%   | 20%     |  |  |
| Tractor    | 20%   | 4%      |  |  |
| Subway     |       | 6%      |  |  |
| Boat       | 6%    |         |  |  |
| Taxi       | 4%    |         |  |  |
| Rocket     | 4%    |         |  |  |
| Helicopter |       | 2%      |  |  |
| Submarine  |       | 2%      |  |  |

Table 10: Members used to conceptualize the concept "vehicle"

The findings in table (10) above show that 56% of the male students and 74% of the females mention the entity "car". The two genders also list frequently the members "motorcycle", "airplane", "bus", "truck", and "train". However, the table reveals that members "bicycle" and "steamship" which are frequently generated by the females are least mentioned by the males.

Concerning the differences between the males and the females, the results demonstrate the members "boat", "taxi", and "rocket" are provided only by the males, while the members "subway", "helicopter", "submarine" are mentioned only by the females.

## 5. Cosmetic

#### Semantic Features

| Features     | Males | Females |
|--------------|-------|---------|
| Wedding      | 6%    | 40%     |
| Beauty       | 2%    | 32%     |
| Colors       | 10%   | 22%     |
| Chemicals    |       | 16%     |
| Moisturizing |       | 8%      |
| Roses        |       | 6%      |
| Elegance     |       | 6%      |
| Lightening   | 6%    |         |
| Skin         | 4%    |         |
| Liquids      | 4%    |         |
| Eyes         | 4%    |         |
| Being Creamy | 2%    |         |
| Care         |       | 2%      |
| Cleaning     |       | 2%      |

Table 11: Features used to conceptualize the concept "cosmetic"

Table (11) shows that 40% of the female students list the features wedding, and 32% provide the attribute "beauty". These two features are least frequently generated by the males who mention also the features "lightening", "skin", "liquids", "eyes", and "being creamy. The

table also reveals that chemicals, "roses", "elegance", " care", and "cleaning" are least frequently listed by the females.

## > Semantic Members

| Members        | Males | Females |
|----------------|-------|---------|
| Lipstick       | 64%   | 76%     |
| Mascara        | 16%   | 72%     |
| Eyeliner       | 2%    | 54%     |
| Foundation     | 16%   | 38%     |
| Blusher        | 8%    | 42%     |
| Eyeshadow      | 2%    | 28%     |
| Powder         | 8%    | 24%     |
| Concealer      | 2%    | 20%     |
| Contour        | 2%    | 16%     |
| Lip Gloss      | 2%    | 14%     |
| Primer         | 4%    | 14%     |
| Eye Pencil     | 12%   | 12%     |
| Highlighter    |       | 12%     |
| Cotton         |       | 8%      |
| Rose water     |       | 6%      |
| Shampoo        | 6%    |         |
| Bronzer        |       | 4%      |
| Sunblock       |       | 4%      |
| Beauty blender |       | 2%      |
| Glitter        |       | 2%      |
| Palette        |       | 2%      |
| Lenses         | 2%    |         |
| Soap           | 2%    |         |
| Hair Dye Color | 2%    |         |
| Henna          | 2%    |         |
| Eyelashes      | 2%    |         |

Table 12: Members used to conceptualize the concept "cosmetic"

As table (12) demonstrates, the member "lipstick" is most frequently listed by the male and female students. In addition to this member, the females mention, more frequently, other members like "mascara", "blusher" and "eyeliner". These members are least frequently generated by the males. Table (12) also indicates that the females provide, less frequently, other members like "foundation" "eye shadow", "powder", "concealer" "lip-gloss", "contour", and "primer". These members are also least frequently listed by the males. Besides, the findings in table (12) show that the features "highlighter", "cotton", "rose water", "bronzer", "sunblock", "beauty blender", "glitter", and "palette" are provided only by the males; whereas, the members "lenses", "shampoo", "soap", "hair dye color", "henna", and "eyelashes" are listed only by the males.

## 6. Sweing

## Semantic Features

| Features       | Males | Females |
|----------------|-------|---------|
| Thread         | 88%   | 84%     |
| Needle         | 70%   | 76%     |
| Fabric         | 26%   | 44%     |
| Sewing Machine | 24%   | 36%     |
| Crochet        | 6%    | 26%     |
| Scissors       | 6%    | 18%     |
| Wool           | 6%    | 12%     |
| Lace           |       | 8%      |
| Measuring Tape |       | 6%      |
| Leather        |       | 6%      |
| Cotton         | 4%    | 2%      |
| Button         | 4%    |         |
| Wheel          |       | 2%      |
| Colors         | 2%    | 2%      |
| Feather        |       | 2%      |
| Suede          | 2%    |         |

Table 13: Features used to conceptualize the concept "sewing"

Table (13) reveals that more than 70% of the male and the female students list the features "needle" and "thread". Moreover, the two genders mention, less frequently, other features like "fabric" and "sewing machine". They also provide, least frequently, the features "cotton" and "colors". The table also shows that the features "crochet", "scissors" and "wool" which are less frequently generated by the females, are least frequently provided by the males. The findings in table (13) demonstrates that the males list other features like "button" and suede"; while the females mention the features "lace", "leather", "wheel", and "feather".

## Semantic Members

| Members  | Males | Females |
|----------|-------|---------|
| Djellaba | 4%    | 50%     |
| Trousers | 24%   | 24%     |
| Veil     | 2%    | 18%     |
| Caftan   |       | 16%     |
| T-Shirt  | 20%   | 14%     |
| Blouza   |       | 12%     |
| Jacket   | 8%    | 10%     |
| Shirt    | 8%    | 10%     |
| Dress    | 8%    | 8%      |
| Karakou  |       | 4%      |
| Pyjamas  |       | 6%      |
| Carpet   | 4%    | 4%      |
| Hayek    | 2%    | 2%      |
| Coat     |       | 2%      |
| Shorts   |       | 2%      |
| Socks    |       | 2%      |

Table 14: Members used to conceptualize the concept "sewing"

The results show that 50% of the females list the member "djellaba" which is least frequently generated by the males. Moreover, regarding the members "trousers", and "t-shirt", table (12) reveals that both genders mention these two members less frequently. Concerning the least frequently listed members, the results demonstrates that both genders provide the members " jacket", "shirt", "dress", "carpet", and "hayek".The results in table (14) indicates that other members are listed by the females. These members are "caftan", "blouza", "karakou", "pyjamas", "coat", "shorts", "and socks".

## 3.2.2. Features and Members' Prototypical Analysis

This section analyses the extent to which gender may affect the prototypical structure of the semantic features and semantic members used to conceptualize each concept. It presents and discusses the degrees of typicality of all the semantic features and semantic members that were generated by by both the male and the female students in the first experiment.

# 1. Bird

# Semantic Features

| Features   |    | 7  |    | 6  |    | 5 4 3 2 |    | 1  | l  |    |    |    |    |   |
|------------|----|----|----|----|----|---------|----|----|----|----|----|----|----|---|
|            | Μ  | F  | Μ  | F  | Μ  | F       | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F |
| Feathers   | 84 | 88 | 4% |    | 6% | 12      | 2% |    |    |    |    |    | 4% |   |
|            | %  | %  |    |    |    | %       |    |    |    |    |    |    |    |   |
| Beak       | 70 | 80 | 8% | 20 | 6% |         | 8% |    | 4% |    |    |    | 4% |   |
|            | %  | %  |    | %  |    |         |    |    |    |    |    |    |    |   |
| Legs       | 42 | 72 | 12 | 8% | 6% | 20      | 10 |    | 4% |    | 6% |    | 20 |   |
| -          | %  | %  | %  |    |    | %       | %  |    |    |    |    |    | %  |   |
| Wings      | 84 | 92 | 4% | 8% | 10 |         |    |    |    |    | 2% |    |    |   |
| -          | %  | %  |    |    | %  |         |    |    |    |    |    |    |    |   |
| Chirp      | 60 | 72 | 6% | 18 | 6% | 8%      | 12 | 2% | 8% |    | 2% |    | 6% |   |
| -          | %  | %  |    | %  |    |         | %  |    |    |    |    |    |    |   |
| Bieng able | 66 | 70 | 10 | 30 | 2% |         | 16 |    | 4% |    |    |    | 2% |   |
| to fly     | %  | %  | %  | %  |    |         | %  |    |    |    |    |    |    |   |
| Colored    | 66 | 86 | 14 | 8% | 14 | 6%      | 10 |    | 4% |    | 6% |    | 18 |   |
|            | %  | %  | %  |    | %  |         | %  |    |    |    |    |    | %  |   |
| Nest       | 60 | 96 | 8% | 4% | 22 |         |    |    | 2% |    | 4% |    | 4% |   |
|            | %  | %  |    |    | %  |         |    |    |    |    |    |    |    |   |
| Crown      | 14 | 56 | 6% | 24 | 16 | 10      | 16 | 10 | 2% |    | 2% |    | 44 |   |
|            | %  | %  |    | %  | %  | %       | %  |    |    |    |    |    | %  |   |
| Claws      | 38 | 30 | 8% | 30 | 22 | 16      | 8% | 24 | 6% |    | 8% |    | 10 |   |
|            | %  | %  |    | %  | %  | %       |    | %  |    |    |    |    | %  |   |
| Eggs       | 56 | 36 | 20 | 12 | 4% | 10      | 12 | 10 | 3% |    | 6% |    | 18 |   |
| 00         | %  | %  | %  | %  |    | %       | %  | %  |    |    |    |    | %  |   |
| Neck       | 38 | 64 | 14 |    | 14 | 24      | 6% | 12 | 4% |    | 6% |    | 18 |   |
|            | %  | %  | %  |    | %  | %       |    | %  |    |    |    |    | %  |   |
| Peace      | 34 | 64 | 6% |    | 12 | 12      | 12 | 24 | 2% |    | 4% |    | 30 |   |
|            | %  | %  |    |    | %  | %       | %  | %  |    |    |    |    | %  |   |
| Sky        | 40 | 86 | 12 |    | 18 | 14      | 10 |    | 6% |    | 4% |    | 10 |   |
| 2          | %  | %  | %  |    | %  | %       | %  |    |    |    |    |    | %  |   |
| Wheat      | 46 | 48 | 10 | 10 | 8% | 18      | 12 | 16 | 12 | 4% | 2% |    | 14 |   |
|            | %  | %  | %  | %  |    | %       | %  | %  | %  |    |    |    | %  |   |
| Freedom    | 42 | 36 | 18 | 20 | 14 | 20      | 10 | 24 |    |    | 4% |    | 12 |   |
|            | %  | %  | %  | %  | %  | %       | %  | %  |    |    |    |    | %  |   |
| Tail       | 18 | 24 | 6% |    | 16 | 40      | 12 |    | 12 | 16 | 2% | 10 | 28 |   |
|            | %  | %  |    |    | %  | %       | %  |    | %  | %  |    | %  | %  |   |
| Trees      | 34 | 76 | 10 | 24 | 22 |         | 8% |    | 6% |    | 4% |    | 16 |   |
|            | %  | %  | %  | %  | %  |         |    |    |    |    |    |    | %  |   |
| Eyes       | 36 | 80 | 8% | 16 | 6% | 4%      | 4% |    | 6% |    | 14 |    | 34 |   |
| 2          | %  | %  |    | %  |    |         |    |    |    |    | %  |    | %  |   |
| Sea        | 16 | 12 | 6% | 24 | 12 | 4%      | 12 | 26 | 4% | 14 | 16 |    | 34 |   |
|            | %  | %  |    | %  | %  |         | %  | %  |    | %  | %  |    | %  |   |

Table 15: Prototypical analysis of the features used to conceptualize the concept "bird"

A comprehensive look at table (15) demonstrates that male and female students rate the degrees of typicality of the semantic features used to conceptualize the concept "bird" almost in the same way. The results show that both genders consider the features "feathers, "beak, "wings", chirp" " being able to fly", "colored, and "nest", "as the best features that represent the category "bird". More than 60% of the male and the female students rate these features as the most prototypical features. Moreover, both of them classify the features "claws", "egges", "sky", "wheat" and "freedom" as less prototypical features of the category "bird".

The results also indicates that there are significant differences between the males and the females regarding the prototypical structure of the features "legs", "crown", "neck", "peace", "tress", "tail", and "eyes". While the females students consider them as best prototypical features; many male students classify them outside the category "bird". By contrast, the feature "sea" which is rated by 16% of male students as the best prototypical feature, 34% of the females think that this feature has nothing to do with the category "bird".

#### Semantic Members

| Members | 7  |    | 6  |    |    | 5  |    | 4  |    | 3  |    | 2  | 1  |    |
|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|         | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  |
| Pigeon  | 90 | 84 | 8% | 8% |    | 8% |    |    | 2% |    |    |    |    |    |
| -       | %  | %  |    |    |    |    |    |    |    |    |    |    |    |    |
| Canary  | 76 | 84 | 14 | 8% | 4% |    | 2% |    | 2% |    | 2% |    |    |    |
| •       | %  | %  | %  |    |    |    |    |    |    |    |    |    |    |    |
| Eagle   | 78 | 52 | 18 | 20 | 2% |    | 2% |    |    | 8% |    | 2% |    | 2% |
| U       | %  | %  | %  | %  |    |    |    |    |    |    |    |    |    |    |
| Parrot  | 72 | 80 | 4% | 12 | 12 | 8% | 4% |    |    |    | 6% |    | 2% |    |
|         | %  | %  |    | %  | %  |    |    |    |    |    |    |    |    |    |
| Chicken | 34 | 24 | 14 | 16 | 8% | 20 | 14 | 8% | 6% |    | 12 | 12 | 12 | 8% |
|         | %  | %  | %  | %  |    | %  | %  |    |    |    | %  | %  | %  |    |
| Crow    | 66 | 72 | 14 | 8% | 14 | 4% | 2% | 4% |    | 4% | 4% |    |    |    |
|         | %  | %  | %  |    | %  |    |    |    |    |    |    |    |    |    |
| Hawk    | 90 | 56 | 8% | 16 | 2% | 20 |    |    |    | 8% |    |    |    | 4% |
|         | %  | %  |    | %  |    | %  |    |    |    |    |    |    |    |    |
| Duck    | 30 | 20 | 10 | 40 | 16 |    | 22 | 12 | 4% | 8% | 10 | 8% | 8% | 12 |
|         | %  | %  | %  | %  | %  |    | %  | %  |    |    | %  |    |    | %  |
| Hoppoe  | 68 | 40 | 16 | 44 | 8% |    | 2% | 8% | 6% | 8% |    |    |    |    |
|         | %  | %  | %  | %  |    |    |    |    |    |    |    |    |    |    |
| Sparrow | 88 | 88 | 6% | 4% | 2% | 8% | 4% |    |    |    |    |    |    |    |
| •       | %  | %  |    |    |    |    |    |    |    |    |    |    |    |    |

Table 16: Prototypical analysis of the members used to conceptualize the concept "bird"

| Streptopel | 80 | 80 | 6% |    | 14 | 4% |          | 4%       |    | 4%    |          | 4% |          | 4%       |
|------------|----|----|----|----|----|----|----------|----------|----|-------|----------|----|----------|----------|
| ia         | %  | %  |    |    | %  |    |          |          |    |       |          |    |          |          |
| Cock       | 20 | 24 | 16 | 20 | 12 | 12 | 12       | 4%       | 14 | 8%    | 8%       | 12 | 18       | 10       |
|            | %  | %  | %  | %  | %  | %  | %        |          | %  |       |          | %  | %        | %        |
| Stork      | 76 | 20 | 10 |    | 8% | 20 | 2%       | 10       | 2% |       | 2%       |    |          |          |
|            | %  | %  | %  |    |    | %  |          | %        |    |       |          |    |          |          |
| Goldfinch  | 72 | 84 | 18 | 8% | 4% |    | 4%       | 8%       | 2% |       |          |    |          |          |
|            | %  | %  | %  |    |    |    |          |          |    |       |          |    |          |          |
| Peacock    | 26 | 32 | 16 | 16 | 10 | 4% | 28       | 8%       | 2% | 4%    | 10       | 12 | 8%       | 24       |
|            | %  | %  | %  | %  | %  |    | %        |          |    |       | %        | %  |          | %        |
| Chick      | 18 | 44 | 24 | 40 | 10 | 8% | 16       | 8%       | 8% |       | 8%       |    | 16       |          |
|            | %  | %  | %  | %  | %  |    | %        |          |    |       |          |    | %        |          |
| Bat        | 32 | 24 | 20 | 40 | 18 | 12 | 10       | 8%       | 6% |       | 6%       | 12 | 8%       | 4%       |
|            | %  | %  | %  | %  | %  | %  | %        |          |    |       |          | %  |          |          |
| Goose      | 16 |    | 22 | 72 | 18 |    | 16       |          | 4% |       | 14       |    | 10       | 24       |
|            | %  |    | %  | %  | %  |    | %        |          |    |       | %        |    | %        | %        |
| Sqaub      | 68 | 28 | 12 | 52 | 10 | 20 | 2%       |          |    |       | 2%       |    | 4%       |          |
| -          | %  | %  | %  | %  | %  | %  |          |          |    |       |          |    |          |          |
| Swallow    | 74 | 48 | 8% | 8% | 12 | 44 | 2%       |          | 4% |       |          |    |          |          |
| bird       | %  | %  |    |    | %  | %  |          |          |    |       |          |    |          |          |
| Owl        | 48 | 56 | 18 |    | 8% |    |          | 8%       | 4% | 36    | 2%       |    |          |          |
|            | %  | %  | %  |    |    |    |          |          |    | %     |          |    |          |          |
| Budgie     | 56 | 44 | 22 |    | 6% | 44 | 2%       | 8%       | 4% |       | 8%       |    | 2%       |          |
| U          | %  | %  | %  |    |    | %  |          |          |    |       |          |    |          |          |
| Ostrich    | 20 | 24 | 20 | 44 | 10 |    | 10       |          | 6% | 28    | 6%       | 4% | 28       |          |
|            | %  | %  | %  | %  | %  |    | %        |          |    | %     |          |    | %        |          |
| Quail      | 54 | 28 | 16 | 28 | 8% | 16 | 12       |          | 2% | 24    | 8%       | 4% |          |          |
|            | %  | %  | %  | %  |    | %  | %        |          |    | %     |          |    |          |          |
| Jay        | 72 | 32 | 16 | 36 | 4% |    | 4%       | 24       | 2% | 8%    |          |    | 2%       |          |
| 2          | %  | %  | %  | %  |    |    |          | %        |    |       |          |    |          |          |
| Male       | 70 | 28 | 22 | 36 | 4% |    |          |          | 4% | 28    |          | 4% |          |          |
| Pigeon     | %  | %  | %  | %  |    |    |          |          |    |       |          |    |          |          |
| Partridge  | 72 | 52 | 18 |    | 4% |    | 8%       | 40       | 4% | 8%    |          |    |          |          |
|            | %  | %  | %  |    |    |    | - / -    | %        |    | - / - |          |    |          |          |
| Woodpec    | 74 | 6% | 10 | 44 | 4% |    | 6%       | 8%       | 6% | 24    |          | 20 |          |          |
| ker        | %  |    | %  | %  |    |    |          |          |    | %     |          | %  |          |          |
|            |    | 1  |    |    | 1  | L  | <u> </u> | <u> </u> |    |       | <u> </u> |    | <u> </u> | <u> </u> |

Table (16) shows that there are similarities and differences between the male and female students, regarding the classification of the semantic members that represent the concept "bird". The table reveals that both genders consider "pigeon" as the best prototypical member of the category "bird". In addition to "pigeon", more than 65% of both male and female students rate the members " canary, "parrot", "crow", "sparrow", "streptopelia", "and "goldfnish" as very good examples of the concept "bird". Moreover the table demonstrates that both genders consider the members "swallow bird" "owl", and "budgie" as good examples

of the category "bird", and regard the members "chicken", "duck", "cock", "bat", and "ostrich" as least prototypical entities.

The findings also display that there are differences between the way the males and the females classify some members. It is clear from table (16)above that more than 65% of the male students consider the members "eagle", "hawk", "hoopoe", "stork", "squab", "jay", "male pigeon", and "woodpecker " as very good examples of the concept "bird", however, most of the females students think of them as less prototypical members. By contrast, the members "peacock" and "chick" which are classified by the females students as very good examples of the category "bird; are considered by the male students as less prototypical members.

# 2. Furniture

#### Semantic Features

Table 17: Prototypical analysis of the features used to conceptualize the concept "furniture"

| Features   |    | 7  |    | 6  |    | 5  |    | 4  |    | 3  |    | 2  |    | 1  |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|            | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  |
| Wood       | 86 | 88 | 10 | 8% | 2% |    |    | 4% |    |    |    |    | 2% |    |
|            | %  | %  | %  |    |    |    |    |    |    |    |    |    |    |    |
| Fabric     | 54 | 80 | 20 |    | 2% |    | 12 | 6% |    |    | 6% | 14 | 6% |    |
|            | %  | %  | %  |    |    |    | %  |    |    |    |    | %  |    |    |
| Iron       | 48 | 86 | 28 |    | 8% | 14 | 4% |    | 4% |    |    |    | 8% |    |
|            | %  | %  | %  |    |    | %  |    |    |    |    |    |    |    |    |
| Glass      | 52 | 72 | 16 | 2% | 14 | 20 | 2% |    | 8% |    | 2% |    | 6% | 6% |
|            | %  | %  | %  |    | %  | %  |    |    |    |    |    |    |    |    |
| Plastic    | 40 | 20 | 12 |    | 18 | 24 | 12 | 40 | 10 |    | 4% |    | 4% | 16 |
|            | %  | %  | %  |    | %  | %  | %  | %  | %  |    |    |    |    | %  |
| Legs       | 66 | 84 | 14 |    | 6% |    | 6% |    | 4% |    |    |    | 4% | 16 |
| -          | %  | %  | %  |    |    |    |    |    |    |    |    |    |    | %  |
| Decoration | 42 | 18 | 16 | 20 | 16 | 18 | 8% | 18 | 8% | 6% |    |    | 10 |    |
|            | %  | %  | %  | %  | %  | %  |    | %  |    |    |    |    | %  |    |
| Comfort    | 40 | 36 | 18 |    | 6% |    | 10 | 40 | 4% |    | 2% |    | 14 | 24 |
|            | %  | %  | %  |    |    |    | %  | %  |    |    |    |    | %  | %  |
| Heritage   | 34 | 20 | 18 |    | 8% |    | 8% | 36 | 4% |    | 4% | 36 | 20 |    |
| -          | %  | %  | %  |    |    |    |    | %  |    |    |    |    | %  |    |
| Cooking    | 20 | 70 | 8% | 10 | 10 | 20 | 6% |    | 2% |    | 4% |    | 18 |    |
| -          | %  | %  |    | %  | %  | %  |    |    |    |    |    |    | %  |    |
| Wool       | 28 | 40 | 34 | 12 | 16 | 16 | 4% |    | 2% |    | 6% | 8% | 10 | 24 |
|            | %  | %  | %  | %  | %  | %  |    |    |    |    |    |    | %  | %  |

| Sleeping  | 26 | 44  | 16 |    | 12 |    | 14 | 40 | 4% |    | 2% | 16 | 26 |    |
|-----------|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 0       | %  | %   | %  |    | %  |    | %  | %  |    |    |    | %  | %  |    |
| Copper    | 32 | 84  | 16 | 16 | 12 |    | 24 |    | 2% |    | 4% |    | 10 |    |
|           | %  | %   | %  | %  | %  |    | %  |    |    |    |    |    | %  |    |
| Cleaning  | 24 | 20  | 6% | 36 | 4% |    | 10 |    | 10 |    | 6% |    | 40 | 44 |
| materials | %  | %   |    | %  |    |    | %  |    | %  |    |    |    | %  | %  |
| Varnish   | 30 | 10  | 14 |    | 4% |    | 12 |    | 2% |    | 4% | 90 | 34 |    |
|           | %  | %   | %  |    |    |    | %  |    |    |    |    | %  | %  |    |
| Silk      | 36 | 90  | 8% |    | 14 |    | 26 | 10 | 4% |    | 6% |    | 6% |    |
|           | %  | %   |    |    | %  |    | %  | %  |    |    |    |    |    |    |
| Leather   | 52 | 78  | 10 | 22 | 12 |    | 4% |    |    |    | 4% |    | 18 |    |
|           | %  | %   | %  | %  | %  |    |    |    |    |    |    |    | %  |    |
| Colors    | 36 | 42  | 14 | 4% | 16 | 16 | 12 | 14 | 4% | 8% |    | 16 | 18 |    |
|           | %  | %   | %  |    | %  | %  | %  | %  |    |    |    | %  | %  |    |
| Feathers  | 24 | 40  | 20 |    | 12 |    | 8% | 20 | 4% | 40 | 4% |    | 28 |    |
|           | %  | %   | %  |    | %  |    |    | %  |    | %  |    |    | %  |    |
| Sitting   | 54 | 80  | 12 |    | 4% | 20 |    |    | 2% |    | 6% |    | 18 |    |
| _         | %  | %   | %  |    |    | %  |    |    |    |    |    |    | %  |    |
| Aluminium | 44 | 60  | 10 |    | 16 |    | 8% | 40 | 2% |    | 4% |    | 16 |    |
|           | %  | %   | %  |    | %  |    |    | %  |    |    |    |    | %  |    |
| Crystal   | 30 | 96  | 20 | 4% | 10 |    | 4% |    | 20 |    | 4% |    | 12 |    |
|           | %  | %   | %  |    | %  |    |    |    | %  |    |    |    | %  |    |
| Cardboard | 22 | 38  | 12 |    | 18 | 20 | 18 | 20 | 12 | 2% | 8% |    | 10 |    |
| Paper     | %  | %   | %  |    | %  | %  | %  | %  | %  |    |    |    | %  |    |
| Home      | 50 | 100 | 12 |    | 12 |    | 4% |    | 6% |    | 2% |    | 14 |    |
|           | %  | %   | %  |    | %  |    |    |    |    |    |    |    | %  |    |
| Songe     | 32 | 70  | 26 | 30 | 18 |    | 10 |    | 2% |    | 4  |    | 8% |    |
|           | %  | %   | %  | %  | %  |    | %  |    |    |    |    |    |    |    |

The findings of the second experiments show, as displayed in the table above, that both the male and the female students classify the features "wood", "fabric", "iron", "glass", "sitting" "aluminium", "legs", "leather" and " home" as the prototypical features used to determine the meaning of the category "furniture". Regarding the features "plastic" , "decoration" , "comfort", " wool", and "sleeping", both genders consider them as less prototypical attributes. Besides, they rate the features "cleaning materials" and "cardboard" as the least prototypical features of the concept "furniture".

The findings also show that the features "cooking", "cooper", "silk", "crystal", and "sponge", which are classified by the females as the best representative features of the category "furniture", are considered by the males as less prototypical attributes.

#### Semantic Members

| Members     |    | 7   |    | 6  |    | 5     |    | 4  |    | 3   |    | 2  |    | 1         |
|-------------|----|-----|----|----|----|-------|----|----|----|-----|----|----|----|-----------|
|             | Μ  | F   | Μ  | F  | Μ  | F     | Μ  | F  | Μ  | F   | Μ  | F  | Μ  | F         |
| Kitchen     | 28 | 12  | 12 |    | 18 |       | 10 |    | 4% | 40  | 4% |    | 24 | 48        |
| utensils    | %  | %   | %  |    | %  |       | %  |    |    | %   |    |    | %  | %         |
| Sofa        | 72 | 76  | 8% | 4% | 6% | 12    | 8% |    |    |     |    |    | 6% | 8%        |
|             | %  | %   |    |    |    | %     |    |    |    |     |    |    |    |           |
| Wardrobe    | 70 | 60  | 10 |    | 4% |       | 4% | 20 |    | 20  | 6% |    | %6 |           |
|             | %  | %   | %  |    |    |       |    | %  |    | %   |    |    |    |           |
| Table       | 84 | 96  | 4% |    | 6% |       |    |    | 4% |     | 2% |    |    | 4%        |
|             | %  | %   |    |    |    |       |    |    |    |     |    |    |    |           |
| Desk        | 56 | 64  | 16 | 24 | 16 | 24    | 12 | 4% |    |     |    |    | 4% |           |
|             | %  | %   | %  | %  | %  | %     | %  |    |    |     |    |    |    |           |
| Closet      | 72 | 72  | 18 | 20 | 2% | 8%    | 6% |    |    |     |    |    |    |           |
|             | %  | %   | %  | %  |    |       |    |    |    |     |    |    |    |           |
| Painted     | 42 | 52  | 8% | 48 | 14 |       | 16 |    | 4% |     |    |    | 16 |           |
| Picture     | %  | %   |    | %  | %  |       | %  |    |    |     |    |    | %  |           |
| Pillow      | 22 |     | 10 |    | 22 | 44    | 14 |    | 20 |     | 2% |    | 10 | 56        |
|             | %  |     | %  |    | %  | %     | %  |    | %  |     |    |    | %  | %         |
| Bed         | 72 | 48  | 2% |    | 10 | 24    | 2% |    | 12 | 8%  |    |    | 2% | 20        |
|             | %  | %   |    |    | %  | %     |    |    | %  |     |    |    |    | %         |
| Shelf       | 42 | 56  | 16 | 20 | 16 | 12    | 6% |    | 14 |     | 8% | 6% | 24 | 6%        |
|             | %  | %   | %  | %  | %  | %     |    |    | %  |     |    |    | %  |           |
| Chair       | 78 | 100 |    |    | 8% |       | 6% |    | 6% |     |    |    | 2% |           |
|             | %  | %   |    |    |    |       |    |    |    |     |    |    |    |           |
| Carpet      | 20 |     | 20 | 44 | 14 | 4%    | 4% |    | 6% |     | 10 |    | 20 | <b>48</b> |
|             | %  |     | %  | %  | %  |       |    |    |    |     | %  |    | %  | %         |
| Cooker      | 12 | 10  | 14 | 20 | 22 |       | 6% | 10 | 14 |     | 8% | 12 | 12 | <b>48</b> |
|             | %  | %   | %  | %  | %  |       |    | %  | %  |     |    | %  | %  | %         |
| Chandelier  | 22 | 10  | 24 | 40 | 20 | 4%    | 8% | 16 | 8% | 20  | 4% | 8% | 14 | 16        |
|             | %  | %   | %  | %  | %  |       |    | %  |    | %   |    |    | %  | %         |
| Bookcase    | 46 | 48  | 4% |    | 8% | 32    | 8% |    | 10 |     | 6% | 10 | 18 | 10        |
|             | %  | %   |    |    |    | %     |    |    | %  |     |    | %  | %  | %         |
| Curtains    | 24 |     | 20 | 40 | 8% | 20    | 16 | 12 | 12 |     | 6% | 8% | 14 | 20        |
|             | %  |     | %  | %  |    | %     | %  | %  | %  |     |    |    | %  | %         |
| Vase        | 24 | 48  | 14 | 8% | 8% | 8%    | 20 |    | 4% | 12  | 4% | 12 | 6% | 12        |
|             | %  | %   | %  |    |    |       | %  |    |    | %   |    | %  |    | %         |
| Refrigirato | 34 | 8%  | 6% |    | 12 |       | 16 | 40 | 6% |     | 8% |    | 18 | 46        |
| r           | %  |     |    |    | %  |       | %  | %  |    |     |    |    | %  | %         |
| Window      | 28 | 24  | 6% |    | 18 |       | 22 |    | 2% | 36  | 4% |    | 20 | 40        |
|             | %  | %   | 10 |    | %  |       | %  |    |    | %   |    |    | %  | %         |
| TV          | 36 |     | 12 |    | 8% |       | 14 |    |    |     | 6% | 44 | 24 | 56        |
|             | %  |     | %  |    |    | 4.5.1 | %  |    | 10 | 1.2 |    | %  | %  | %         |
| Heater      | 12 | 12  | 10 | 20 | 20 | 4%    | 16 | 16 | 18 | 10  | 6% | 8% | 18 | 16        |
|             | %  | %   | %  | %  | %  |       | %  | %  | %  | %   |    |    | %  | %         |

Table 18: Prototypical analysis of the members used to conceptualize the concept "furniture"

Table (18) indicates that the members "table" and "chair", according to the male and the females" students, are the most prototypical entities that represent the category "furniture". Moreover, both genders consider the members "sofa", "wardrobe", "closet" and "bed" as very

good examples of the concept "furniture". They also classify the three members "painted picture", "shelf" and "bookcase" as less representative examples. Moreover, the participants, of both genders, choose the members "chandelier", "curtains, "vase", and "heater" as the least prototypical elements of the category "furniture".

The table also demonstrates that the members " pillow", "carpet" "cooker", "refrigerator", "window", "TV", , and "kitchen utensils" which are considered by the male students as having different degrees of typicality inside the category "furniture"; are classified outside this category by more than 40% of the female students.

## 3. Weapon

# Semantic Features

| Features  | ,  | 7   |    | 6   |    | 5 |    | 4  |    | 3  |    | 2  | 1  | 1 |
|-----------|----|-----|----|-----|----|---|----|----|----|----|----|----|----|---|
|           | Μ  | F   | Μ  | F   | Μ  | F | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F |
| Bullet    | 96 | 100 | 4% |     |    |   |    |    |    |    |    |    |    |   |
|           | %  | %   |    |     |    |   |    |    |    |    |    |    |    |   |
| Iron      | 60 | 100 | 12 |     | 8% |   | 14 |    | 2% |    |    |    | 4% |   |
|           | %  | %   | %  |     |    |   | %  |    |    |    |    |    |    |   |
| Killing   | 80 | 100 | 10 |     | 6% |   |    |    | 4% |    |    |    |    |   |
| -         | %  | %   | %  |     |    |   |    |    |    |    |    |    |    |   |
| Wood      | 26 |     | 16 |     | 22 |   | 16 |    | 6% | 80 |    | 20 | 14 |   |
|           | %  |     | %  |     | %  |   | %  |    |    | %  |    | %  | %  |   |
| War       | 92 | 100 | 6% |     |    |   |    |    | 2% |    |    |    |    |   |
|           | %  | %   |    |     |    |   |    |    |    |    |    |    |    |   |
| Gunpowde  | 74 | 100 | 12 |     | 4% |   | 4% |    | 4% |    | 2% |    |    |   |
| r         | %  | %   | %  |     |    |   |    |    |    |    |    |    |    |   |
| Blood     | 78 | 100 | 10 |     | 8% |   |    |    |    |    | 4% |    |    |   |
|           | %  | %   | %  |     |    |   |    |    |    |    |    |    |    |   |
| Ammunitio | 70 | 100 | 6% |     | 4% |   | 6% |    | 8% |    | 2% |    | 4% |   |
| n         | %  | %   |    |     |    |   |    |    |    |    |    |    |    |   |
| Injury    | 70 |     | 16 | 100 | 16 |   | 4% |    | 2% |    |    |    | 8% |   |
|           | %  |     | %  | %   | %  |   |    |    |    |    |    |    |    |   |
| Defense   | 66 |     | 8% | 80  | 18 |   | 2% | 20 | 6% |    |    |    |    |   |
|           | %  |     |    | %   | %  |   |    | %  |    |    |    |    |    |   |
| Fire      | 62 | 100 | 14 |     | 10 |   | 4% |    | 2% |    | 8% |    |    |   |
|           | %  | %   | %  |     | %  |   |    |    |    |    |    |    |    |   |
| Death     | 68 | 100 | 8% |     | 6% |   | 10 |    | 6% |    |    |    | 2% |   |
|           | %  | %   |    |     |    |   | %  |    |    |    |    |    |    |   |
| Sharp     | 48 |     | 20 |     | 6% |   | 18 |    | 4% |    |    |    | 4% |   |

Table 19: Prototypical analysis of the features used to conceptualize the concept "weapon"

|             | %  |     | %  |     |    |    | %  |    |    |    |    |  |
|-------------|----|-----|----|-----|----|----|----|----|----|----|----|--|
| Slaughter   | 66 | 100 | 14 |     | 14 |    |    |    | 6% |    |    |  |
| C           | %  | %   | %  |     | %  |    |    |    |    |    |    |  |
| Explosion   | 70 | 100 | 16 |     | 10 |    |    |    |    |    | 4% |  |
| _           | %  | %   | %  |     | %  |    |    |    |    |    |    |  |
| Black       | 28 |     | 4% | 16  | 14 | 84 | 22 |    | 6% | 4% | 18 |  |
|             | %  |     |    | %   | %  | %  | %  |    |    |    | %  |  |
| Copper      | 32 |     | 24 |     | 4% |    | 4% |    | 16 | 6% | 6% |  |
|             | %  |     | %  |     |    |    |    |    | %  |    |    |  |
| Army        | 68 | 20  | 8% | 12  | 8% |    | 8% | 64 |    | 4% | 4% |  |
| Games       | %  | %   |    | %   |    |    |    | %  |    |    |    |  |
| Smoke       | 42 |     | 20 | 100 | 20 |    | 4% |    | 6% |    | 8% |  |
|             | %  |     | %  | %   | %  |    |    |    |    |    |    |  |
| Confrontati | 48 |     | 12 | 100 | 18 |    | 12 |    | 4% |    | 6% |  |
| on          | %  |     | %  | %   | %  |    | %  |    |    |    |    |  |
| Criminal    | 52 | 100 | 22 |     | 12 |    | 4% |    |    | 4% | 6% |  |
|             | %  | %   | %  |     | %  |    |    |    |    |    |    |  |
| Shot        | 82 | 100 | 4% |     | 2% |    | 2% |    | 2% |    | 4% |  |
|             | %  | %   |    |     |    |    |    |    |    |    |    |  |
| Treason     | 20 |     | 12 | 100 | 16 |    | 12 |    | 10 | 4% | 26 |  |
|             | %  |     | %  | %   | %  |    | %  |    | %  |    | %  |  |

Concerning the prototypical analysis of the semantic features used to conceptualize the category "weapon", table (19) shows remarkable findings. All the female students classify the features "bullet", "iron", "killing", "war", "gunpowder", blood", "ammunition", "fire", "death", "slaughter", "criminal", "explosion" and "shot" as the best prototypical attributes that represent the category "weapon". Though the male students rate these features as very good examples of the concept "weapon", the results demonstrates that the males "classification exhibit degrees of typicality. For them, the first very good features are "bullet", "killing", "war", "gunpowder", "blood", "ammunition", "explosion"; while the rest are rated as second very good attributes.

The results also reveal that the features "injury", "smoke", "confrontation" are considered as less prototypical features for all the female students. By contrast, the male students consider them as very good attributes of the concept "weapon". However, they rate the feature "injury" as first very good attribute, and the other two features as second very good attributes.

## > Semantic Members

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| Members      | ,        | 7   |    | 6        |          | 5  | 4           | 1 |    | 3 |    | 2 |    | 1             |
|--------------|----------|-----|----|----------|----------|----|-------------|---|----|---|----|---|----|---------------|
| Weinberg     | Μ        | F   | Μ  | F        | Μ        | F  | Μ           | F | M  | F | M  | F | Μ  | F             |
| Gun          | 98       | 100 | 2% |          |          |    |             |   |    |   |    |   |    |               |
|              | %        | %   |    |          |          |    |             |   |    |   |    |   |    |               |
| Knife        | 78       | 100 | 14 |          | 6%       |    |             |   | 2% |   |    |   |    |               |
|              | %        | %   | %  |          |          |    |             |   |    |   |    |   |    |               |
| Kalashniko   | 90       | 100 | 4% |          | 6%       |    |             |   |    |   |    |   |    |               |
| v            | %        | %   |    |          |          |    |             |   |    |   |    |   |    |               |
| Musket       | 88       | 100 | 12 |          |          |    |             |   |    |   |    |   |    |               |
|              | %        | %   | %  |          |          |    |             |   |    |   |    |   |    |               |
| Sword        | 80       | 88  | 12 | 12       | 4%       |    | 2%          |   | 2% |   |    |   |    |               |
|              | %        | %   | %  | %        |          |    |             |   |    |   |    |   |    |               |
| Bomb         | 86       | 100 | 6% |          | 4%       |    | 4%          |   |    |   |    |   |    |               |
|              | %        | %   |    |          |          |    |             |   |    |   |    |   |    |               |
| Ak-47        | 94       |     |    |          | 2%       |    | 4%          |   |    |   |    |   |    |               |
|              | %        |     |    |          |          |    |             |   |    |   |    |   |    |               |
| Bowie        | 78       | 92  | 4% | 8%       | 6%       |    | 10          |   |    |   | 2% |   |    |               |
| knife        | %        | %   |    |          |          |    | %           |   |    |   |    |   |    |               |
| tank         | 74       | 100 | 12 |          | 6%       |    | 4%          |   |    |   |    |   | 4% |               |
|              | %        | %   | %  |          |          |    |             |   |    |   |    |   |    |               |
| Folding      | 80       | 100 | 8% |          | 4%       |    | 8%          |   |    |   |    |   |    |               |
| Knife        | %        | %   |    |          |          |    |             |   |    |   |    |   |    |               |
| Sniper rifle | 88       | 80  | 8% | 20       | 4%       |    |             |   |    |   |    |   |    |               |
|              | %        | %   |    | %        |          |    |             |   |    |   |    |   |    |               |
| Rocket       | 88       | 100 | 4% |          | 4%       |    |             |   |    |   |    |   |    |               |
|              | %        | %   |    |          |          |    |             |   |    |   |    |   |    |               |
| blade        | 64       | 90  | 8% | 10       | 12       |    | 10          |   | 2% |   | 4% |   |    |               |
|              | %        | %   |    | %        | %        |    | %           |   |    |   |    |   |    |               |
| M16          | 92       |     | 4% |          | 2%       |    | 2%          |   |    |   |    |   |    |               |
|              | %        |     |    |          |          |    |             |   |    |   |    |   |    |               |
| Mp40         | 94       |     | 4% |          | 2%       |    |             |   |    |   |    |   |    |               |
|              | %        |     |    |          |          |    |             |   |    |   |    |   |    |               |
| M6           | 80       |     | 2% |          | 10       |    |             |   |    |   |    |   | 8% |               |
|              | %        |     |    |          | %        |    |             |   |    |   |    |   |    |               |
| Ak-45        | 94       |     |    |          | 2%       |    | 4%          |   |    |   |    |   |    | 2%            |
|              | %        |     |    |          |          |    |             |   |    |   |    |   |    |               |
| Bazooka      | 94       | 100 |    |          |          |    | 4%          |   |    |   |    |   | 2% |               |
| ~            | %        | %   |    |          | 4 -      |    |             |   |    |   |    |   |    |               |
| Spear        | 72       | 84  | 12 |          | 10       | 16 | 2%          |   | 2% |   | 2% |   |    |               |
| . 1          | %        | %   | %  | <u> </u> | %        | %  | 4.61        |   |    |   |    |   |    |               |
| Akm          | 88       |     | 4% |          | 4%       |    | 4%          |   |    |   |    |   |    |               |
| **           | %        |     | 10 |          | <i>c</i> |    |             |   |    |   |    |   |    |               |
| Ump          | 84       |     | 10 |          | 6%       |    |             |   |    |   |    |   |    |               |
|              | %        |     | %  |          | 0.01     |    |             |   |    |   |    |   |    | <b>•</b> •• / |
| M1014        | 46       |     | 12 |          | 2%       |    |             |   |    |   |    |   |    | 2%            |
|              | %        |     | %  |          |          |    |             |   |    |   |    |   |    |               |
| Spas 12      | 60       |     | 26 |          | 4%       |    | 6%          |   |    |   |    |   | 2% |               |
|              | %        |     | %  |          |          |    | <b>0</b> 01 |   |    |   |    |   |    | 0.01          |
| M411         | 90<br>0/ |     | 8% |          |          |    | 2%          |   |    |   |    |   |    | 8%            |
|              | %        |     |    |          |          |    |             |   |    |   |    |   |    |               |

Table 20: Prototypical analysis of members used to conceptualize the concept "weapon"

Table (20) shows that the way the males and the females students classify the members of the category "weapon" is similar somehow to the way they organize the category"s semantic features. All the female students rate the members "gun", "knife" "kalashnikov", musket", "sword", "bomb", and "bazooka" as the most prototypical elements of the category "weapon". Just like the females, the male students consider these members as very good examples that best determine the concept "weapon", however, unlike, the females who provide equal classification to all the members, the males" classification exhibit degrees of typicality. The results reveal that all the members are classified by the males as first very good examples of the concept "weapon", except for the members "bowie knife", "folding knife", and "blade" which are rated as second very good examples.

Moreover, the table demonstrate noticeable findings: The members "M16", "MP 40", "M6" "AK 45", "AKM", "UMP", "M411", "spas 12", and "M1014" are not classified by the females. By contrast, the males rate them as most prototypical members.

## 4. Vehicle

#### Semantic Features

| Features | ,  | 7   |    | 6   |    | 5 |    | 4  |    | 3  |    | 2 | 1  | 1 |
|----------|----|-----|----|-----|----|---|----|----|----|----|----|---|----|---|
|          | Μ  | F   | Μ  | F   | Μ  | F | Μ  | F  | Μ  | F  | Μ  | F | Μ  | F |
| Wheels   | 86 | 100 | 10 |     | 2% |   |    |    |    |    | 2% |   |    |   |
|          | %  | %   | %  |     |    |   |    |    |    |    |    |   |    |   |
| Mobility | 90 | 100 | 6% |     |    |   | 2% |    |    |    | 2% |   |    |   |
|          | %  | %   |    |     |    |   |    |    |    |    |    |   |    |   |
| Engine   | 80 | 100 | 10 |     | 8% |   |    |    |    |    | 2% |   |    |   |
|          | %  | %   | %  |     |    |   |    |    |    |    |    |   |    |   |
| Steering | 80 | 100 | 6% |     | 8% |   | 2% |    |    |    | 2% |   |    |   |
| wheel    | %  | %   |    |     |    |   |    |    |    |    |    |   |    |   |
| Travel   | 80 | 100 | 6% |     | 4% |   | 8% |    |    |    |    |   | 2% |   |
|          | %  | %   |    |     |    |   |    |    |    |    |    |   |    |   |
| Iron     | 50 | 96  | 24 |     | 8% |   | 6% | 4% | 6% |    |    |   | 6% |   |
|          | %  | %   | %  |     |    |   |    |    |    |    |    |   |    |   |
| Speed    | 72 |     | 4% | 100 | 18 |   | 4% |    |    |    | 2% |   |    |   |
|          | %  |     |    | %   | %  |   |    |    |    |    |    |   |    |   |
| Gasoline | 74 | 94  | 14 |     | 2% |   | 8% |    |    | 6% | 2% |   |    |   |

Table 21: Prototypical Analysis of the features used to conceptualize the concept "vehicle"

|           | %  | %   | %  |     |    |    |    |    |    |    |    |    |
|-----------|----|-----|----|-----|----|----|----|----|----|----|----|----|
| glass     | 32 |     | 18 | 100 | 16 |    | 12 |    | 6% | 4% | 12 |    |
| -         | %  |     | %  | %   | %  |    | %  |    |    |    | %  |    |
| Mirror    | 38 | 20  | 18 |     | 8% | 60 | 12 | 20 | 12 |    |    | 12 |
|           | %  | %   | %  |     |    | %  | %  | %  | %  |    |    | %  |
| Brakes    | 74 | 90  | 12 |     | 10 | 10 |    |    | 2% | 2% |    |    |
|           | %  | %   | %  |     | %  | %  |    |    |    |    |    |    |
| Arrival   | 60 |     | 12 | 100 | 14 |    | 10 |    | 4% |    |    |    |
|           | %  |     | %  | %   | %  |    | %  |    |    |    |    |    |
| Chair     | 58 | 94  | 10 |     | 14 |    | 8% | 6% | 2% | 6% | 16 |    |
|           | %  | %   | %  |     | %  |    |    |    |    |    | %  |    |
| Honk      | 60 | 94  | 10 | 6%  | 24 |    | 10 |    | 24 | 2% | 4% |    |
|           | %  | %   | %  |     | %  |    |    |    |    |    |    |    |
| Smoke     | 62 |     | 24 | 90  | 8% | 10 | 18 |    |    | 8% | 4% |    |
|           | %  |     | %  | %   |    | %  | %  |    |    |    |    |    |
| Seat belt | 66 | 100 |    | 14  |    |    | 2% |    |    | 4% |    |    |
|           | %  | %   |    | %   |    |    |    |    |    |    |    |    |
| Headlight | 32 | 100 | 8% |     | 20 |    | 22 |    | 6% | 4% | 4% |    |
| -         | %  | %   |    |     | %  |    | %  |    |    |    |    |    |
| Elegance  | 42 |     | 10 | 100 | 18 |    |    |    | 8% | 8% | 14 |    |
| -         | %  |     | %  | %   | %  |    |    |    |    |    | %  |    |
| Luxury    | 46 |     | 4% | 100 | 12 |    | 16 |    | 6% | 6% | 6% |    |
| -         | %  |     |    | %   | %  |    | %  |    |    |    |    |    |
| Tourism   | 48 |     | 6% | 100 | 18 |    | 14 |    | 10 | 4% |    |    |
|           | %  |     |    | %   | %  |    | %  |    | %  |    |    |    |
| Colors    | 18 |     | 16 | 100 | 22 |    | 10 |    | 12 | 6% | 16 |    |
|           | %  |     | %  | %   | %  |    | %  |    | %  |    | %  |    |

According to the male and the female students, "mobility" is the most prototypical feature of the category "vehicle". Table (21) shows that 90% of the males and 100% of the females rate this feature as very good example of the concept "vehicle". In addition to "mobility", other features are considered, by both genders, as very good examples like "wheels", "engine", steering wheel", "travel", and "brakes"

However, the results also indicate that there are differences between males and females" classification. While more than 90% of the females regard the features "iron", "gasoline", "chair", "honk", and "seat belt" as first very good examples of the concept "vehicle, the males consider them as second very good examples. By contrast, the features, , "arrival", "elegance", "luxury", " tourism", "colors", "glass" and "mirror", which are rated by the males as very good example of the concept vehicle, are classified by the females as less prototypical

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features. The table shows that the first five features are rated as good examples, while the last two attributes are rated as fairly good example of the concept vehicle.

## > Semantic Members

| Members    |    | 7   |    | 6   |    | 5  |    | 4  |    | 3  |    | 2   | 1  | l  |
|------------|----|-----|----|-----|----|----|----|----|----|----|----|-----|----|----|
|            | Μ  | F   | Μ  | F   | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F   | Μ  | F  |
| Car        | 94 | 100 | 4% |     |    |    | 2% |    |    |    |    |     |    |    |
|            | %  | %   |    |     |    |    |    |    |    |    |    |     |    |    |
| Motorcycle | 90 |     | 8% | 100 | 2% |    |    |    |    |    |    |     |    |    |
|            | %  |     |    | %   |    |    |    |    |    |    |    |     |    |    |
| Airplane   | 88 | 96  | 8% | 4%  | 4% |    |    |    |    |    |    |     |    |    |
|            | %  | %   |    |     |    |    |    |    |    |    |    |     |    |    |
| Bus        | 94 | 94  |    |     | 4% | 6% |    |    | 2% |    |    |     |    |    |
|            | %  | %   |    |     |    |    |    |    |    |    |    |     |    |    |
| Truck      | 92 | 100 | 2% |     |    |    | 2% |    | 4% |    |    |     |    |    |
|            | %  | %   |    |     |    |    |    |    |    |    |    |     |    |    |
| Bicycle    | 72 | 20  | 4% | 80  | 6% |    | 8% |    | 8% |    |    |     |    |    |
|            | %  | %   |    | %   |    |    |    |    |    |    |    |     |    |    |
| Steamship  | 84 | 92  | 10 | 6%  | 2% | 2% |    |    | 4% |    |    |     |    |    |
|            | %  | %   | %  |     |    |    |    |    |    |    |    |     |    |    |
| Train      | 84 | 90  | 8% | 10  |    |    | 2% |    | 2% |    |    |     |    |    |
|            | %  | %   |    | %   |    |    |    |    |    |    |    |     |    |    |
| Tractor    | 64 |     | 14 | 90  | 14 |    | 2% |    | 2% |    |    | 10  | 4% |    |
|            | %  |     | %  | %   | %  |    |    |    |    |    |    | %   |    |    |
| Subway     | 84 | 100 | 4% |     | 6% |    | 4% |    |    |    | 2% |     |    |    |
|            | %  | %   |    |     |    |    |    |    |    |    |    |     |    |    |
| Boat       | 66 | 92  | 4% |     | 12 | 8% | 12 |    | 4% |    |    |     | 2% |    |
|            | %  | %   |    |     | %  |    | %  |    |    |    |    |     |    |    |
| Taxi       | 90 | 100 | 2% |     |    |    | 4% |    | 4% |    |    |     |    |    |
|            | %  | %   |    |     |    |    |    |    |    |    |    |     |    |    |
| Rocket     | 50 |     |    | 90  | 16 | 4% |    |    | 6% | 6% |    |     | 28 |    |
|            | %  |     |    | %   | %  |    |    |    |    |    |    |     | %  |    |
| Helicopter | 64 |     | 2% | 94  | 12 |    | 4% | 6% | 4% |    |    |     | 4% |    |
|            | %  |     |    | %   | %  |    |    |    |    |    |    |     |    |    |
| Submarine  | 50 |     | 12 | 92  | 4% | 6% | 16 | 2% | 6% |    | 4% |     | 8% |    |
| T 11       | %  |     | %  | %   | .1 |    | %  |    | 1  |    |    | · . |    | .1 |

Table 22: Prototypical analysis of the members used to conceptualize the concept "vehicle"

Table (22) shows that both the males and the females students consider "car" as the most prototypical member of the category "vehicle". 94% of the males and 100% of the females rate it as very good example of the concept "vehicle". The table also reveal that the members "airplane", "bus", "truck", " steamship", "train", "subway", "boat", and "helicopter", are classified by both genders as very good examples of the concept "vehicle". However, regarding the members "motorcycle", "bicycle", "tractor, "rocket" and "submarine", the results

demonstrates that they are classified differently by the male and the female students. While most of the males consider them as very good examples of the concept vehicle, more than 90% of the females rate them as less prototypical members.

# 5. Cosmetic

## Semantic Features

Table 23: Prototypical analysis of the features used to conceptualize the concept "cosmetic"

| Features   | , ' | 7   |    | 6  |    | 5  |    | 4  |    | 3  |    | 2  |    | 1  |
|------------|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|
|            | Μ   | F   | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F  |
| Wedding    | 58  | 96  | 22 | 4% | 10 |    | 4% |    |    |    |    |    | 6% |    |
| -          | %   | %   | %  |    | %  |    |    |    |    |    |    |    |    |    |
| Beauty     | 80  | 30  | 12 | 60 | 2% | 10 |    |    | 2% |    |    |    | 4% |    |
|            | %   | %   | %  | %  |    | %  |    |    |    |    |    |    |    |    |
| Colors     | 42  |     | 22 | 72 | 10 | 36 | 10 |    | 6% |    | 8% |    | 2% |    |
|            | %   |     | %  | %  | %  | %  | %  |    |    |    |    |    |    |    |
| Chemicals  | 60  | 80  | 8% | 16 | 12 | 4% | 8% |    |    |    | 4% |    | 8% |    |
|            | %   | %   |    | %  | %  |    |    |    |    |    |    |    |    |    |
| Moisturizi | 62  | 100 | 16 |    | 8% |    | 8% |    |    |    | 6% |    |    |    |
| ng         | %   | %   | %  |    |    |    |    |    |    |    |    |    |    |    |
| Roses      | 60  | 96  | 18 | 4% | 10 |    | 6% |    |    |    | 2% |    | 4% |    |
|            | %   | %   | %  |    | %  |    |    |    |    |    |    |    |    |    |
| Elegance   | 56  | 88  | 12 | 12 | 2% |    | 8% |    | 4% |    |    |    | 18 |    |
|            | %   | %   | %  | %  |    |    |    |    |    |    |    |    | %  |    |
| Lightening | 62  | 82  | 6% | 18 | 2% |    | 12 |    |    |    | 12 |    | 6% |    |
|            | %   | %   |    | %  |    |    | %  |    |    |    | %  |    |    |    |
| Skin       | 42  | 80  | 26 | 20 | 12 |    | 6% |    | 2% |    |    |    | 12 |    |
|            | %   | %   | %  | %  | %  |    |    |    |    |    |    |    | %  |    |
| Liquids    | 60  | 90  | 16 | 10 | 6% |    | 8% |    | 2% |    | 4% |    | 4% |    |
|            | %   | %   | %  | %  |    |    |    |    |    |    |    |    |    |    |
| eyes       | 62  |     | 12 | 88 | 6% | 12 | 10 |    | 6% |    |    |    | 4% |    |
|            | %   |     | %  | %  |    | %  | %  |    |    |    |    |    |    |    |
| Being      | 68  | 56  | 18 | 64 | 4% |    | 6% |    |    |    |    |    | 4% |    |
| creamy     | %   | %   | %  |    |    |    |    |    |    |    |    |    |    |    |
| Care       | 56  | 100 | 14 |    | 10 |    |    | 10 |    | 4% |    | 2% |    | 2% |
|            | %   | %   | %  |    | %  |    |    | %  |    |    |    |    |    |    |
| Cleaning   | 70  | 10  | 8% | 90 | 12 |    |    | 6% |    | 2% |    | 2% |    |    |
|            | %   | %   |    | %  | %  |    |    |    |    |    |    |    |    |    |

The prototypical analysis of the semantic features generated to conceptualize the concept "cosmetic" reveals that all the female students (100%) consider the features "care" and "moisturizing" as the most prototypical attributes that best represent the category "cosmetic", whereas, 80% of the males classify the feature "beauty" as the most prototypical feature. Moreover, the findings show that the features "colors", "eyes", "being creamy" and "cleaning"

which are rated by the males as secondary very good examples, are classified by the females as less prototypical attributes.

Regarding the classification of the features "chemicals", "roses", "elegance", "lightening", "skin", and "liquids", it is clear, from the table above, that both genders rate them as second very good examples of the concept "cosmetic".

## > Semantic Members

| Members       | ,   | 7        |         | 6       |         | 5  |         | 4  |         | 3  |    | 2  | 1       | 1 |
|---------------|-----|----------|---------|---------|---------|----|---------|----|---------|----|----|----|---------|---|
|               | Μ   | F        | Μ       | F       | Μ       | F  | Μ       | F  | Μ       | F  | Μ  | F  | Μ       | F |
| Lipstick      | 90% | 100<br>% | 4%      |         | 2%      |    | 2%      |    | 2%      |    |    |    |         |   |
| Mascara       | 88% | 98%      | 2%      | 2%      | 8%      |    |         |    | 2%      |    |    |    |         |   |
| Eyeliner      | 90% | 96%      | 4%      | 2%      |         | 2% | 2%      |    | 4%      |    |    |    |         |   |
| Foundation    | 88% | 98%      | 8%      |         |         | 2% |         |    | 2%      |    | 2% |    |         |   |
| Blusher       | 80% | 94%      | 10<br>% | 6%      | 6%      |    |         |    | 4%      |    |    |    |         |   |
| Eye<br>Shadow | 86% | 98%      | 4%      | 2%      | 8%      |    |         |    |         |    | 2% |    |         |   |
| Powder        | 78% | 96%      | 10<br>% | 4%      |         |    | 8%      |    | 2%      |    |    |    | 2%      |   |
| Concealer     | 82% | 90%      | 6%      | 4%      | 4%      | 6% | 4%      |    | 4%      |    |    |    |         |   |
| Contour       | 84% | 88%      | 6%      | 10<br>% | 2%      |    | 6%      |    | 2%      |    | 2% |    |         |   |
| Lip gloss     | 86% | 100<br>% | 2%      |         |         |    | 4%      |    | 4%      |    |    |    |         |   |
| Primer        | 84% | 90%      | 12<br>% | 10<br>% | 2%      |    | 2%      |    |         |    |    |    |         |   |
| Eye pencil    | 82% | 92%      | 10<br>% | 8%      |         |    | 2%      |    | 2%      |    | 4% |    |         |   |
| Highlighter   | 70% | 88%      | 14<br>% | 12<br>% | 6%      |    | 10<br>% |    |         |    |    |    |         |   |
| Cotton        | 38% | 90%      | 6%      |         | 22<br>% |    | 16<br>% |    | 12<br>% |    | 2% |    | 4%      |   |
| Rose<br>Water | 58% | 90%      | 10<br>% | 10<br>% | 10<br>% |    |         |    | 6%      |    | 6% |    | 10<br>% |   |
| Shampoo       | 68% | 30%      | 12<br>% | 68<br>% | 4%      | 2% | 6%      |    | 4%      |    | 4% |    | 2%      |   |
| Bronzer       | 84% | 88%      | 8%      | 12<br>% | 6%      |    | 2%      |    |         |    |    |    |         |   |
| Sunblock      | 76% | 98%      | 12<br>% | 2%      |         | 4% |         | 2% |         | 4% |    | 2% |         |   |

Table 24: Prototypical analysis of the members used to conceptualize the concept "cosmetic"

| Beauty    | 88% | 90% | 4% |    | 4% | 10 | 2% | 4% | 2% |    |
|-----------|-----|-----|----|----|----|----|----|----|----|----|
| Blender   |     |     |    |    |    | %  |    |    |    |    |
| Glitter   | 64% | 20% | 16 | 66 | 6% | 14 | 4% | 4% | 2% |    |
|           |     |     | %  | %  |    | %  |    |    |    |    |
| Palette   | 78% | 90% | 14 | 10 | 2% |    | 6% |    |    |    |
|           |     |     | %  | %  |    |    |    |    |    |    |
| Lenses    | 56% | 60% | 22 | 34 | 4% | 6% | 10 | 8% | 4% |    |
|           |     |     | %  | %  |    |    | %  |    |    |    |
| Soap      | 48% | 20% | 12 | 80 | 18 |    | 6% | 4% | 8% | 4% |
|           |     |     | %  | %  | %  |    |    |    |    |    |
| Hair dye  | 66% | 70% | 12 | 30 | 4% |    | 2% | 6% | 6% | 14 |
| color     |     |     | %  | %  |    |    |    |    |    | %  |
| Henna     | 44% |     | 20 | 68 | 8% | 32 | 2% | 6% | 6% | 14 |
|           |     |     | %  | %  |    | %  |    |    |    | %  |
| Eyelashes | 78% | 6%  | 6% | 90 | 2% | 4% | 6% | 4% |    | 4% |
|           |     |     |    | %  |    |    |    |    |    |    |

As indicated in table (24) above, both genders consider "lipstick" as the most prototypical member of the category "cosmetic". The table shows that 90% of the male students and 100% of the female students rate this member as first very good example. Alongside "lipstick", the females classify "lip-gloss" as the most prototypical member too, whereas the males rate "eyeliner" as another most prototypical member.

The findings also indicate that the members "mascara", "eyeliner", "foundation", "blusher", "eye shadow", "powder", "concealer", "contour", "primer", "eye pencil", "highlighter" "rose water", "bronzer", sunblock", "beauty blender", and "palette", are classified both genders as very good examples that represent the category "cosmetic". Moreover, both genders rate the two members "lenses" and "hair dye color" as second very good examples.

However, the table above reveal that the male and the female students differ in the semantic structure of some members. The males rate the semantic entities "shampoo", "glitter", "soap", "henna", and "eyelashes" as very good representative examples of the category "cosmetic", however, the females consider them as less prototypical members. Another

difference is about the way the two genders classify the member "cotton". The males consider

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it as third very good example, while the females rate it as first very good example of the category "cosmetic".

# 6. Sewing

# > Semantic Features

Table 25: Prototypical analysis of the features used to conceptualize the concept "sewing"

| Features  | , v | 7   |    | 6  |    | 5  | 4  |   |    | 3 | 2  | 2 | ]  | 1 |
|-----------|-----|-----|----|----|----|----|----|---|----|---|----|---|----|---|
| l         | Μ   | F   | Μ  | F  | Μ  | F  | Μ  | F | Μ  | F | Μ  | F | Μ  | F |
| Thread    | 84  | 100 | 2% |    | 8% |    | 4% |   |    |   |    |   | 2% |   |
|           | %   | %   |    |    |    |    |    |   |    |   |    |   |    |   |
| Needle    | 76  | 100 | 8% |    | 2% |    | 6% |   | 6% |   |    |   | 2% |   |
|           | %   | %   |    |    |    |    |    |   |    |   |    |   |    |   |
| Fabric    | 80  | 96  | 6% | 4% | 2% |    | 8% |   | 4% |   |    |   |    |   |
|           | %   | %   |    |    |    |    |    |   |    |   |    |   |    |   |
| Sewing    | 76  | 100 | 2% |    | 10 |    | 2% |   | 8% |   |    |   |    |   |
| Machine   | %   | %   |    |    | %  |    |    |   |    |   |    |   |    |   |
| Crochet   | 76  | 14  | 2% | 86 | 10 |    | 8% |   | 4% |   |    |   |    |   |
|           | %   | %   |    | %  | %  |    |    |   |    |   |    |   |    |   |
| Scissors  | 78  | 98  |    | 2% | 12 |    | 10 |   |    |   |    |   |    |   |
|           | %   | %   |    |    | %  |    | %  |   |    |   |    |   |    |   |
| Wool      | 64  | 6%  | 10 | 94 | 6% |    | 10 |   | 6% |   |    |   |    |   |
|           | %   |     | %  | %  |    |    | %  |   |    |   |    |   |    |   |
| Lace      | 58  | 96  | 14 |    | 10 | 4% | 6% |   | 2% |   | 8% |   | 2% |   |
|           | %   | %   | %  |    | %  |    |    |   |    |   |    |   |    |   |
| Measuring | 72  | 94  | 12 | 2% | 8% | 2% |    |   | 4% |   | 4% |   |    |   |
| Таре      | %   | %   | %  |    |    |    |    |   |    |   |    |   |    |   |
| Leather   | 54  | 12  | 12 | 68 | 14 | 20 | 4% |   | 4% |   | 4% |   | 10 |   |
|           | %   | %   | %  | %  | %  | %  |    |   |    |   |    |   | %  |   |
| Cotton    | 62  | 86  | 14 | 14 | 14 |    | 8% |   |    |   |    |   | 2% |   |
|           | %   | %   | %  | %  | %  |    |    |   |    |   |    |   |    |   |
| Button    | 72  | 94  | 10 |    | 6% |    | 14 |   |    |   | 4% |   |    |   |
|           | %   | %   | %  |    |    |    | %  |   |    |   |    |   |    |   |
| Wheel     | 30  | 36  | 14 | 64 | 10 |    | 16 |   | 4% |   | 2% |   | 22 |   |
|           | %   | %   | %  | %  | %  |    | %  |   |    |   |    |   | %  |   |
| Colors    | 40  | 98  | 24 | 2% | 18 |    | 4% |   | 6% |   | 4% |   | 4% |   |
|           | %   | %   | %  |    | %  |    |    |   |    |   |    |   |    |   |
| Feather   | 50  | 44  | 20 | 20 |    | 36 | 14 |   | 2% |   | 8% |   | 6% |   |
|           | %   | %   | %  | %  |    | %  | %  |   |    |   |    |   |    |   |
| Suede     | 70  | 78  | 12 | 22 | 8% |    |    |   | 4% |   | 4% |   | 2% |   |
|           | %   | %   | %  | %  |    |    |    |   |    |   |    |   |    |   |

Table (25) shows that all female students consider ",thread", ",needle", ",sewing machine" as the most prototypical attributes of the category, while 84% of the males student rate just the feature ",thread" as the most representative feature of the category ",sewing".

Regarding the classification of the features "fabric", "scissor", "measuring tape", "cotton", " button", and "suede", both genders rate them as first very good examples of the concept "sewing". Moreover, both of them classify "feather" as second good example, and "wheel" as third good example

The table also shows that the features "wool" and "leather" are considered by the males as very good examples of the category "sewing", while the females classify them as less prototypical members. By contrast, the feature "lace" which is rated by the females as first very good example, is structured as by the males as second very good example.

## > Semantic Members

| Features |    | 7   | (  | 6  |    | 5  |    | 4  |    | 3 |    | 2  |    | 1  |
|----------|----|-----|----|----|----|----|----|----|----|---|----|----|----|----|
|          | Μ  | F   | Μ  | F  | Μ  | F  | Μ  | F  | Μ  | F | Μ  | F  | Μ  | F  |
| Djellaba | 88 | 100 | 6% |    | 2% |    | 2% |    |    |   | 2% |    |    |    |
| 5        | %  | %   |    |    |    |    |    |    |    |   |    |    |    |    |
| Trousers | 88 | 90  | 4% |    | 2% |    |    |    |    |   | 2% |    |    |    |
|          | %  | %   |    |    |    |    |    |    |    |   |    |    |    |    |
| Veil     | 76 | 100 | 12 |    | 4% |    |    |    | 6% |   |    |    | 2% |    |
|          | %  | %   | %  |    |    |    |    |    |    |   |    |    |    |    |
| Caftan   | 16 | 92  |    | 8% | 80 |    | 4% |    |    |   |    |    |    |    |
|          | %  | %   |    |    | %  |    |    |    |    |   |    |    |    |    |
| T-shirt  | 94 | 100 |    |    | 2% |    | 2% |    |    |   | 2% |    |    |    |
|          | %  | %   |    |    |    |    |    |    |    |   |    |    |    |    |
| Blouza   | 12 | 94  |    | 6% | 78 |    | 4% |    | 2% |   |    |    | 4% |    |
|          | %  | %   |    |    | %  |    |    |    |    |   |    |    |    |    |
| Jacket   | 72 |     | 14 | 4% | 6% | 76 | 4% | 40 | 2% |   |    |    | 2% |    |
|          | %  |     | %  |    |    | %  |    | %  |    |   |    |    |    |    |
| Shirt    | 44 |     | 4% | 84 | 6% | 16 | 6% |    |    |   |    |    |    |    |
|          | %  |     |    | %  |    | %  |    |    |    |   |    |    |    |    |
| Dress    | 76 | 96  | 10 | 4% | 8% |    | 4% |    | 2% |   | 4% |    |    |    |
|          | %  | %   | %  |    |    |    |    |    |    |   |    |    |    |    |
| Karakou  |    | 94  | 12 | 6% | 76 |    | 6% |    | 4% |   |    |    | 2% |    |
|          |    | %   | %  |    |    |    |    |    |    |   |    |    |    |    |
| Pyjamas  | 68 | 66  | 18 | 34 | 12 |    |    |    |    |   |    |    | 2% |    |
| 25       | %  | %   | %  | %  | %  |    |    |    |    |   |    |    |    |    |
| Carpet   | 6% |     | 16 |    | 14 |    | 4% |    | 2% |   | 4% | 8% | 47 | 92 |
|          |    |     | %  |    | %  |    |    |    |    |   |    |    | %  | %  |
| Hayek    | 16 |     | 70 | 68 | 6% |    | 6% | 32 |    |   | 2% |    |    |    |
| 2        | %  |     | %  | %  |    |    |    | %  |    |   |    |    |    |    |
| Coat     | 78 | 10  | 8% | 90 | 6% |    | 2% |    | 2% |   | 4% |    |    |    |
|          | %  | %   |    | %  |    |    |    |    |    |   |    |    |    |    |
| Shorts   | 88 | 40  | 6% | 60 | 4% |    |    |    |    |   |    |    | 2% |    |

Table 26: Prototypical analysis of the members used to conceptualize the concept "sewing"

|       | %  | %  |    | %  |    |  |    |    |    |  |
|-------|----|----|----|----|----|--|----|----|----|--|
| Socks | 80 | 82 | 10 | 12 | 2% |  | 4% | 2% | 2% |  |
|       | %  | %  | %  | %  |    |  |    |    |    |  |

As indicated in table (26) above, all the female students (100%) consider the members "djellaba", and "veil", as the most prototypical member that best represent the category "sewing". By contrast, the prototypical member, according to the male students, is "t-shirt". 94% of the males rate it as very good example of the concept "sewing". Regarding the members, "trousers", "dress", and "socks" both genders rate them as first very good example of the concept "sewing". They also classify "pyjamas" as second very good example, " Hayek" as less prototypical member, and "carpet as the least prototypical member of the category "sewing".

Concerning the members " jacket", "shirt", "coat", and "shorts", the males consider them as very good example of the concept However, according to the females, they are less prototypical members. By contrast, the members "caftan", "blouza", and "karakou" which are classified by the females as very good examples of the category "sewing", they are rated by the males as fairly good examples.

## **3.3. Results Discussion**

The findings presented and analysed above reveal that there are similarities and differences between the way the male and the female students conceptualize and structure the concepts "bird", "furniture", "weapon", "vehicle", "cosmetic", and "sewing". The findings show that while gender influences poorly the conceptualization of some concepts; it plays a significant role in the structure of other concepts.

The results of the present study demonstrate that both the male and the female students use almost the same features to determine the meaning of the category "bird", and classify them more or less in the same way. Both genders consider the features "feathers", "beak", "wings", "chirp", "being able to fly", "colors", and "nest" as the most prototypical attributes that can be used to identify the meaning of the concept "bird. It seems then that both genders argue for the most common features. However, there are slight differences between the males and the females" classification of less common features, such as "peace", "trees", "trail", and "eyes". While the female consider them essential attributes to the meaning of the concept "bird"; the males think that these features have nothing to do with the concept "bird".

In addition to the features, it seems that both genders use almost the same prototypical members to represent the category "bird" such as "pigeon", "canary", "parrot", "crow", "sparrow", "streptopelia", "and "goldfinch". However, this does not mean that there are no differences between how the two genders think about other members. The results show that the male students consider the members "eagle", "hawk", "hoopoe", "stork", "squab", "jay" and "male pigeon", and "woodpecker as essential entities that can be used to represent the category "bird; whereas the females believe that the concept "bird" can be represented by other more members such as "peacock" and "chick".

Regarding the concept furniture, it appears that both the male and the female students use more or less the same features to structure this concept. The results indicate that the two genders think about the concept "furniture" in terms of a set of prototypical members which are "wood", "fabric", "iron", "glass", "sitting" "aluminium", "legs", "leather" and " home". Moreover, they use the same entities to represent this concept. Both genders argue that "table" and "chair" are the most prototypical members of the category "furniture". They also argue that this category can be represented by other prototypical examples such as "sofa", "wardrobe", "closet" and "bed".

As far as the concept "weapon" is concerned, the results display remarkable differences regarding the way the male and the female students determine the meaning of the concept

"weapon". It appears that the two genders conceive this concept in terms of different features. Most of the male students think about this concept by making specific reference to the attributes "bullet", "wood", and "ammunition", whereas the females use the features "defence", "death", "slaughter", "army" games" "confrontation" "criminal", "shot" and "treason" to determine its meaning. The difference between the males and the females" conceptualization of the concept "weapon" appears in the way they classify these features. According to the females, almost all the features generated by the males are considered as prototypical features. By contrast, the males" classification exhibits degrees of typicality. For them, some features are more essential than others in describing the meaning of "weapon".

The difference between the males and the females" conceptualization of the concept "weapon" appears in the way they use and classify the members that represent this concept. It is true that both genders use the same common members such as "gun", "knife", and "kalashnikov", however, the males provide specific semantic entities such as ""M16", "MP 40", "M6" "AK 45", "AKM", "UMP", "M411", "spas 12", and "M1014". Though it is difficult to explain the difference between how the males and the females conceive the concept "weapon", it seems that the males provide more attributes and members than the females and a detailed classification because they interact with the concept "weapon" more than the females do

The role of gender in the structure of the concrete concepts can be seen also in the way the male and the female students think about the concept "vehicle". Though the two genders argue that the meaning of this concept can be determined by taking into consideration a set of common features like "mobility", "wheels", "engine", steering wheel", "travel", and "brakes" . Each group of gender conceive the concept "vehicle in terms of other more features. According to the males, the attributes "arrival", "elegance" , "luxury", " tourism", "colors", "glass" and "mirror" can be used as essential features to determine the meaning of "vehicle". By contrast, the females think that "iron", "gasoline", "chair", "honk", and "seat belt" are important features that can be used to describe what the concept "vehicle" means. Moreover, the male and the female students structure differently the members that represent the category "vehicle". In addition to the members "airplane", "bus", "truck", " steamship", "train", "subway", "boat", and "helicopter", the male students use the semantic entities "motorcycle", "bicycle", "tractor, "rocket" and "submarine" as essential members to conceive the concept "vehicle", while the females consider them as less prototypical members. The difference between the classification of the two genders may due to the way each group interact with the concept "vehicle" and the types of the "vehicle" that each group may use in real life.

Concerning the structure of the concept "cosmetic", the results show that the females use more semantic features than the males to describe the meaning of this concept. They think about the concept "cosmetic" in terms of the attributes 'care" and "moisturizing, whereas the males determine its meaning by making specific reference to the feature "beauty". Regarding the members used to represent the category "cosmetic", both genders consider the elements of make up as very good members. However, it seems that the males use other more members like shampoo", "glitter", "soap", "henna", and "eyelashes".

With respect to the structure of the last concept, the findings suggests that bot the male and the female students think about the concept "sewing" in terms of the features ""thread", "needle", "sewing machine", "fabric", "scissor", "measuring tape", "cotton", " button", and "suede". However, it appears that each group of gender chooses other more features. According to the males, the features "wool" and "leather" are considered as prototypical attributes that can used to determine the meaning of the concept "sewing . By contrast, the females argue that the attribute "lace" is necessary to describe what the concept means. Regarding the members listed by the two genders to represent the concept "sewing", it seems that the male and the female students differently structure these members. According to the males, "t-shirt" is the most representative example of the category "sewing", whereas, the female think that "djellaba", and "veil" are the most prototypical attributes. Moreover, the males argue that " jacket", "shirt", "coat", and "shorts" are essential members which can be used to represent the category "sewing, however, the females classify "caftan", "blouza", and "karakou" as very good examples of the category "sewing". It seems that the way the males and the females conceive the concept "sewing" may be influenced by the way each group interact with this concept in real life.

### **3.4.** Conclusion

The chapter presented and analysed the data collected from the two experiments. First, it described and discussed the semantic features and the members listed by the male and the female students. Then, it presented and analysed the way the male and the female students prototypically structure the semantic features and the members listed in the first experiment. The chapter also critically discusses the data of the two experiment to show the extent to which gender influences the semantic conceptualization of the concepts "bird", "furniture", "weapon", "vehicle", "cosmetic", and "sewing" by the two gender groups

## **General Conclusion**

The central theme of this dissertation is to investigate the role of gender in constructing the prototypical structure of a set of concrete concepts in Algerian Arabic as spoken in Tiaret. The aim of this study is determine the semantic features and members that male and female Algerian students use to conceptualize the concepts "bird", furniture", "weapon", "vehicle", "cosmetic", and "sewing", and identify the similarities and the differences between male and female Algerian students regarding the prototypical structure of these semantic features and members. Based on two experimental research methods, it can be concluded that though gender influences poorly the semantic conceptualization of some concrete concepts; it plays a significant role in the semantic structure of other concepts.

To reach the overall objective this scientific work, a systematic research protocol was designed. This research protocol specifies the research questions that this dissertation has tried to answer, which in turn determine the relevant literature to use, the criteria to follow to select the appropriate concepts, the design of the experiments, and the process of data analysis. Accordingly, three chapters were used. The first chapter is theoretical. It reviewed critically the literature which tackles the issue of semantic categoration. In this chapter, a detailed explanation of Rosch" prototype theory was provided as being the main perspective followed in this study. The first chapter also described the notion of gender and summarized the main theories used to approach the relationship between language and gender. The second chapter is practical. It described the process of data collection. In this chapter, a detail information was provided concerning the participants, the design of the experiments, and the methods used to analyze the data. The third chapter was devoted to present, analyze, and critically discuss the data obtained from the two experiments.

Conducting this research provided significant results regarding how each group of gender determine the meaning of the concepts "bird", furniture", "weapon", "vehicle", "cosmetic", and "sewing". The findings revealed that both the male and the female students, at Ibn Khaldoun university, employ roughly similar features and members to identify the meaning of the concepts "bird" and "furniture". However, it seems that they disagree on several crucial aspects that define the meaning of the concepts "weapon" and "vehicle". The results indicated that the female students determine the meaning of these concepts based primarily on their limited knowledge; while the males stood out both in terms of quantity and quality. They conceptualize the meaning of these concepts using more semantic attributes and members

As far as the semantic structure of the concepts "cosmetic" and "sewing" is concerned. It appears that the male students think about these two concepts in generic way. This can be seen in the semantic features and the members they listed to conceptualize these two concepts and their prototypical ratings. By contrast, the female students think about these concepts in terms of more specific features and members.

## Limitations of the Study

As any other scientific work, this research has some limitations:

- 1. Since our theme of this dissertation has not been examined yet, we found no literature on the relationship between gender and semantic categorization.
- 2. Because of the small number of the participants, the results of the study cannot be generalized to all male and female Algerians.
- 3. This study examined only a set of concrete concepts. It did not investigate abstract concepts.
- 4. Investigating the prototypical structure of the semantic features and members used by the male and the female students was very time consuming, because the frequency of use and the prototypical structure of each and every semantic feature and member were counted manually.
- 5. The second experiment was designed, for the first time, in google classroom. However, most of the participants did not participate. Thus, we were obliged to redesign the experiment again. This delayed the process of data analysis.

## Recommendations

In light of the above limitations, the following recommendations are proposed:

- 1. Researchers are highly recommended to examine how gender may influence the semantic structure of both concrete and abstract concepts.
- 2. Researchers who examine the relationship between gender and categorization are recommend to take into consideration different age groups.
- 3. It is suggested to investigate prototypical structure of abstract concepts and other more concrete concepts.

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# Appendices

# Appendix A

التجربة (01)

في اطار التحضير لشهادة الماستر في اللغة الانجليزية (تخصص لسانيات), نقوم نحن الطالبتان اسمهان برياح و وفاء بلال باعداد مذكرة تخرج تحت عنوان:

The Role of Gender in Constructing the Prototypical Structure of Abstract and

# **Concrete Concepts**

تهدف هذه الدراسة الى معرفة علاقة النوع الاجتماعي بالتصور النموذجي لمجموعة من المفاهيم الملموسة. كما تسعى الى تحديد السمات الدلالية ( الصفات) والاعضاء التي يستخدمها الذكور والإناث الجزائريون لوضع تصور لهذه المفاهيم الملموسة. ألى تحديد السمات الدلالية ( الصفات) والاعضاء التي يستخدمها الذكور والإناث الجزائريون لوضع تصور لهذه المفاهيم الملموسة. وإجابتكم الملموسة. وفي سبيل ذلك يسرنا أن تكونوا جزء من دراستنا وذلك من خلال مشاركتكم في التجربة (01) وإجابتكم الملموسة. وألموسة وذلك من خلال مشاركتكم في التجربة (01) وإجابتكم الملموسة وغلي ستحرص بدورنا على إلى معرفة المناهيم الملموسة. والمناد معن الملموسة وفي سبيل ذلك يسرنا أن تكونوا جزء من دراستنا وذلك من خلال مشاركتكم في التجربة (01) وإجابتكم الموضوعية على كل الأسئلة قراءتكم الحذرة و إجابتكم النزيهة، والتي ستحرص بدورنا على إبقائها مجهولة الاسم، ستساهم في زيادة مصداقية دراستنا . نشكر لكم مجهودكم وحسن تعاونكم

الجزء الأول: المعلومات الشخصية

السن : الجنس : ذكر أنثى

المستوى التعليمي :

| حياكة | مستحضرات التجميل | مركبة | سالح | اثاث | طائر |
|-------|------------------|-------|------|------|------|
|       |                  |       |      |      |      |
|       |                  |       |      |      |      |
|       |                  |       |      |      |      |
|       |                  |       |      |      |      |

الاعضاء

| حياكة | مستحضرات التجميل | مركبة | سالح | اثاث | طائر |
|-------|------------------|-------|------|------|------|
|       |                  |       |      |      |      |
|       |                  |       |      |      |      |
|       |                  |       |      |      |      |
|       |                  |       |      |      |      |

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# **Appendix** B

# التجربة (02)

في اطار التحضير لشهادة الماستر في اللغة الانجليزية (تخصص لسانيات), نقوم نحن الطالبتان اسمهان برياح و وفاء بلال باعداد مذكرة تخرج تحت عنوان:

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تهدف هذه الدراسة الى معرفة علاقة النوع الاجتماعي بالتصور النموذجي لمجموعة من المفاهيم الملموسة. كما تسعى إلى تحديد السمات الدلالية ( الصفات) والأعضاء التي يستخدمها الذكور والإناث الجزائريون لوضع تصور لهذه المفاهيم الملموسة والى تحديد السمات الدلالية ( الصفات) والأعضاء التي يستخدمها الذكور والإناث الجزائريون لوضع تصور لهذه المفاهيم الملموسة وفي سبيل ذلك يسرنا أن تكونوا جزء من دراستنا وذلك من خلال مشاركتكم في التجربة (032) وإجابتكم الملموسة وزلك من خلال مشاركتكم في التجربة (032) وإجابتكم الموضوعية على كل الأسئلة قراءتكم الحذرة و إجابتكم النزيهة، والتي ستحرص بدورنا على إبقائها مجهولة الاسم، ستساهم في زيادة مصداقية دراستنا وذلك من تعاونكم والتي ستحرص بدورنا على إبقائها مجهولة الاسم، ستساهم في زيادة مصداقية دراستنا و

الجزء الأول: المعلومات الشخصية

السن : الجنس : ذكر أنثى

المستوى التعليمي :

الجزء الثانى: التفييم النموذجي للمفاهيم المجردة

فيما يلي مجموعة من المفاهيم مجمعة في ست فنات. المفاهيم هي "طائر" و "أثاث" و "سلاح" و "مركبة" و "مستحضرات تجميل" و "خياطة". لكل مفهوم ، تم إنشاء عدد من الأعضاء والميزات الدلالية (التجربة 1). اقرأ كل الأعضاء والميزات بعناية وصنف على مقاييس 7 نقاط إلى أي مدى يمثل هؤلاء الأعضاء والميزات المفهوم الذي ينتمون إليه. يتراوح توزيع القيم وفقا لهذا المقياس من 1 إلى 7 على النحو التالي:

1. ليس مثالا للمفهوم

#### Abstract

This study is conducted to investigate the way the male and the female students at Ibn khaldoun University construct, in Algerian Arabic, the semantic meaning of a set of the following concrete concepts "birds", "furniture", "weapon", "vehicle", "cosmetic" "sewing" used in Algerian Arabic. To conduct this study, two experiments were used. In the first experiment, the participants were asked to list all the features and semantic entities that come to their minds when hearing, seeing, or reading the concepts. In the second experiment, they were asked to rate, how well the attributes and semantic entities represent the targeted concept, The results revealed that gender effects poorly the semantic perception of some concrete concepts. However, it plays an important role in the semantic structure of others.

Keywords: Categorization, gender, prototypical structure, semantic features, semantic entities

## Resumé

Cette étude est menée pour enquêter sur la façon dont les étudiants et les étudiantes de l'Université Ibn Khaldoun construisent, en arabe algérien, la signification sémantique d'un ensemble de concepts concrets suivants "oiseaux", "meubles", "armes", "véhicules". , "Cosmétique", "couture" utilisé en arabe algérien. Pour mener cette étude, deux expériences ont été utilisées. Dans la première expérience, les participants ont été invités à lister toutes les caractéristiques et entités sémantiques qui leur viennent à l'esprit lorsqu'ils entendent, voient ou lisent les concepts. Dans la deuxième expérience, il leur a été demandé d'évaluer dans quelle mesure les attributs et les entités sémantiques représentent le concept ciblé. Les résultats ont révélé que le genre affecte mal la perception sémantique de certains concepts concrets. Cependant, il joue un rôle important dans la structure sémantique des autres.

*Mots clés* : Catégorisation, genre, structure prototypique, traits sémantiques, entités sémantiques.

## الملخص

تهدف هذه الدراسة لاستقصاء بناء المعنى الدلالي لمجموعة من المفاهيم المستخدمة في اللهجة العربية الجزائرية من طرف الطلاب والطلبة الجزائريين بجامعة ابن خلدون تيارت. هاته المفاهيم هي «طائر"، « أثاث"، «سلاح"، "مركبة". ، "مستحضرات التجميل"، "خياطة" لإجراء هذه الدراسة تم استخدام تجربتين. في التجربة الأولى ، طُلب من المشاركين سرد جميع الميزات والكيانات الدلالية التي تتبادر إلى أذهانهم عند سماع المفاهيم أو رؤيتها أو قراءتها. في التجربة الأولى ، طُلب من المشاركين سرد جميع الميزات والكيانات الدلالية التي تتبادر إلى أذهانهم عند سماع المفاهيم أو رؤيتها أو قراءتها. في التجربة الثانية ، طُلب من المشاركين سرد جميع الميزات والكيانات الدلالية التي تتبادر إلى أذهانهم عند سماع المفاهيم أو رؤيتها أو قراءتها. في التجربة الثانية ، طُلب منهم تقييم مدى تمثيل السمات والكيانات الدلالية للمفهوم أذهانهم عند سماع المفاهيم أو رؤيتها أو قراءتها. في التجربة الثانية ، طُلب منهم تقييم مدى تمثيل السمات والكيانات الدلالية للمفهوم المستهدف. كشفت النتائج أن النوع الاجتماعي يلعب دورا مهما في البنية الدلالية البعض المفاهيم لكنه لا يؤثر بشكل كبير في الإدراك الدلالي المعام والمالي التورين المفاهيم المستهدف. كشفت النتائج أن النوع الاجتماعي يلعب دورا مهما في البنية الدلالية لبعض المفاهيم لكنه لا يؤثر بشكل كبير في الإدراك الدلالي المستهدف المفاهيم الاخرى.

الكلمات المفتاحية : التصنيف ، النوع الاجتماعي ، الهيكل النموذجي ، السمات الدلالية ، الكيانات الدلالية .