# Assignment No. 6

## Due: Tuesday 3 March 2015

There is no word limit/requirement for these exercises. Your responses may be in English, French, Spanish, German, Arabic, or any other language you are comfortable writing in. The grammar, spelling, and prescriptive conventions are not evaluated for the assignment. You do not need to edit, revise a number of times, or attend in any special way to form or language. You should just write in a way that is clear to you. You are welcome to use bullet points. You do not need to write complete sentences or in paragraph form complete with transitions.

# 1 Readings

Read ch. 4 "Meaning Relations (1)" and ch. 10.1 "Appendices: Introduction to sets and functions" of Gregory (2000). *Semantics*. Complete the following exercises taken from the book. You are to do this individually, and not with your group. You will turn this portion in as part of your normal homework packet.

## 1.1 Exercise 4.16

Are the following pairs of antonyms incompatible or contradictory? Explain why, using sets.

1. vegetarian & meat-eater
2. blue & red
3. European & Asian
4. married & unmarried

## 1.2 Exercise 4.18

The following pairs are all incompatible as defined; but not all of them would naturally be considered pairs of antonyms. Which pairs would? Suggest other criteria we need besides incompatibility.

1 John is a *doctor*.

1′ John is an *aardvark*.

2 Mary is *shouting*.

2′ Mary is *whispering*.

3 You should paint the whole thing *red*.

3′ You should paint the whole thing *turquoise*.

4 Dark Rum is a *stallion*.

4′ Dark Rum is a *mare*.

## 1.3 Exercise 4.19

In (4.7), the implication relation went in the same direction as the hyponymity relation. In the following examples it goes in the opposite direction. Draw the Venn diagrams and explain why.

1 Tiny is not a dog.

1′ Tiny is not an alsatian.

2 They want to ban drink.

2′ They want to ban beer.

3 Sport is forbidden.

3′ Football is forbidden.

## 1.4 Exercise 10.1

List all the subsets of the following sets:

1. {a, b, c}
2. {a, {b, c}}
3. {a}
4. {a, b, { }, c}

## 1.5 Exercise 10.2

What is the relation (if any) between the sets $\mathfrak{A}$ and $\mathfrak{B}$ in each of these examples?

1. $\mathfrak{A}$ ={a, b, c}; $\mathfrak{B}$ ={a, b, c, d}
2. $\mathfrak{A}$ ={a, b, { }}; $\mathfrak{B}$ ={a, b}
3. $\mathfrak{A}$ ={a, b, c}; $\mathfrak{B}$ ={a, {b, c}}