The UK Linguistics Olympiad 2015

Advanced level

Problem 9: Zoink! (25 marks)

As everyone who needs to buy widgets online knows, the crowd-sourced website Zoink! is the place to go to get real evaluations from real users of real widgets. You might have the most optaxic widget out there, but unless it's getting reviewed on Zoink! nobody's going to hear about it.

To ensure quality, the administrators of Zoink! have to continuously delete reviews written by bots, small software programs that pretend to be human reviewers. The admins can't read every review personally so they first need to pre-filter obvious rubbish. Thankfully, one common mistake bots make is in using multiple adjectives that describe different degrees of a quality in an improper way. (You can think of the adjectives on a scale of intensity, with different scales for different qualities from low intensity to high intensity.) There are correct and incorrect ways of using such 'scalar' adjectives when describing widgets. For example, the phrase:

good but not great (CORRECT)

is perfectly acceptable and should be marked as such. But this phrase:

furious but not angry (WRONG)

makes no sense since *furious* is stronger than *angry* and therefore strictly subsumes *angry*—you can be angry, but not so much as to be furious, but you cannot be furious without being angry. Any review containing this phrase should be thrown away immediately since it definitely came from a bot rather than a human speaker.

There are also some unclear cases. This phrase:

furious but not good (MAYBE)

seems odd since it compares two adjectives from different scales (anger and goodness). Such a review should raise a red flag but be inspected more closely before being thrown out.

Oh but the sprocket marketplace is incredibly hip and so everyone writes using the latest slang. In order to write filtering software, the Zoink! admins (who are not so hip) first looked at a bunch of snippets from reviews written by real people. Here they are:

The UK Linguistics Olympiad 2015

Advanced level

1. cromulent but not melaxious	7. not only quarmic, but nistrotic	13. not nistrotic, just tamacious
2. not only efrimious but quarmic	8. shtingly, though not efrimious	14. wilky but not daxic
3. not only hyxilious but fligranish	9. not tamacious, just efrimious	15. not daxic, just jaronic
4. not only daxic but fligranish	10. not optaxic, just fligranish	16. jaronic but not hyxilious
5. not laxaraptic, but just hyxilious	11. not only cromulent but shtingly	17. laxaraptic but not optaxic
6. not just melaxious but efrimious	12. not nistrotic, but just efrimious	

Based on these snippets, the admins were able to understand how the different properties are connected so they were ready to decide whether further snippets were

- right, i.e. they might easily have been written by humans
- wrong, i.e. they must have been written by bots
- possible, i.e. they might have been written by humans or by bots because they combine points on different scales.

Here is a selection of the further snippets:

A. not only hyxilious but quarmic
B. jaronic but not laxaraptic
C. cromulent but not nistrotic
D. not only tamacious, but melaxious
E. not only shtingly but quarmic
F. not fligranish, just wilky
G. optaxic but not hyxilious
H. cromulent but not jaronic
I. not just optaxic but nistrotic

Q.9.1. Classify each of these snippets A-I as right, wrong or possible by writing r, w or p in the answer sheet.

Q.9.2. Justify your answer.

Q.9.3. Find a series of ordinary English adjectives that define more than **three** degrees of intensity on a single scale.

The UK Linguistics Olympiad 2015

Advanced level

Problem 9: Zoink! (25 marks)

Q.9.1 A	B	C	D	E	F	G	H	I

Q.9.2.

[continue on next page or on a separate sheet]

Q.9.3.				

The UK Linguistics Olympiad 2015

Advanced level

Problem 9. Zoink! – solution (24 points)

Scoring: (max 24)

- 9.1: 1 point for each correct answer (max 9)
- 9.2: 2 points for each component (1-5) presented both clearly and accurately. 1 for a partially satisfactory treatment. **1 for a general statement of principles, e.g. a description of the processes to be executed.** (max 10)
- 9.3: 4 points for a convincing series of four degrees; 5 points for one with five degrees (max 5) Accept creative suggestions if they're plausible. **(max 5)**

Q.9.1

A	B	C	D	E	F	G	H	I
p	r	r	w	r	r	w	p	p

Q.9.2. [for a fuller explanation, see the notes in Appendix B]

1. Classification of the syntactic patterns in snippets 1-17 in terms of relative strength (x > y or x < y), with clear explanation.
2. A full analysis of all snippets 1-17 in terms of the classification in 1.
3. Some kind of diagramming notation for strength and network connections, with clear explanation.
4. A full analysis of all the adjectives in terms of the notation in 3.
5. Application of the analysis in 4 to the new snippets A-I.

Q.9.3.

NB the scale need not be evaluative, e.g. local – regional – national – international – galactic.

The UK Linguistics Olympiad 2015

Advanced level

Appendix B: A guide to Zoink!

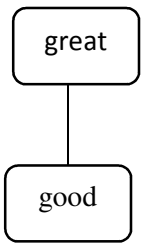
Different people will find different routes through this problem, but the following notes present one route which is hopefully clear and relatively simple for those whose intuitions don't take them straight to the answer.

1. Look at the syntax of the phrases 1-17 and reduce the diversity. Each phrase links two adjectives which we can call x and y. Here's a list of the different patterns, distributed into two groups:

x<y	x>y
x but not y	not x, but just y
x, though not y	not x, just y
not just x but y	
not only x but y	

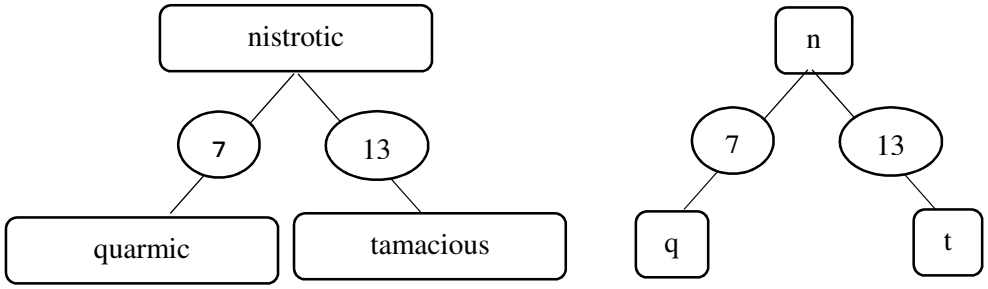
In all the x<y patterns, adjective x has a weaker meaning than adjective y; for example, in *good but not great*, 'good' is weaker than 'great', just as it is in *good, though not great*, *not just good but great* and *not only good but great*; so all these different phrases tell you the same thing: 'good' < 'great'. In the x>y patterns, the relation is reversed: *not great, but good* and *not great, just good*, so 'great' > 'good'.

2. Since the relative strength of x and y is all you're interested in, you can replace all the phrases 1-17 by a representation of this relation. To do this you need to remove the difference between x<y and x>y, which is just a matter of syntax. You could convert one of these notations into the other, e.g. converting all the x>y patterns into y<x patterns; but at this point it will be more helpful to move towards a network notation which shows the relation more clearly. The obvious iconic ('natural') notation for this relation uses the vertical dimension to link the stronger adjective down to the weaker one below, like this:

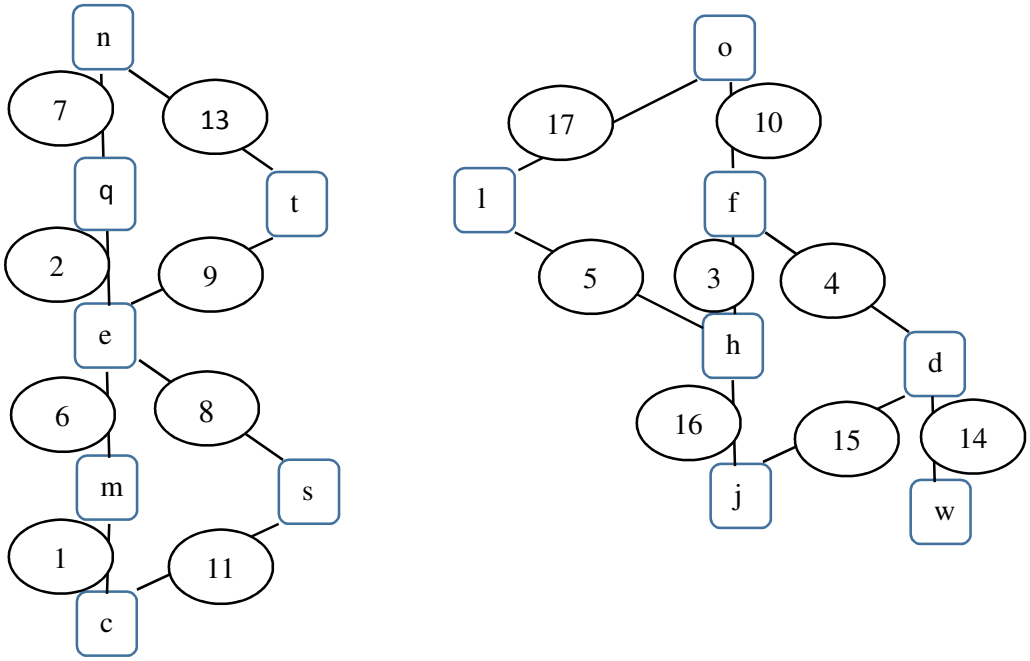


3. Now you work through 1-17 to convert the relations into this notation. But notice that the same adjective can appear in two or more phrases, so you're actually dealing with a complex network of relations rather than a list of isolated relations. Here too your new notation will come in handy because it allows you to write each adjective just once, but to give it more than one link to other

adjectives. For instance, *nistrotic* is linked both to *quarmic* (phrase 7) and to *tamacious* (13), as shown below. The diagram on the right takes advantage of a convenient fact: that every adjective begins with a different letter, so you can save writing them out by just using their initial letter. The number in the ellipse reminds you of the phrase which defines the relation concerned.



4. Continuing this process with some juggling, you eventually find that the adjectives actually form two separate and unconnected networks. This means that, between them, these phrases actually define just two scales or dimensions, each with several different grades of increasing strength, and each with some synonyms for the same grade. We don't, of course, know what these scales are – reliability, speed, attractiveness, price or whatever – but we do know about the formal structuring of the different points on the scales. Here are the two networks:



5. And finally to the solution: You represent each of A-I using the same notation, and compare it with the networks.

- right: if the adjectives x and y are in the same network, and the higher one is also higher in the network.
- wrong: if x and y are in the same network but the higher one is lower in the network.
- possible: if x and y are in different networks.

A. not only hyxilious but quarmic	p
B. jaronic but not laxaraptic	r
C. cromulent but not nistrotic	r
D. not only tamacious, but melaxious	w
E. not only shtingly but quarmic	r
F. not fligranish, just wilky	r
G. optaxic but not hyxilious	w
H. cromulent but not jaronic	p
I. not just optaxic but nistrotic	p