

# Fundamentals of Levin et al. 2019: Answers

Chris Potts, Ling 130a/230a: Introduction to semantics and pragmatics, Winter 2025

## Question 1

Levin et al. focus on exocentric compounds (which do not entail the property named by the head noun). True or False?

**Answer: False**

## Question 2

In endocentric compounds, the modifier is always entailed and thus can be treated as an intersective modifier in the sense of Partee's typology. True or False?

**Answer: False**

## Question 3

For the compound *river fruit*, what is the correct classification of the modifier and head?

**Answer: The modifier refers to a natural kind and the head refers to a natural kind.**

## Question 4

For the compound *almond cookie*, what is the correct classification of the modifier and head?

**Answer: The modifier refers to a natural kind and the head refers to an artifact.**

## Question 5

What of the following combinations is least expected (of these options) given Levin et al.'s hypotheses?

- a. A compound that refers to a natural kind and has a location-related modifier.
- b. A compound that refers to a natural kind and has an event-related modifier.
- c. A compound that refers to a natural kind and has an appearance-related modifier.

**Answer: b**

## **Question 6**

A balloon whisk is a whisk that has a balloon shape, not a device used in the creation of balloons. Why is this unexpected on Levin et al.'s analysis?

**Answer: The compound refers to an artifact whose modifier refers to perceptual properties.**

## **Question 7**

Levin et al.'s corpus study focuses on examples from two domains. What are those domains?

**Answer: (1) Food and cooking, and (2) jewelry and precious minerals**

## Question 8

Which of the following best describes the procedures that Levin et al. used for their production experiment?

- a. Participants were given prompts describing novel artifacts or natural kinds, and the task was to give a “two-word name” they would use for this novel item. The authors annotated these names according to an annotation manual.
- b. Participants were given prompts describing novel artifacts or natural kinds, and the task was to give a “two-word name” to these objects that was accurate for some but not all of the information in the prompts. The authors then used an annotation manual to identify which information was false.
- c. Participants were asked to freely generate “two-word names” for novel objects, and the authors annotated these names according to an annotation manual.
- d. Participants were given an annotation manual and a list of novel compounds, and their task was to produce labels for these compounds according to the annotation manual.

**Answer: a**

## Question 9

Which of the following best describes the procedures that Levin et al. used for their comprehension experiment?

- a. Participants were shown compounds from online databases of food/cooking and jewelry/precious minerals and asked to classify them using the categories from Table 2 in the paper.
- b. Participants were given prompts involving novel compounds and asked to describe the meaning of that compound in free-form text.
- c. Participants were given prompts involving novel compounds and asked to choose from three possible interpretations of that compound.
- d. Participants were given descriptions of novel entities and asked to come up with two-word names for them, and those names were subsequently classified by the authors for the purposes of engaging with the core hypotheses in the paper.

**Answer: b**

## Question 10

Exactly one of the following is **not** true of our in-class experiment. Which one?

- a. The in-class experiment was multiple choice, which limits participants in artificial ways compared to Levin et al.'s free-response design.
- b. The in-class experiment had only five items, whereas the Levin et al. experiment had 20.
- c. For artifact/artifact combinations, the results of the in-class experiment were consistent with the theory proposed by Levin et al.
- d. The Levin et al. theory is centered around four combinations of Modifier/Head types, and some of these types were missing from the in-class experiment.

**Answer: d**

## Question 11

Levin et al. briefly discuss the case of *thumb tack* and *drawing pin*, both of which refer to the same thing. Why is this pair of compounds interesting to them?

**Answer:** From the paper: “For example, what is called a *drawing pin* in British English is called a *thumb tack* in American English. Here the British name makes reference to the artifact’s purpose (securing a drawing or similar item to a flat surface), while the American name makes reference to its mode of use (being pushed into a surface with a thumb and not, say, a hammer).”

## Question 12

The compounds *Italian ice*, *shaved ice*, and *water ice* are all different regional names for essentially the same sweet treat of watery ice covered in usually fruity syrup.<sup>1</sup>

**Task 1** Classify each of these compounds using the fine-grained modifier–head relation categories from Appendix A of the Levin et al. paper (the ones used by the annotators in the corpus study). Not all of these classifications are fully straightforward, so briefly explain the choices and note any indeterminacy.

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<sup>1</sup>See [https://en.wikipedia.org/wiki/Italian\\_ice](https://en.wikipedia.org/wiki/Italian_ice). My apologies if saying these are all “the same treat” offends your regional or culinary sensibilities. Of a fourth contender *shave ice*, Wikipedia is very clear: “Not to be confused with shaved ice.”

**Task 2** Are your classification choices consistent with the core hypotheses of the Levin et al. paper? For each one, explain why it is or is not. (If there are inconsistencies, we would love to hear potential explanations for why, but that is not required.)

**Answer:** You can discuss and debate. These things have natural kind heads but are clearly artifacts. For the classifications:

- a. Italian ice is Social/Political, since the modifier is a political entity describing the origins. (Location is tempting but it seems wrong to me given what the paper says about that category.)
- b. Shaved ice is Method, since this is referring to the way it is created, but I can see arguments for Distinctive Part or Visual, referring to the shavings the method creates.
- c. Water ice is Made of, but I can see arguments for Distinctive Part, Taste/Smell, or Visual.