# **Phase 1: Generating Pairs**

Last modified: October 31, 2011

**Title:** Generate examples of a given relation

**Description:** Given an examples of related word pairs, create three new analogous examples.

Keywords: analogy, English, word relations, semantics, similarity

Time allotted per assignment (HIT): 5 minutes

Reward per assignment (HIT): \$0.02

Results are automatically approved in: 21 days

Eligibility: You must be 18 years of age or older to participate.

**Confidentiality notice:** Your responses are confidential. Publications based on them will not include your specific responses, but rather aggregate information from many individuals. We will not ask any information that can be used to identify who you are.

#### Instructions:

- (1) This survey will be used to better understand relations between words. Your input is much appreciated.
- (2) If any of the questions in a HIT are unanswered, then the assignment is no longer useful to us and we will be unable to pay for the assignment.
- (3) Skip a HIT if you do not know the meanings of the words.
- (4) Attempt HITs only if you are a native speaker of English or very fluent in English.
- (5) Certain check questions will be used to make sure your input is responsible and reasonable. HITs that fail these tests will be rejected. If you fail too many check questions, then it will be assumed that you are not following instructions (3) and/or (4) above, and ALL of your HITs will be rejected.
- (6) Question 1 asks you to identify the relation that is shared by a set of word pairs. For example, consider the following set of word pairs: traffic:street, water:riverbed, data:network, electricity:wire, hikers:trail. Each of these X:Y pairs shares the relation "X flows on/in/over/through a Y".
- (7) Question 2 asks you to generate four more word pairs with the same relation as the pairs in Question 1. For example, effluent:sewer, blood:artery, oil:pipeline, gossip:grapevine.

### Sample HIT:

**Question 1:** Consider the following word pairs: pilgrim:shrine, hunter:quarry, assassin:victim, climber:peak. What relation best describes these X:Y word pairs?

- (1) "X worships/reveres Y"
- (2) "X seeks/desires/aims for Y"

- (3) "X harms/destroys Y"
- (4) "X uses/exploits/employs Y"

**Question 2:** Consider the following word pairs: pilgrim:shrine, hunter:quarry, assassin:victim, climber:peak. These X:Y pairs share a relation, "X R Y". Give four additional word pairs that illustrate the same relation, in the same order (X on the left, Y on the right). Please do not use phrases composed of two or more words in your examples (e.g., "racing car"). Please do not use names of people, places, or things in your examples (e.g., "Europe", "Kleenex").

(1)	_:
(2)	_:
(3)	_:
(4)	•

# **Phase 2: Rating Pairs**

Last modified: October 31, 2011

Title: Select the most and least illustrative examples of a given relation

**Description:** Given an example word pair, rate other word pairs according to the similarity of their relations to the relation illustrated in the given example.

Keywords: analogy, English, word relations, semantics, similarity, rating

Time allotted per assignment (HIT): 5 minutes

Reward per assignment (HIT): \$0.02

Results are automatically approved in: 21 days

Eligibility: You must be 18 years of age or older to participate.

**Confidentiality notice:** Your responses are confidential. Publications based on them will not include your specific responses, but rather aggregate information from many individuals. We will not ask any information that can be used to identify who you are.

#### Instructions:

- (1) This survey will be used to better understand relations between words. Your input is much appreciated.
- (2) If any of the questions in a HIT are unanswered, then the assignment is no longer useful to us and we will be unable to pay for the assignment.
- (3) Skip a HIT if you do not know the meanings of the words.
- (4) Attempt HITs only if you are a native speaker of English or very fluent in English.
- (5) Certain check questions will be used to make sure your input is responsible and reasonable. HITs that fail these tests will be rejected. If you fail too many check questions, then it will be assumed that you are not following instructions (3) and/or (4) above, and ALL of your HITs will be rejected.

- (6) Question 1 asks you to identify the relation that is shared by a set of word pairs. For example, consider the following set of word pairs: traffic:street, water:riverbed, data:network, electricity:wire, hikers:trail. Each of these X:Y pairs shares the relation "X flows on/in/over/through a Y".
- (7) Question 2 asks you to select from a set of four pairs the pairs that are most and least illustrative of a given relation.

### Sample HIT:

**Question 1:** Consider the following word pairs: pilgrim:shrine, hunter:quarry, assassin:victim, climber:peak. What relation best describes these X:Y word pairs?

- (1) "X worships/reveres Y"
- (2) "X seeks/desires/aims for Y"
- (3) "X harms/destroys Y"
- (4) "X uses/exploits/employs Y"

**Question 2:** Consider the following word pairs: pilgrim:shrine, hunter:quarry, assassin:victim, climber:peak. These X:Y pairs share a relation, "X R Y". Now consider the following word pairs:

- (1) pig:mud
- (2) politician:votes
- (3) dog:bone
- (4) bird:worm

Which of the above numbered word pairs is the MOST illustrative example of the same relation "X R Y"?

Which of the above numbered word pairs is the LEAST illustrative example of the same relation "X R Y"?

**Note:** In some cases, a word pair might be in reverse order. For example, tree:forest is in reverse order for the relation "X is made from a collection of Y". The correct order would be forest:tree; a forest is made from a collection of trees. You should treat reversed pairs as BAD examples of the given relation.