

Description: Full translated instructions for the relational, role and semantic similarity ranking task. Instructions were originally presented in Bulgarian.

Before each block, participants were instructed in detail about as to how to rank the exemplars in each trial. The same example was used for the instructions in order to highlight the difference between criteria:

BASE: GIANT DWARF

TARGETS: PEAK HILL, APARTMENTBUILDING HOUSE, SKYSCRAPER HUT

Ranking by relational similarity

“Each of the exemplars in the next block contains word pairs that are **related** in similar ways – the two words in each pair are examples of a specific **relation**. In this example, the relation in each pair is “*X is higher than Y*” – the giant is higher than the dwarf, the peak is higher than the hill, etc. For each of the trials in the next block you have to rank the targets depending on how **relationally similar** they are to the base, i.e., *to the degree that the words in each target hold a relation that is similar to the relation in the base pair.*”

“For example, in the word pairs PEAK HILL and SKYSCRAPER HUT the first word is always higher than the second, which is not necessarily true for the pair APARTMENTBUILDING HOUSE. The pair SKYSCRAPER HUT seems to be the most relationally similar to the base (i.e. GIANT DWARF) – a skyscraper is not only higher than a hut, but it can also be thought of as the opposite of a hut, just as a giant is in a way the opposite of a dwarf. For that reason, SKYSCRAPER HUT could be ranked as most relationally similar to the base, PEAK HILL can be ranked second, and APARTMENTBUILDING HOUSE – last. Rank the pairs according to what seems most logical to you. In each trial the base will define the relation. Think about that relation while you rank the target pairs.”

Ranking by role similarity of word 1

“Words can play different **roles** depending on the context in which they appear. Each of the trials in the next block contains words that play **similar roles** in each word pair. In each trial you have to rank the targets depending on how **similar the role of first** word in each target pair is to the **role of the first** word in the base, i.e., the word GIANT in the current example.”

“In this example, a skyscraper, just like a giant, is the highest entity of its class (i.e., buildings and living beings). In contrast, a peak or an apartment building, while generally high, are not necessarily the highest in their class. Because of this, SKYSCRAPER should be ranked as having the most similar role to GIANT. We could rank PEAK in second place, because it is defined as “a point on earth’s surface that is higher than the surrounding terrain”. Finally, an APARTMENTBUILDING should be ranked last, because it is not necessarily the highest building. Rank according to what seems most logical to you. In each trial the first word in the base will define the role. Think about that role while you rank the targets.”

Ranking by role similarity of word 2

“Words can play different **roles** depending on the context in which they appear. Each of the trials in the next block contains words that play **similar roles** in each word pair. In each trial you have to rank the targets depending on how **similar the role of second** word in each target pair is to the **role of the second** word in the base, i.e., the word DWARF in the current example.”

“In this example, a HUT, just like a DWARF, is the shortest entity of its class. For this reason, it should be ranked first, as having the most similar role to DWARF, because HUT is the best example among the targets for the role “shortest”. HILL is a small extension above the ground, which is a less similar to the role “shortest”, so it should be ranked second. In last place we could rank HOUSE, because even though a house is generally not the highest building, it is also not the shortest one and thus it is not a good example of this role. Rank according to what seems most logical to you. In each trial the second word in the base will define the role. Think about that role while you rank the targets.”

Ranking by semantic similarity of word 1

“For each of the trials in the next block, rank the word pairs depending on how much the **first** word in each target pair is **semantically similar** to the **first** word in the base, i.e. with GIANT in this example.”

“Inasmuch as giants are associated in various myths, legends and fairytales with beings that live in forests and mountains, the word PEAK seems to be the most semantically related word with GIANT in this example. In second place we could put SKYSCRAPER, because like GIANTS it is something tall and towering. The word APARTMENTBUILDING seems to be the least semantically similar to the GIANT. Rank according to what seems most logical to you. Think about the first word in the base and its meaning while you rank the targets.”

Ranking by semantic similarity of word 2

“For each of the trials in the next block, rank the word pairs depending on how much the **second** word in each target pair is **semantically similar** to the **second** word in the base, i.e. with DWARF in this example.”

“Inasmuch as dwarves are beings that live in forests, hills and underground, the word HILL seems to be the most semantically similar to DWARF in this example. In second place we could rank the word HUT, because it is a small building associated with poverty and being destitute, which people also with DWARVES as being small, insignificant and useless. The word HOUSE should rank third, because it is not semantically related at all to DWARF. Rank according to what seems most logical to you. Think about the first word in the base and its meaning while you rank the targets.”