

**On the Psychology of Truth-gaps: A Reply to Bonini et al.**  
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Bonini et al. (1999) present psychological data that they take to support an “epistemic” account of people’s attitudes toward vagueness. However, we think their data more strongly supports a “gap” theory of vagueness, and that their arguments against gap theories are flawed. Additionally, we present more experimental evidence that supports gap theories, and argue for a semantic/pragmatic alternative that unifies the supervaluationary approach together with its glutty relative, the subvaluationary approach.

Bonini et al.’s experimental evidence was gathered by means of questionnaires like the following:

When is it true to say that a man is ‘tall’? Of course, the adjective ‘tall’ is true of very big men and false of very small men. We’re interested in your view of the matter. Please indicate the smallest height that in your opinion makes it true to say that a man is ‘tall’.

It is true to say that a man is ‘tall’ if his height is greater than or equal to \_\_\_ centimeters.

When is it false to say that a man is ‘tall’? Of course, the adjective ‘tall’ is false of very small men and true of very big men. We’re interested in your view of the matter. Please indicate the greatest height that in your opinion makes it false to say that a man is ‘tall’

It is false to say that a man is ‘tall’ if his height is less than or equal to \_\_\_ centimeters.

They find that the average of the answers provided for the ‘true’ questions was significantly higher than that of the values provided for the ‘false’ questions. In the case of *tall*, for example, it was found that the minimum height that makes a man tall – or makes it *true* to say that a man is tall – is higher than the maximum height that makes him not tall (or makes it *false* to say that he is tall).

As we said, this pattern seems to lend support to gap theories of vagueness; but Bonini et al. dismiss the gap account and instead promote the following hypothesis:

VAGUENESS-AS-IGNORANCE: *S* mentally represents vague predicates in the same way as other predicates with sharp true/false boundaries of whose location *S* is uncertain.

To explain the gap-like patterns in their findings, they argue that speakers are more willing to commit errors of omission than commit errors of commission; that is, that speakers would rather withhold the application of a predicate to an individual with an uncertain degree of membership than incorrectly ascribe the predicate to an individual of whom the predicate might not hold. Our experimental findings present a challenge to this explanation.

The survey used for our study consisted of 20 True/False questions. The participants were presented with a synthesized image of 5 suspects in what looks like a police line-up (see Figure 1). The suspects were given the numbers (1-5) as names. Once the participants were shown the

picture, a sheet containing the 20 questions (in random order) was given to them in hard-copy. For each of the 5 suspects, four questions were given: (1) “the suspect is tall”, (2) “the suspect is not tall”, (3) “the suspect is tall and not tall”, and (4) “the suspect is neither tall nor not tall”. The checkboxes next to each question were labeled “true”, “false”, and “can’t tell”.

Focusing on the borderline suspect #2, when the questions are about him, we find significantly more “false” responses to question (1) than “true” responses to question (2), and more “false” responses to question (2) than “true” responses to question (1). Note that the two questions are negations of each other, in the classical sense. If answering “false” is considered a sign of denial, and we argue that it is in this case, then gap theories are given support. For, on a gap theory, a statement like “ $x$  is tall” is considered true only if  $x$  is tall, which leads to the prediction that, for a borderline  $x$ , the statement “ $x$  is (not) tall” will be denied more frequently than it is agreed to. This prediction is confirmed by our data. It is crucial to note that this presents counterevidence to Bonini et al.’s claims, because if speakers were indeed ignorant of the sharp boundary and were reluctant to provide committing answers, then we would expect a larger number of “can’t tell” responses, and this was not the case.

Our explanation of this pattern of answers uses parts of a gap theory as well as parts of a glut theory, finished off with a patina of pragmatics.



**Figure 1:** “The suspect line-up” (Image presented to experimental subjects)

## References

Bonini, Nicolao, Daniel Osherson, Riccardo Viale, and Timothy Williamson. 1999. On the

psychology of vague predicates. *Mind and Language* 14:373-93.