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## **Not All Bad Apples Spoil the Bunch: Order Effects on the Evaluation of Groups**

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Short abstract: 49 words

When group members are encountered in a random sequential order, people expect the first (vs. middle or last) member to be more diagnostic of the group. Therefore, they weigh the performance of the first (vs. middle or last) more heavily in their predictions and decisions about the whole group.

Long abstract: 987 words

Imagine waiting in line at a store with five numbered cash registers. When your turn comes, an automated system instructs you to go to “cashier number one, please.” You have a terrible experience checking out: the cashier is slow and accidentally charges you twice for the same item. How would cashier number one’s negative performance influence your expectations of the other cashiers and of the store in general?

People often make judgments about an unknown group based on information about one member of the group. Smith and Zarate’s (1992) exemplar-based model of social judgment posits that representations of specific individuals (exemplars) influence judgments about others from the same group. In particular, similarity along a salient dimension (e.g., race, gender) often determines the extent to which people see an individual as diagnostic of the group. When an exemplar seems particularly diagnostic, people will use their knowledge about her to make inferences about other group members. For example, one might infer that people from a distant country are kind and welcoming based on a conversation with a particularly friendly visitor from that country. Thus, the diagnosticity of a group member can stem from her similarity to others members. The present research explores another, much less studied factor that influences perceptions of social diagnosticity: position in a sequence.

Research on self-diagnosticity shows the position of an action in a sequence influences the extent to which people consider this action diagnostic for inferences about the performer (Touré-Tillery and Fishbach 2012; 2015). We explore whether there are similar order-effects in the perceived diagnosticity of group members, such that the position of a member in a random sequence of members influences how diagnostic she seems. We propose that, due to learned associations between “first” and concepts such as “leader,” “best,” and “important,” people will expect the first group member in a sequence to be the most diagnostic of the group.

Five studies tested this hypothesis. Notably, in all studies, we told participants that sequences were randomly generated, so they would not infer that the first is the best or the leader or the most important (Carney and Banaji 2012). Furthermore, all studies gave participants information about one group member only, and asked them to make inferences about the others. This paradigm allowed us to rule out primacy and recency memory-effects and prevent effects due comparisons among group members (Page and Page 2009).

In Study 1, participants read that the first (vs. middle vs. last) runner of a relay race performed well or poorly depending on the condition, and predicted how well the rest of the team performed. We found participants expected the rest of the team to have performed better when the first (vs. middle/last) performed well, whereas they expected the rest of the team to have performed worse when the first (vs. middle/last) performed poorly. Thus, information about the first (vs. middle/last) runner influenced predictions more, suggesting that the first runner was deemed more diagnostic.

In the next two studies, participants read that the first (vs. middle vs. last) contestant of a cooking competition performed poorly—as a member of a group of five guys collaborating to compete against other teams (Study 2), or competing against each other (Study 3). Participants then indicated how well they expected the other contestants to have performed. Results show participants predicted the other contestants to be worse after reading about the first (vs. middle/last) contestant's lackluster performance. These results indicate that the first (vs. middle/last) contestant was perceived as more diagnostic of the rest of the group, regardless of whether other contestants would lose (Study 2) or gain (Study 3) from his poor performance. Although we made it clear that all sequences were random, in Studies 1, 2 and 3, people might have assumed the other group members could observe one another's performances. Thus, the first (vs. middle/last) member of the sequence would have more influence on the rest of the group, which might account for the observed assimilation to the first member.

We designed Studies 4 and 5 to rule out this alternative explanation. Participants read about a group of five students whose answers to a multiple-choice test were graded in random order by a computer. Using this paradigm, we eliminated the possibility that grading the first group member influenced the grader's perception of the next group member, since people view machines as unsusceptible to such biases. Participants also learned that the first (vs. middle vs. last) student received an unimpressive grade, and indicated their predictions for the other students' performances. In both studies, we replicated the first-as-more-diagnostic effect. In Study 4, participants expected the other students to have received worse grades when the first (vs. middle/last) student performed poorly. In Study 5, in addition to judgments about the other group members, we also assessed behavioral intentions toward the group. Specifically, we asked participants if they would be willing to bet on the group's future performance in an academic competition. We found that when the first (vs. middle/last) student performed poorly, participants not only expected other members of the group to do worse, but also were less willing to bet on the group's future success. Furthermore, expectations about group member's performances fully mediated the relationship between the focal group member's position in the sequence and participants' willingness to bet on the group.

Taken together, these studies show the important role of random position in a sequence in judgments and behaviors related to groups. These findings have important implications for social judgments, including stereotyping and discrimination, judgment of service personnel and the brands they represent. Although we explored our hypotheses in the social context, we expect our findings to extend to evaluations of numbered objects or products presented in bundles or groups (e.g., numbered combo meals at fast food restaurants). Thus, when assigning numbers to groups of employees or products, companies might benefit from assigning the number one to the highest-performing employee or the highest-quality product.

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