HOW SMALL IS A FOOTBALL CROWD? THE EFFECT OF LINGUISTIC CUES ON NUMERICAL PERCEPTIONS

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Synopsis:

Abstract:
Sport marketing involves numbers but not necessarily just a number. From a big crowd to a half empty arena, adjectives carry numerical associations. This research builds on that idea while emphasizing markedness, a linguistics theory, which has been called the evaluative superstructure of language (Battistella, 1996). For example, asking, "How many people were in the stadium?" is not an indication that the stadium was full but merely a neutral way to ask about attendance. Many, in this case, is considered an unmarked term given its neutral meaning. Asking, "How few people were in the stadium?" however, implies the crowd was small in addition to asking for the attendance. Linguistics literature (Battistella, 1996; Harris, 1973) has touched on the power of language in numerical estimations but has not fully explored it, nor has the theory transitioned to the sport marketing literature.

The purpose of study 1 was to identify frequency of adjective use due to its association with markedness. One general principle of markedness is that unmarked adjectives, such as a big crowd, can be used in more contexts and thus are seen more frequently. The use of Google Trends represents a formidable method to analyze the frequency and popularity of various unmarked (ex. big) and marked (ex. small) pairs. An ANOVA was run for each marked and unmarked comparison based on adjectives used by Harris (1973). For example, big and small were input to provide an index score for how often those specific terms are search on Google. The sample of 489 represents an index score for each week of searches from January 2004 until May 2013. In summary, the unmarked term was searched more frequently in six of the eight comparisons. Furthermore, if the results are collapsed across all adjective pairs, the unmarked adjective (M = 61.76) was searched more frequently than the marked adjective (M = 33.94), $F(1,977) = 5765.13$, $p < .001$. Study 1 is an

important first step in establishing markedness as a real world phenomena, based on consumer searches on Google Trends, and confirms the frequency assumption consistent with markedness research.

Once the frequency assumption of markedness was confirmed (Study 1), the goal of Study 2 was to explore the idea from Battistella (1996) and others that unmarked adjectives have two senses, measurement and magnitude. One hundred and forty eight adults (71% male; Mage = 31 years) participated in the study via Amazon mTurk. Respondents were asked to provide an estimate of crowd size and were randomly assigned to one of three conditions (unmarked adjective, marked adjective, or control/neutral condition). Specifically, respondents were randomly assigned to the question "How [big/small] is the average crowd at a college football game?" In the neutral condition, respondents were asked: "What is the size of the average crowd at a college football game?"

A one-way analysis of variance revealed a main effect of markedness, $F(2,147)$ = 5.87, p = .004. Post-hoc tests confirm that the unmarked frame (M = 26,887) was significantly different than the marked frame (M = 11,452), p = .003. Finally, the unmarked frame (M = 26,887) was not significantly different than the neutral frame (M = 22,111), p = .562. The results from this study illustrate that a marked term such as small influences numerical estimates differently than unmarked terms such as big. Furthermore, the results suggest that there was no difference between unmarked (such as big) framing and a neutral framing, which empirically supports conceptual suggestions in markedness theory (c.f., Clark, 1969; Lehrer, 1985).

Sport marketing is about communication. Communication inherently involves subtle linguistic cues. As such, it is critically important to understand the cues that may alter perceptions within sports marketing. From surveys sent out to fans of a team to labeling of sections within a stadium, this research begins to illustrate how word cues alter numerical perceptions. Extrapolating these results to future research yields interesting questions as well. How do the linguistic differences between upper view and lower view alter numerical perceptions? How is a large soda perceived differently than a small soda or regular soda based on the linguistic structure? This research helps sport marketers by exploring the effect of subtle linguistic cues on numerical judgments. Additional results, discussion points, and suggestions for future research will be presented.

References:
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