# Syntactic and Referential Cues to the Identification of Generic Statements

**Phil Crone**
pcrone@stanford.edu
Department of Linguistics
Stanford University

**Michael C. Frank**
mcfrank@stanford.edu
Department of Psychology
Stanford University

**Abstract**

Generic sentences (e.g. "Birds fly.") express generalizations about kinds, as opposed to non-generic sentences that are about specific individuals or groups of individuals (e.g. "All birds fly."). We investigate how language users use morphosyntactic and pragmatic cues to determine whether naturalistic sentences should receive generic interpretations. Experiment 1 demonstrates the effect of morphosyntactic features of a sentence's subject noun phrase (NP) on generic interpretation. Experiments 2 and 3 reveal that when a sentence's subject NP does not have an obvious reference in context, the sentence is more likely to receive a generic interpretation.

**Keywords:** pragmatics; generics

## Introduction

Generic sentences differ from non-generic sentences in that they express generalizations about kinds rather than properties of specific individuals or sets of individuals. For example, the sentence "Birds fly" express a general property of the kind *bird*, whereas the sentence "All birds fly" states that for any individual $x$ such that $x$ is a bird, $x$ flies. A key difference between generic and non-generic statements is that generics allow for exceptions. "Birds fly" is true despite the fact that some birds do not fly. "All birds fly" is false in virtue of the fact that there are individuals that are birds and do not fly (Prasada, 2000).

We can identify two distinct puzzles that generics pose for the study of natural language semantics and pragmatics. The first is how to provide adequate truth conditions for generic sentences. These truth conditions must account for the fact that generics allow for exceptions and other peculiarities, such as the fact that generics may be judged true even when the generalization does not hold for most members of the kind. A second puzzle is how language users solve the problem of identifying whether a sentence should receive a generic or non-generic interpretation; this problem arises because sentences are often ambiguous between generic and non-generic interpretations. The current study is concerned with the second puzzle.

Individuals use three types of cues to guide their interpretation of sentences as generic or non-generic: morphosyntactic features, pragmatic cues, and world knowledge (Cimpian & Markman, 2008; Cimpian, Meltzer, & Markman, 2011; Gelman & Raman, 2003). In English, the subject NP of a generic sentence is often a bare plural ("Birds fly."), but indefinite singular ("A bird has wings.") and definite singular ("The bird is a warm-blooded animal.") NPs can also serve as subjects of generic sentences. Definite plural NPs ("The birds have feathers.") are generally considered to require non-generic interpretations. Tense and aspect also cue whether it is to be interpreted generically. Generic sentences tend to use the simple present tense ("Birds fly."), as opposed to the present progressive ("Birds are flying overhead."), past tense ("Birds flew past my window."), or tense/aspect categories (Krifka et al., 1995; Lyons, 1977).

In addition to these morphosyntactic cues, the preceding discourse and nonlinguistic factors may influence whether a sentence is interpreted as generic or non-generic. For example, if a unique bird is present in the context of an utterance of a sentence with the subject NP "the bird," a non-generic interpretation in which this NP refers to the bird in context may be more likely. Conversely, if no such bird exists in the context, a generic interpretation may be preferred. Finally, world knowledge about the properties shared by members of a kind will influence the interpretation of potentially generic sentences. For example, the utterance

## Experiment 1

First level headings should be in 12 point, initial caps, bold and centered. Leave one line space above the heading and 1/4 line space below the heading.

### Method

#### Participants

#### Stimuli

#### Procedure

#### Data Analysis

### Results & Discussion

## Experiment 2

First level headings should be in 12 point, initial caps, bold and centered. Leave one line space above the heading and 1/4 line space below the heading.

### Method

#### Participants

#### Stimuli

#### Procedure

#### Data Analysis

### Results & Discussion

## Experiment 3

First level headings should be in 12 point, initial caps, bold and centered. Leave one line space above the heading and 1/4 line space below the heading.

### Method

#### Participants

#### Stimuli

#### Procedure

#### Data Analysis

### Results & Discussion

## General Discussion

Use standard APA citation format. Citations within the text should include the author's last name and year. If the authors' names are included in the sentence, place only the year in parentheses, as in ? (?), but otherwise place the entire reference in parentheses with the authors and year separated by a comma (?, ?). List multiple references alphabetically and separate them by semicolons . Use the "et al." construction only after listing all the authors to a publication in an earlier reference and for citations with four or more authors.

### Footnotes

Indicate footnotes with a number[1] in the text. Place the footnotes in 9 point type at the bottom of the column on which they appear. Precede the footnote block with a horizontal rule.[2]

### Tables

Number tables consecutively. Place the table number and title (in 10 point) above the table with one line space above the caption and one line space below it, as in Table 1. You may float tables to the top or bottom of a column, or set wide tables across both columns.

Table 1: Sample table title.

| Error type | Example |
|---|---|
| Take smaller | 63 - 44 = 21 |
| Always borrow | 96 - 42 = 34 |
| 0 - N = N | 70 - 47 = 37 |
| 0 - N = 0 | 70 - 47 = 30 |

### Figures

All artwork must be very dark for purposes of reproduction and should not be hand drawn. Number figures sequentially, placing the figure number and caption, in 10 point, after the figure with one line space above the caption and one line space below it, as in Figure 1. If necessary, leave extra white space at the bottom of the page to avoid splitting the figure and figure caption. You may float figures to the top or bottom of a column, or set wide figures across both columns.

[1] Sample of the first footnote.

[2] Sample of the second footnote.


Figure 1: This is a figure.

## Acknowledgments

Place acknowledgments (including funding information) in a section at the end of the paper.

## References Instructions

Follow the APA Publication Manual for citation format, both within the text and in the reference list, with the following exceptions: (a) do not cite the page numbers of any book, including chapters in edited volumes; (b) use the same format for unpublished references as for published ones. Alphabetize references by the surnames of the authors, with single author entries preceding multiple author entries. Order references by the same authors by the year of publication, with the earliest first.

Use a first level section heading, "**References**", as shown below. Use a hanging indent style, with the first line of the reference flush against the left margin and subsequent lines indented by 1/8 inch. Below are example references for a conference paper, book chapter, journal article, dissertation, book, technical report, and edited volume, respectively.

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