We discuss the referential properties and discourse behavior of weak definite noun phrases in German, such as zum Arzt gehen ‘go to the doctor’. We argue that the weak referential reading of weak definites is the result of an interplay of two independently contributing factors: (i) weak definites occur in a weak, i.e. stereotypical, context that is even more conventionalized than a lexical frame, and (ii) weak definites are morphologically marked with the weak, i.e. morphological reduced, definite article. Our claim is supported by experimental evidence from a sentence continuation study.

Weak definites are definite noun phrases (NPs) that differ in their referential properties from regular definites: They do not imply global uniqueness of their referent, always take narrow scope, and allow for sloppy readings. For example, if we were to continue and Ann, too in (1a), we would assume that there were two different doctors. Also, unlike regular definites and indefinites, weak definites express enriched meanings and have a limited ability to establish discourse referents (Aguilar Guevara & Zwarts, 2010; Carlson et al., 2006). The contexts that trigger the weak reading of a weak definite, which we will refer to as weak contexts, (i) typically express a frame with a stereotypical situation, and (ii) must additionally have a conventionalized sense extension (Carlson et al., 2006) or telic role in a functional frame (Zwartz, 2014). If these two conditions are not met, the weak reading is disfavored. Thus, if we were to continue and Ann, too in (1b), we would assume that there was only one doctor.

(1) a. Peter went to the doctor.
    b. Peter complained to the doctor.

German has two types of definite articles, a strong and a weak form, and only the weak form always merges with various preceding prepositions (Nübling, 2005; Schwarz, 2009). For the strong form, merging is optional. It has been claimed that the strong form expresses anaphoric and situational readings, while the weak form expresses lexical or encyclopedically unique readings. Importantly, when a speaker uses the strong definite or indefinite article, the weak definite reading disappears (cf. (2)).

(2) a. Peter ging zum Arzt. Peter went to the weak doctor.
    b. Peter ging zu dem Arzt. Peter went to the strong doctor.
    c. Peter ging zu einem Arzt. Peter went to a doctor.

We conducted a production study and asked how stereotypical situations and weak morphological marking can affect the anaphoric potential of a NP. We took discourse anaphora as a measure of referent accessibility and the anaphoric potential of a NP as an index of referential strength.
We asked 90 participants to complete stories like the ones in (3) and (4) with one sentence in a natural way. Story fragments consisted of a context sentence and a sentence introducing exactly two human referents. While the subject of the second sentence was always a proper name, the critical NP always appeared inside a PP, which made the weak definite article visible. We manipulated two factors: (i) morphological form, which means that the referent in the PP was either introduced by the regular definite article, the reduced definite article, or an indefinite article, and (ii) context type where we tested stereotypical and conventionalized contexts, cf. (3), and non-stereotypical, i.e. regular contexts, cf. (4).

(3) **Weak context**
The anxiety disorder was getting worse and worse.
- a. Frank went to the _weak_ psychologist
- b. Frank went to the _strong_ psychologist.
- c. Frank went to a psychologist.
When a picture fell off the wall, ___________

(4) **Regular context**
The anxiety disorder was getting worse and worse.
- a. Frank complained to the _weak_ psychologist
- b. Frank complained to the _strong_ psychologist.
- c. Frank complained to a psychologist
When a picture fell off the wall, ___________

Table 1 displays how often participants picked up the PP-referent anaphorically. Overall, participants mentioned the referent introduced within the PP less often in weak than in regular contexts, in particular when the referent was introduced with a weak definite article. Our regression analyses with re-mentions as dependent measure revealed a main effect of context ($p = .007$) with more re-mentions overall in strong than in weak contexts and a reliable difference between weak definites and strong definites on the one hand ($p = .007$) and weak definites and regular indefinites on the other ($p = .013$), across contexts.

While we did not find an interaction of context type and morphological form in this study, preliminary results from a follow-up study suggest that these two factors might in fact interact. Regardless, the follow up study also supports the view that stereotypicity of context strongly affects the degree to which a referent is mentioned again in discourse. We leave the exact nature of the effect of morphological form for further discussion.

<table>
<thead>
<tr>
<th>DP type</th>
<th>Context</th>
<th>regular</th>
<th>weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>full definite article</td>
<td></td>
<td>22% (109/498)</td>
<td>14% (71/492)</td>
</tr>
<tr>
<td>reduced definite article</td>
<td></td>
<td>16% (84/510)</td>
<td>11% (65/575)</td>
</tr>
<tr>
<td>indefinite article</td>
<td></td>
<td>20% (102/519)</td>
<td>16% (77/480)</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td>19% (295/1527)</td>
<td>14% (213/1547)</td>
</tr>
</tbody>
</table>

Table 1: Number of mentions for PP-referent distributed over conditions
Overall, our data support the view that the referential properties of weak definites are driven by two factors: (i) the (non-)stereotypicality of the context they appear in and (ii) their specific morphological marking. Our results suggest that these two factors contribute to referential strength, which is mirrored in the anaphoric potential of weak definite noun phrases.


