Does the rain hit the window playfully? A frame-based analysis of German hit-verbs

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1 Introduction to data on *schlagen*
   - Animacy and the force component
   - Inanimacy and the force component
   - Modification by *spielerisch* - 1
   - Modification by *spielerisch* - 2

2 A frame analysis of *schlagen*
   - Modelling the hitting and to be hit entities
   - Modelling the movement component
   - Modelling the force component
   - Bringing it all together
   - *spielerisch* again

3 Conclusion
With an animate agent in a transitive construction, *schlagen* is typically associated with high force. However, this inference/expectation can be cancelled.
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(1) a. Sie schlug ihn √leicht/√hart.  
   ≈ She hit him √lightly/√hard.

   b. Sie schlug ihn, aber √leicht/#hart.  
   ≈ She hit him, but √lightly/#hard.
With an animate agent in a transitive construction, *schlagen* is typically associated with high force. However, this inference/expectation can be cancelled.

(1) a. Sie schlug ihn \(\sqrt{\text{leicht/\sqrt{\text{hart}}}\right.\}
\approx\text{She hit him }\sqrt{\text{lightly/\sqrt{hard}}\right.\}

b. Sie schlug ihn, aber \(\sqrt{\text{leicht/\#hart}\right.\}
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- small questionnaire study shows that acceptance drops by 50% when *hart* is used as opposed to *leicht* in (1b)
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- small questionnaire study shows that acceptance drops by 50% when *hart* is used as opposed to *leicht* in (1b)
- high force inference due to agentivity (agent has intention to hit with hight force); however, inference can be cancelled (cf. 1b), if e.g. the hit goes amiss
With an inanimate subject in a directional construction, no expectations as to the force of *schlagen* arise. Both high and low force are possible.
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(2)  
   a. Der Regen schlug √leicht/√hart ans Fenster.  
      ≈ The rain hit the window √lightly/√hard.  
   b. Der Regen schlug ans Fenster, aber #leicht/#hart.  
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<tr>
<td>the rain &amp; the window</td>
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<td>93,75%</td>
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Table: Results of the inanimate constructions with *hart* and *leicht*: percentages show ratings for ‘maybe good’ and ‘clearly good’
With an inanimate subject in a directional construction, no expectations as to the force of *schließen* arise. Both high and low force are possible.

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- no animate agent = no intention (to hit with high force) = no inference about force
Agent-oriented manner adverbs such as *spielerisch* (playfully) can only apply to *schlagen* in the case of an animate agent.

\[\text{Table: Results of the inanimate constructions with spielerisch: percentages}\]

- data present neither clear case for nor against claim natural forces can easily be conceptualised as animate ('pathetic fallacy')
- prototypical example with tree (one hit, clearly not animated) shows pattern as expected
Agent-oriented manner adverbs such as *spielerisch* (playfully) can only apply to *schlagen* in the case of an animate agent.

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a. √Sie schlug ihn spielerisch.  
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(3)  
\begin{itemize}
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\checkmark She hit him playfully.
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\end{itemize}

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The modified construction *spielerisch schlagen* (to hit playfully) is typically associated with low force. However, this can be cancelled.
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(4) a. Sie schlug ihn spielerisch, aber doch recht √hart/#leicht.
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(4) a. Sie schlug ihn spielerisch, aber doch recht √/hart/#leicht.
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- 85.71% found the sentence in (4) with *hart* ‘maybe good’ or ‘clearly good’
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Hit-verbs have several general components found with most of their uses (Levin, 1993):
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Modelling the hitting and to be hit entities

(5) a. Katja schlug die Flasche gegen den Tisch.
Katja hit the bottle against the table.
Modelling the hitting and to be hit entities

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Modelling the movement component

path: (cf. Zwarts, 2005; Naumann, 2013)

V = path of movement
Modelling the force component

force transmission: (cf. Talmy, 2000; Copley & Harley, 2015)
Bringing it all together

Modelling the hitting and to be hit entities
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spielerisch again

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Does the rain hit the window playfully?

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*spielerisch* again

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  → high force expectancy in case of agent, no such expectation otherwise
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- that the modification of *schlagen* through certain manner adverbs such as *spielerisch* (playfully) depends on its (lexical) semantics: the presence/absence an intentional agent
  → modification only possible in case of agent
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- that the modification of *schlagen* through adverbs such as *spielerisch* results in inferences changing certain aspects of the verb’s lexical semantics
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- how to model the lexical aspects of *schlagen* and *spielerisch* in Frame Semantics à la Barsalou (1992) and Petersen (2007)
Introduction to data on *schlagen*  
**A frame analysis of schlagen**

**Conclusion**

Thank you for your attention!