Effects of lexical association and connector types on plausibility judgement

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Author Note

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Abstract

In a web-based experiment of plausibility judgement, we compared the interplay of three phenomena in language that might affect the perception of plausibility of two consecutive sentences: the plausibility of the relation, the lexical association between the topic-inducing nouns in each of the two sentences, and the type of discourse connective. In our German stimuli, we manipulated the plausibility of the relation (plausible or implausible), the association of the nouns (associated or unassociated) and the type of the discourse connective used in the second sentence (causal or non-causal, such an adverb of manner). Our results suggest that the plausibility of the relation is the strongest predictor. Even when the other two factors support a less plausible reading (unassociated words and a non-causal connector), a plausible condition will generally receive plausible ratings. Lexical association cannot play a decisive role towards a plausible interpretation when the relation is implausible. The contribution of the connector is not relevant either: when the lexical material is not supportive of a plausible interpretation, the causal connector cannot elicit a plausible rating. The task of judging a plausibility of a sentence pair takes place on a discourse level: a reader has to gather and integrate information from all parts of the stimulus to build a judgement. Our results suggest that a global phenomenon such as the plausibility of the relation between two sentences is more indicative than the more local lexical association or the sometimes redundant discourse connector.

Keywords: plausibility, lexical association, discourse connector

Effects of lexical association and connector types on plausibility judgement

Language users perceive a text as plausible if the processed information fits with their prior experience or prior knowledge (Connell & Keane, 2004). This can surface in language via different linguistic phenomena. Here we focus on discourse relations, connectors and lexical association. More specifically, we are interested in the plausibility judgements in cases when one phenomenon supports a plausible rating, while one o both of the other two speak against it.

Connell and Keane (2004) show that the discourse relation (what they call concept coherence) is more important than co-occurrence patterns between the prime and the target word when assessing the plausibility of a sentence pair. In their experimental stimuli, they included sentence pairs where the two sentences are related either with a causal, temporal, attributal discourse relation or not related at all. They also manipulated word coherence which is based on distributional patterns of word co-occurrence: they used words that either pattern strongly or weakly. In two experiments, they asked participants to judge the plausibility of sentence pairs, interchangeably manipulating the discourse relation and the word coherence. They found that the effect word coherence on plausibility judgement is negligible, while discourse relations are the dominant predictor of plausibility judgements. More specifically, they found that sentence pairs linked with a causal relations are judged to be most plausible, followed by attributal relations, temporal and unrelated (in this order by decreasing plausibility ratings).

Among the discourse relations, the causal relation has a special place. Sanders (2005) states that language users have a preference for a causal relation over other types when establishing discourse coherence. The causal relation need not be made explicit by a connector for the readers to infer a causal relationship. For example, Kuperberg et al. (2011) found that in their study of online sentence processing, causal relations between sentences facilitate processing even when the discourse connector is absent. Another production study by Scholman et al. (2020) showed that participants tend to produce story

continuations with a causal relation even when not prompted to do so. This gives evidence that readers and speakers have an expectation that consecutive sentences in a text should be causally related. Sanders (2005) refers to this as the causality-by-default hypothesis.

We are interested in the interplay of lexical association, plausible discourse relations and the type of discourse connector on the plausibility judgement of a sentence pair. Specifically, we want to address some interesting points not raised by Connell and Keane (2004).

In their study, Connell and Keane (2004) do not include discourse connectors in their stimuli, but rather leave the discourse relation to be inferred from other linguistic material. We will make the causal relation between sentences explicit with a causal connector.

In terms of word coherence, they used word pairs that are related strongly or weakly given their distributional properties, for example *The **hounds** growled* (strong) vs *The **hounds** snarled* (weak). In contrast to the experiments of Connell and Keane (2004), who considered noun-verb collocations, we will focus on a different type of association, namely lexical association between nouns, where the noun in the first sentence will serve as the prime, while the noun in the second will be the target word, for example "toothache" and "painkiller" in *Sarah's **toothache** started. Finally she took a painkiller.* The two nouns do not occur in a phrase together, as opposed to the verbal phrase in Connell and Keane (2004)'s example. We wish to test lexical association, detached from syntactic or semantic roles.

To sum up, we study three collaborating or competing phenomena in surface text that have shown to affect plausibility judgement of sentence pairs: lexical association, plausibility of the discourse relation, and the type of discourse connector. We are interested in knowing if one phenomenon is sufficient to explain plausibility even when one of the other two or both are inviting a less plausible judgement. More concretely:

1. Can a causal connector still elicit a high plausibility rating even in case of plausibility

violations in the discourse and/or lexically unassociated word pairs?

2. In turn, can a plausible discourse relation explain high plausibility rating if we remove the causal connector and/or use unassociated word pairs?

3. Finally, can lexically associated word pairs account for plausibility in spite of a discourse plausibility violation and/or absence of the causal connector?

We conduct a web-based experiment with sentence pairs in German and ask participants to rate them in terms of plausibility. We manipulate the lexical association, plausibility of the discourse, and the presence of the causal connector. When the causal connector is absent, another phrase takes its place in the sentence, e.g. an adverbial phrase of manner or time. The items are created in eight conditions (see Example 1). Given previous work, we assume that the plausibility of the relation between the two sentences will be the most important factor in plausibility judgements. We also assume that lexical association will play a minor role since it is more local in its nature. Finally, the connector will be the least indicative of the plausibility because its discourse function is that it strengthens what must already be present in other lexical material. Thus, we predict the following plausibility ratings in increasing order for the eight conditions: [non-associated implausible causal] = [non-associated implausible non-causal] < [associated implausible causal] = [associated implausible non-causal] < [associated plausible causal] = [associated plausible non-causal].

Method

Participants

Sixty-four German native speakers (age range, 19-52 years; mean age, 30.28; 32 female) were recruited as participants on Prolific (https://prolific.co/). Before the start of the experiment, the participants gave a written consent. They were paid for their participation in the experiment.

Materials and Design

We constructed 79 items, each comprising two written sentences in German. Each item was created in 8 conditions as shown below. See Appendix A for the full list of stimuli in German.

1. Example

   (a) Event-associated plausible with a non-causal connector (baseline A)

   Jan und Lena haben anfangen, ein Brettspiel zu spielen. Sorgfältig lesen sie sich die Anleitung durch.

   Jan and Lena started playing a board game. Carefully they read through the instructions.

   (b) Event-associated plausible with a causal connector (baseline B)

   Jan und Lena haben anfangen, ein Brettspiel zu spielen. Daher lesen sie sich die Anleitung durch.

   Jan and Lena started playing a board game. Therefore they read through the instructions.

   (c) Event-unassociated plausible with a non-causal connector

   Jan und Lena haben aufgehört, ein Brettspiel zu spielen. Sorgfältig lesen sie sich das Kochrezept durch.

   Jan and Lena finished playing a board game. Carefully they read through the cooking recipe.

   (d) Event-unassociated plausible with a causal connector

   Jan und Lena haben aufgehört, ein Brettspiel zu spielen. Daher lesen sie sich das Kochrezept durch.

   Jan and Lena finished playing a board game. Therefore they read through the cooking recipe.

   (e) Event-unassociated implausible with a non-causal connector

Jan und Lena haben angefangen, ein Brettspiel zu spielen. Sorgfältig lesen sie sich das Kochrezept durch.

Jan and Lena started playing a board game. Carefully they read through the cooking recipe.

(f) Event-unassociated implausible with a causal connector

Jan und Lena haben angefangen, ein Brettspiel zu spielen. Daher lesen sie sich das Kochrezept durch.

Jan and Lena started playing a board game. Therefore they read through the cooking recipe.

(g) Event-associated implausible with a non-causal connector

Jan und Lena haben aufgehört, ein Brettspiel zu spielen. Sorgfältig lesen sie sich die Anleitung durch.

Jan and Lena finished playing a board game. Carefully they read through the instructions.

(h) Event-associated implausible with a causal connector

Jan und Lena haben aufgehört, ein Brettspiel zu spielen. Daher lesen sie sich die Anleitung durch.

Jan and Lena finished playing a board game. Therefore they read through the instructions.

The first sentence is the context sentence and it introduces an event or a topic via a noun phase, for example board game (*Jan and Lena haben angefangen, ein Brettspiel zu spielen*, "Jan and Lena started playing a board game"). The second sentence of the item is the target sentence and it provides a continuation. We manipulated the target word (typically a noun) in the target sentence to be either associated (*Sorgfältig lesen sie sich die Anleitung durch*) or unassociated (*Sorgfältig lesen sie sich das Kochrezept durch*) to the prime in the context sentence. In the context sentence, we changed the verb depending on the event

noun (*Jan and Lena haben angefangen/aufgehört, ein Brettspiel zu spielen*, "Jan and Lena started/finished playing a board game") such that this manipulation allows for creating plausible (conditions (a) to (d) of item 1) or implausible (conditions (e) to (h) of item 1) discourses. The target sentence begins either with a causal connector (*Daher*, "Therefore") or a non-causal phrase, for example an adverb of manner (*Sorgfältig*, "Carefully").

The experimental design thus comprises eight conditions: two association types x two connector types x two plausibility type. We split the items into eight lists. In this within-subject experiment, each participant was assigned to one of the lists and saw each of the 79 items in one condition only. Because this experiment was conducted for pre-testing purposes, there were no fillers.

Procedure

The web experiment was implemented on Ibex (https://spellout.net/ibexfarm/). The participants were given instructions with two examples for a very plausible and a very implausible sentence pair. After seven practice trials, all items were presented one by one without breaks. At the same time, the participants were asked to judge the discourse on a scale from 1 (very implausible) to 7 (very plausible) by choosing one of the seven enumerated buttons.

Analysis

Prior to the analysis, we removed the responses with the reading times below 2,000 ms or above 10,000 ms. We chose these threshold values based on the average stimuli length (78.24 characters including spaces) and the average reading time per character (68 ms/character) as reported by Trauzettel-Klosinski et al. (2012). Further, we removed the responses of participants who lost 15% or more responses after the first cleaning step. We removed responses with a reading time of over 2 standard deviations from the participant's mean. After this step, we again removed participants who lost 15% or more of their

responses. In the cleaning process, 39.06% of participants were removed, or 44.48% of collected responses.

We analyzed the ratings from the plausibility judgement with linear mixed-effects models using the statistical software R (version 4.1.0, R Development Core Team, 2008), specifically the lme4 package version 1.1.27.1 (Bates et al., 2015). Participants and items were set as random effects. Lexical association (two levels: associated and unassociated), Plausibility (two levels: plausible and implausible), Connector (two levels: causal and non-causal) and their interaction were set as fixed effects. The formula of the model reads: $Rating \sim 1 + Association * Plausibility * Connector + (1 + Association * Plausibility * Connector|Participant) + (1 + Association * Plausibility * Connector|Item)$. We applied effect coding to the predictors.

Results

As we can see from the values in Table 1, the lowest plausibility ratings were given to the implausible items (mean rating = 1.89, $SD = 1.47$, while plausible items were rated the highest (mean rating = 5.24, $SD = 2.03$). The associated and unassociated items lie closer together given the plausibility ratings: mean rating = 4.08, $SD = 2.64$ for associated and mean rating = 3.05, $SD = 2.10$ for unassociated. Finally, there is only a small difference between the items with the causal and non-causal connector: mean rating = 3.49, $SD = 2.48$ for items with causal and mean rating = 3.64, $SD = 2.40$ for those with non-causal connectors.

Figure 1 shows the mean ratings with standard deviation error bars for each of the eight conditions. Each subplot is focusing on one of the three factors. The conditions with a plausible relation and associated words (the baseline conditions) have the highest overall ratings. We find that using unassociated words in a plausible relation leads to a decrease (the purple and pink bar in Figure 1), but the ratings are still above 4. All implausible conditions are rated with 2 or below on average. Using a non-causal connector for a

sentence pair with an implausible relation gives slightly higher ratings than using a causal connector. This holds for the implausible condition with or without associated words.

As Table 3 indicates, the linear mixed-effect model has shown a main effect of Plausibility ($\beta = 3.34$, $SD = 0.14$, $t = 23.09$, when at the level *plausible*) and Association ($\beta = 1.03$, $SD = 0.11$, $t = 8.69$, when at the level *associated*), as well as an interaction between Plausibility and Association ($\beta = 2.01$, $SD = 0.19$, $t = 10.40$, when at the levels *plausible* and *associated*, respectively) and Plausibility and Connector ($\beta = 0.48$, $SD = 0.14$, $t = 3.23$, when at the levels *plausible* and *causal*, respectively). Table 3 shows the variance and standard deviation for the random effects of the model.

Discussion

In a web-based experiment of plausibility judgement we focused on the interplay of three phenomena that affect the perception of plausibility of sentence pairs: the plausibility of the discourse relation, the lexical association between the nouns in the sentence pair, and the type of the discourse connector. In a set of German stimuli, we manipulated these three factors to see how they compete against or collaborate with each other. We estimate that the results support our initial hypotheses.

Lexical association alone does not account for plausibility of a sentence pair, while the discourse relation does. In our case, the relation was either causal or none, while Connell and Keane (2004) additionally used attributal and temporal relations. In our experiment we managed to reproduce the findings of Connell and Keane (2004). However, we do find that using unassociated words in a plausible relation leads to lower plausibility ratings. The significant main effect of association might be an artifact of the dataset, but we will return to this below. As Connell and Keane (2004) presume, word association affects the local context, while the plausibility of the relation is more global and thus a more deciding factor of plausibility. Our findings corroborate that.

The role of the connector is somewhere in between given the scope, at least in

theory: it has a global role by definition, as it makes the relation between the two sentences explicit. However, our experiment has shown that if the lexical material is supportive enough to elicit a plausible interpretation (in case of the items in the plausible conditions), the explicit causal connector is redundant, since the ratings between the plausible conditions with associated words and causal connector and the plausible ones with associated words and a non-causal connector are very similar. The same holds for the conditions that are plausible with unassociated words: the connector type does not lead to a large difference.

Based on our findings, we can conclude that while the three phenomena might compete with each other when they are supporting different plausibility interpretations, the plausibility of the relation has the largest effect on the plausibility judgement. If the words in the plausible condition are associated, this might give a slightly more plausible reading.

However, we have reasons to doubt this after discussing our stimuli after the experiment was concluded. The two sentences from the plausible condition with unassociated words often seem to be unrelated, even though they ideally should give a plausible interpretation. They sometimes seem forced, for example Item 71, where *Fahrrad* ("bicycle") and *Geschenk* ("present") indeed are not closely related, however, the sentence pair *Clara hat aufgehört, ihr Fahrrad zu reparieren. Schnell/Darum holte sie das Geschenk* ("Clara stopped repairing her bicycle. Quickly/Therefore she fetched the present") does not seem too plausible given the prior knowledge about repairing bicycles. In general, the items with unassociated words, but plausible relations were the most difficult ones to create, so we believe the analysis or re-use of these items should be taken with care. Further, we believe more attention should be given to the nature of the relations between sentences (i.e. breaking down the plausible type into subtypes) and the non-causal connectors.

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Table 1

Plausibility judgements (mean, standard deviation, standard error, confidence interval) given the levels of the predictors Plausibility, Association, Connector.

Factor		mean	SD	SE	CI
Plausibility	plausible	5.24	2.03	0.05	0.11
	implausible	1.89	1.47	0.04	0.07
Association	associated	4.08	2.64	0.07	0.13
	unassociated	3.05	2.11	0.05	0.11
Connector	causal	3.49	2.40	0.06	0.12
	non-causal	3.64	2.48	0.06	0.12

Table 2

Coefficients and test statistics from the linear mixed-effects model. The predicted variable is the plausibility rating. For the values in bold $p < 0.05$.

Fixed effects	β	SE(β)	t
(Intercept)	3.56	0.08	**44.63**
Association1	1.04	0.12	**8.69**
Plausibility1	3.35	0.15	**23.09**
Connector1	-0.11	0.07	-1.45
Association1:Plausibility1	2.01	0.19	**10.40**
Association1:Connector1	0.05	0.12	0.40
Plausibility1:Connector1	0.48	0.15	**3.23**
Association1:Plausibility1:Connector1	0.12	0.27	0.44

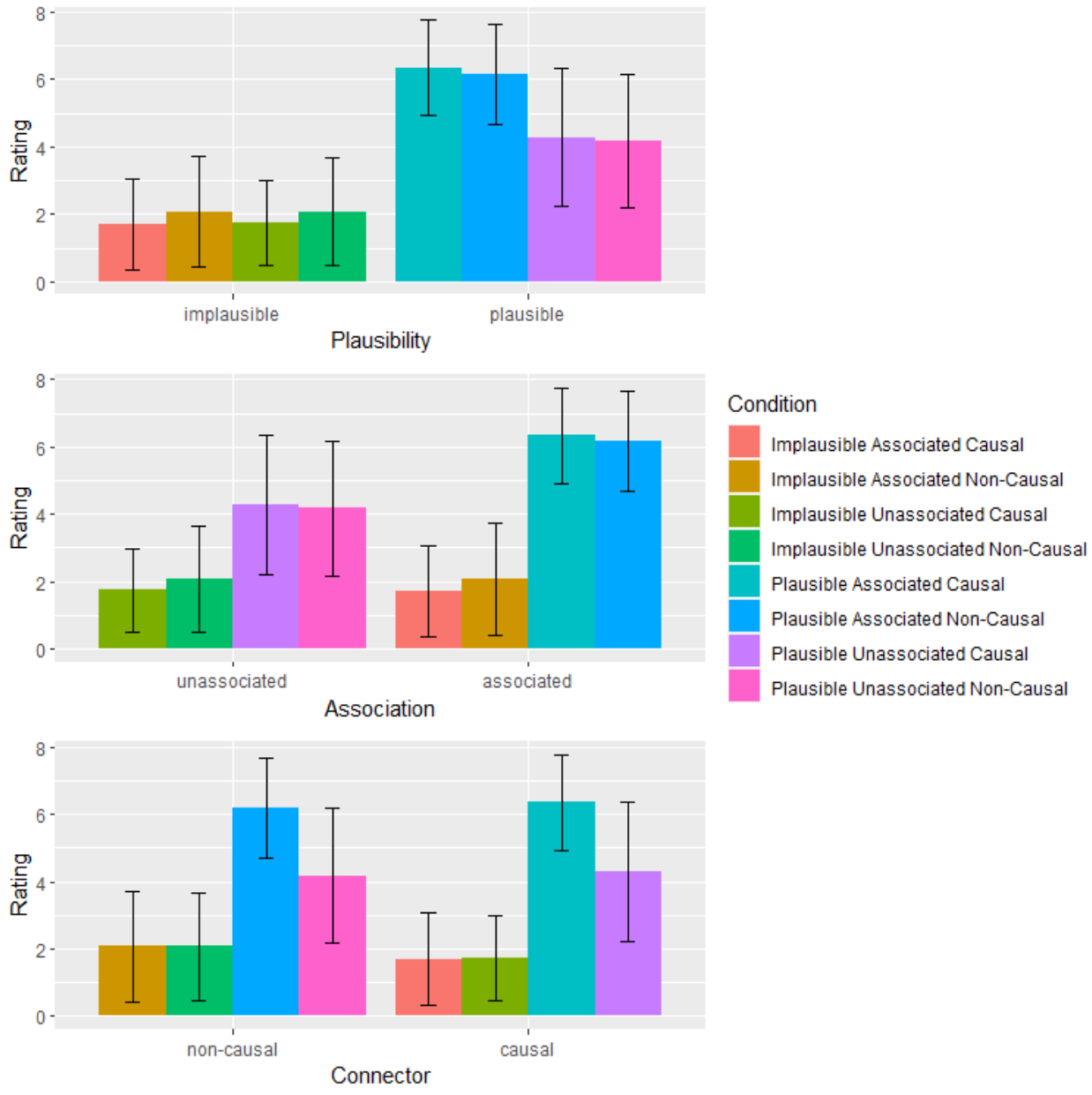
Table 3

Variance and standard deviation of the random effects in the linear mixed-effects model.

Random effects		
Group: Item	Variance	SD
(Intercept)	0.15	0.39
Association1	0.77	0.88
Plausibility1	0.91	0.96
Connector1	0.17	0.41
Association1:Plausibility1	1.65	1.28
Association1:Connector1	0.20	0.45
Plausibility1:Connector1	0.80	0.89
Association1:Plausibility1:Connector1	2.32	1.52
Group: Participant	Variance	SD
(Intercept)	0.15	0.38
Association1	0.08	0.28
Plausibility1	0.27	0.52
Connector1	0.05	0.21
Association1:Plausibility1	0.24	0.49
Association1:Connector1	0.06	0.25
Plausibility1:Connector1	0.09	0.31
Association1:Plausibility1:Connector1	0.21	0.46
Residual	1.53	1.24

Figure 1

Mean ratings per condition with standard deviation error bars.



Appendix

Instrument

The list of 79 items in German.

1. Katrin holt sich ständig/nie Schminke. Oft/Deshalb besitzt sie viele Lippenstifte/viel Geld.

2. Leo baut gerne/ungern Sandburgen. Vorsichtig/Deshalb formt er einen Wassergraben/eine Knetfigur.

3. Lisa liebt/hasst es Luftpolsterfolie platzen zu lassen. Freudig/Deshalb öffnet sie ein Postpaket/eine Papiertüte.

4. Tina mag/hasst es romantisch. Gerne/Deshalb kauft sie sich unterschiedliche Duftkerzen/Horrormasken.

5. Karsten fängt an/hört auf Musik zu hören. Schnell/Deshalb nimmt er eine Schallplatte/ein Schaumbad.

6. Tim zettelt oft/selten Streit an. Grundsätzlich/Deshalb ist er gut im Argumentieren/Babysitten.

7. Lukas liebt/hasst es Fahrrad zu fahren. Gerne/Deshalb kauft er sich eine neue Gangschaltung/ein neues Gesellschaftsspiel.

8. Robert hat keinen/einen Babysitter gefunden. Schnell/Deshalb erledigt er die Kinderbetreuung/Besorgungen.

9. Tim baut/zerlegt einen Schrank. Eifrig/Deshalb holt er Bretter/Müllsäcke.

10. Thomas beginnt/hört auf die Blumen zu gießen. Sofort/Deshalb nimmt er die Gießkanne/ein Handtuch.

11. Susanne fängt damit an/ist fetig damit den Vogelkäfig zu reinigen. Schnell/Deshalb putzt sie zunächst den Futternapf/die Fenster.

12. Sarah hat Blumen gekauft/weggeworfen. Schnell/Daher holt sie eine Vase/einen Besen.

13. Annika backt gerne/ungern Pizza. Bald/Daher nimmt sie den Teig/Topf.

14. Johann rechnete an/beendete seinen Mathe-Hausaufgaben. Ruhig/Deshalb holte er seinen Taschenrechner/Regenmantel.

15. Sarah beginnt/beendet ihre Online-Vorlesung. Bedächtig/Darum verwendet sie ihre Kamera/Teekanne.

16. Nils liebt/hasst es zu schwimmen. Freudig/Darum geht er zum Freibad/Park.

17. Susi beginnt/ist fetig damit ihre Katze zu füttern. Vorsichtig/Darum holt sie die Dose/Zeitung.

18. Anna beginnt/beendet ihr Training im Fitnessstudio. Erschöpft/Daher geht sie zum Stepper/zur Kneipe.

19. Elena geht raus zum/rein vom Spazieren im Regen. Nebenbei/Deswegen öffnet sie ihren Schirm/Schrank.

20. Alex schubste/rettet seine Freundin in eine/vor einer Pfütze. Erschrocken/Deswegen strotze sie nur so vor Schlamm/Glück.

21. Sarah beendet/beginnt die Nachhilfe. Gemächlich/Darum entfernt sie das Lehrmaterial/Spielzeug.

22. Andreas geht zu/kommt von einer Vorstellung. Gleich/Darum setzt er sich vor den Vorhang/Eingang.

23. Lily engagiert sich gerne/ungerne für Tiere. Zufrieden/Deswegen arbeitet sie beim Tierheim/Imbiss.

24. Sarah liebt/hasst Pflanzen. Dicht/Deswegen sind ihre Fenster voll mit Töpfen/Büchern.

25. Harald fährt gerne/ungerne Ski. Oft/Darum fährt er zur Piste/zum See.

26. Jens liebt/hasst es zu laufen. Begeistert/Darum registriert er sich für einen Marathon/Kochkurs.

27. Mark liebt/hasst es zu lesen. Abends/Deswegen ist er oft in der Bibliothek/Spielhalle.

28. Konrad will wieder/nicht mehr trainieren. Direkt/Darum geht er ins Sportstudio/Schlafzimmer.

29. Sandra liebt/hasst Sushi. Fröhlich/Deswegen isst sie oft beim Japaner/Italiener.

30. John hat angefangen/aufgehört, Bratkartoffeln zu machen. Vorsichtig/Daher goss er Pflanzenöl/Spülmittel in die Pfanne.

31. Marc hat begonnen/aufgehört, seine Wohnung zu putzen. Direkt/Deshalb schnappte er sich den Staubsauger/die Fernbedienung.

32. Julia hat begonnen/aufgehört, ein Bad zu nehmen. Schnell/Deshalb gab sie etwas Lavendelöl/Reinigungsmittel ins Wasser.

33. Sophia hat begonnen/aufgehört, für ihr Musikkonzert zu üben. Eifrig/Daher setzte sie sich vor das Klavier/den Fernseher.

34. Laura hat begonnen/aufgehört, eine Rede zu halten. Ängstlich/Deshalb ging sie zum Podium/zur Toilette.

35. Janus liebt/hasst es, Obst zu kaufen. Eifrig/Deshalb hat er sich eine Tüte mit Äpfeln/Kleidung geholt.

36. Marian verreist gerne/ungern. Glücklich/Deshalb kauft sie ein Zugticket/einen Fernseher.

37. Nora liebt/hasst es, Motorrad zu fahren. Begeistert/Deshalb hat sie einen Helm/eine Laufjacke gekauft.

38. Joseph liebt/hasst es, zu shoppen. Fröhlich/Deshalb geht er in das Einkaufszentrum/den Tannenwald.

39. Samantha liebt/hasst Glücksspiele. Oft/Deshalb geht sie lieber in ein Casino/eine Kunstgalerie.

40. Patrick liebt/hasst es strategisch zu denken. Abends/Deshalb spielt er oft Schach/Bowling.

41. Ruth ist exzellent/ahnungslos im Kampfsport. Eifrig/Deshalb hat sie an einem Turnier/einer Talentshow teilgenommen.

42. Julian liebt/hasst es, Fleisch zu essen. Oft/Deshalb besucht er Grillfeste/Proteste.

43. Melissa liebt/hasst es, ihre ganze Zeit in sozialen Netzwerken zu verbringen. Eifrig/Deshalb hat sie ein Online-Profil/Sportteam kreiert.

44. Nelly ist eine tolle/schlechte Schauspielerin. Oft/Deshalb bekommt sie viele Rollen/Geschenke.

45. George sagte einem Vorstellungsgespräch zu/ab. Ängstlich/Deshalb bereitete er seinen Lebenslauf/Auftritt vor.

46. Daniel begann/war fertig mit Reparaturen im Haus. Eifrig/Deshalb nahm er seinen Schraubenzieher/seine Fernbedienung.

47. Stefan liebt/hasst es, sich um Kinder zu kümmern. Mit Freude/Deshalb arbeitet er in einer Schule/Praxis.

48. Max ist auf/kommt vor einer Party. Hastig/Daher trinkt er einen Cocktail/Kräutertee.

49. Nora liebt/hasst Segeln. Begeistert/Deshalb hat sie ein Mehrrumpfboot/eine Hautschutzcreme gekauft.

50. Tom hat begonnen/aufgehört, sein Frühstück zuzubereiten. Schnell/Also öffnete er das Marmeladenglas/Katzenfutter.

51. Brenda mag/hasst es, mit ihren Schwestern die Elefanten im Zoo anzusehen. Glücklich/Deswegen gibt sie den Tierbabys/Kindern etwas zu essen.

52. Heute besucht/verpasste Kevin den Gottesdienst in der Kirche. Vorsichtig/Daher nimmt er eine Kerze/Zigarette.

53. Heute wollte Marie ein/kein Buch in der Bibliothek lesen. Leise/Deshalb betrat sie den Lesesaal/Speisesaal.

54. Mark wollte ins Kino gehen/vom Kino zurück kommen. Munter/Aus diesem Grund reservierte er ein Ticket/Taxi.

55. Clara hat heute ihren Lohnzuschlag bekommen/verloren. Direkt/Deshalb machte sie eine Einzahlung/Urlaubsreise.

56. Mark und seine Kollegen haben eine Projektgruppe erstellt/aufgelöst. Fröhlich/Aus diesem Grund nahmen sie an einer Konferenz/Kreuzfahrt teil.

57. Mary und John haben den Hochzeitstermin festgelegt/verschoben. Eifrig/Deshalb konzentrieren sie sich auf ihre Vorbereitungen/Karriere.

58. Maria begann/war fertig mit dem Duschen. Direkt/Deshalb griff sie nach der Seife/Hose.

59. Johan geht oft/nie ins Theater. Eifrig/Darum hat er mehrere Tickets/Pizzen gekauft.

60. Johan macht gerne/ungern Mojito. Eifrig/Somit nimmt er eine Limette/ein Rührei.

61. Mark liebt/hasst Sportwagen. Mogens/So gaben ihm seine Eltern Rennkarten/Rätselbuch.

62. Johan beginnt/hört auf die Geige für seine Mutter zu spielen. Vorsichtig/Deshalb nimmt er das Notenheft/die Kamera.

63. Marie hilft oft/nie ihrer Mutter im Restaurant. Am Mittag/So reinigt sie die Kneipe/das Schwimmbad.

64. Tom liest oft/nie seiner kleinen Tochter vor. Gerne/Deshalb nimmt er ein Märchenbuch/Weinglas.

65. Die Mannschaft hat gerade das Fußballspiel verloren/gewonnen. Kurz danach/Deshalb ging sie zum Trainieren ins Stadion/zum Feiern ins Stadtzentrum.

66. Leon hat den Tee eingegossen/verschüttet. Schnell/Deshalb öffnete er den Honig/Schrank.

67. Gerade hat Emma ihr Auto geschrottet/repariert. Später/Daher nahm sie den Linienbus/das Schmerzmittel.

68. Lukas hat begonnen/aufgehört, den Brief zu schreiben. Erleichtert/Daher griff er nach dem Stift/der Yogamatte.

69. Die Lehrerin hat begonnen/aufgehört, mit den Kindern zu spielen. Prompt/Daher brachte sie die Spielsachen/Snacks ins Klassenzimmer.

70. Jan und Lena haben angefangen/aufgehört, ein Brettspiel zu spielen. Sorgfältig/Daher lesen sie sich die Anleitung/das Kochrezept durch.

71. Clara hat begonnen/aufgehört, ihr Fahrrad zu reparieren. Schnell/Darum holte sie das Werkzeug/Geschenk.

72. Jonas hat angefangen/aufgehört, für eine Prüfung zu lernen. Leise/Deshalb öffnete er das Lehrbuch/den Kleiderschrank.

73. Marius half seiner Tochter bei ihren Hausaufgaben mit/ließ seine Tochter bei ihren Hausaufgaben alleine. Umgehend/Deshalb ging er die Schulbücher/Hausschlüssel holen.

74. Timo interessierte sich immer/nie für Planeten. Normalerweise/Deshalb verbrachte er seine Nächte meist an seinem Teleskop/an seiner Tischtennisplatte.

75. Das Tennismatch war gerade zu Ende/hat gerade begonnen. Umgehend/Deshalb gingen die Spieler zu ihren Umkleidekabinen/Familien.

76. Sarahs Zahnschmerzen fingen an/hörten auf. Schließlich/Deshalb ging sie neue Schmerzmittel/Sommerkleidung kaufen.

77. Die Wahrsagerin begrüßte/verabschiedete ihren Kunden. Eilig/Deshalb hat sie ihm das Handlesen/Kuchenstück angeboten.

78. Maren hat ihre Fahrprüfung bestanden/nicht bestanden. Kurz danach/Deshalb erhielt sie den Führerschein/die Geschenke.

79. Marie hört auf/beggint zu malen. Schnell/Deshalb wusch sie ihre Pinsel/Hände.