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“They Say” Makes Good Liars: An Investigation on Evidentiality in Language and Deception

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Abstract

A speaker's use of language is one of the most important indicators in detecting deception. To date, however, little research has focused on grammatical cues used in deceitful statements. One such cue is evidentiality which is the grammatical encoding for the source of information; i.e., whether the speaker has direct or indirect access to what they assert. This study investigates whether and how evidentiality coding in Turkish, an evidential language, interacts with producing deceitful and truthful narratives. Deceptive retellings were notably longer and syntactically more complex compared to truthful counterparts. Our hypothesis of increased past forms in deception was confirmed, alongside a heightened use of direct evidential inflection (–DI) in deceptive conditions. This exploration sheds light on the nuanced relationship between grammatical evidentiality and deceptive language use.

Keywords: evidentiality; lying; language; deception; information source; source reliability

Introduction

Lying is described as the deliberate action of conveying deceitful or misleading messages. Increased use of digital communication and social media in recent years has put greater emphasis on the need for evaluation of others' verbal messages. It is important to develop a set of cues to check the credibility or truthfulness of the information provided by the speakers, as this can inform several areas ranging from automated deception detection studies aimed at singling out social media trolls to forensic research on how judges identify untruthfulness.

A speaker's use of language is one of the most important indicators in detecting deception. Existing studies have shed light on certain linguistic features associated with deception, revealing distinctions between deceptive and truthful speech. Notably, deceitful speakers exhibit a higher frequency of specific linguistic elements when compared to their truthful counterparts. For example, deceitful speakers produce relatively more negation words (Hauch et al.,

2015), conditionals (Meibauer, 2018), and inconsistent person referents and tense markings (Porter & ten Brinke, 2010).

A grammatical category that has been largely unexplored is *evidentiality*, which encodes which sources of information a speaker knows about an event in his/her own statement (Aikhenvald, 2004). In English, perception verbs are used to express reported information (e.g., *I heard that*; Whitt, 2010). Unlike English, in which evidential marking is optional, for some languages such as Turkish and Japanese, evidential marking is obligatory. That is, when reporting a past event in Turkish, speakers must indicate whether their report is based on direct observation through the suffix –DI attached to the end of the verb or indirect observation/inference through the suffix –mİş:

“Çocuk gitar çal-dı”

The child played the guitar [I saw it/know it]

“Çocuk gitar çal-mış”

The child played the guitar [I heard/inferred it]

Evidentiality marking in Turkish often has epistemic interactions codifying the speaker's evaluation of the likelihood that an event in the proposition is true (Aksu-Koç, 2016; Arslan, 2020). That is, information owned by the speaker conveyed through direct evidential form is perceived as more reliable than when the speaker's indirect information is based on reports of others. Detecting a statement to be deceptive might require picking up such epistemic and evidential cues during language comprehension.

Given that some languages force speakers to make this distinction between direct and indirect observations, do their speakers reliably and deliberately make use of this distinction, i.e., manipulating the strength of their claims to deceive or manipulate listeners? In other words, the aim of the present study is to decipher whether speakers of Turkish

are using particular grammatical “hints” and pragmatic strategies such as inappropriate or inconsistent uses of tense/evidentiality inflections when producing deceptive statements (Aikhenvald, 2004). For example, a witnessed event can be incorrectly marked with reported evidentials, or false information can be used with direct evidential markers to tell a lie. Despite its theoretical and practical importance, this question is largely unexplored.

Although prior research on this topic is scarce, it remains plausible that speakers of Turkish make use of the evidential inflections to deceive based on the evidence that they are sensitive to source distinctions when they are evaluating the credibility of the utterances and speakers. For example, Öztürk and Papafragou (2016) studied Turkish children between 5-7 years old using a reliability judgment task and found that evidential inflections interact with children’s reliability judgments across development. The authors found that the use of direct evidential inflections in Turkish is intuitively judged as more reliable than its indirect evidential counterpart. The authors argue that direct access (i.e., visual perception) is prioritized over non-direct access to information, in a similar fashion to studies examining how children trust other speakers (Koenig & Harris, 2005). In the study by Matsui et al. (2006), Japanese adults and 3- to 6-year-old children were presented with sentences in direct or indirect evidential forms about hidden objects, and their task was to indicate the location of the hidden object based on the information they received. Virtually all of their adult participants (98%) and children older than 5 years of age preferred to believe sentences with direct evidential forms (i.e., unmarked form) than indirect evidential forms. Therefore, it is conceivable that in both Japanese and Turkish, the direct evidential form indicates a more reliable information source. That means, a statement marked with direct evidentiality is perceived less likely to be false.

Corroborating these findings, Turkish-speaking adults and preschoolers were reported to be less susceptible to misleading information with low reliability, e.g., indirect observation, compared to English-speaking preschoolers (Aydin & Ceci, 2013). In a classic forensic recall task in which participants answer questions with and without misleading information to examine whether evidential inflections used in the questions affect the suggestibility of Turkish children and young adults more than English speakers, they found that compared to their English-speaking peers, Turkish children were less susceptible to misinformation. Aydin and Ceci (2013) discuss that when confronted with false statements based on indirect evidence, speakers of Turkish are less likely to incorporate this into their narratives than when a false statement is marked for direct evidence. Interestingly, a recent cross-linguistic study by Özkan et al. (2023) compared Turkish- and English-speaking 3- and 5-year-olds’ use of metatalk and found that Turkish-speaking children communicated the evidential strength of their claims (e.g., whether their claims were based on direct observation or not) to convince their

partners more often than did English-speaking children. Therefore, if children and adults make use of evidential markers to evaluate the epistemic content of others’ claims and communicate the evidential strength of their own claims to convince the listeners, it is highly likely that they will deliberately (mis)use the evidential inflections when their intent is to convey a deceitful message.

The Present Study

In the present study, we explored grammatical markers Turkish speakers use in their verbal messages while deceiving. Misuses of evidentials, the grammatical reference to the information source, have been attested to be used in deliberate lie-telling across certain evidential languages (Aikhenvald, 2004). Therefore, evidentials could be exploited by its speakers via adopting particular strategies when intending to manipulate the listener. Rather than inconsistent switches between verb tenses, as was reported previously in the literature for non-evidential languages when lying (Porter & ten Brinke, 2010), we expect Turkish speakers engaging in deception to use predominantly past tense compared to when they were telling the truth. Additionally, given the evidence that speakers of evidential languages attribute greater reliability to the direct observation/evidential markers, we anticipate a higher prevalence of the direct observation inflection (–DI) in the deceitful condition relative to the truthful condition, surpassing the use of the indirect observation inflection (–MI). Finally, our exploratory aim was to investigate whether differences emerge in the use of evidentials within deceitful statements when the story is visually witnessed through a video, as opposed to being merely heard as an auditory report. The rationale here is that when participants intend to deceive based on a non-witnessed reported story, they might support their claim by using direct evidentials as if they have witnessed the story, in order to sound more persuasive.

Method

We administered a cross-modal written production task, in which the participants were asked to recount a series of events either truthfully or deceitfully, in four conditions: (i) Witnessed_Truth, (ii) Witnessed_Lie, (iii) Reported_Truth, and (iv) Reported_Lie.

Participants

Fifty-one university students ($M_{\text{age}} = 22.37$, $SD_{\text{age}} = 2.09$; 76% female) completed the study in return for a course credit. All participants were native speakers of standard Turkish and reported proficiency in at least one additional foreign language, such as English, with some knowing another language or none at all. The sample size was greater than the minimum ($n = 34.3$) calculated based on a power analysis for a linear regression analysis with crossed random effects with the effect size = 0.50, alpha = .05, and power = .80.

The majority of the participants reported that in daily life they lie *rarely* ($n = 31$) or *sometimes* ($n = 14$), followed by *never* and *frequently* ($n = 3$) responses; and think that Turkish people lie *frequently* ($n = 32$) or *sometimes* ($n = 15$) in daily life ($n = 3$ for *rarely*; $n = 1$ for *always*). This indicates a balance between the participants' own reported frequency of lying and their perceptions of the prevalence of lying as a cultural norm within their society. The participants were predominantly right-handed ($n = 50$).

The participants were randomly assigned to one of the two experimental groups. Each story presented in one condition of Modality (video-witnessed vs. audio-reported) and Truthfulness (truthful vs. lying) to a group appeared in the reverse combination for the other group (e.g., a story presented in truth and video/witnessed condition to a group is presented in the lie and audio/reported condition to the other group and vice versa; see Appendix 2).

Materials and Procedure

A set of 12 mini-stories was created in Turkish. Each story comprised one main character and four transitive verbs. Each story depicted a human referent performing each of these four actions. (e.g., *Zeynep mutfak masasında önünde bir fotoğrafla oturur. Bardağa meyve suyu koyar ve içer. Zeynep birden fotoğrafı ikiye ayırır ve parçaları yanındaki çöp kutusuna fırlatır.* “Zeynep is sitting at the kitchen table with a photograph in front of her. She pours juice into a glass and drinks it. She suddenly tears the photo in two and throws the pieces into the bin next to her.”). The stories ranged between 17-30 words (mean word count = 20.75, $SD = 3.49$). Unintentional and non-imageable actions were avoided. See Appendix 1 for the full list of storylines.

To make sure these 12 mini-stories are coherent and natural, they were normed using a questionnaire study with 27 native speakers of Turkish (19 females; $M_{age} = 27.85$, $SD_{age} = 9.33$). The participants read the text versions of the stories and provided ratings to three norming questions based on a 7-point Likert scale (1: *Less likely*; 4: *Equally likely*; 7: *More likely*): (i) whether the story was natural, (ii) whether the language in the story was easy to understand, and (iii) whether they would be able to remember and retell the story without difficulty. The participants found the stories as natural with a mean rating of 5.49 ($SD = 1.7$), as easy to understand with a mean rating of 6.00 ($SD = 1.32$), and easy to memorize/retell with a mean rating of 6.08 ($SD = 1.32$). All the stories were considered natural and easy to process, and complimentary feedback on unclarity was resolved following a consensus approach among the authors.

Auditory Materials. The 12 mini-stories were recorded by a female native Turkish voice actor as a story reporter, as high-resolution audio files ranging from 15 to 20 seconds. The reporter spoke with a neutral prosody and clearly understandable tone. Please recall that protagonists across stories were counterbalanced in gender; however, the

reporter was always the same voice actor in auditory materials for consistency.

Visual Materials. The 12 mini-stories were visually depicted as animation clips drawn in colored motion pictures. Each of the four events presented in each story was cast into silent animated videos, in which the action could be clearly witnessed (e.g., Zeynep pouring juice, tearing up the photo, etc.). The length of the videos ranged from 13 to 16 seconds correspondingly.

Procedure The stimuli were programmed using the Gorilla.sc platform (Anwyl-Irvine et al., 2020). Four condition manipulations were made: in *Witnessed_Truth* and *Witnessed_Lie* conditions the participants were presented with the story as silent animated videos, whereas in the *Reported_Truth* and *Reported_Lie* conditions, the participants listened to the auditory reports of the mini-stories where the actual action was not visually witnessed. This way, we manipulated the source of information as perceived by the participant (witnessed vs. non-witnessed) and the truth status of the story retell (lie vs. truth).



Figure 1: Example arrays from the visually animated video clips for story number 1 (“Zeynep is in the kitchen, she pours juice, she tears up the photo...”).

In the *Witnessed_Truth* and *Reported_Truth* conditions, once the participants watched/listened to the story, they were given the following instructions: “You have just watched a clip showing Zeynep. Now imagine that you are talking to Zeynep’s partner. [...] In the text box below, tell the story shown to you in the video as accurately as possible.” The participants were prompted to be as accurate as possible; the outputs were therefore elicited as ‘truthful’ retellings. In the *Witnessed_Lie* and *Reported_Lie* conditions, the participants were instructed the following way: “You have just watched a clip showing Zeynep./ You have just listened to a recording about Zeynep. Now imagine that you are talking to Zeynep’s partner shown in

the photo. Her partner found out that Zeynep tore up the photo today because of their previous disagreement. In order to make things better between them, you must convince her partner that Zeynep did not tear up the photo. Tell a deceptive version of the story you just watched/listened to in the text box below by changing at least three of Zeynep's actions shown in the video/presented in the recording." The two lie conditions necessitated that participants deliberately deceive by changing at least three actions, rather than other random details, to allow for the observation of potential switches in verb forms, such as tense and evidentiality. Therefore, we prompted the participants with a contextual motivation grounded in the instructions appropriate for each mini-story.

A counterbalanced fully crossed design was used (see Figure 2), each of the 12 stories appeared once in truth and once in lie condition within a counterbalanced manner across two modalities of presentation. The stimuli were divided into two blocks, in block one, all 12 stories were presented in video animation modality, half of the items ($n = 6$) required deceitful retelling and the other half required truthful retelling. Block two followed immediately and only included audio presentations of the 12 stories. Deceitful and truthful trials were counterbalanced across blocks. The gender of the protagonists across stories was half male and half female, and the gender was cross-balanced across truthful and deceitful trials.

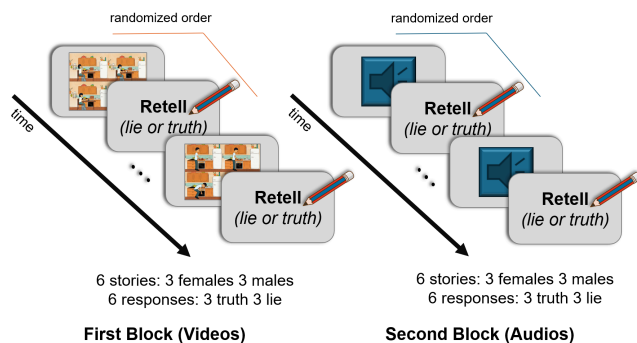


Figure 2: Experimental design.

Coding of the Retellings and Analysis Participants' responses were recorded as raw text. Two independent researchers manually coded: (i) General characteristics of retellings including the total number of words, number of finite and non-finite verbs, and (ii) Tense/Evidentiality-specific outcomes including: the number of present and past tense forms (all tense forms that make present [simple present, present continuous, present perfect continuous] or past time [simple past, past perfect, past continuous, past perfect continuous, present perfect] reference), number of tense hopping instances (i.e., unmotivated/non-pragmatic switches between tense markers), number of direct and indirect evidential forms (i.e. direct evidential –DI and indirect evidential inflections –mIs were quantified separately), and number of evidentiality

hopping instances (i.e., unmotivated switches between evidential forms). The inter-rater reliability was calculated over 15% of the data. The percent agreement between the coders was found to be .97.

Responses with no text input due to technological issues (i.e., audio/video not played) were removed from the analysis. The removed data was only 3%. We analyzed the data using linear mixed-effects regression models with the *lme4* package in R (Bates et al., 2015), using the frequency of occurrences as the dependent variable using Presentation Modality (Reported x Witnessed) and Truth (Truth x Lie) as fixed effects. For categorical variables, we used treatment coding. The best-performing models were determined by observing the Akaike information criterion (AIC). Individual participants and trials were added as random intercepts where applicable. Further post-hoc between-condition comparisons were computed with Welch's *t*-test using Bonferroni correction.

Results

Table 1 demonstrates mean frequencies (average of total counts) for general characteristics of the retellings produced including word count, and number of finite and non-finite verbs; Table 2 provides the statistical outputs from mixed-effects models computed with those data.

Table 1: Mean frequency of general characteristics of produced retellings (*SD* in parenthesis).

| | Witnessed Truth | Witnessed Lie | Reported Truth | Reported Lie |
|------------------|--------------------|------------------|-------------------|------------------|
| Total word count | 21.33 (9.71) | 33.08 (16.81) | 18.93 (7.56) | 28.58 (12.30) |
| Finite verbs | 3.45 (1.55) | 4.78 (2.29) | 3.08 (1.28) | 4.20 (1.84) |
| Non-finite verbs | 1.81 (1.45) | 3.13 (2.22) | 1.57 (1.28) | 2.97 (2.21) |

Table 2: Statistical outputs from mixed effects models computed with general characteristics of the retellings.[†]

| | β | <i>SE</i> | <i>Z</i> | <i>p</i> |
|------------------------|---------|-----------|----------|----------|
| Word count | | | | |
| Intercept | 18.88 | 1.84 | 10.24 | < .001 |
| Truth | 9.64 | 2.11 | 4.56 | < .001 |
| Modality | 2.45 | 2.10 | 1.16 | .25 |
| Truth*Modality | 1.93 | 2.98 | 0.64 | .52 |
| Number of finite verbs | | | | |
| Intercept | 3.07 | 0.26 | 11.63 | < .001 |
| Truth | 1.12 | 0.31 | 3.54 | .002 |
| Modality | 0.38 | 0.31 | 1.19 | .24 |
| Truth*Modality | 0.16 | 0.45 | 0.37 | .71 |

| | Number of non-finite verbs | | | |
|----------------|----------------------------|------|-------|--------|
| Intercept | 1.56 | 0.25 | 6.18 | < .001 |
| Truth | 1.41 | 0.30 | 4.64 | < .001 |
| Modality | 0.24 | 0.30 | 0.79 | .43 |
| Truth*Modality | -0.07 | 0.42 | -0.16 | .87 |

† Example code in R: `lmer(DepVar ~ Truth*Modality + (1|Participant) + (1|Stimulus), control = lmerControl(optimizer='bobyqa'), data = dataset)`

Participants have produced greater numbers of words, finite and non-finite verbs overall in the deceitful conditions than in the truthful conditions. We found no interaction between Truthfulness and Modality, therefore, it is conceivable that while retelling deceitful stories, the participants produced lexically richer output in terms of finite verbs and syntactically more complex forms as measured by greater amounts of non-finite verb embeddings. Table 3 demonstrates mean frequencies for tense and evidentiality-specific outcomes from the produced retellings; Table 4 provides the statistical outputs from mixed-effects models.

These statistical outputs have shown that present forms were produced more often in the reported conditions than in witnessed conditions, and that present tense forms were produced more often in the lie conditions than in truth conditions. There were no interactions between the two factors. A reverse pattern was found for past forms. The participants produced more past forms in the witnessed than in reported conditions, and the production of past forms was greater in lie conditions than in truth (see Table 2).

Table 3: Mean frequency of tense and evidentiality forms in produced retellings (*SD* in parenthesis).

| | Witnessed Truth | Witnessed Lie | Reported Truth | Reported Lie |
|----------------------|-----------------|----------------|----------------|----------------|
| Present forms | 0.60 (1.27) | 0.57 (1.66) | 1.96 (2.07) | 2.35 (2.42) |
| Past forms | 2.76 (1.96) | 4.28 (2.60) | 1.27 (1.65) | 1.88 (2.36) |
| Tense hopping | 0.03 (0.17) | 0.03 (0.18) | 0.02 (0.14) | 0.04 (0.21) |
| Direct evidentials | 2.72 (1.97) | 3.95 (2.62) | 1.31 (1.64) | 1.59 (2.21) |
| Indirect evidentials | 0.006 (0.08) | 0.34 (1.26) | 0.00 (0.00) | 0.26 (1.18) |
| Evidential hopping | 0.00 (0.00) | 0.07 (0.26) | 0.00 (0.00) | 0.02 (0.16) |

Interesting patterns emerged when the use of present and past forms was compared, however. Past forms were used more often than present forms in both Witnessed_Truth [$t = -11.41$, $df = 261.12$, $p < .001$] and Witnessed_Lie conditions [$t = -14.56$, $df = 248.27$, $p < .001$]. In the Reported_Truth

condition, present forms were used more often than past forms [$t = 3.18$, $df = 281.85$, $p = .002$], while there was no such difference in the Reported_Lie condition ($t = 1.66$, $p = .09$).

With regard to the use of direct evidential forms, we found a significant interaction between Truthfulness and Modality (see Table 4). This interaction effect pointed to the fact that direct evidential -DI was used more often in the Witnessed_Lie condition, as compared to the Witnessed_Truth ($\beta = -1.19$, $SE = 0.28$, $t = -4.26$, $p = .002$) and to the Reported_Lie ($\beta = -2.31$, $SE = 0.33$, $t = -7.06$, $p < .0001$). However, there was no difference between Reported_Lie and Reported_Truth conditions ($\beta = -0.28$, $SE = 0.28$, $t = -1.03$, $p = .73$). In terms of indirect evidential -mIs, albeit minimal in both conditions, we found a slightly elevated use in the lie than truth conditions overall. There were no other significant effects. In a comparison between direct and indirect evidentials, we found that across conditions the uses of direct evidential forms were used more frequently than indirect evidential forms (all $ps < .001$).

Table 4: Statistical outputs from mixed effects models computed with general characteristics of the retellings.

| | β | SE | Z | p |
|--------------------------------|---------|------|-------|--------|
| Number of present forms | | | | |
| Intercept | 1.94 | 0.24 | 8.05 | < .001 |
| Truth | 0.38 | 0.18 | 2.11 | .04 |
| Modality | -1.34 | 0.23 | -5.70 | < .001 |
| Truth*Modality | -0.41 | 0.23 | -1.81 | .08 |
| Number of past forms | | | | |
| Intercept | 1.27 | 0.24 | 5.22 | < .001 |
| Truth | 0.63 | 0.28 | 2.22 | .03 |
| Modality | 1.48 | 0.33 | 4.47 | < .001 |
| Truth*Modality | 0.16 | 0.45 | 0.37 | .71 |
| Number of direct evidentials | | | | |
| Intercept | 1.32 | 0.23 | 5.67 | < .001 |
| Truth | 0.28 | 0.27 | 1.03 | .31 |
| Modality | 1.40 | 0.32 | 4.34 | .001 |
| Truth*Modality | 0.90 | 0.36 | 2.47 | .02 |
| Number of indirect evidentials | | | | |
| Intercept | -0.01 | 0.09 | -0.02 | .97 |
| Truth | 0.26 | 0.10 | 2.52 | .02 |
| Modality | 0.01 | 0.10 | 0.08 | .93 |
| Truth*Modality | 0.06 | 0.14 | 0.46 | .64 |

Finally, for exploratory reasons, we quantified the number of tense and evidentiality hoppings (i.e., unmotivated switches between tense/evidentiality forms). For tense hopping instances, we found no meaningful differences (all $ps > .17$). Interestingly, however, switches between evidential forms never occurred in the truth conditions, all

of the evidential hoppings occurred in the lie conditions. Within the lie conditions, there was significant difference pointing that such hopping instances were found to be more frequent in the Reported_Lie than in Witnessed_Lie condition ($\beta = -0.04$, $SE = 0.02$, $t = -2.72$, $p = .03$).

Discussion

In the present study, we aimed to explore the strategies through which deception is introduced via grammatical means, with a particular focus on the evidential forms employed by speakers of Turkish. We manipulated the modalities of stories and asked participants to recount either a truthful or deceitful version of those stories across four conditions: *Witnessed Truth*, *Witnessed Lie*, *Reported Truth*, and *Reported Lie*. The findings revealed a notable difference in the volume of retellings produced by speakers between the deception and truth conditions. Deceptive retellings exhibited not only increased length but also incorporated syntactically more intricate forms, including non-finite verb embeddings. Furthermore, our expectation that past tense forms would be used more frequently in the deceptive conditions than in the truthful ones, was borne out. In line with our expectations, there was a marked increase in the use of direct evidential (–DI) in the deception, especially in the *Witness-Lie* condition, than in the truth conditions. In other words, the participants used direct evidential forms while deliberately deceiving to persuade the reader. This is because the direct evidential marker is considered a more reliable source of information than the indirect evidential, thereby lending greater strength to their statements (see Aksu-Koç, 2016; Arslan, 2020; Aydin & Ceci, 2013).

The findings reveal that Turkish-speaking individuals tend to use past tense forms more frequently (1) in the witnessed conditions as opposed to the reported conditions, and (2) when attempting to deceive rather than telling the truth. These observations stand in contrast to existing literature. Evidence suggests that English speakers, whose language lacks grammatical evidentiality, often employ present tense forms when narrating events they eye-witnessed firsthand (van Krieken et al., 2015). This usage of present tenses in English retellings of witnessed events is attributed to motivations to create a sense of immediacy and render the recounted events more vivid to the listener. The tendency of Turkish speakers to use past tense forms while recounting witnessed events may reflect their need to convey evidential meanings. This is because in Turkish, the use of evidential forms is obligatory when making reference to the past, which does not necessarily hold true for the present.

Our Turkish speakers used past tense forms more frequently in the deception conditions than in truthful ones. Additionally, both tense and evidential hoppings (i.e., non-pragmatic transitions between forms) were notably elevated in the deception conditions. This aligns with the previous literature in English that reports inconsistent use of tense forms during lying (Porter & ten Brinke, 2010). Johnstone (1987) stated that switching to past tense forms in narratives would help reduce speakers' responsibility for the

factuality of the contents; it is possible that this strategy is overused by speakers of evidential languages such as Turkish while deceiving. We observe a clear reflection of this strategy in our Turkish speakers' significantly more frequent use of indirect evidential forms in the deception than in the truth condition. This may be attributed to potential reductions in speakers' responsibility for the factuality of the contents (see Johnstone, 1987). Recall that our Turkish speakers used both direct and indirect evidentials in the deception conditions, with a greater tendency to use direct evidentials in witnessed scenarios. It is conceivable that, since Turkish speakers attribute more credibility to direct evidential forms (Aydin & Ceci, 2013; Özkan et al., 2023), they seek to influence the reader by adhering to this particular form. This interpretation is in parallel with a recent finding by Aydin & Fitneva (2019) where Turkish speakers recalled sentences with direct source evidential inflections (–DI) more accurately compared to sentences with indirect source inflections (–mlş). This implies that evidential inflections are represented differently in the mind, potentially owing to the differential credibility attributed to direct and indirect sources of information when participants first encode the information.

Finally, elevated evidential hopping instances in the deception conditions warrant further contemplation. Even though no mechanisms were suggested previously for the reasons of tense hopping in the context of deception, language acquisition literature capitalizes on the idea of difficulty when trying to keep up with the flow of a new idea (Erreich et al., 1980). Although a single explanation may not fully account for any discourse phenomena, it is plausible that producing a narrative lie increases cognitive load (Bird et al., 2019). It can be, therefore, concluded that while generating extra details in order to deceive the reader, an author needs to monitor the credibility of their claims, potentially introducing extra cognitive load. Evidential hopping, as an indication of additional epistemic load caused by the act of lying, might be exclusive to speakers of languages wherein information sources are grammaticalized whereas tense hopping is rather peculiarly observed in non-evidential languages.

To conclude, evidentiality as a linguistic category has been subject to semantic and syntactic level analyses however there is not much prior work on its pragmatic functions, and the available evidence has a developmental focus mostly (Aydin & Ceci, 2013; Matsui et al., 2006). The present study is one of the first in examining the pragmatic features concerning the use of evidential inflections in a deception context. However, inferences based on the present findings would remain limited without adding cross-linguistic variation. The same evidential strategies may be at play in other languages even if they lack the grammatical form for it. Future directions should outline the ways evidential forms and meanings are used across different languages with or without grammaticalized ways of coding informational access.

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Appendix 1. The list of storylines - English version.

1. Zeynep is sitting at the kitchen table with a photograph in front of her. She pours juice into a glass and drinks it. She suddenly tears the photo in two and throws the pieces into the bin next to her.
2. Yusuf is in the kitchen. He cuts a big apple into slices on the counter and then accidentally drops a slice on the floor. He quickly picks it up and he eats it.
3. Seher is in her living room. She pulls the couch closer to the TV. She accidentally bumps into the coffee table, and she knocks over a vase. She carefully collects the broken pieces.
4. Erhan is in his bedroom. He folds a piece of paper to make it into an airplane. He throws it into the air, and it immediately crashes into the ground. He stomps on the airplane.

5. Leyla is in front of her house. She finds a small box on her doorstep. She shakes it hesitantly then she opens it. Inside the box there is a gold necklace. She puts it on.
6. Tolga is in the bathroom, and he breaks the doorknob off of the door. He pushes the door with all his force. He bangs on the door with his fists, and then he kicks the door open.
7. Ozge is in the garden with her dog. She waters the plants and then she pets her dog. She throws a ball for the dog and breaks a window.
8. Murat is at an airport food stall. He buys a sandwich, and he accidentally drops his passport. At the airport security checkpoint, he searches his pockets for the passport. He follows an officer to the lost and found.
9. Duru is at the beach. She fills a bucket with sand, and turns it over. She lifts the bucket off, and then she carefully places seashells on the top of the sandcastle.
10. Tamer is a nurse at the hospital, with a little child who has a broken arm. He lifts the child up onto the table and examines the plaster cast. He removes the cast with a medical saw and gives the child a piece of candy.
11. Betul is at a campground by a lake. She catches a fish with a fishing rod. She collects wood and she lights a fire. She grills the fish over the fire.
12. Cem is in the kitchen. He mixes the ingredients together in a bowl. He then pours the batter into a baking pan. He licks the spoon and puts the cake in the oven.

Appendix 2. *Combinations of the experimental conditions by participant groups.*

| Group 1 | | | Group 2 | | |
|-------------------|-------|-------|-------------------|-------|-------|
| First block | | | | | |
| Story 1 (female) | lie | video | Story 7 (female) | truth | video |
| Story 2 (male) | truth | video | Story 8 (male) | lie | video |
| Story 3 (female) | lie | video | Story 9 (female) | truth | video |
| Story 4 (male) | truth | video | Story 10 (male) | lie | video |
| Story 5 (female) | lie | video | Story 11 (female) | truth | video |
| Story 6 (male) | truth | video | Story 12 (male) | lie | video |
| Second block | | | | | |
| Story 7 (female) | lie | audio | Story 1 (female) | truth | audio |
| Story 8 (male) | truth | audio | Story 2 (male) | lie | audio |
| Story 9 (female) | lie | audio | Story 3 (female) | truth | audio |
| Story 10 (male) | truth | audio | Story 4 (male) | lie | audio |
| Story 11 (female) | lie | audio | Story 5 (female) | truth | audio |
| Story 12 (male) | truth | audio | Story 6 (male) | lie | audio |