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Linguistic Creativity affects Discourse Expectations related to Contiguity Relations but not Implicit Causality

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Abstract

The present study employed a creativity-on-demand task to investigate the variability of discourse biases associated with Implicit Causality verbs when language users are demanded to come up with original discourse continuations. While Implicit Causality turned out to be unaffected by the creativity manipulation, the likelihood to continue with a contiguity relation was influenced by the creativity manipulation. These findings are in line with the *Two-Mechanism Account* by Solstad and Bott (2022, 2023) grounding Implicit Causality in semantic constraints imposed by lexical semantics and relating other next-mention biases to the *Contiguity Principle*, a more general discourse pragmatic principle.

Keywords: Implicit Causality; Creativity; Discourse Expectations; Coherence; Coreference

Introduction

In a recent study, Bott, Schrumpf, Michaelis, and Solstad (2023) investigated whether the requirement to produce creative discourse can override or weaken otherwise strong discourse biases such as the coherence and coreference biases observed for Implicit Causality (IC; Garvey, Caramazza, & Yates, 1974; Kehler, Kertz, Rohde, & Elman, 2008, i.a.). Employing a creativity-on-demand discourse continuation task, they found that explicitly creative language interacts in interesting ways with the Questions Under Discussion (QUD; Roberts, 2012) raised in prior discourse. Creative language addressed the IC-related QUD – answering a *why* question – even more strongly than non-creative, default discourse continuations: Participants produced more explanations and these explanations were of the same basic type as default ones, as indicated by highly stable next-mention biases. Speakers were thus not creative by choosing a different discourse structure and they did not deviate from the default explanation strategy. Rather, they provided highly original explanations content-wise, while still serving the IC discourse biases. Therefore, discourse expectations due to IC seem to impose very strong discourse constraints which are addressed even when instructed to provide original discourse continuations. This finding is consistent with theoretical work rooting IC biases in verb semantics (Solstad & Bott, 2022, 2023, 2024) claiming that IC bias results from empty slots in the semantic representation that need to be filled for proper interpretation.

Looking beyond IC, however, Bott et al.'s (2023) study leaves us with the question whether creativity manipulation in simple discourse continuation studies will always give rise to content-related creativity, and never alter the discourse structure. In particular, we would like to know what will be observed for discourse prompts that do not introduce empty slots with strong semantic constraints on the language producer. Interestingly, other next-mention biases have been related to more general, pragmatic discourse principles such as the *Contiguity Principle* (Kehler, 2002; Murray, 1997; Stevenson, Crawley, & Kleinman, 1994). Both Implicit Consequentiality (Garnham, Vorthmann, & Kaplanova, 2020; Hartshorne, O'Donnell, & Tenenbaum, 2015; Stewart, Pickering, & Sanford, 1998) as well as the goal bias in transfer-of-possession predicates (Arnold, 2001; Kehler et al., 2008) have been attributed to the tendency to link a subsequent eventuality to the result state of the preceding eventuality. Contiguity can be established with discourse relations such as OCCASION ('afterwards') and RESULT ('and so'). Employing the Contiguity Principle, Solstad and Bott (2022, 2023) proposed the Two-Mechanism Account, claiming that the underlying discourse pragmatic mechanism of next-mention biases related to contiguity-based biases is of a fundamentally different sort than the semantic mechanism underlying IC (for a discussion of other accounts of IC, cf. e.g. Hartshorne, O'Donnell, & Tenenbaum, 2015; Solstad & Bott, 2022). Being pragmatic in nature, contiguity biases should be less stable and more flexible than IC biases and may thus also more easily allow for creativity-induced changes in discourse structure. Whether this is indeed the case is investigated in the present study contrasting prompts with a set of IC verbs to prompts with verbs without an IC bias, but with a rather strong contiguity bias, instead.

IC is well-known from psycholinguistic research on discourse production (Au, 1986; Brown & Fish, 1983; Ferstl, Garnham, & Manouilidou, 2011; Garvey & Caramazza, 1974; Hartshorne & Snedeker, 2013; Kehler et al., 2008; Rudolph & Försterling, 1997; Solstad & Bott, 2022) and real-time comprehension (Featherstone & Sturt, 2010; Garnham, Child, & Hutton, 2020; Garnham, Traxler, Oakhill, & Gernsbacher, 1996; Koornneef & van Berkum, 2006; Pyykkönen & Järvikivi, 2010; Stevenson, Knott, Oberlander, & McDonald, 2000; van den Hoven & Ferstl, 2018) and commonly assumed to be associated with at least two different biases.

First, as shown in production studies (Bott & Solstad, 2014; Kehler et al., 2008; Solstad & Bott, 2023), IC verbs display a **coherence bias**: When asked to continue a prompt

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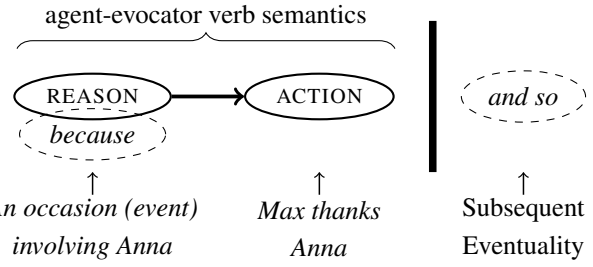

Figure 1: Schematic representation of an agent-evocator verb and contiguity in discourse. The occasion event is a presupposition of the verb about a reason for the agent's intention to act, e.g., to thank the patient (Solstad & Bott, 2024).

such as (1) there is a very strong preference for providing an EXPLANATION as to *why* Max thanked Anna, leading to the production of more than 60% explanations overall:

(1) Max thanked Anna. ✎ **She** had helped him a lot.

IC verbs can thus be seen as triggers of a QUD , which may most broadly be construed as a *why* question (Kehler & Rohde, 2017). In the case of *thank* the question is what caused the agent to develop the intention to act (Au, 1986; Bott & Solstad, 2014; Solstad & Bott, 2023, 2024): *Which occasioning event provided the reason for Max to thank Anna?*

Secondly, there is an equally strong **coreference bias** for those explanations to be associated with one of the two arguments (Au, 1986; Brown & Fish, 1983; Ferstl et al., 2011; Garvey & Caramazza, 1974; Hartshorne, Sudo, & Uruwashi, 2013; Rudolph & Försterling, 1997; Solstad & Bott, 2023). This bias depends on the particular verb class in question. Bott et al. (2023) investigated interactions with linguistic creativity in subject- vs. object-biased psych verbs such as (2a) and (2b). In the present study we contrast a praticular class of agent-patient verbs often referred to as agent-evocator verbs (3a) (Au, 1986; see Solstad and Bott, 2024 for an elaborate semantic analysis) to causative agent-patient verbs like *cure* (3b). While the former are strongly object-biased, the latter display a balanced bias, thus constituting what Kehler et al. (2008) call "non-IC-bias" verbs.

(2) a. Lea fascinated Tom, because ✎ **she** ...
b. Lea admired Tom, because ✎ **he** ...

(3) a. Lea thanked Tom, because ✎ **he** ...
b. Lea cured Tom, because ✎ **she/he** ...

The Two-Mechanism Account of Implicit Causality and Consequentiality by Solstad and Bott (2022, 2023), which is summarized in Figure 1 accounts for the difference between *thank*- and *cure*-type verbs as follows. In the case of agent-evocator verbs like *thank*, there is an unfilled empty presuppositional slot that can be targeted by a *because* clause. In addition, there is a generally available option to continue with a discourse unit making reference to a subsequent eventuality in line with the Contiguity Principle.

In the case of a causative agent-patient verb like *cure*, however, a *because* clause cannot target the cause in the verb's lexical decomposition, as evidenced by the fact that causative agent-patient verbs such as *cure* do not allow for manner-specification of their lexically encoded *cause* (4a) making a CONSEQUENCE relation more likely (4b):

(4) a. #Lea cured Tom because she conducted surgery on him.
b. Lea cured Tom and so he started working again.

Contrasting this theoretical analysis with the findings from the creativity manipulation in Bott et al. (2023) allows to derive the following prediction: While discourse biases related to IC (explanation and coreference biases after IC verbs) should not be reduced under a creativity manipulation, the pragmatic default of contiguity relations after non-IC verbs, which lack a lexically based semantic slot, can be expected to change to other, non-default discourse relations.

Experimental Study

The study consisted of four experiments in German, adopting the general study design from Bott et al. (2023).[1] Instead of psych verbs, the present study contrasted IC-bias agent-evocator verbs with causative agent-patient verbs. The latter lack an IC next-mention bias, while still displaying a coherence bias towards *contiguity relations* (Solstad & Bott, 2023). The study included two production experiments consisting of two blocks each: In the first block, baseline continuations were elicited using standard instructions from previous IC discourse continuation studies. In the second block, participants were instructed to provide "creative" continuations, explicitly defined as being "original", but also "felicitous" (Runco & Jaeger, 2012) . Exp. 1 used experimental items ending in a full stop to assess the distributions of discourse relations realized in the continuations. Exp. 2 used prompts ending in *weil* (*because*) to establish coreference biases in explanation relations. Furthermore, all productions from Exp. 1 and 2 were subjected to two rating experiments (Exp. 3 & 4), measuring the originality and felicity of the productions.

In addition to data from discourse annotation, we will also report correlational analyses between producers' *Openness to Experience* and raters' perceived originality of productions (Goldberg et al., 2006; McCrae & Costa, 1987). This was done to gain further insights into potential inter-individual differences in participants' abilities to come up with creative continuations to simple prompts (Bott et al., 2023; McCrae, 1987).

Methods, Production Experiments (Exps. 1 & 2)

Both experiments employed the following design: 2 (BLOCK: *baseline* vs. *creative*) × 2 (VERB TYPE: Agent-Evocator [AE]

[1] All experimental materials, sample continuations, data and statistical analyses in the form of an R markdown file are publicly available in the following OSF archive: `https://osf.io/xz7d6/`.

vs. Agent-Patient [AP]) × 2 (GENDER ORDER: male subject > female object *vs.* female subject>male object), GENDER ORDER being a counterbalancing factor. All factors were manipulated within participants and within items except for VERB TYPE which was manipulated between items.

43 native German speakers (mean age 30.1 years; 15 female, 28 male) were recruited from prolific.com to participate in Exp. 1, while Exp. 2 involved 40 different native German speakers (mean age 31.2 years; 13 female, 27 male).

The German sentence prompts consisted of 20 items employing agent-evocator verbs (e.g., *Max kritisierte ('critized') Lisa*) and 20 items with causative agent-patient verbs (e.g., *Mia heilte ('cured') Gregor*) adopted from Solstad and Bott (2023). In Exp. 1 prompts ended in a full stop. In Exp. 2 the prompts ended with the connective *weil* 'because'. A Latin square design was used to distribute the items in the four conditions to four lists, each verb appearing only once in each list. Each block thus contained 20 trials and each participant contributed 10 baseline and 10 creative continuations for agent-evocator and causative agent-patient verbs, respectively. In addition, three sentence prompts involving psych verbs were included as implicit practice trials at the beginning of each block.

The experiments were implemented using Open-Sesame Web (Mathôt & March, 2022) and hosted on a webserver using Jatos. After providing informed consent, participants received the baseline instructions, followed by the baseline block. In this block, the three warm-up trials were followed by 20 individually randomized experimental trials. Upon concluding the first block, participants received a second set of instructions asking them to provide "creative", that is, original (i.e. unexpected), yet felicitous continuations (Runco & Jaeger, 2012). With these instructions, the background turned more colourful, with colored bubbles randomly scattered across the display. The instructions were again followed by three implicit practice trials for adaptation and 20 experimental trials in randomized order. Finally, a German version of the openness scale from the IPIP questionnaire with 20 questions was presented (Goldberg et al., 2006). An experimental session had a median duration of 25 minutes.

81 out of the 3,320 productions consisted of incomplete or ungrammatical sentences or were obviously nonsensical (2.5% of the data). These were excluded from further analysis and also from testing in the perception experiments. In the remaining continuations, all typos were manually corrected to not affect felicity ratings in Exp. 3 and 4).

The continuations after a full stop were manually annotated by two coders for discourse relations using insertion tests for EXPLANATION, CONSEQUENCE, OCCASION, ELABORATION and CONTRAST in addition to the category OTHER (agreement: Cohen's $\kappa = .84$). They were also annotated for coreference of the first anaphoric expression to the subject or object referent, sub- and coordinated structures as well as the anaphoric forms used for coreference. The continuations after *weil* 'because' were automatically annotated for coreference as well as anaphoric forms. The coding schemes were identical to those in Bott et al. (2023).

Methods, Perception Experiments (Exps. 3 & 4)

In a second set of crowd-sourcing experiments, the productions elicited in Exps. 1 and 2 were rated by German speakers by means of two sliders (range 0-100), one for *originality* and one for *felicity*, testing 86 productions (from Exp. 1) per rater in Exp. 3 and 80 (from Exp. 2) per rater in Exp. 4. Attention checks and three highly original vs. three unoriginal fillers were added to each list to allow for the exclusion of participants not attentive to the task. Exp. 3 evaluated productions after a full stop (58 part.), whereas Exp. 4 evaluated productions after *weil* 'because' (58 part.). Raters were again recruited from Prolific, making sure that none of the raters had participated in the production experiments. They were informed about how the continuation task worked and were shown some sample trials during instruction. However, they were blind with respect to the block from a given continuation originated (non-creative vs. creative). In addition, the experiment started with a brief trial run of the production task with two (psych-verb) continuations under a baseline and two continuations under a *be creative* instruction. Only then followed the actual rating task in which participants were asked to explicitly rate each continuation relative to its prompt: "(i) How original, and (ii) how felicitous is it to continue this prompt in this particular way?".

Counterbalancing methods were applied to make sure that each rater received the same number of productions from each participant of Exps. 1 and 2, and furthermore from each experimental item/verb, resulting in two continuations per participant and verb, one from each block. This way, a total of three felicity and originality judgments were collected for every single production from the production task, respectively. The ratings served as a check of the creativity manipulations in Exps. 1 and 2.

Results and Discussion

In the following we will first present the results from the rating task (Exps. 3/4) to establish that the productions from the two blocks in fact differed in their perceived linguistic creativity. Afterwards, the findings of the production task (Exps. 1/2) will be presented.

Results of the Perception Experiments (Exps. 3/4)

The mean originality and felicity ratings for each production were subjected to linear mixed-effects regression (LMER) analyses with participants and items as crossed random effects. The distributions of the felicity and originality scores are shown in Figure 2. The perceived originality varied greatly between the non-creative baseline block (median 32.0) and the creative block (median 63.0). The felicity scores furthermore showed that creative discourse continuations were perceived as being as felicitous as the continuations from the baseline block (median 72.7 vs. 72.8).

Figure 2: Density plots and mean scores of originality (top) and felicity scores (bottom) from perception Exps. 3 and 4 as a function of BLOCK (base(line) vs. creative) and PRODUCTION EXPERIMENT (*because* [Exp. 2] vs. *full stop* [Exp. 1]).

The LMER analysis of the originality ratings revealed a significant interaction between EXPERIMENT and BLOCK (model comparison, likelihood ratio test: $\chi^2(1) = 5.27; p < .05$). This interaction was due to the fact that the originality effect of BLOCK was larger for *because* prompts than for full stop prompts. Thus, the creativity manipulation had a slightly larger effect on *because* continuations than on full-stop continuations. On top of this effect, only a main effect of VERB TYPE was reliable ($\chi^2(1) = 10.97; p < .001$), which was due to the fact that continuations after prompts with causative agent-patient verbs were received as somewhat ($\hat{\beta} = 3.95$) more original overall than continuations for agent-evocator prompts.

For the inferential statistical analysis, felicity ratings were Box-Cox transformed ($\lambda = 2.0$) in order to account for the violation of normality of the residuals. The LMER analysis of the felicity ratings showed that BLOCK did not affect the perceived felicity of continuations (model comparison with all effects of BLOCK removed: $\chi^2(4) = 2.67; p = .62$). Crucially, continuations from the creative block were thus perceived as equally felicitous as those from the baseline block, in line with our predictions. The model revealed a significant main effect of EXPERIMENT ($\chi^2(1) = 63.4; p < .001$): Continuations after *because* were rated to be more felicitous on average than continuations after a full stop.

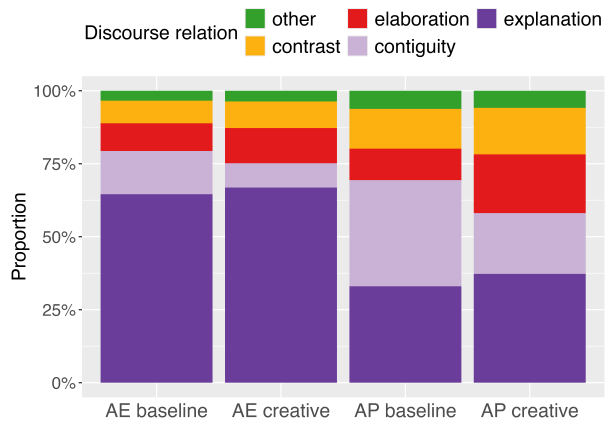

Figure 3: Distribution of coherence relations produced after a full stop in Exp. 1. Note: RESULT and OCCASION relations were collapsed into the category CONTIGUITY.

In sum, the findings from the perception experiments further corroborates the claim in Bott et al. (2023) that ordinary participants are able to come up with creative, that is, original and felicitous continuations to simple prompts in a discourse continuation task, thus meeting the defining features of creativity (Runco & Jaeger, 2012).

Results of the Production Experiments (Exps. 1/2)

In the following, we will first look into the **discourse coherence** relations as a function of creativity manipulated via BLOCK. A second analysis will be conducted on **coreference properties** of explanations provided after *because*. Finally, we will look into general characteristics of the continuations as well as inter-individual differences in participants' ability to provide original continuations with respect to their openness to new experience. For inferential statistics, logit mixed-effects regression analyses on the respective categorical dependent variables with crossed random intercepts of participants and items will be reported (Jäger, 2008).

Discourse Coherence Assessing the discourse relations established after full stop prompts (Exp. 1) allows us to assess the preferred discourse structure associated with the two verb classes in the baseline and creative blocks. The distributions of discourse relations in discourse continuations following full stop prompts (Exp. 1) as a function of BLOCK and VERB TYPE are presented in Figure 3.

A first GLMER analysis investigated the likelihood of producing an explanation (dependent variable: EXPLANATION vs. rest) as a function of BLOCK and VERB TYPE. The analy-

sis revealed a significant main effect of VERB TYPE ($\chi^2(1) = 24.02; p < .001$), which was due to the fact that explanations were much more likely after agent-evocator prompts ($\bar{x} = 65.7\%$ explanations) than after causative agent-patient prompts ($\bar{x} = 35.2\%$ explanations). This replicates earlier results reported in Bott and Solstad (2021); Solstad and Bott (2023). The EXPLANATION coherence bias was not modulated by BLOCK (model comparison leaving out BLOCK altogether: $\chi^2(2) = 3.47; p = .18$). Thus, the likelihood to continue with an EXPLANATION relation in creative continuations did not differ from the one in baseline continuations.

A second GLMER analysis investigated the likelihood to continue with a contiguity relation like OCCASION or RESULT (dependent variable: CONTIGUITY RELATION vs. rest). The AP-baseline condition replicated the findings reported in Solstad and Bott (2023) with contiguity relation being the major category observed for these verbs ($\bar{x} = 36.4\%$ contiguity relations overall). However, in the creative block only 20.9% contiguity relations were observed. This difference was reflected by a significant main effect of BLOCK in the GLMER analysis ($\chi^2(1) = 11.68; p < .001$) in the absence of an interaction. In addition, the main effect of VERB TYPE was significant ($\chi^2(1) = 34.09; p < .001$), which was due to the fact that contiguity relations were much more frequent for causative agent-patient verbs than for agent-evocator verbs.

To summarize, the creativity effects on the distribution of coherence relations related to IC and contiguity-based effects supports the hypothesis stated in the introduction. While the IC bias towards EXPLANATION relations is largely unaffected by requirement to deviate from discourse defaults in further support of Bott et al. (2023), contiguity relations like RESULT and OCCASION are clearly affected by this manipulation. Instead of contiguity relations, participants provided other discourse relations such as ELABORATION. This finding is consistent with recent work on linguistic features of creative discourse (Johnson et al., 2023; Skalicky, Crossley, McNamara, & Muldner, 2017), who found the expression of creative ideas to be correlated with the exemplification of ideas.

Coreference in Explanations We now turn to the coreference patterns established for explicit explanations in Exp. 1, which allow for a first assessment of the types of explanations that were produced. Figure 4 shows the coreference biases in continuations after *weil* 'because' prompts in Exp. 2 as a function of VERB TYPE and BLOCK.

The coreference analysis revealed a very strong object bias for agent-evocator verbs ($\bar{x} = 93.2\%$ object coreference) and a rather balanced coreference distribution for causative agent-patient verbs ($\bar{x} = 54.8\%$ object coreference). This finding replicates coreference norms for these verb classes reported from previous studies (Ferstl et al., 2011; Rudolph & Försterling, 1997; Solstad & Bott, 2023).

What is more, a GLMER model analysis with crossed random effects of participants and items showed that these coreference biases were not modulated by BLOCK (model comparison taking out BLOCK altogether: $\chi^2(2) = 2.88; p = .24$).

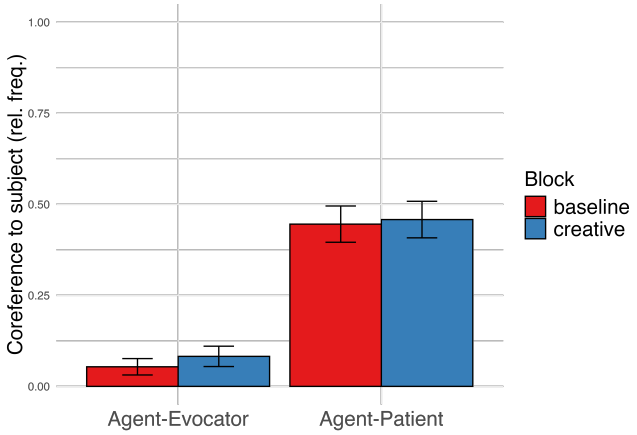

Figure 4: Mean coreference biases to the subject referent and 95% CIs of the means in *weil* 'because' clauses of Exp. 2 as a function of BLOCK and VERB TYPE (agent-evocator vs. causative agent-patient verb).

Instead, the analysis only revealed a significant main effect of VERB TYPE ($\chi^2(1) = 55.92; p < .001$). Qualitatively, the same pattern of effects was observed in an additional coreference analysis only taking into account continuations realizing explanations in the full stop conditions of Exp. 1 (not shown here).

Summarizing, the analysis of coreference in explanation relations corroborates the findings of Bott et al. (2023), providing further support for the claim that the QUD addressed in these explanations is unaffected by the creativity manipulation. As in that former study, participants provided explanations about the same referents in creative continuations that they preferably referred to in their default explanations.

Continuation Length and Syntactic Subordination As mentioned above, it has been observed that creative discourse exhibits a higher degree of elaboration than non-creative discourse (Bott et al., 2023; Skalicky et al., 2017). To investigate whether this was also the case in the present study, we ran analyses on continuation length and the likelihood of producing syntactic embeddings. As can be seem from Figure 5, continuations were much longer in the creative than in the baseline block.

A linear mixed-effects regression analysis of continuation length as a function of EXPERIMENT and BLOCK revealed two significant main effects in the absence of an interaction. Creative continuations were about twice as long as baseline continuations (main effect of BLOCK: $\chi^2(1) = 152.82; p < .01$). Secondly and unsurprisingly, independent sentences after a full stop were longer than *because*-clause continuations (effect of EXPERIMENT: $\chi^2(1) = 86.36; p < .01$).

Qualitatively, the same effects were observed in the logit mixed-effects regression analysis on the production of syntactically embedding structures. There were about four times as

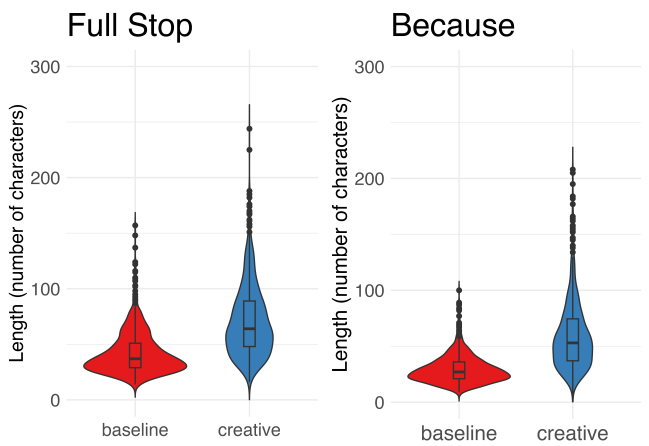

Figure 5: Length of continuations after prompts ending in a *full stop* (Exp. 1) or *because* (Exp. 2).

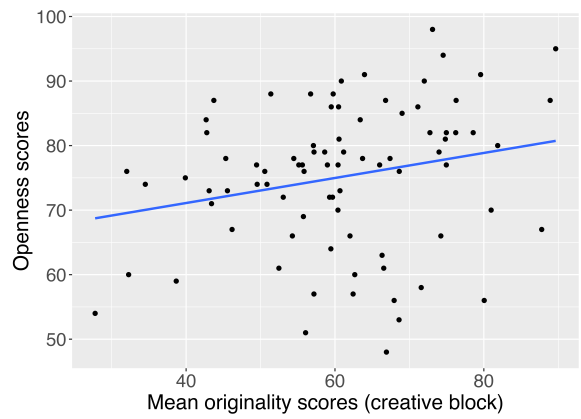

Figure 6: Scatterplot and regression line relating participants (Exp.1/2)'s IPIP openness scores and the perceived originality of their continuations in the creative block.

many embedded sentences in continuations produced in the creative block relative to the baseline block (main effect of BLOCK: $\chi^2(1) = 60.46; p < .01$) and about three times more embedded structures in *because* clauses than after full stops (main effect of EXPERIMENT: $\chi^2(1) = 73.50; p < .01$).

In sum, these results clearly demonstrate the much higher degree of elaboration observed in creative continuations than in baseline continuations overall.

Interindividual Differences Finally, we analyzed the perceived originality of the productions in Exps. 1 and 2 as a function of participants' IPIP scores on the *openness to new experiences* personality trait (Goldberg et al., 2006). Bott et al. (2023) did not find any correlations between openness and originality. To further investigate this issue, we conducted correlational analyses, too, relating participants' openness scores as measured by the IPIP openness scale to the perceived originality of their discourse continuations. The correlations are shown in Figure 6.

In our study, we observed a weak but significant positive correlation between participants' openness scores and their mean originality ratings in the creative block of the experiments ($r = .23, t(81) = 2.14, p < .05$). In the baseline block, openness scores and originality scores were uncorrelated ($r = .11$). Openness is a personality trait that is known to be linked to general creativity and also the personal inclination to engage in creative writing (Greengross & Miller, 2009; Prabhu, Sutton, & Sauser, 2008, a.o.). It is thus an interesting finding to see a correlation with participants' performance in the creative block well in the range of reported correlations in McCrae (1987). The difference in findings relative to Bott et al.'s (2023) study mentioned above could be explained by the fact that we analyzed the baseline and the creative continuations separately from each other, whereas Bott et al. analyzed difference scores. Whether this explanation is on the right track, has to be left to future research.

General Discussion

The present study study provides further evidence that Implicit Causality persists under a creativity-on-demand manipulation as employed in Bott et al. (2023). However, it also shows that the picture changes once we look beyond Implicit Causality to verbs without semantic slots in their lexical semantics to be filled in subsequent discourse. Contiguity relations were less frequent in creative discourse than in the baseline continuations. Instead, creative discourse turned out to exhibit more features of elaboration in several aspects: at the discourse level, at the syntactic as well as the content level.

The attested influence of the present creativity-on-demand manipulation fits well with research on the expression of creative ideas in human discourse (Skalicky et al., 2017). In Skalicky et al.'s study on the linguistic features of creativity in discourse, a higher degree of elaboration was observed when participants uttered highly creative ideas in divergent thinking tasks. Thus, elaboration seems to be targeted both in intentional and unintentional forms of creative discourse.

The findings are fully consistent with Solstad and Bott's (2022) Two Mechanism Account. Linguistic creativity can target discourse pragmatics, but is constrained by requirements due to lexical semantics. Pragmatic effects of linguistic creativity are also well attested for other pragmatic phenomena such as novel metaphors (Glucksberg, 2001), implicature (Grice, 1975), or sarcasm and irony (Gibbs, 1986), to name just a few that have been discussed repeatedly in studies on linguistic creativity.

This study further shows that the creativity-on-demand task is a paradigm well suited to gather highly comparable default and creative utterances by the same speakers. Having established the method as a paradigm to investigate creative discourse, the next step will consist in evaluating the specific strategies and linguistic means that participants employ in creative discourse continuations.

Acknowledgments

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