# The 5C Model of Linguistic Creativity: Construction Grammar as a Cognitive Theory of Verbal Creativity

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**Abstract:** Creativity is a design feature of human language. This paper presents a cognitive model of verbal creativity that draws on insights from the psychological research into creativity—particularly Glăveanu's 5A model that distinguishes five crucial perspectives on a creative act (actors, audience, artefacts, actions and affordances). The paper will outline a linguistic version of this model that adopts Construction Grammar as its theoretical foundation. The resulting "5C model of constructional creativity" argues that the central elements of linguistic creativity are constructors, co-constructors, constructs, constructional blending and the constructional network.

**Keywords:** creativity, construction grammar, cognitive linguistics, blending, 5C model of constructional creativity, cognition, constructional networks

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#### 1. Introduction

Language is a symbolic system that crucially relies on conventional routines for communication. When we talk to each other, we cannot simply invent new word meanings like Humpty Dumpty does in the passage in (1):

(1) "And only one for birthday presents, you know. There's glory for you!"

"I don't know what you mean by 'glory," Alice said.

Humpty Dumpty smiled contemptuously. "Of course you don't—till I tell you. I meant 'there's a nice knock-down argument for you!"

"But 'glory' doesn't mean 'a nice knock-down argument," Alice objected.

"When I use a word," Humpty Dumpty said in rather a scornful tone, "it means just what I choose it to mean—neither more nor less." (Dodgson)

Successful communication instead requires the speakers of a speech community to use words with their conventional meaning—and to combine them in conventional ways. As Chomsky noted, even sentences like (2a) that do not have a straightforward meaningful interpretation are considered much more acceptable than (2b), which contains the same words but in a seemingly random order:

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(2)a. Colorless green ideas sleep furiously.b. Furiously sleep ideas green colorless. (Syntactic 15)
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Yet even though it is essential that speakers follow the conventionalized linguistic routines of their speech community, humans are obviously not parrots that simply repeat what they have previously heard:

Within traditional linguistic theory, furthermore, it was clearly understood that one of the qualities that all languages have in common is their 'creative' aspect. Thus an essential property of language is that it provides the means for expressing indefinitely many thoughts and for reacting appropriately in an indefinite range of new situations. (Chomsky, *Aspects* 6)

In fact, linguistic creativity is considered a design feature of human language (Hockett). But how exactly do we go beyond the "established possibilities of the language" (Leech 24)? How and in what way are speakers creative? And how can we explain their creativity within the theory of Cognitive Linguistics?

Before addressing these questions, we must first unravel what exactly is meant by "creativity." As Geoffrey Sampson points out, in linguistics the term is often used for "activities which characteristically produce examples drawn from a fixed and known (even if infinitely large) range" (19; see also Leech 24). In essence, this notion of creativity overlaps with the concept of productivity in that it implies the generality, regularity and extensibility of a linguistic process (Barðdal). This includes, for example, cases such as coining a new word through an established derivation process (e.g., using the morpheme *-ocracy* to create *expertocracy* or *idiotocracy*; see Hoffmann, "Cognitive"). Another example would be the word *snaccident* in (3), which is a blend of *snack* and *accident*:

(3) *snaccident*: an incidence of unplanned overeating of snacks, because one is distracted, anxious, etc[.] ("Snaccident")

Word blending in English is an established F(ixed)-creative, albeit not very frequent, word-

formation process. Note that the resulting word *snaccident* illustrates the selective and emergent nature of the process (Fauconnier and Turner)—something that we will return to below: *accident* here draws on its meaning of "an unfortunate and typically unforeseen event, a disaster, a mishap; (also) unfortunate eventuality" ("Accident"). Yet, while eating too many snacks might be considered "unfortunate," there is clearly nothing "unforeseen" about it. Thus, only the former, but not the latter meaning is selectively blended into *snaccident*. Similarly, out of the snacks frame many different properties could have been selected (e.g., their taste or price), but here only their unhealthy nutritional value is blended into the word. The emergent meaning of the blend is then humorously making light of eating too many of these unhealthy products (by backgrounding one's agency over the whole event).

Note that the above examples illustrate that productivity and creativity, despite often being used interchangeably in linguistics, do not describe the same process: *expertocracy* draws on a much more productive word-formation process (i.e. one that produces a much greater number of new types), while word blending is used only rarely. At the same time, *snaccident* is arguably more creative than *expertocracy*. As will become clearer below, producing novel linguistic elements is not the only central feature of creativity. So, F-creativity requires a certain productive process, but the correlation between creativity and productivity seems to be an inverse one (all other things being constant but cf. below for the second important property of creativity).

Words such as *expertocracy* or *snaccident* were (at least a bit) creative when they were first produced, and, as we have just established, they were created by F-creativity since both drew on well-established word-formation processes of English. At the other end of linguistic creativity, we find "E(nlarging/extending)-creativity" (Sampson 19)—cases when a speaker or writer "actually goes beyond [... existing] possibilities, that is, if he creates new communicative possibilities which are not already in the language" (Leech 24). Clear cases of E-creativity involve language change when grammaticalization adds a new grammatical construction to the system of a language. When the *going to* future construction (e.g. *It is going to rain*)<sup>1</sup> or the progressive construction (e.g. *He is eating a pizza*)<sup>2</sup> were grammaticalized during the Early Modern English period, they clearly extended the paradigm of tense/aspect constructions in English. However, even synchronic examples of E-creativity can be found. Take, for example, the utterance in (4):

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(4) the more opaque that atmosphere is_{C1} the less conductive it is_{C2} the bigger the temperature difference you need to cross it._{C3} (ICE-GB corpus: S2A-043-F104; Hoffmann, "Multimodal Constructs" 5)
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Example (4) is an instance of a complex comparative correlative construction.<sup>3</sup> Normally, comparative correlative constructions comprise two clauses (e.g. the more you eat<sub>C1</sub> the fatter you get<sub>C2</sub>): an initial clause C1 that is interpreted as the protasis/cause for a second clause that is seen as the apodosis/effect variable (cause: the more you eat<sub>C1</sub>  $\rightarrow$  effect: the fatter you get<sub>C2</sub>).

The standard way of expressing the meaning of (4) would, therefore, have been to produce two separate comparative correlative clauses with two clauses each:

(5) a. the more opaque that atmosphere is<sub>C1</sub> the less conductive it is<sub>C2</sub>
b. the less conductive it is<sub>C1</sub> the bigger the temperature difference you need to cross it.<sub>C2</sub>

Yet, while (4) and (5) might be semantically equivalent, the former is obviously better at expressing the tight causal chain in which the less conductive it is is simultaneously the apodosis of the more opaque that atmosphere is and at the same time the protasis to the bigger the temperature difference you need to cross it. Example (4) is therefore an E-creative way of extending the binary structure of standard comparative correlative constructions (that can be extended to other cases such as the more you eat, the fatter you get, the sooner you'll die).

F- and E-creativity have recently been discussed in several constructionist publications.<sup>4</sup> While many details still require further analysis (such as the precise relationship between these types of creativity, on the one hand, and analogy and productivity, on the other hand), one central finding has been that there is always an "interplay between linguistic creativity and routine" ("45th"): creativity is "the result of the tension between established possibilities and deviations from them" (Hoffmann, "Creativity" 263; Leech 56–57). According to Giora ("Optimal," *On*), "optimal innovations" would be utterances that strike the perfect balance between familiarity/ routine and novelty (though it is debatable whether creativity implies that there is always only one optimal innovation).

As we have already seen in the discussion of F-creativity and productivity above, novelty/familiarity cannot be the only criterion of creativity. Instead, in psychological creativity research, the following definition has emerged as a state-of-the-art consensus (Simonton; Kaufman 5):

#### (6) Creativity = Originality x Appropriateness (Simonton)

As (6) shows, in addition to novelty/originality, appropriateness plays an important factor in our assessment of the creativity of a product or process. Some ideas, like using a thimble to drink water, might be fairly novel/original but will probably be considered inappropriate by most people. On the other hand, using a regular glass to drink will seem perfectly acceptable but is not original at all (Hoffmann, "Constructionist" 260; "Cognitive"). It is only when something is both original and appropriate that it is seen as creative (and consequently appreciated by the listener/reader; Giora, *On*; Veale)—e.g. when you are marooned on an island, and you use coconut shell halves to drink water from a well.

## 2. The 5C Model of Constructional Creativity

When analysing any act of creativity, it is important to understand that there are several complementary perspectives from which one can approach the phenomenon (Rhodes; Kaufman 16): Are we interested in the creative person, the process through which they are creative, the circumstances (press/place) when someone is creative or the creative product? In addition to this, sociocultural approaches to creativity (Lubart et al.; Glăveanu) highlight the fact that "creativity doesn't happen 'within the head' of isolated individuals but rather in the interaction between people, places, objects, and institutions" (Lubart et al. 129). The most sophisticated sociocultural psychological theory of creativity by Glăveanu, therefore, emphasizes the following five elements that interact during any creative act (Lubart et al. 130):

actor: the individual that creates something novel and appropriate,

audience: the people with whom the actors interact or for whom they innovate,

artefact: the products/output of the creative act,

action: the processes that lead to the creative product, and

affordances: the material objects and environment that are part of the creative process.

Recently, Hoffmann ("Constructionist"; "Cognitive") has translated the above 5A model (Glăveanu) into a cognitive model of linguistic creativity. Figure 1 illustrates the key components of this "5C model of constructional creativity":

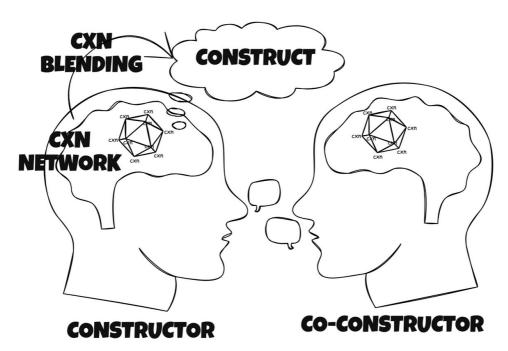


Figure 1. The 5C model of constructional creativity (Hoffmann, "5C")

In the 5C model of constructional creativity, Glăveanu's actors and audience are relabeled **constructor** and **co-constructor** (mostly for mnemonic reasons but see Section 4). The creative artefact in communication is an authentic utterance, a **construct**. These affordances that are used to create a construct, are stored in the mental dynamic constructional network (**cxn network**), and the action that turns constructions into constructs is constructional blending (**cxn blending**).

In the next section, I will first turn to constructs and their relationship with exn networks and exn blending. Then, I will outline how constructors and co-constructors interact to dynamically create creative constructs.

# 3. Constructs, Cxn Networks and Cxn Blending

The linguistic theory at the heart of the 5C model of constructional creativity is usage-based Construction Grammar (CxG; e.g., Goldberg; Hilpert; Hoffmann, Construction). CxG rejects the dichotomy of words and syntactic rules and instead postulates that all linguistic knowledge is encoded in symbolic pairings of form and meaning (FORM MEANING), known as "constructions." Constructions range from fully-fixed patterns (e.g. apple), and partially flexible idioms (e.g. sb. spills the beans) to completely schematic templates such as the Caused Motion construction in (7):

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(7) FORM: [SBJ₁ [V₂ OBJ₃ OBL₄]<sub>VP</sub>]

↔

MEANING: 'Agent₁ causes Theme₃ to move GOAL₄_path/loc by V₂-ing'

(adapted from Hoffmann, Construction 187)
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The schematic construction in (7) licenses diverse novel structures such as "She put her wallet on the cupboard" or "They booed him off the stage."

In line with psychological learning theories, constructions are acquired through input and the strength of their mental storage depends on their frequency: utterances that are repeatedly encountered without any variation (e.g., *Thank you!* or *You're welcome!*) have a high token frequency and simply become entrenched as chunks. In contrast to this, schematic patterns such as the Caused Motion construction have a high type frequency, since they appear with many different lexicalizations. Drawing on usage-based insights and psychological research into learning, Goldberg, furthermore, points out that the specific utterances that give rise to a generalization such as (7) are not simply forgotten. Instead, "partially abstracted (lossy) structured exemplars dynamically cluster within our hyper-dimensional conceptual space" (51). These exemplar clouds are labelled the "coverage" of a construction and are considered to play an important role when it comes to the acceptability of novel instances:

Specifically, a potential productive use of an existing construction (a coinage) is acceptable to the degree that the category which would be required to include the previously attested examples and the coinage is well attested within the hyper-dimensional conceptual space in which exemplars cluster. (Goldberg 62–63)

Constructions and their coverage are stored in the long-term memory of speakers and form a complex mental network with all other constructions (and their coverage). This exp network exhibits several different vertical and horizontal relations between constructions (Diessel 22), including

- associations between lexemes ("lexical relations" such as synonymy or antonymy),
- ⊙ associations between constructions ("constructional relations" such as between the Caused Motion construction "She kicked the ball to him" and the Transitive construction "She kicked the ball," both of which contain the same force-dynamic event of the subject exerting force onto the object), and
- associations between particular items (e.g. PUT) and the slots of the constructions (such as the V slot of [7]; these are known as "filler-slot relations" and, essentially, represent a construction's coverage).

In order to illustrate the interaction of constructions, coverage, and network relations, take a look at the constructs in (8)–(10):

- (8) She's not the sharpest tool in the shed, Lily. (COCA, Trial Fire, 2016)
- (9) [...] a stuck-up mean girl, and not the brightest bulb in the pack. (COCA, Shape, 2011)
- (10) Poor Billy Frisk was not the quickest bunny in the warren. (COCA, Southwest Review, 2009)

(examples [8]–[10] from Bergs, "Learn" 281)

The above examples clearly constitute the coverage of a fairly specific pattern—the X BE NOT *the* Y-*est* Z *in the* Q-construction (Bergs, "Learn"; Hoffmann, *Construction*; Trousdale). The construction is a humorous way of saying that someone is pretty unintelligent and exhibits several interesting properties:

- it requires a form of BE followed by *not the*,
- the following adjective must be in the superlative (cf. sharpest, brightest, quickest) and must be a synonym for intelligent (She is sharp/bright/quick can all mean that she is intelligent), and
- finally, there are two noun (N) slots that must come from the same semantic frame (tool-shed, bulb-pack, bunny-warren).

Example (11) provides a constructional template summarizing the above properties:

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(11) FORM: SBJ<sub>1</sub> [BE not [the ADJ<sub>SUPERLATIVE_2</sub> N<sub>3</sub>] [in the N<sub>4</sub>] ]<sub>5</sub> \leftrightarrow MEANING: 'Theme<sub>1</sub> = 'not-very-intelligent'<sub>5</sub> SUPERLATIVE_2 = synonym for intelligent Z<sub>3</sub> and Q<sub>4</sub> from same FRAME
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But then you come across an example such as (12) that does not quite fit the construction and its coverage:

(12) I mean he's not the brightest lad is he? Not the shiniest penny in the piggy bank. (Robson; Hoffmann, "Language" 2)

While most of the requirements of the construction in (11) are met, (12) deviates from the template (and thus the construction's coverage) by having a superlative adjective (*shiniest*) that is not a synonym for intelligent (*She is shiny* cannot mean that someone is intelligent). Clearly, the construction and its coverage are not enough to explain this creative construct. Taking a closer look at (12) reveals that the preceding context (*not the brightest lad*) primed the constructional meaning of (11) as well as the literal meaning of bright (that is the Level\_of\_light FRAME<sup>5</sup>). The use of *shiny* in the construction is, therefore, made possible by spreading activation from *bright* to *shiny*. Figure 2 shows how we can envisage this lexical network (with activated adjective nodes indicated by blue color):

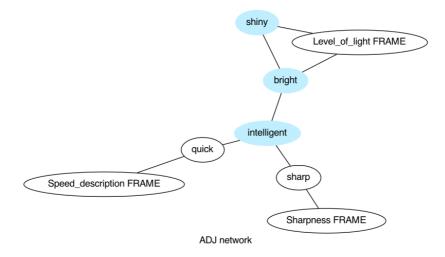


Figure 2. Dynamic network of intelligent (Hoffmann, "Dynamic")

Cxn networks (constructions, their coverage and the relations between them) should therefore

not be conceived of as static entities. Instead, spreading activation in the network, which partially depends on the previous con- and co-text, can give rise to creative constructs such as (12) that clearly go beyond a construction's previous coverage.

As this shows, the entrenched cxn network and its parts that are activated at a specific point play an important role for constructional creativity. At the same time, we need to distinguish constructions (long-term memory information) from constructs: Constructs are the concrete utterances produced by a speaker by activating and combining constructions in the working memory (Cowan; Diamond; Hoffmann, "Multimodal Constructs," "Constructionist"). A specific construct such as *not the shiniest penny in the piggy bank* activates not only the construction in (12), but also the lexical construction network in Figure 2 as well as, e.g., the words *penny* and *piggy bank* (including the semantic frames that these terms evoke).

Since constructions are combined into constructs in the working memory, the question arises as to which process underlies this combination. As we have already seen with *snaccident*, creative constructs display selective projection and emergent properties—features that require a conceptual blending account (Fauconnier and Turner). Conceptual blending is a domain-general process that has already been used to explain a wide range of phenomena of higher cognition from mathematical invention and reasoning to social cognition (http://blending.stanford.edu).<sup>6</sup> Since conceptual blending is a combinatory process that explicitly accounts for selective projection and emergent conceptual blending, it is considered the best explanation for creative construction combination (exp blending) in the 5C model.<sup>7</sup>

#### 4. Constructors and Co-constructors

While cxn networks, cxn blending and constructs focus on the creative affordances, the creative action and the creative artefacts that are available to all speakers of a language, we also know that there are considerable inter-individual differences when it comes to the creativity of individual speakers and writers. Hoffmann ("Cognitive"), e.g., provides the following summary of psychological research into the factors that make individuals more creative than their peers:

First of all, high intelligence, the "general cognitive ability compris[ing] reasoning, mental speed, as well as the ability to conceptualize and to gain, structure, retain, and use knowledge" (Kandler *et al.* 2016, 231), has been shown to support creativity. Moreover, as a considerable body of psychological research has shown, the personality trait most consistently correlated with creativity is 'openness' (Kaufman 2016; Kandler *et al.* 2016). Individuals high in openness are characterized by a "tolerance of ambiguity and willingness to grow, as well as cognitive flexibility, fantasy, open-mindedness, and having broad interests in several issues (e.g., science, arts, and aesthetics)" (Kandler *et al.* 2016: 232)—all of which seem to be important prerequisites for creative thinking and acting. Less consistently, a higher level of extraversion,

i.e. a "general tendency to seek stimulation, orient attention to external stimuli, and enjoy social attention and interaction" (Kandler *et al.* 2016: 232), is also positively correlated with an individual's creativity. Due to a moderate correlation between openness and extraversion, the two traits are sometimes integrated into a higher order trait labelled 'plasticity' (Kandler *et al.* 2016: 232). Interestingly, this higher order trait turns out to be negatively associated with latent inhibition, meaning that individuals high in plasticity (openness and extraversion) have a higher number of unfiltered stimuli that enter their awareness and thus a higher likelihood of activating "seemingly unrelated cues to the solution of a problem" (Kandler *et al.* 2016: 232). This allows individuals high in plasticity to come up with more and unrelated solutions to a problem than individuals who are lower in openness and extraversion—a cognitive ability known as divergent thinking. (Glăveanu and Kaufman 10)

The above psychological findings can straightforwardly be incorporated into the 5C model as follows: In the previous section, we have seen that the cxn network can be creatively exploited by going beyond the routine coverage of a construction. While all speakers of English will be able to understand the utterance in (12) by drawing on their cxn network, we do not expect that all of them would be equally likely to create such a creative construct. Only individuals that are high in plasticity can be expected to "to activate a greater number of linguistic elements that are more unrelated and consequently stored in more distant parts of the mental grammar network" (Hoffmann, "Cognitive"). This hypothesis again receives support from several independent psychological studies that have shown that creative individuals "have better associative abilities, more uncommon word associations, and a more flexible organization of semantic associations in memory" (Ovando Tellez et al. 1; see also the studies referenced in this paper).

In linguistic studies, it is sometimes claimed that the individuals that are linguistically creative follow the "maxim of extravagance"—the desire to "talk in such a way that you are noticed" (Haspelmath 1055; see, e.g., de Smet; Hartmann and Ungerer). Now, extravagance might occasionally be a motivation that drives people to be creative. However, it is important to understand that this alone will not enable speakers to become more creative individuals. Just because you want to be the next Shakespeare does not mean that you have any real talent for writing plays and becoming a celebrated playwright. Cognitive ability instead is the necessary disposition that allows individuals to be creative: only individuals that have a higher mental plasticity will be able to create more creative constructs. Tentatively, we might speculate that extravagant speakers might exhibit more F-creativity (since that involves exploiting already existing constructions), while intentional E-creativity is only available to individuals that possess greater mental plasticity.

Finally, as mentioned above, one should not only focus on the creative actor alone. Particularly when analysing linguistic creativity, it is important to also take into account the dynamic nature of discourse and the influence of what Glăveanu calls the audience. In fact, as Hoffmann ("Constructionist," "Cognitive") points out, speakers and hearers take turns during discourse and

instead of treating them as actors and audience (which implies only an active role of the former), it is more appropriate to see them as constructors and co-constructors. The following example in (13) illustrates this point.

Example (13) is taken from the BBC comedy panel show *QI* (*Quite Interesting*), in which a host asks four guests obscure questions with points being awarded not only for correct, but also for interesting and humorous answers ("QI").

(13) a. Stephen Fry: What are igloos usually made from?

b. [CHURCH BELLS RINGING]

c. Brian Blessed: Blue ice?

d. [KLAXON SOUNDS]

e. Stephen Fry: Noooh! No. You get a forfeit. They are not made of ice, at all.

f. Sean Lock: Made from glue. g. Stephen Fry: Nice thought.

h. Alan Davies: Is it an Apple glue? Are they actually iGlues?

i. Stephen Fry: iGlue?j. Very good.

k. [LAUGHTER AND APPLAUSE] ("QI s09 e16 XL Ice" 0:35:02-0:35:26)<sup>8</sup>

The construct that gets laughter and applause—and which thus can be considered not only novel, but in the context of the show also appropriate, and hence creative—is *iGlue*. Now, *iGlue* is, obviously, modelled on the names of Apple products (*iPhone*, *iPad*, *iPods*, etc.). In addition to this, *iGlue* ['ar.glu:] and *igloo* ['rg.lu:] are phonetically similar, which adds to the appreciation of this novel construct. More importantly in this context, however, is the fact that Alan Davies, the creator, did not come up with this construct straightaway after the host asked *What are igloos usually made from?* (13a). Instead, it was only after Sean Lock suggested that igloos might be *Made from glue* (13f) that the phonetic similarity of *glue* ['glu:] and *igloo* ['rg.lu:] becomes prominent. Lock is therefore not part of a passive audience; he is an active co-creator that helps to activate a new association in the mind of Davies.

This is, of course, only one example, see Hoffmann ("Constructionist," "Cognitive") for several other examples of this dynamic cooperation of constructors and co-constructors. For our analysis of linguistic creativity, we must, therefore, not only look at the creative individuals that act as constructors. Instead, we must always consider the previous discourse and take into account the active role that co-constructors play in the creation of creative constructs.

#### 5. Conclusion

Creativity is a fascinating topic that raises important questions for any linguistic theory. In

this paper, I presented the "5C model of constructional creativity" that offers an in-depth theory of linguistic creativity which draws on insights from CxG, cognitive linguistics and psychology. At the same time, I argue that the analysis of creative language also significantly furthers our understanding of the way that (routine as well as creative) constructs are produced:

Constructs are created in the working memory of a speaker through cxn blending (i.e. the domain-general process of conceptual blending). The affordances that creative innovators draw on are their cxn networks (which include all the constructions, their coverage and the cxn relations that are stored in the long-term memory and that get dynamically activated during discourse). The degree to which individuals, the constructors, can be creative depends on a range of mental abilities (particularly their mental plasticity). At the same time, however, during discourse, the role of the co-constructors must also be taken into account (as constructors and co-constructors mutually activate certain parts of their respective cxn networks).

Non-creative, routine, communication will often be shaped by existing constructions and their coverage (Goldberg). At the same time, it is important to remember that we are the symbolic species (Deacon; Tomasello) and that meaning can often be created dynamically (Casasanto and Lupyan) and creatively. Given the right poetic context, a seemingly contradictory sentence such as (2a) can receive an interpretation:

This shift makes it possible to imagine that the oily, colourless green of Venetian waters might stand for our tumultuous pre-verbal entanglements: stuff that sleeps furiously—and occasionally shimmers in the light. When this maelstrom comes into view, the bearers of mankind's original poetic wisdom are awakened in us, they who 'expressed their very violent passions by shouting and grumbling' (Vico, 1984, p. 116). I imagine they, too, must have slept furiously over murky intuitions of bodily leanings and attachments to the others and othernesses calling out to them. (Russi and Rothfjell)

Even "ungrammatical," that is non-canonical word order can become meaningful. Take the case of "Yoda-speak" (Bergs and Kompa), named after the fictional character from the Star Wars franchise that used a non-English word order:

(14) Looking? Found someone, you have, I would say, hmmm? Help you I can, yes, hmmmm (*Star Wars Episode V: The Empire Strikes Back*; qtd. in Bergs and Kompa 16).

Instead of the canonical *You have found someone* and *I can help you*, Yoda produces the fronted *Found someone*, *you have* and *Help you I can* in (14). As Bergs and Kompa point out, Yoda is written in a way that he regularly produces such structures. Using the dynamic and flexible nature of language production, the writers of the character were able to produce these utterances—and we as viewers were able to comprehend them (and imbue them with additional social meaning such as, e.g., that Yoda is, at first, an odd alien that later turns out to be a wise alien Jedi master).

So, anything goes? Yes and no. Returning to (1) we see that Humpty Dumpty cannot make *glory* to mean "a nice knock-down argument." The reason for this is that neither the construction's coverage nor the context allowed for this association in this case (he even admits that he has not primed this meaning when he tells Alice she cannot know his new meaning "till I tell you"). That does not mean that there is no conceivable context that would allow for such an association. However, it would have to require much more interactional work between constructor and co-constructor to license such a far-reaching association between *glory* and *argument*. As this example shows, the 5C model of constructional creativity is a theory that enables us to better tease apart the various aspects of linguistic creativity. At the same time, it also raises new questions such as "when is a semantic association too far?" or "when do E-creative constructs turn into constructions?" that will have to be addressed by future research. Clearly, it is time for construction grammarians to become creative!

#### **Notes**

- 1. See Bybee; Traugott for details.
- 2. See Petré for details.
- 3. For an overview see Hoffmann, English.
- 4. See Bergs, "Learn," "What"; Bergs and Kompa; Hartmann and Ungerer; Herbst; Hoffmann, "Creativity," "Language," "Construction," "Constructionist"; Schneck; Trousdale; Turner, "The Role," "Constructions"; Uhrig, "I," "Creative."
- 5. Here I use the frame semantic labels (Boas and Dux) for conceptual domains evoked by lexical items as listed in FrameNet (framenet.icsi.berkeley.edu/).
- 6. See markturner.org/blending.html (historically available at blending.stanford.edu).
- 7. Note that recently several cognitively-oriented construction grammar researchers have argued that conceptual blending is, in fact, the only process by which constructions combine (see Fauconnier and Turner; Hampe and Schönefeld; Herbst and Hoffmann, "Construction," A Construction; Hoffmann, "Language"; "Multimodal Construction"; Steen and Turner; Turner and Fauconnier). One of the advantages of this approach is that it also offers a straightforward account of how gesture and verbal information can become integrated into a single multimodal construct in the working memory (e.g., Hoffmann, "Multimodal Construction"; Steen and Turner; Turner, "The Role").
- 8. Transcript adapted from: subsaga.com/bbc/comedy/qi-xl/series-i/15-ice.html?utm content=cmp-true.

### **Works Cited**

"Accident (II.8.a.)" Oxford English Dictionary, Oxford UP, www.oed.com/dictionary/accident\_n?tab=meaning\_and\_use#39895077.

Barðdal, Jóhanna. Productivity: Evidence from Case and Argument Structure in Icelandic. John Benjamins, 2008.

Bergs, Alexander. "What, If Anything, Is Linguistic Creativity?" Gestalt Theory, vol. 41, no. 2, 2019, pp. 173–183.

——. "'Learn the Rules Like a Pro, So You Can Break Them Like an Artist' (Picasso): Linguistic Aberrancy from a Constructional Perspective." *Zeitschrift für Anglistik und Amerikanistik*, vol. 6, no. 3, 2018, pp. 277–293.

- Bergs, Alexander, and Nikola A. Kompa. "Creativity within and outside the Linguistic System." *Cognitive Semiotics*, vol. 13 no. 1, 2020. https://doi.org/10.1515/cogsem-2020-2025.
- Boas, Hans C., and Ryan Dux. "From the Past into the Present: From Case Frames to Semantic Frames." *Linguistics Vanguard*, vol. 3, no. 1, 2017, pp. 1–14.
- Bybee, Joan L. "From Usage to Grammar: The Mind's Response to Repetition." Language, vol. 82, 2006, pp. 711-733.
- Casasanto, Daniel, and Gary Lupyan. "All Concepts Are Ad Hoc Concepts." *The Conceptual Mind: New Directions in the Study of Concepts*, edited by Eric Margolis and Stephen Laurence, MIT Press, 2015, pp. 543–566.
- Chomsky, Noam. Aspects of the Theory of Syntax. MIT Press, 1965.
- ——. Syntactic Structure. Mouton, 1957.
- Cowan, Nelson. "What Are the Differences between Long-Term, Short-Term, and Working Memory?" *Progress in Brain Research*, vol. 169, 2008, pp. 323–333.
- de Smet, Hendrick. "Unwitting Inventors: English Speakers Use *-ly*-Adverbs More Creatively When Primed." *Zeitschrift für Anglistik und Amerikanistik*, vol. 66, no. 3, 2018, pp. 259–276.
- Deacon, Terrence. The Symbolic Species: The Co-evolution of Language and the Human Brain. Penguin, 1997.
- Diamond, Adele. "Executive Functions." Annual Review of Psychology, vol. 64, 2013, pp. 135–168.
- Diessel, Holger. The Grammar Network: How Linguistic Structure Is Shaped by Language Use. Cambridge UP, 2019.
- Dodgson, Charles (Lewis Carrol). *Through the Looking-Glass*. E-book ed., Project Gutenberg Ebook, 1991, www. gutenberg.org/files/12/12-h/12-h.htm.
- Fauconnier, Gilles, and Mark Turner. *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. Basic Books, 2002.
- "45th Annual Conference of the German Linguistic Society." *Deutsche Gesellschaft für Sprachwissenschaft*, 7–10 March 2023, University of Cologne, dgfs2023.uni-koeln.de/en/.
- Giora, Rachel. On Our Mind: Salience, Context, and Figurative Language. Oxford UP, 2003.
- ——. "Optimal Innovation and Pleasure." *The April Fools' Day Workshop on Computational Humour*, edited by Oliviero Stock, et al., ITC-irst, Trento, 2002, pp. 11–28.
- Glăveanu, Vlad P. "Rewriting the Language of Creativity: The Five A's Framework." *Review of General Psychology*, vol. 17, no. 1, 2013, pp. 69–81.
- Glăveanu, Vlad P., and James C. Kaufman. "Creativity: A Historical Perspective." *Creativity: An Introduction*, edited by James C. Kaufman and Robert J. Sternberg, Cambridge UP, 2021, pp. 1–16.
- Goldberg, Adele E. *Explain Me This: Creativity, Competition and the Partial Productivity of Constructions.* Princeton UP, 2019.
- Hampe, Beate, and Doris Schönefeld. "Creative Syntax: Iconic Principles Within the Symbolic." *From Sign to Signing*, edited by Wolfgang G. Müller and Olga Fischer, John Benjamins, 2003, pp. 243–261.
- Hartmann, Stefan, and Tobias Ungerer. "Attack of the Snowclones: A Corpus-Based Analysis of Extravagant Formulaic Patterns." *Journal of Linguistics*, 2023, pp. 1–36. https://doi.org/10.1017/S0022226723000117.
- Haspelmath, Martin. "Why Is Grammaticalization Irreversible?" Linguistics, vol. 37, no. 6, 1999, pp. 1043–1068.
- Herbst, Thomas. "Collo-Creativity and Blending: Recognizing Creativity Requires Lexical Storage in Constructional Slots." *Zeitschrift für Anglistik und Amerikanistik*, vol. 66, no. 3, 2018, pp. 309–328.
- Herbst, Thomas, and Thomas Hoffmann. A Construction Grammar of English: A Constructionist Approach to Syntactic Analysis (CASA). John Benjamins, 2024.

- ——. "Construction Grammar for Students: A Constructionist Approach to Syntactic Analysis (CASA)." *Yearbook of the German Cognitive Linguistics Association*, vol. 6, no. 1, 2018, pp. 197–218.
- Hilpert, Martin. Construction Grammar and Its Application to English. 2nd ed., Edinburgh UP, 2019.
- Hockett, Charles F. "The Origin of Speech." Scientific American, vol. 203, no. 3, 1960, pp. 88-96.
- Hoffmann, Thomas. "Cognitive Approaches to Linguistic Creativity." *The Cambridge Encyclopedia of Cognitive Linguistics*, edited by Xu Wen and Chris Sinha, Cambridge UP, forthcoming.
- ----. "Dynamic Network of Intelligent." OSF, 31 Dec. 2023, osf.io/ckmb3.
- ——. "Constructionist Approaches to Creativity." *Yearbook of the German Cognitive Linguistics Association*, vol. 10, no. 1, 2022, pp. 259–284.
- Construction Grammar: The Structure of English (Cambridge Textbooks in Linguistics.) Cambridge UP, 2022.
- —. "Multimodal Construction Grammar: From Multimodal Constructs to Multimodal Constructions." *The Routledge Handbook of Cognitive Linguistics*, edited by Xu Wen and John R. Taylor, Routledge, 2021, pp. 78–92.
- ——. "Construction Grammar and Creativity: Evolution, Psychology and Cognitive Science." *Cognitive Semiotics*, vol. 13, no. 1, 2020. https://doi.org/10.1515/cogsem-2020-2018
- English Comparative Correlatives: Diachronic and Synchronic Variation at the Lexicon-Syntax Interface (Studies in English Language.) Cambridge UP, 2019.
- ——. "Language and Creativity: A Construction Grammar Approach to Linguistic Creativity." *Linguistics Vanguard*, vol. 5, no. 1, 2019. https://doi.org/10.1515/lingvan-2019-0019.
- —. "Creativity and Construction Grammar: Cognitive and Psychological Issues." *Zeitschrift für Anglistik und Amerikanistik*, vol. 66, no. 3, 2018, pp. 259–276.
- ——. "Multimodal Constructs—Multimodal Constructions? The Role of Constructions in the Working Memory." *Linguistics Vanguard*, vol. 3, no. 1, 2017, pp. 1–10.
- Kaufman, James C. Creativity 101. 2nd ed., Springer, 2016.
- Leech, Geoffrey N. A Linguistic Guide to English Poetry. Longman, 1969.
- Lubart, Todd, et al. "Cultural Perspectives on Creativity." *Creativity: An Introduction*, edited by James C. Kaufman and Robert J. Sternberg, Cambridge UP, 2021, pp. 128–151.
- Ovando Tellez, Marcela, et al. "Switching, Fast and Slow: Deciphering the Dynamics of Memory Search, Its Brain Connectivity Patterns, and Its Role in Creativity." *Research Square*, 11 Jan. 2024. https://doi:10.21203/rs.3.rs-3826172/v1.
- Petré, Peter. "Mind-Bending Grammars." Website of the project (ID 639008), ERC Horizon 2020 programme, University of Antwerp, www.uantwerpen.be/en/projects/mind-bending-grammars/.
- "QI." Wikipedia, accessed 30 May 2024, en.wikipedia.org/wiki/QI.
- "QI s09 e16 XL Ice." YouTube, 7 May 2020, www.youtube.com/watch?v=md6paBh-8uc&t=2101s.
- Rhodes, Mel. "An Analysis of Creativity." The Phi Delta Kappan, vol. 42, 1961, pp. 305–310.
- Robson, Derek 'Robbo.' "Your Loss, Our Wayne." *BBC Sport*, 3 Apr. 2003, news.bbc.co.uk/sport2/hi/funny\_old\_game/2912483.stm.
- Russi, Luigi, and Katarina Rothfjell. "Floating in Quarantine: Where Colourless Green Ideas Sleep Furiously." *Anthropocenes–Human, Inhuman, Posthuman*, vol. 1, no. 1. https://doi.https://doi.org/10.16997/ahip.17.

- Sampson, Geoffrey. "Two Ideas of Creativity." *Evidence, Experiment and Argument in Linguistics and Philosophy of Language*, edited by Martin Hinton, Peter Lang, 2016, pp. 15–26.
- Schneck, Peter. "Creative Grammarians: Cognition, Language and Literature: An Exploratory Response." *Zeitschrift für Anglistik und Amerikanistik*, vol. 66, no. 3, 2018, pp. 381–391.
- "Snaccident." Collins Dictionaries, www.collinsdictionary.com/submission/22602/snaccident#google\_vignette.
- Simonton, Dean Keith. "Creative Productivity and Aging." *The Wiley-Blackwell Handbook of Adulthood and Aging*, edited by Susan Krauss Whitbourne and Martin J. Sliwinski, Wiley-Blackwell, 2012, pp. 477–496.
- Steen, Francis, and Mark Turner. "Multimodal Construction Grammar." *Language and the Creative Mind*, edited by Mike Borkent, et al., CSLI Publications, 2013, pp. 255–274.
- Tomasello, Michael. The Cultural Origins of Human Cognition: An Essay. Harvard UP, 1999.
- Traugott, Elizabeth Closs. "Toward a Coherent Account of Grammatical Constructionalization." *Diachronic Construction Grammar*, edited by Jóhanna Barðdal, et al., John Benjamins, 2015, pp. 51–79.
- Trousdale, Graeme. "Creativity Parallels between Language and Music." *Zeitschrift für Anglistik und Amerikanistik*, vol. 66, no. 3, 2018, pp. 371–380.
- Turner, Mark. "Constructions and Creativity." *Cognitive Semiotics*, vol. 13, no. 1, 2020. https://doi.org/10.1515/cogsem-2020-2019.
- —. "The Role of Creativity in Multimodal Construction Grammar." *Zeitschrift für Anglistik und Amerikanistik*, vol. 66, no. 3, 2018, pp. 357–370.
- Turner, Mark, and Gilles Fauconnier. "A Mechanism of Creativity." Poetics Today, vol. 20, no. 3, 1999, pp. 397-418.
- Uhrig, Peter. "Creative Intentions—The Fine Line between 'Creative' and 'Wrong." *Cognitive Semiotics*, vol. 13, no. 1, 2020. https://doi.org/10.1515/cogsem-2020-2027.
- ——. "I Don't Want to Go All Yoko Ono on You." *Zeitschrift für Anglistik und Amerikanistik*, vol. 66, no. 3, 2018, pp. 295–308.
- Veale, Tony. Exploding the Creativity Myth: The Computational Foundations of Linguistic Creativity. Bloomsbury, 2012.

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