Measuring creativity in four-word sentences

The police officer slept.

STOP → Paul observed Susan's talent.

Oranges taste pretty sweet.

WHY conduct this project?

What makes a simple four-word sentence more creative than another?

In an experiment, participants were asked to think up creative four-word sentences based on a four-letter word prompt (see example). To objectively evaluate the creativity of the sentences, we developed an algorithm that automatically scores the sentences on eight different metrics. The metrics represent various key aspects of language creativity (e.g., unique word choice, unique syntax, rhyme, sound, etc.). We then compared the computed scores to human ratings of the sentences' creativity.

Have a look at the code and other project materials!
https://osf.io/yx4ts/

← scan please

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"subject","variable","sentence","GENERAL_WORD_INFREQUENCY","WORD_COMBINATION_INFREQUENCY","CONTEXT_SPECIFIC_WORD_UNIQUENESS","SYNTAX_UNIQUENESS","RHYME","PHONETIC_SIMILARITY"
"DG09J","ADEL","durch Achtsamkeit Erfüllung leben",3.0,0.0,0.8928571428571429,0.9814814814814815,0,0.3055555555555556,0.3076923076923077,0.0685971938537107
"DG09J","AHNE","Nilpferde essen auch Heu ",3.0,0.0,0.9500000000000001,0.8703703703703703,0,0.33333333333333337,0.571428571428571,0.07941264437094517
"DG09J","AMEN","auch meine Erdmännchen niesen ",3.5,0.0,0.7777777777777778,1.0,1,0.4325396825396825,0.666666666666666,99.0
"DG09J","ARZT","Anton rätselt ziemlich tief",2.75,0.0,1.0,0.6296296296296297,0,0.22916666666666666,0.4444444444444444,0.10196499058832152
"DG09J","DIES","Drachen essen ihre Superfoods",3.25,0.0,0.8571428571428571,0.9814814814814815,1,0.3041666666666667,0.5,99.0
"DG09J","EINS","nachts ist es schön",1.0,0.0,0.7352941176470588,0.9444444444444445,0,0.38888888888888889,0.666666666666666,0.045275846575740006
"DG09J","EKEL","ein kleiner lustiger Elefant ",1.75,0.0,0.666666666666666,1.0,1,0.345833333333333,0.363636363636365,0.1419502362154135
"DG09J","ERDE","Eltern reden deutlich erhaben",2.5,0.0,0.916666666666666,0.962962962962963,1,0.3680555555555555,0.666666666666666,0.1550800465688047
"DG09J","ERST","erstmal ruft Sabrina Timon",3.0,0.0,1.0,0.888888888888888,0,0.32638888888888895,0.7272727272727273,0.11448706629074282
"DG09J","EURE","Roland unterrichtete erst einmal ",1.75,0.0,0.9285714285714285,0.685185185185852,0,0.4027777777777773,0.5,0.0895748755849286
"DG09J","FORD","Riesen ordnen deutlich früher",2.5,0.0,0.875,0.962962962962963,1,0.1986111111111111,0.6,0.08720824758283084
"DG09J","FREI","riechen Eichhörnchen ihre Freunde?",2.5,0.0,0.861111111111112,1.0,1,0.48611111111111105,0.545454545454545,0.060910932550650804
"DG09J","KEIN","natürlich ist es kalt",0.75,0.0,0.7857142857142857,0.9444444444444444,0,0.266666666666667,0.3333333333333333,0.06866647850974672
"DG09J","MEHL","hilft mir Liebe echt?",2.75,0.0,0.8571428571428571,1.0,0,0.1597222222222222,0.5,0.0765925646033233
"DG09J","NEID","deine Neugier ist extrem",1.75,0.0,0.7499999999999999,0.9444444444444445,0,0.4027777777777778,0.545454545454545,0.1881295752582512
"DG09J","SAUM","abends unter Mammutbäumen sitzen",3.0,0.0,0.85,0.9814814814814815,1,0.3194444444444453,0.375,99.0
"AP14S","ADEL","Liebe durchzieht alle Erdenteile",3.0,0.0,0.642857142857429,0.962962962962629,1,0.25555555555555554,0.5,99.0
"AP14S","AHNE","nie hatte er Akne ",1.5,0.0,0.7000000000001,1.0,0,0.33333333333333337,0.75,0.09141360215023503
"AP14S","DIES","die Igeldame erlebt Spaß",2.5,0.0,0.8928571428571428,0.7592592592592592,0,0.3277777777777778,0.8571428571428571,99.0
"AP14S","DRIN","du riechst nicht inbrünstig",2.0,0.0,0.8333333333333333,0.962962962962629,0,0.57638888888889,0.363636363636365,0.06649825460035362
"AP14S","EINS","nun stottere ich eventuell",1.75,0.0,1.0,0.962962962962667,0,0.15416666666666673,0.3076923076923077,0.046566809450894156
"AP14S","EKEL","Leopold kennt einen Eimer",3.0,0.0,0.8333333333333333,0.0185185185185846,0,0.27083333333333337,0.4444444444444444,0.06061124003221843
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WHAT are the outcomes and tools you can use?

You are welcome to have a look at the analysis code (QR code) and read our paper "What's creative about sentences? A computational approach to assessing creativity in the sentence generation task". It has been accepted for publication in the Creativity Research Journal, Special Issue on Advancements in the Measurement and Evaluation of Creativity.

WHOM to contact?

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