What is a possible word?
Evidence from Russian factitive verbs

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Possible (marginal) word
- is attested at least once;
- is not established in standard language;
- is a spontaneous creation generated on the fly, on a certain occasion;
- is generated on the basis of a productive morphological pattern;
- is analyzable and semantically transparent.

Hypotheses:

Hypothesis 1: | Standard   Marginal | Nonce

Hypothesis 2: Standard | Marginal   Nonce |

Hypothesis 3: | Standard | | Marginal | | Nonce |

Hypothesis 4: Standard   gradual   Marginal   gradual   Nonce
transition   transition

Experiment: score-assignment test

Давно пора как-то <u>оприличить</u> наше общение более мягкими выражениями.
'It's high time we <u>made</u> our interaction <u>respectable</u> by using kinder statements.'

□ 5 points - Это совершенно нормальное слово русского языка.
　　　　　　'This is an absolutely normal Russian word.'
□ 4 points - Это слово нормальное, но его мало используют.
　　　　　　'This word is normal, but it is rarely used.'
□ 3 points - Это слово звучит странно, но, может быть, его кто-то использует.
　　　　　　'This word sounds strange, but someone might use it.'
□ 2 points - Это слово звучит странно, и его вряд ли кто-то использует.
　　　　　　'This word sounds strange and it is unlikely that anyone uses it.'
□ 1 point - Этого слова в русском языке нет.
　　　　　　'This word does not exist in the Russian language.'

Website for experiment: http://ansatte.uit.no/laura.janda/opyt/opyt.html
On-line questionnaire: http://surveys.questionpro.com/a/t/AJ5SEZPVbR

Experimental stimuli: standard, marginal (possible), nonce factitive verbs

#	O- factitive	Gloss	Freq RNC 1950-2012	U- factitive	Gloss	Freq RNC 1950-2012
1	*ob''jasnit'*	clarify	18,149	*utočnit'*	define more precisely	2,860
2	*oblegčit'*	simplify, lighten	1,802	*umen'šit'*	reduce	2,010
3	*oslabit'*	weaken, loosen	1,401	*uskorit'*	speed up	2,008
4	*okruglit'*	express in round numbers	939	*ulučšit'*	improve	1,899
5	*obogatit'*	enrich	800	*uprostit'*	simplify	1,350
6	*ožestočit'*	harden, obdurate	686	*ukorotit'*	make shorter	787
7	*osložnit'*	complicate	410	*usložnit'*	complicate	311
8	*ogolit'*	denude	387	*uteplit'*	make warmer	205
9	*osčastlivit'*	make happy	343	*uplotnit'*	compress	201
10	*osvežit'*	freshen	280	*uxudšit'*	make worse	199

Table 1: Standard factitive verbs used in experiment (control group 1).

#	O- factitive	Gloss	Freq RNC 1950-2012	U- factitive	Gloss	Freq RNC 1950-2012
1	*omeždunarodit'*	internationalize	1	*uvkusnit'*	make tastier	1
2	*opoxabit'*	profane, pollute	1	*umedlit'*	make slower	1
3	*opriličit'*	make decent	1	*ukrasivit'*	make prettier	1
4	*oser'ëznit'*	make serious	1	*user'ëznit'*	make more serious	1
5	*ostekljanit'*	make glassy	1	*ukonkretit'*	make more concrete	1
6	*oržavit'*	corrode	2	*usovremenit'*	make more modern	1
7	*osurovit'*	make rigorous	2	*ustrožit'*	make stricter	3
8	*obytovit'*	vulgarize	3	*ucelomudrit'*	make more innocent	3
9	*ovnešnit'*	externalize	4	*uprozračit'*	make more transparent	4
10	*omuzykalit'*	musicalize	4	*udorožit'*	make more expensive	8

Table 2: Marginal factitive verbs (possible words) used in experiment (tested group).

#	O- factitive	U- factitive
1	*osurit'*	*usaglit'*
2	*otovit'*	*utulit'*
3	*oduktit'*	*udamlit'*
4	*ogabit'*	*uguzvit'*
5	*okočlit'*	*ukampit'*
6	*ošaklit'*	*ušadrit'*
7	*očavit'*	*učopit'*
8	*oblusit'*	*uloprit'*
9	*obnomit'*	*unokrit'*
10	*obmomlit'*	*umarvit'*

Table 3: Nonce factitive verbs used in experiment (control group 2).

Experimental results

- **Age** (children 14-17 years old vs. adults 25-62 years old) and **prefix** (*o-* vs. *u-*) turned out to be non-significant.

- **Overall distribution:** Standard vs. Marginal vs. Nonce

Standard Verbs	Marginal Verbs	Nonce Verbs
MAX = 605	MAX = 479	MAX = 223
MEAN = 595	**MEAN = 286.4**	**MEAN = 183.4**
MIN = 549	MIN = 169	MIN = 150
stand dev = 15	stand dev = 67	stand dev = 19
variance = 235	variance = 4446	variance = 360

ANOVA RESULTS overall:
F= 546, df = 2, p-value < 2.2e-16

- **Standard vs. Marginal words: t-test**
t = 20
df = 21
p-value = 3.173e-15
95% confidence interval is 277 340

- **Marginal vs. Nonce words: t-test**
t = 7
df = 22
 p-value = 1.098e-06
95% confidence interval is 71 135

- **Marginal words** are much closer to nonce words than to standard words (compromise between Hypothesis 2 and Hypothesis 3);
- **Marginal words** are different from both standard and nonce words, with much higher standard deviation and variance;
- **High variation across subjects**: different acceptability judgments of marginal words.

Conclusions

- Each type of word has a different behavior.
- Marginal words are semantically transparent, but nonce words are not.
- **Marginal words** are rated **more like nonce words** than like standard words.
- Speakers are **more sensitive to frequency than to semantic transparency.**
- **Frequency**, which is related to **performance**, is a **stronger factor than competence** (ability to unpack morphological patterns).
- **Memory** may be a **stronger factor than use of productive rules.**

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