Probing spatial location of words-markers for 6 broad personality traits on the surface of rugby cake shape representing 3-D structure of Russian personality lexicon

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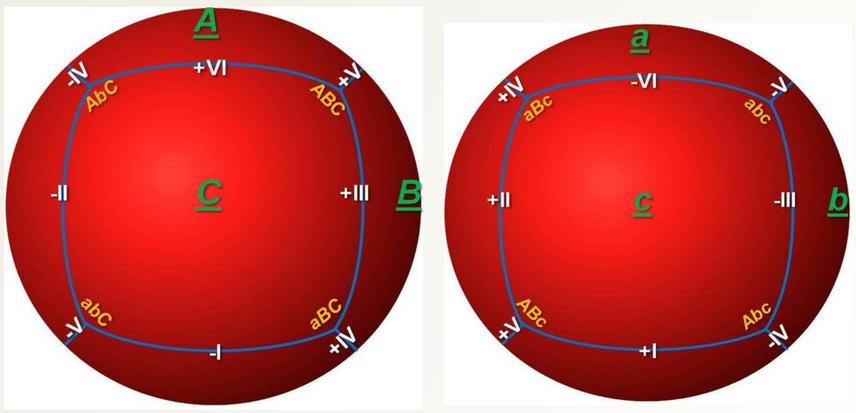
Pafnuty Chebyshev: "Let's assume that a person[ality] has the shape of a ball."



Pafnuty Chebyshev (1821 – 1894) visited Paris to give a talk entitled "Optimal cutting fabric". It brought together almost all the Parisian tailors in the big lecture hall. App. five people left after his first phrase sounds like "Let's assume that a person has the shape of a ball."

Figure from:
Putilov AA. *Geometry of Individual Variation in Personality and Sleep-Wake Adaptability*. (Series: Psychology Research Progress). Nova Science Pub Inc, New York, 2010, 270 p.

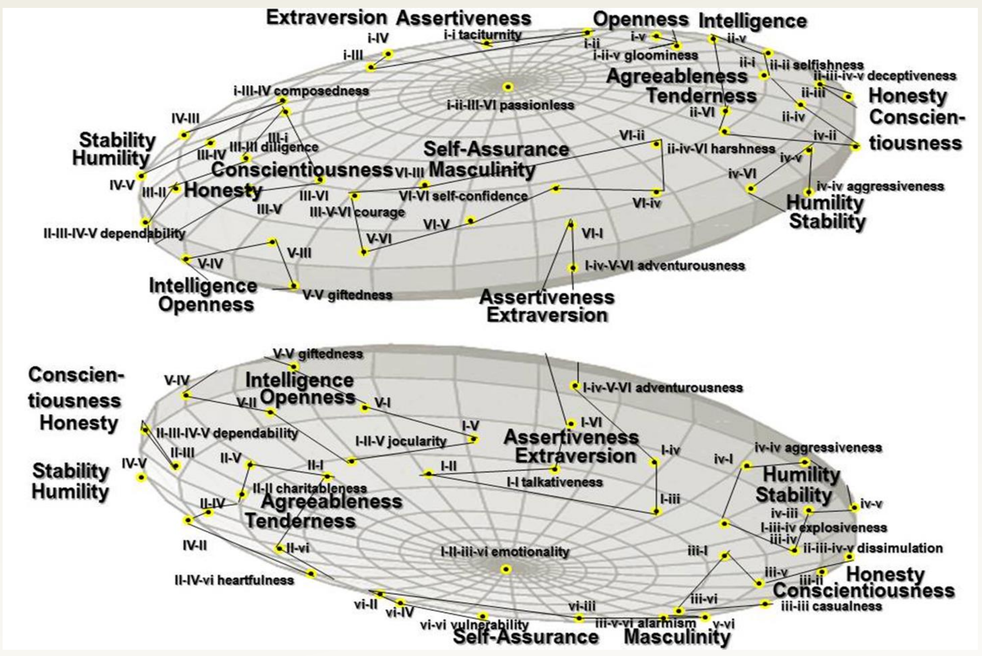
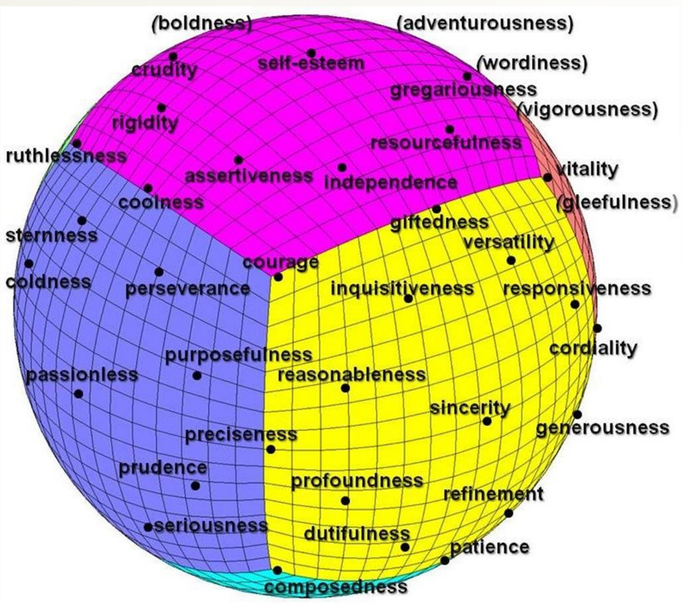


Figure from:
Putilov A.A. Personality traits structuring can lead to uncovering its adaptive function. Journal of Applied Psychology. 5(6), 2016: 77-84.

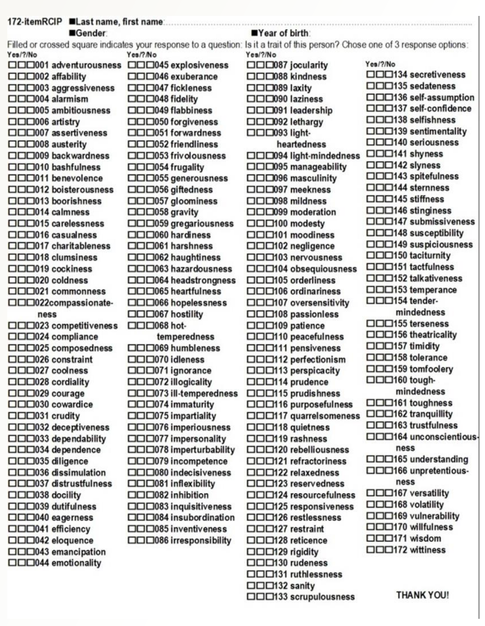
Initially proposed 3-D look at the personality traits structure



Initially it has been proposed that the structure of Russian personality trait terms requires no more than three spatial dimensions and that they are equal in length (Putilov, 2010).

Figure from:
Putilov AA. Geometry of Individual Variation in Personality and Sleep-Wake Adaptability. (Series: Psychology Research Progress). Nova Science Pub Inc, New York, 2010, 270 p.

...but it turns out that these three spatial dimensions are unequal in length (Putilov, 2016, 2018).



172-item RCIP ■Last name, first name: ■Gender: ■Year of birth:

Filled or crossed square indicates your response to a question: Is it a trait of this person? Chose one of 3 response options: Yes/?/No

Yes/?/No	Yes/?/No	Yes/?/No	Yes/?/No
001 adventurousness	045 explosiveness	087 jocularity	134 secretiveness
002 affability	046 exuberance	088 kindness	135 sedateness
003 aggressiveness	047 fickleness	089 laxity	136 self-assumption
004 alarmism	048 fidelity	090 laziness	137 self-confidence
005 ambitiousness	049 flabbiness	091 leadership	138 selfishness
006 artistry	050 forgiveness	092 lethargy	139 sentimentality
007 assertiveness	051 forwardness	093 light-heartedness	140 seriousness
008 austerity	052 friendliness	094 light-mindedness	141 shyness
009 backwardness	053 frivolousness	095 manageability	142 slyness
010 bashfulness	054 frugality	096 masculinity	143 spitefulness
011 benevolence	055 generousness	097 meekness	144 sternness
012 boisterousness	056 giftedness	098 mildness	145 stiffness
013 boorishness	057 gloominess	099 moderation	146 stinginess
014 calmness	058 gravity	100 modesty	147 submissiveness
015 carelessness	059 gregariousness	101 moodiness	148 susceptibility
016 casualness	060 hardness	102 negligence	149 suspiciousness
017 charitableness	061 harshness	103 nervousness	150 taciturnity
018 clumsiness	062 haughtiness	104 obsequiousness	151 tactfulness
019 cockiness	063 hazardousness	105 orderliness	152 talkativeness
020 coldness	064 headstrongness	106 ordinariness	153 temperance
021 commonness	065 heartfulness	107 oversensitivity	154 tender-mindedness
022 compassionate-ness	066 hopelessness	108 passionless	155 terseness
023 competitiveness	067 hostility	109 patience	156 theatricality
024 compliance	068 hot-temperedness	110 peacefulness	157 timidity
025 composedness	069 humbleness	111 pensiveness	158 tolerance
026 constraint	070 idleness	112 perfectionism	159 tomfoolery
027 coolness	071 ignorance	113 perspicacity	160 tough-mindedness
028 cordiality	072 illogicality	114 prudence	161 toughness
029 courage	073 ill-temperedness	115 prudishness	162 tranquillity
030 cowardice	074 immaturity	116 purposefulness	163 trustfulness
031 crudity	075 impartiality	117 quarrelsomeness	164 unconscientious-ness
032 deceptiveness	076 imperiousness	118 quietness	165 understanding
033 dependability	077 impersonality	119 rashness	166 unpretentious-ness
034 dependence	078 imperturbability	120 rebelliousness	167 versatility
035 diligence	079 incompetence	121 refractoriness	168 volatility
036 dissimulation	080 indecisiveness	122 relaxedness	169 vulnerability
037 distrustfulness	081 inflexibility	123 reservedness	170 willfulness
038 docility	082 inhibition	124 resourcefulness	171 wisdom
039 dutifulness	083 inquisitiveness	125 responsiveness	172 wittiness
040 eagerness	084 insubordination	126 restlessness	
041 efficiency	085 inventiveness	127 restraint	
042 eloquence	086 irresponsibility	128 reticence	
043 emancipation		129 rigidity	
044 emotionality		130 rudeness	
		131 ruthlessness	
		132 sanity	
		133 scrupulousness	

THANK YOU!

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2) spatial location of these words on the surface of 3-D shape.

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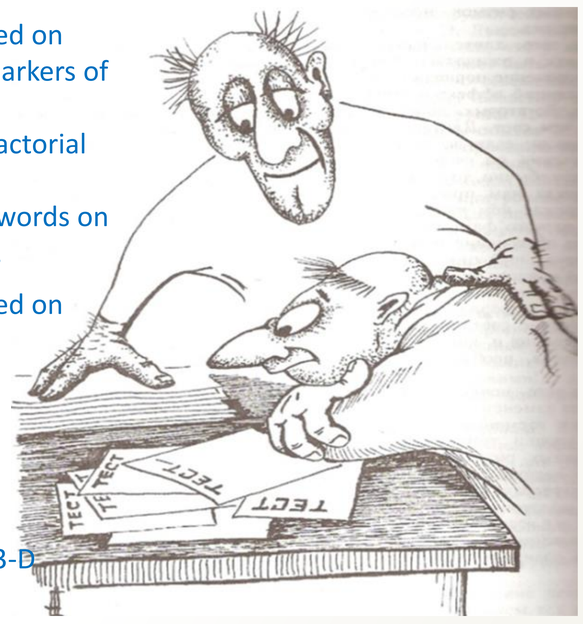
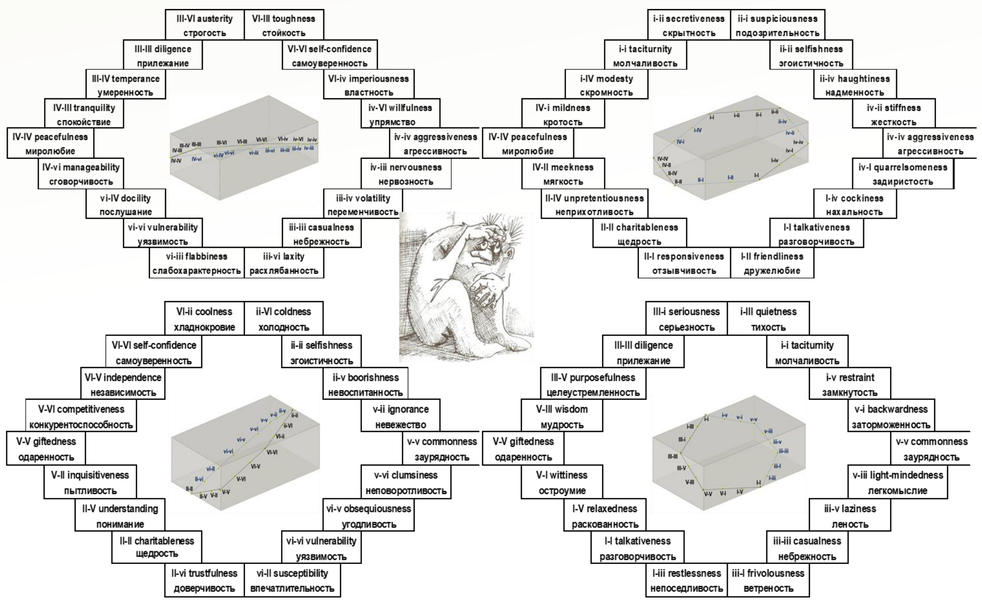
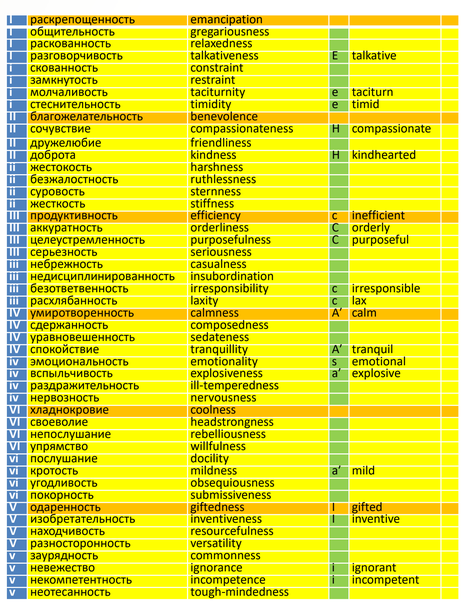




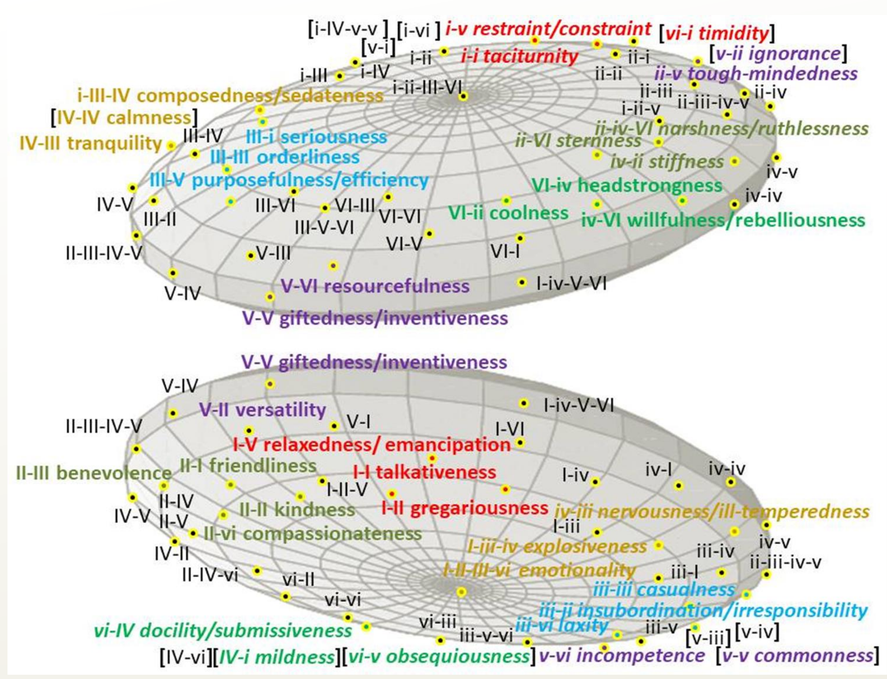
The criterion from:
Putilov, A.A. Introduction of the tetra-circumplex criterion or comparison of the actual and theoretical structures of the sleep-wake adaptability. Biological Rhythm Research, 2007, 38(1): 65-84.
Figure from:
Putilov A.A. A 3-D look at the Russian personality traits structure. Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues, 2018, 37(3): 528–542.



I	раскрепощенность	emancipation		
I	общительность	gregariousness		
I	раскованность	relaxedness		
I	разговорчивость	talkativeness	E	talkative
I	скованность	constraint		
I	замкнутость	restraint		
I	молчаливость	taciturnity	e	taciturn
I	стеснительность	timidity	e	timid
II	благожелательность	benevolence		
II	сочувствие	compassionateness	H	compassionate
II	дружелюбие	friendliness		
II	доброта	kindness	H	kindhearted
II	жестокость	harshness		
II	безжалостность	ruthlessness		
II	суровость	sternness		
II	жесткость	stiffness		
III	продуктивность	efficiency	c	inefficient
III	аккуратность	orderliness	C	orderly
III	целеустремленность	purposefulness	C	purposeful
III	серьезность	seriousness		
III	небрежность	casualness		
III	недисциплинированность	insubordination		
III	безответственность	irresponsibility	c	irresponsible
III	расхлябанность	laxity	c	lax
IV	умиротворенность	calmness	A'	calm
IV	сдержанность	composedness		
IV	уравновешенность	sedateness		
IV	спокойствие	tranquillity	A'	tranquil
IV	эмоциональность	emotionality	s	emotional
IV	вспыльчивость	explosiveness	a'	explosive
IV	раздражительность	ill-temperedness		
IV	нервозность	nervousness		
VI	хладнокровие	coolness		
VI	своеволие	headstrongness		
VI	непослушание	rebelliousness		
VI	упрямство	willfulness		
VI	послушание	docility		
VI	кротость	mildness	a'	mild
VI	угодливость	obsequiousness		
VI	покорность	submissiveness		
V	одаренность	giftedness	I	gifted
V	изобретательность	inventiveness	I	inventive
V	находчивость	resourcefulness		
V	разносторонность	versatility		
V	заурядность	commonness		
V	невежество	ignorance	i	ignorant
V	некомпетентность	incompetence	i	incompetent
V	неотесанность	tough-mindedness		

Table from: Putilov A.A. Unpublished

Table. Overlap of 48 terms with terms from the six-component solution (De Raad et al., 2014)

In the previous studies, Russian speaking respondents used the lists of 496 and 296 personality-relevant nouns for judging 1242 and 447 peoples, respectively, and their judgments were used for reducing these lists to 172 nouns that can be evenly written on the surface of the rugby cake (triaxial ellipsoid) shape.

By applying factor analysis with varimax rotation to the responses of 1023 volunteers to the list of 172 personality-relevant nouns, 36 words-markers of six broad personality traits were selected from nouns with the highest loadings on six rotated factors, and these words were visualized by their mapping on the surface of 3-D structural representation of Russian personality lexicon.