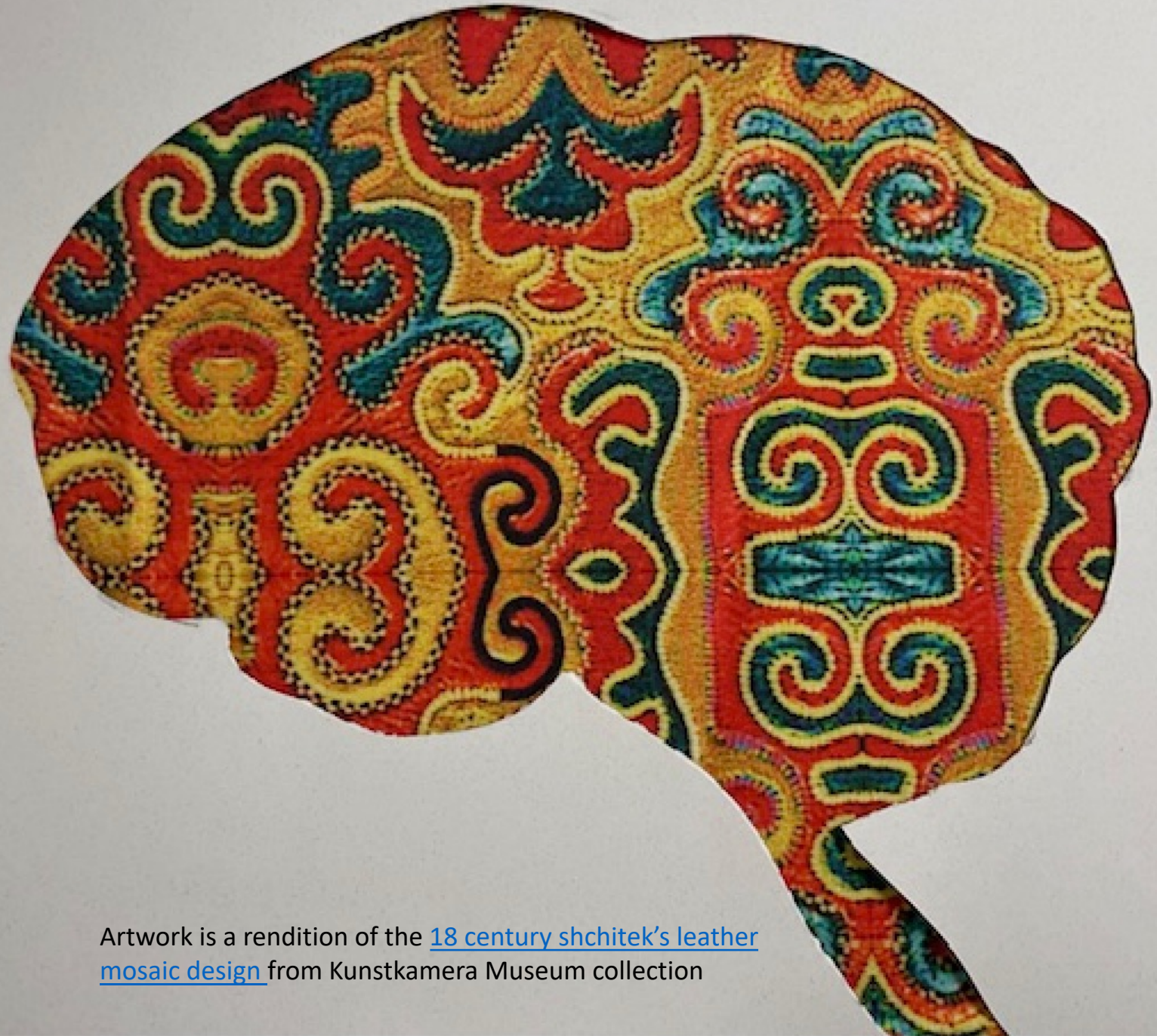


# Strength of Multilingual Brain

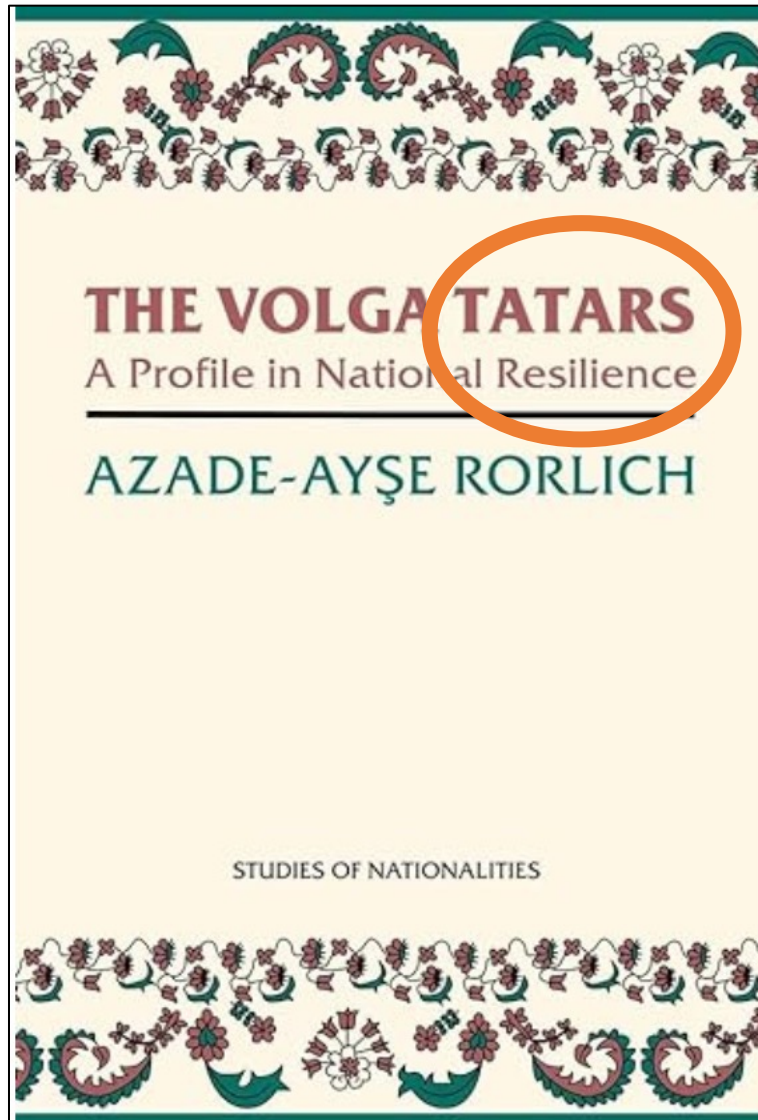
and

# Power of Native Tatar Language

Chulpan Khismatova  
Alima Salakhutdinova



Artwork is a rendition of the [18 century shchitek's leather mosaic design](#) from Kunstkamera Museum collection



# THE VOLGA TATARS

A Profile in National Resilience

AZADE-AYŞE RORLICH

STUDIES OF NATIONALITIES

# resilient adjective

re·sil·ient

(ri-'zil-yənt ◀▶)

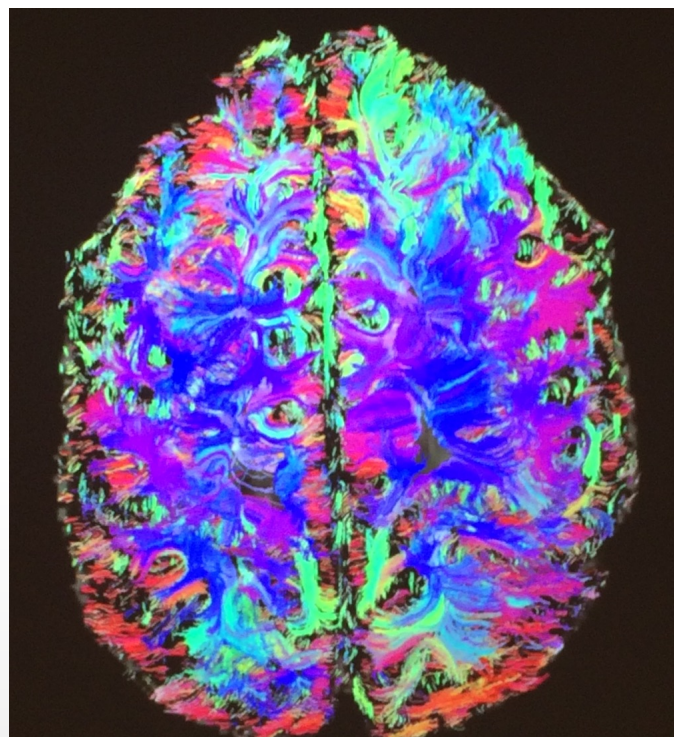
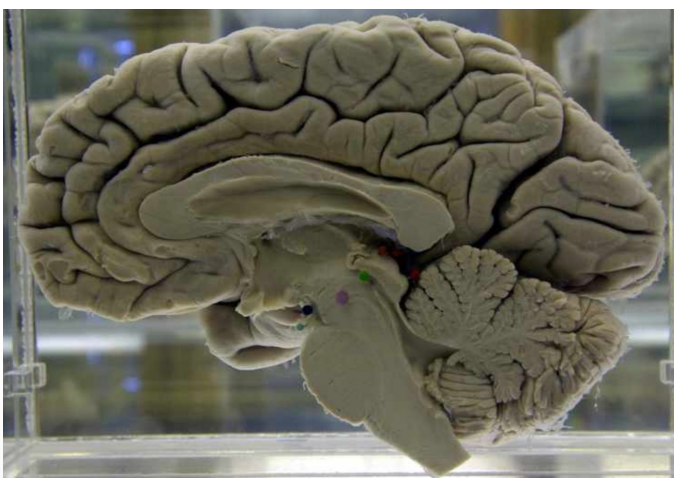
[Synonyms of \*resilient\* >](#)


: characterized or marked by [resilience](#): such as

**a** : capable of withstanding shock without permanent [deformation](#) or [rupture](#)

**b** : tending to recover from or adjust easily to [misfortune](#) or change





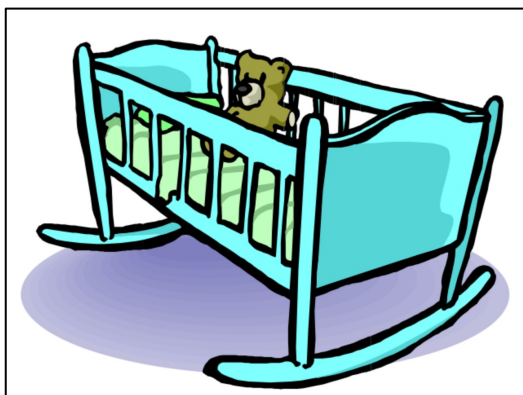


**What processes  
(mental exercises)  
make multilingual brain  
stronger and more resilient?**

## What processes make multilingual (ML) brain stronger?

**Parallel activation** of each language challenges the brain to select a word from a pool of ALL words (of all languages in the brain) that fits the context the most. It is an exercise.

Only ML individual can offer this exercise to their brain.



*beetle, бусер, бушек*

What processes make multilingual (ML) brain stronger?

**The following executive functions...**

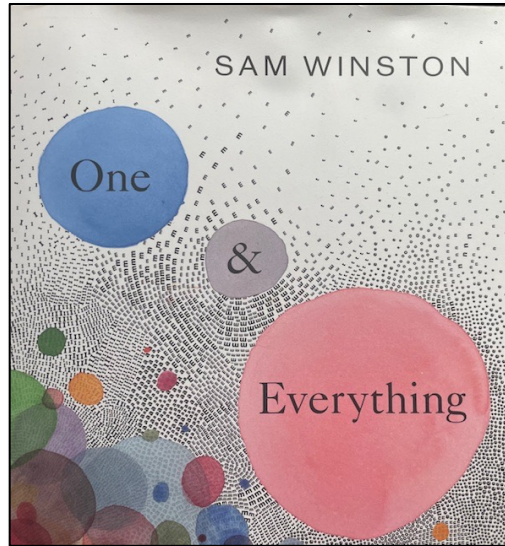
- Memory monitoring
- **Attention:** alerting, orienting, focusing; executive control
- Simultaneous activation of brain regions
- Cognitive reserve

**...are enhanced, tuned, optimized, strengthened in ML brain**

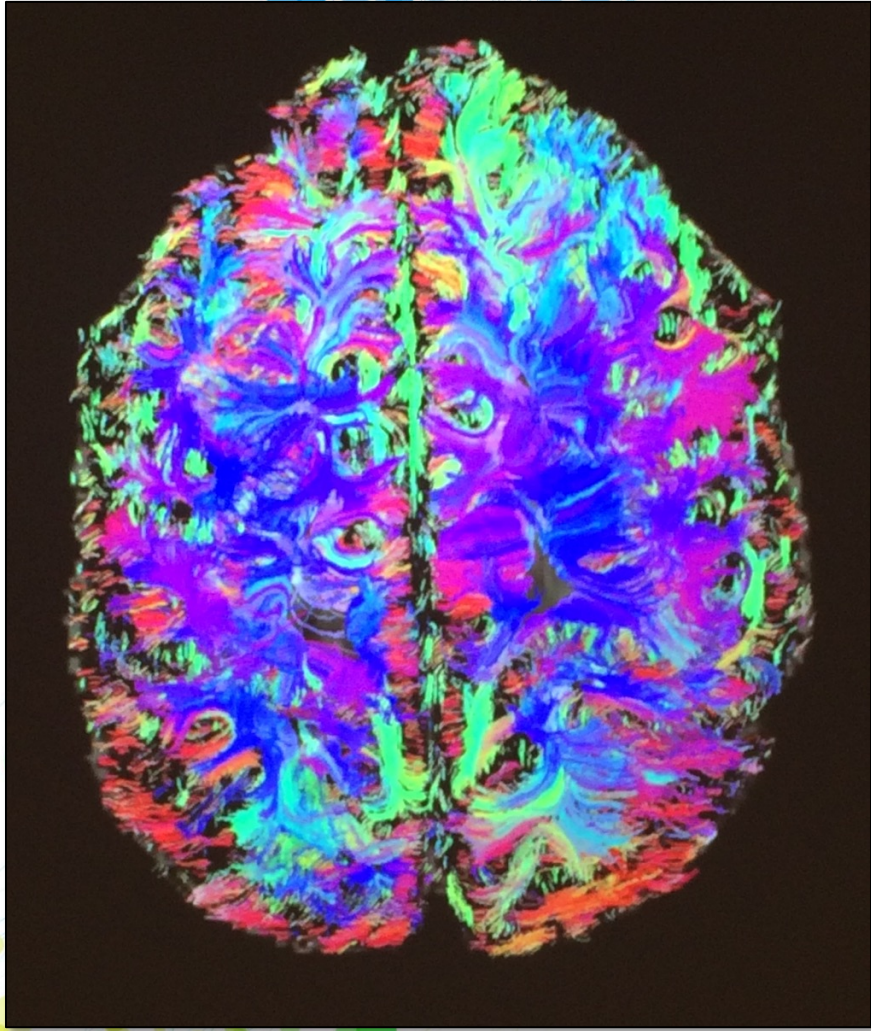


## What processes make multilingual (ML) brain stronger?

Absorbing written texts in various scripts (Latin, Cyrillic, Arabic, etc.) adds a layer of internalized complexity that is a treat for ML “fit” brain.

[illegible]





- Parallel activation
- Enhanced executive functions
- Language switching and competition
- Understanding multi-scripts

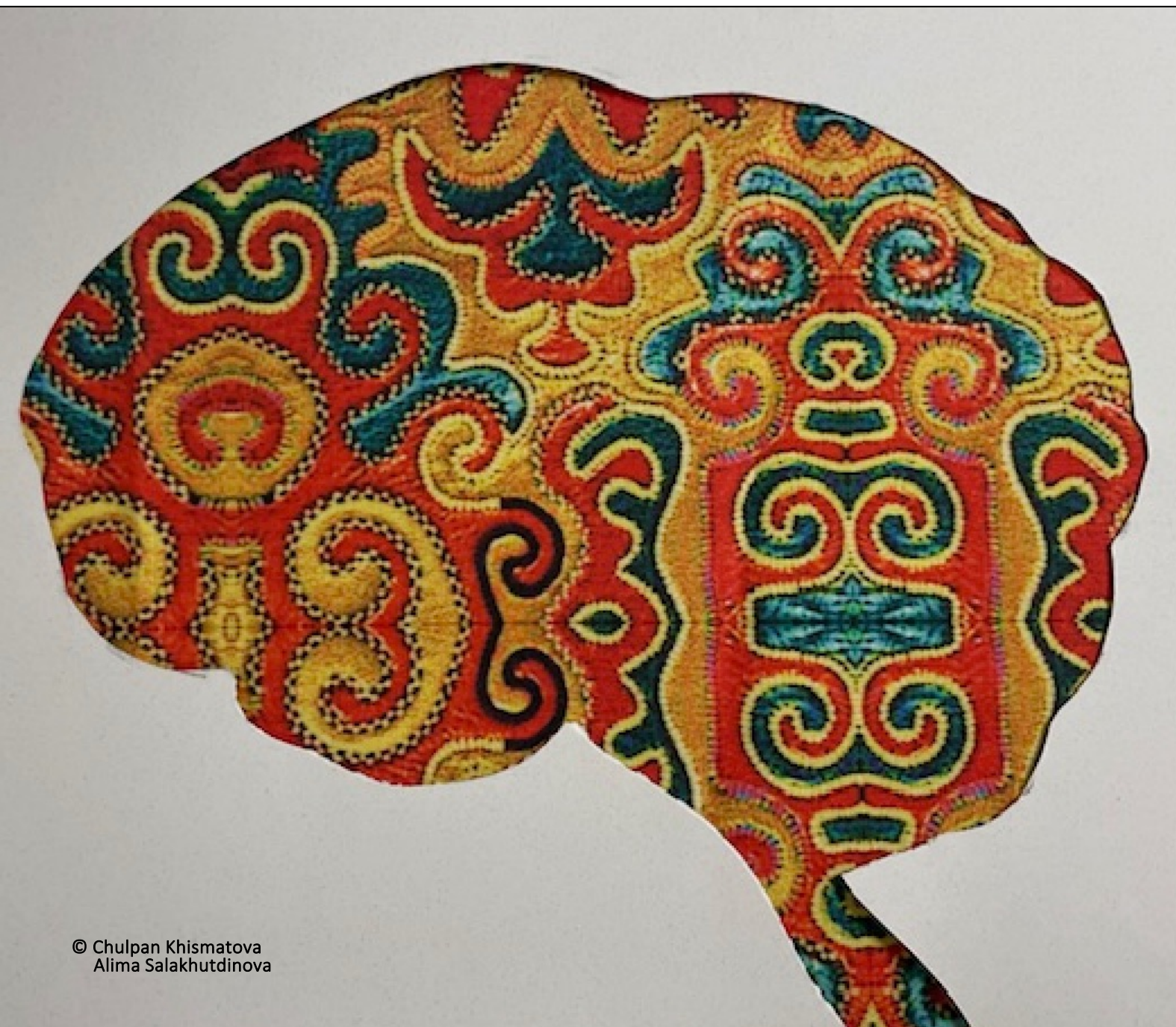
**make multilingual brain more resilient**



**What do you do to protect  
your assets  
(engage all your languages)?**

**What do you do to keep them all  
active,  
alive,  
cared for,  
not forgotten?**





## **Do different languages cause their user to behave differently?**

Language that an individual puts deliberate efforts in learning (after age of 5-7) referred to as **“foreign”**.

Language that is absorbed in early childhood (before age of 5-7) referred to as **“native”**.

**Language is a dynamic** phenomenon: it evolves and is impacted by numerous factors, so in different stages of life native/foreign can transform in dominant/nondominant or visa versa.

Every **multilingual individual** has **unique relationships** between the languages in the brain **based on a mosaic of unique factors**.



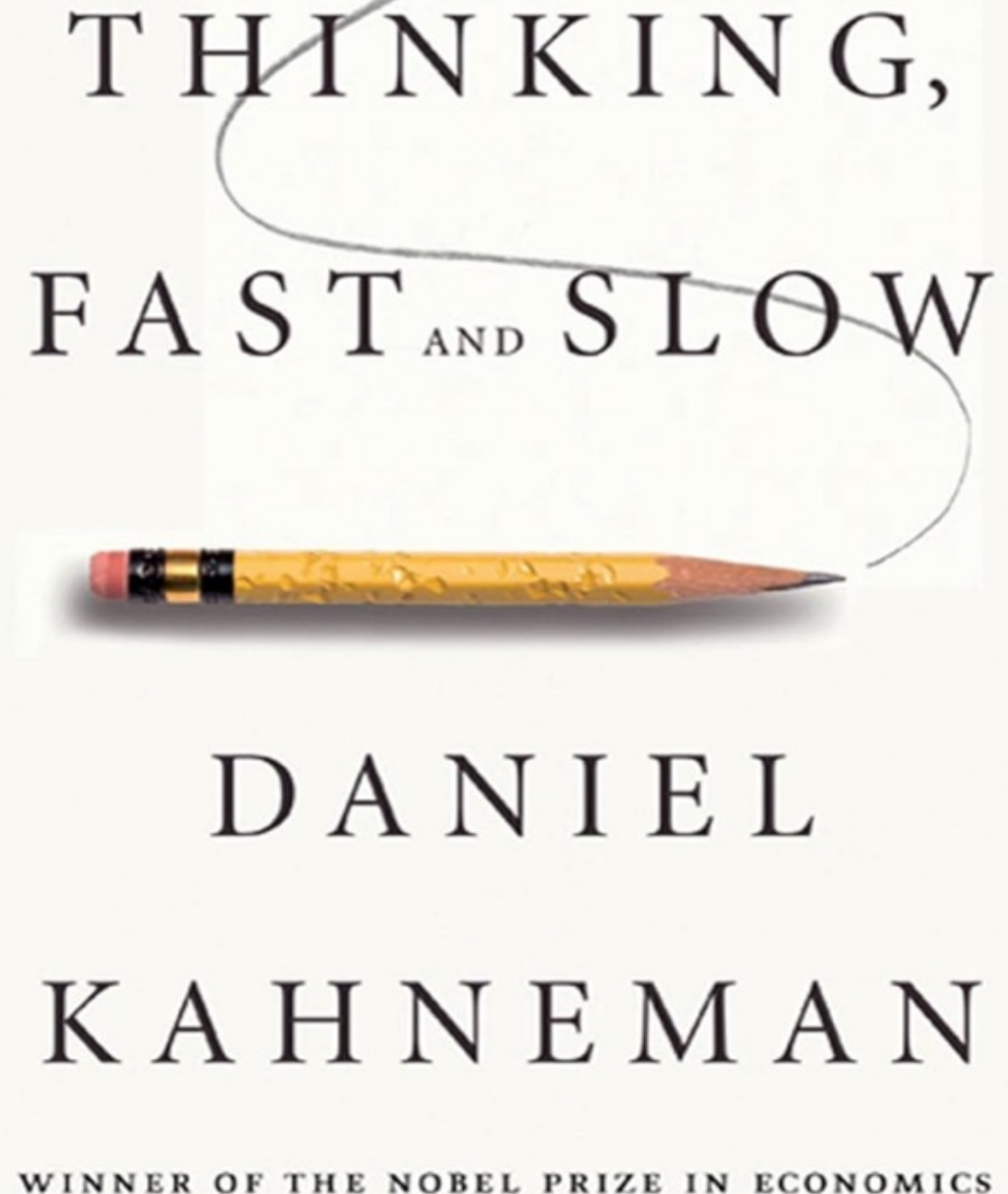
Mental activity is operated by two systems:

**System 1:** effortless, fast, intuitive, automated

**System 2:** effortful, controlled, deliberate

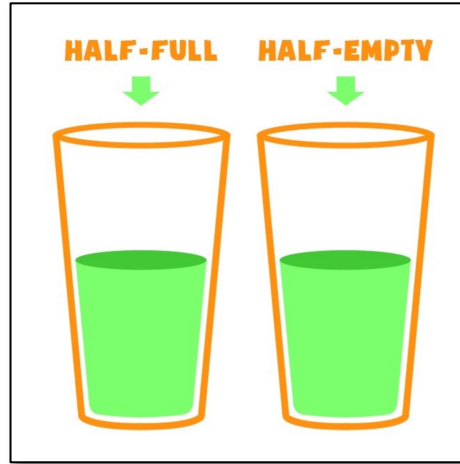
**Native language** is impacted by System 1. It is **emotional**.

**Foreign language** is impacted by System 2. It is **analytical**.



# Decision Biases in Native-Foreign Languages

**Framing  
Effect**



**Moral  
Judgment**

Risk –taking  
(loss averse vs risk  
tolerant)



**Endowment  
Effect**



When **decision is made in native language**, people are

**risk-averse** in domain of **gain**

e.g., *save* 200 out of 600 people

e.g., *keep* \$15 even if chance of getting \$2 is given (in “betting” scenarios)

but **risk-seeking** in domain of **losses**

e.g., *not to lose* 400 out of 600 people

e.g., *not to miss* an opportunity to earn extra \$2 even if \$15 can be lost (in “betting” scenarios)

When **decision is made in foreign language** the framing effect has less impact. Loss aversion is not observed.





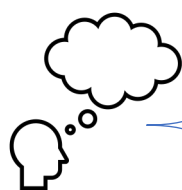
Subconscious linguistic decisions are impacted by the grammatical structures of the languages that fuel systemic biases.

**The student is at the table.  
(to study)**



## *In English*

The student is at the table.



*She* is studying.

*He* is studying.



## *На русском*

Ученица за столом. *Она* занимается.



Ученик за столом. *Он* занимается.

## *Татарча*



**Укучы** өстәл янында. **Ул** укый.

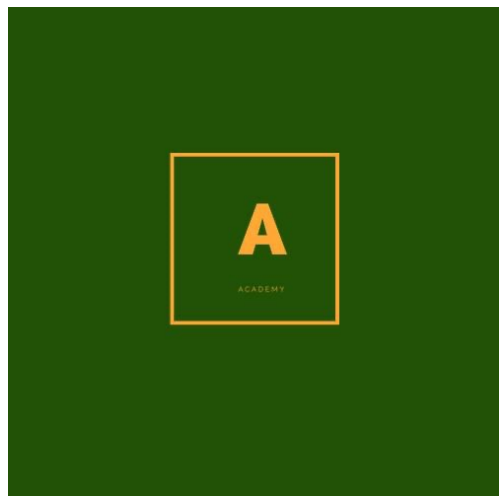




а б в г д е ё ж з и й к л м н о п р с т у ф х ъ ц ч ш щ љ ѝ ѡ ѣ ю я

Mardesign





## Online Tatar School Alima Academy

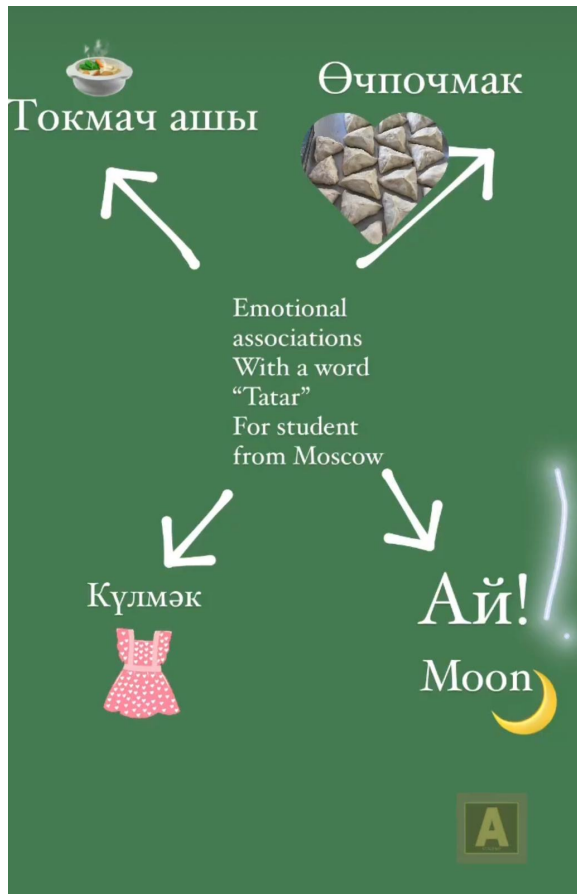
- Tatar language
- Tatar history
- Tatar literature / Curated Book clubs
- Logic/math/programming
- Storytelling
- Speaking clubs



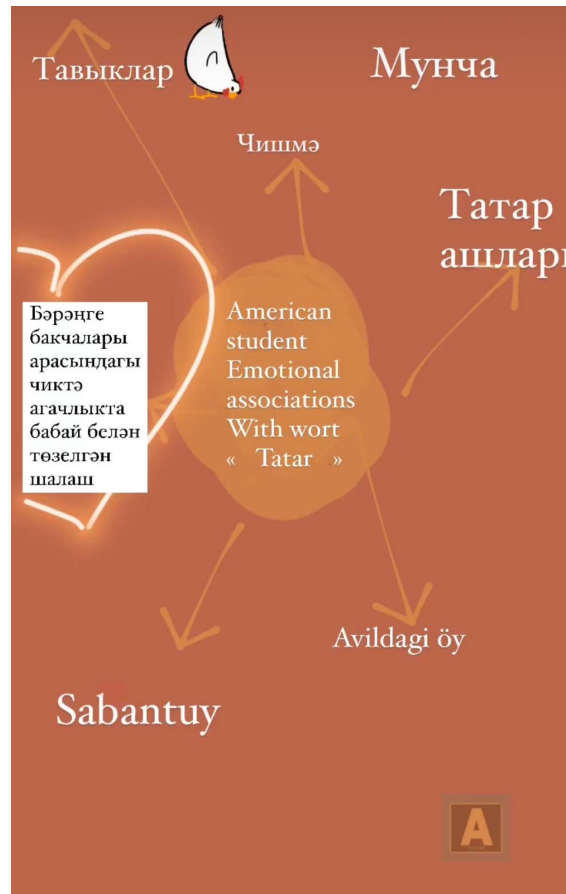
**\*5 years    \*100 students    \*13 countries    \*20 укытучы    \* лектор**

# Милли ұзаң элементы

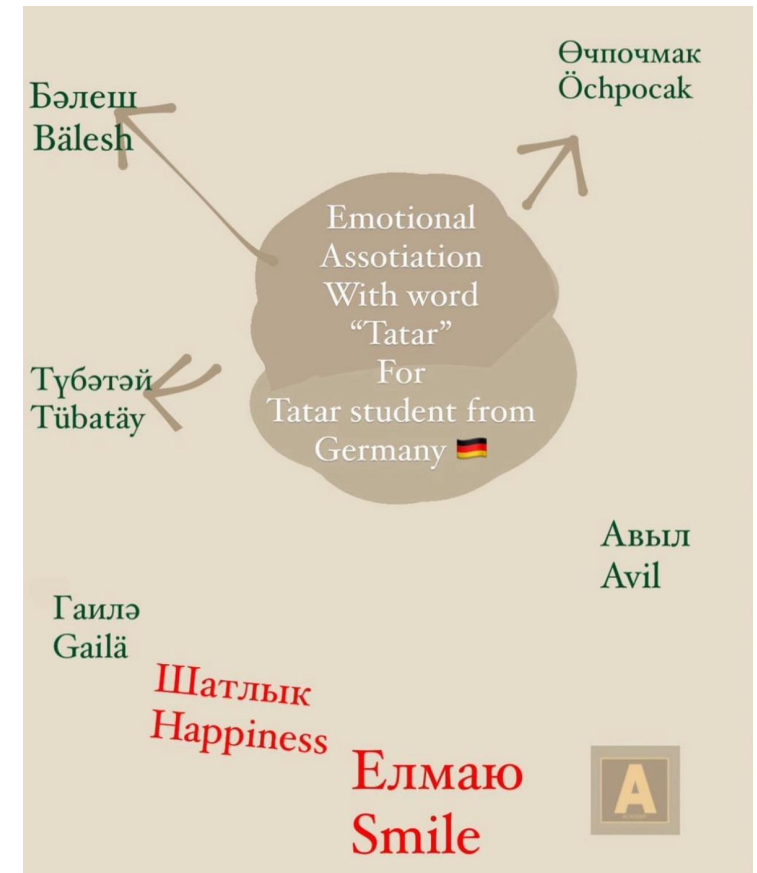




Sea, fish,  
tree with pink  
flowers!



- \*history classes
- \*cultural topics, events
- \*Personalities



National awareness- self awareness  
Motivation to study language  
Confidence!





- serves as a healing agent fueled by cultural values and generational wisdom.
- empowers the spirit and humility.
- connects to people.







**Maintain and take care of your languages,  
so they will take care of your brain!**

**Take linguistic risks!**

**Invest your time, efforts in learning and advancing your heritage,  
ancestral, native Tatar language!**

**It is a valuable tool for well-being and  
an asset in multilingual environment!**



- Online Tatar language courses, lessons, activities, book clubs, materials
- Linguistic and literary discoveries for adults and children
- Global Seal of Biliteracy in Tatar Language



<https://sites.duke.edu/tatarsu/tatar-learning-resources/>

## Support Tatar teachers and educators!



## Invest efforts and resources in learning Tatar language and literature with a teacher!