

Physical Sciences in Pokhto:

Opportunities and Challenges



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Things we will discuss



- ❧ Why Sciences in Pokhto?
- ❧ Possible challenges in this work
- ❧ Opportunities

Why do we want Science in Pokhto?

My own position on it:

When science is in the mother-tongue, some people find it easy and some people find it hard but in a foreign language everybody finds it hard.



An obvious observation:

Nations who have produced great scientists have one thing in common: Fundamental sciences (high school and college at least) are taught in their mother-tongue

For example: Japan, Germany, China, US, France...

A strong foundation in basic sciences leads to good scientists:

Science is an endeavor from the known to the unknown. A strong foundation in the known will give you the tools , concepts and methodology to explore the unknown.

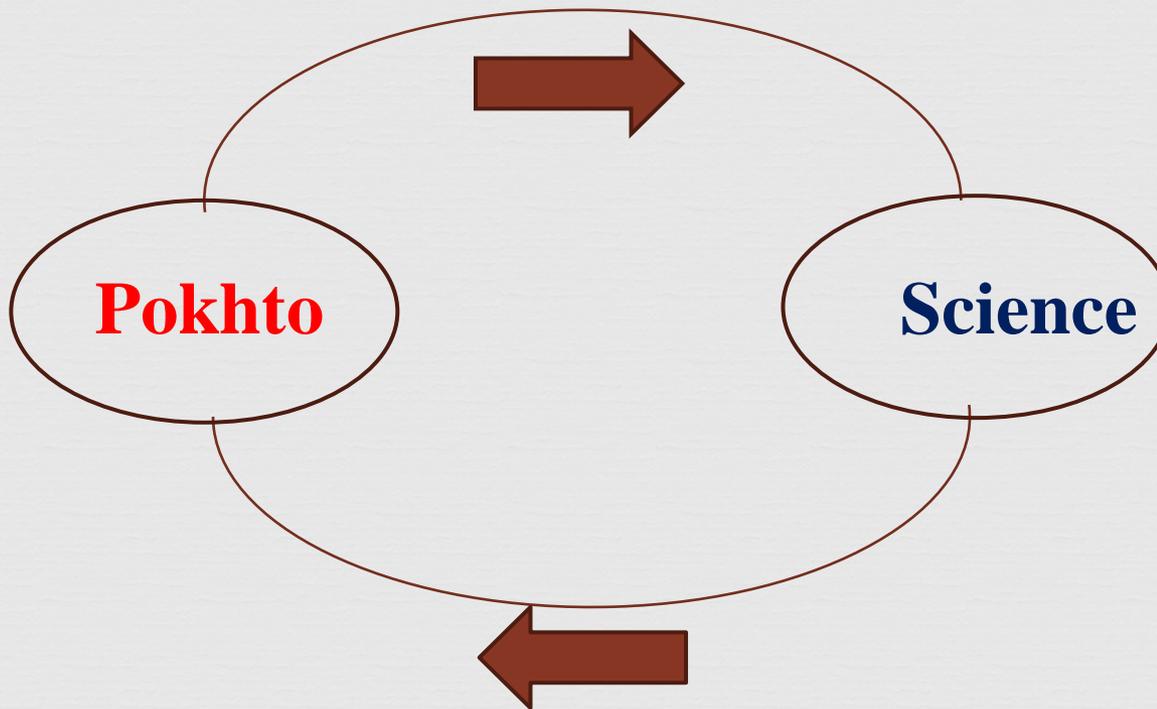
Discussions and debates is a key to understanding sciences: Questioning

One key point in the understanding of science is communication, discussion and reasoning/questioning. This can only be done easily in the mother-tongue.

Why do we want Science in Pokhto?

Science becomes easier for Pokhtuns

Important for Pokhtuns to contribute to the understanding of nature



Pokhto gets enriched by modern concepts and philosophy

Important for the survival of the language

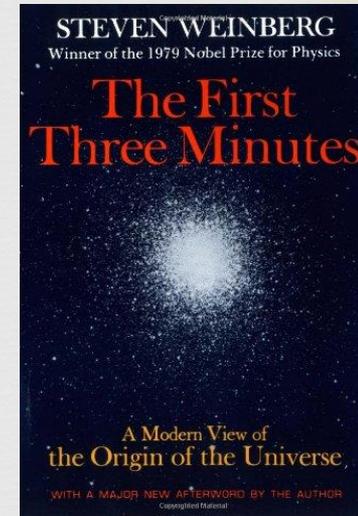
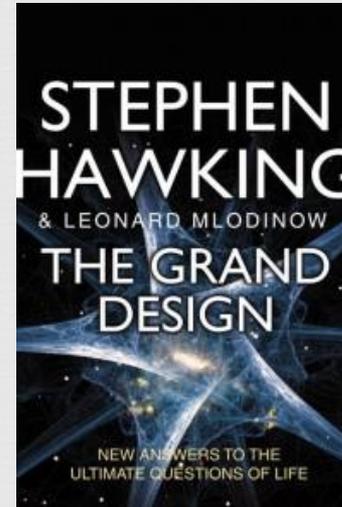
Why do we want Science in Pokhto?

Scientific understanding of the World

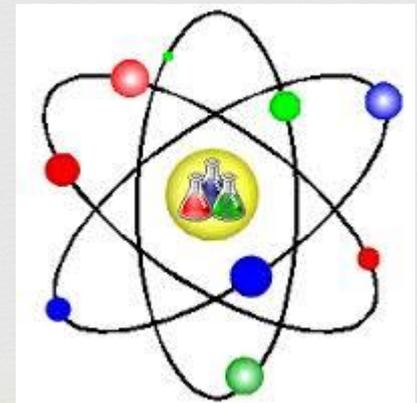
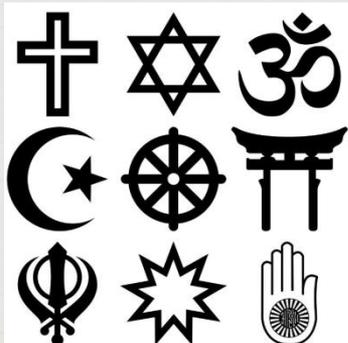
We want our people to know the story of the Universe as scientists would like to tell us this story.

Stephen Hawking's *The Grand Design*

or
Steven Weinberg's *The First Three Minutes*.



This will provide an opportunity to our people to learn an *alternative World View of Nature*



Challenges

Tedious work:

Needs consistency, dedication and patience

Finding local analogies, examples, and stories:

Harmonic Motion-----→ Taal, Mandaanrru

Circular Motion -----→ Gaanrre, Baanrrichagh

Projectile Motion -----→ Linda, Marchoghnrre



**A Pokhtun Modernization (cultural symbols/traditional knowledge system +
New understanding of the World)**

Challenges

Finding the equivalent words which will convey the concept without reduction/distortion:

Force

Zor (no reduction)

Field

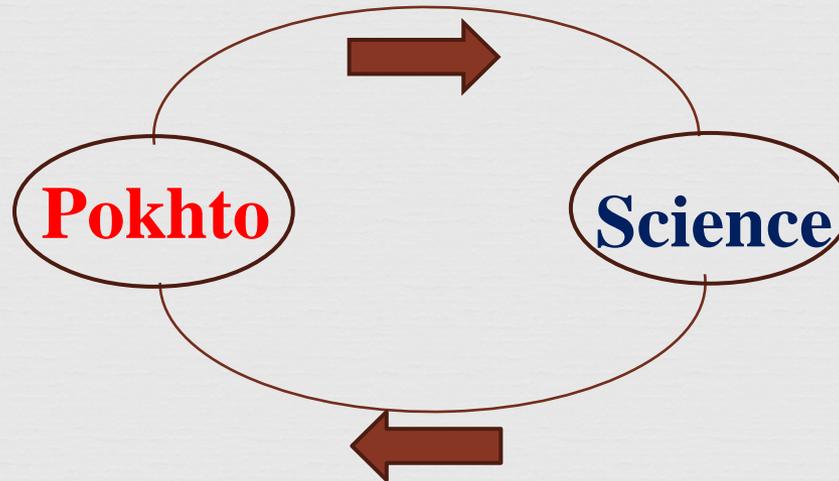
Medaan/Dagar (needs thick explanations)

Gravity, Atom etc

Gravity, Atom.... (better as it is)

Challenges

Keeping the goal clear:



For a deep psychological reason there is a tendency to replace English words by other foreign words or sometimes just change the accent. This defeats both purposes

For example:

Law of Gravity ----- Qaanun-e-Tajazub vs Da Gravity Kanun

Atom ----- Aathum vs Atom

Doctor----- Dakthur vs Doctor

Cross-culture fertilization is good but here it is something different going on

Challenges

Overcoming the inferiority complex:

Convincing our young scientists /students/political leaders on the importance of Sciences in Pokhto.

They have memorized “one liners” to dismiss this idea.

That reflects a deep sense of inferiority about themselves and their language.

To me sciences in Pashto is a solution to most of our problems and issues today.

Challenges

The script:

Latin script is more compatible with the modern day tools, and is very convenient for Mathematical Sciences.

Switching back and forth between right/left and left/right is a pain.

Also convenient for some subtle but similarly written words in Pokhto.

A standard Latin script is needed.

Arabic Letter	Latin Script	Phonetic Symbol		
			Arabic Scrip	Latin Script
ا	aa	ă, a	پلار	Plaar
ب	b	b	کابل	Kaabal
پ	p	p	پی پینور	Pexawar
ت	t	t	ترینکوٹ	Tarinkot
ٺ	ø	ṭ	ٺانک	Øaank
ج	j	j	جالالکوٹ	Jalaalkot
ح	ç	J	حاحی	Çaacy

Opportunities

1. We don't have to reinvent the wheel

Especially in natural sciences, a lot of work has been done, books, videos, articles etc.
Easy access to books in the west.

2. Fast communication

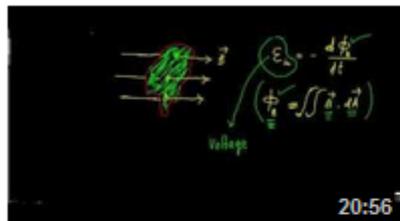
Team-work and collaboration is easy. Distribution of product is easier and faster

3. Rising awareness

At least what seems to me to be the case from social media especially among Pokhtun diaspora...

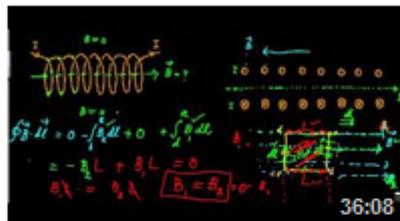
4. The rising number of Academic Institutions in Afghanistan /Poxtunkhwa

Especially for training our young scientists...



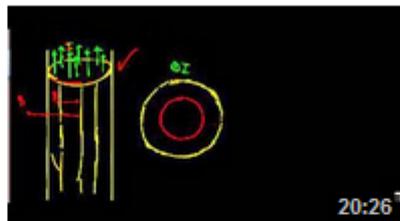
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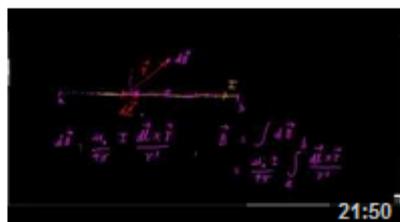
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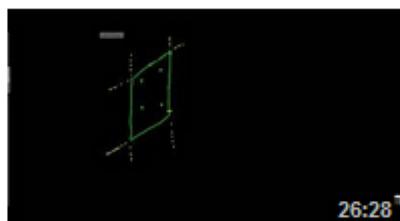
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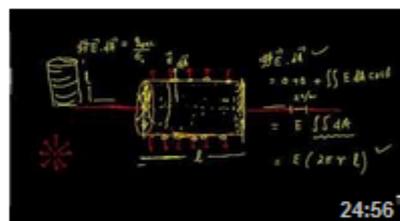
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**Waayi aghyaar che da dozakh zhba da
Za ba janat ta da Pokhto sara zam**

Dera Dera Manana