



Structural
Analysis of
Cultural
Systems

Arnold Groh, Technical University of Berlin

Culture and Colour Concepts



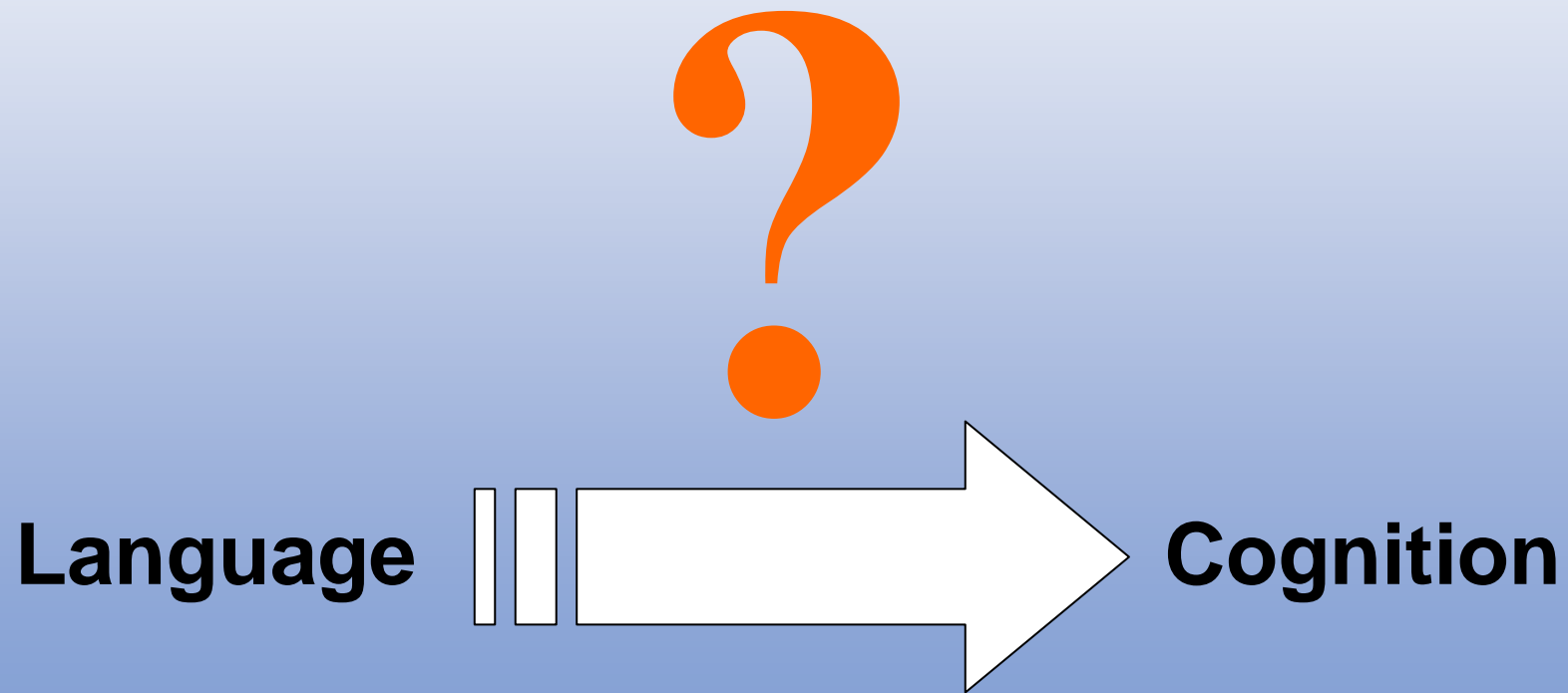
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Whorf-Sapir-Hypothesis



Studies on Colour Concepts

Berlin & Kay (1969), Brown & Lenneberg (1954),
Heider (1971; 1972), Heider & Olivier (1972), Kay (1975)

General Procedure:

- 1. Presenting colour chips to Ss**
- 2. Ask Ss to identify chips from a whole set of chips**

General Findings:

Ss are able to recognize colour independent of language

Studies on Colour Concepts (cont.)

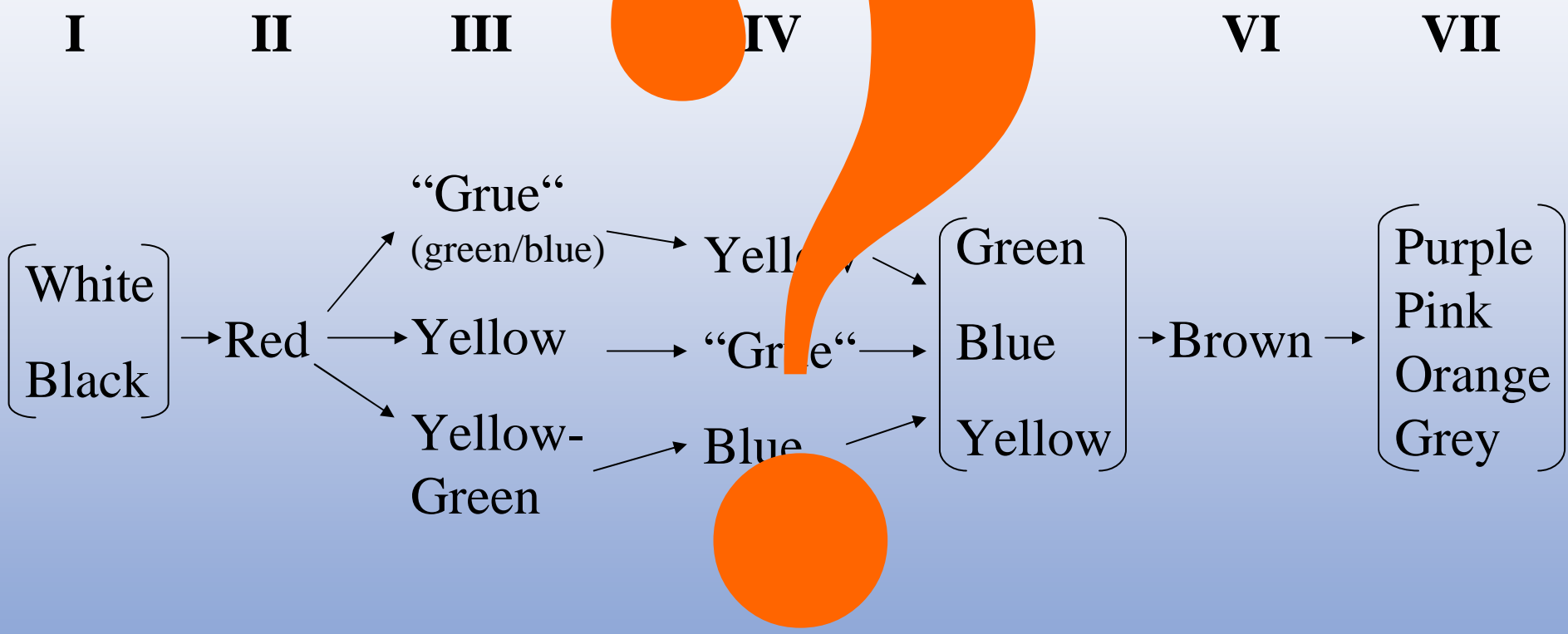
Berlin & Kay (1969), Brown & Lenneberg (1954),
Heider (1971; 1972), Heider & Olivier (1972), Kay (1975)

Propositions:

**“primitive” cultures were so “primitive” that they
didn’t even have names for colours**

**colour terms arose with the “development“ of the
culture and its language**

The proposed "Stages"



cf. Kay (1975)

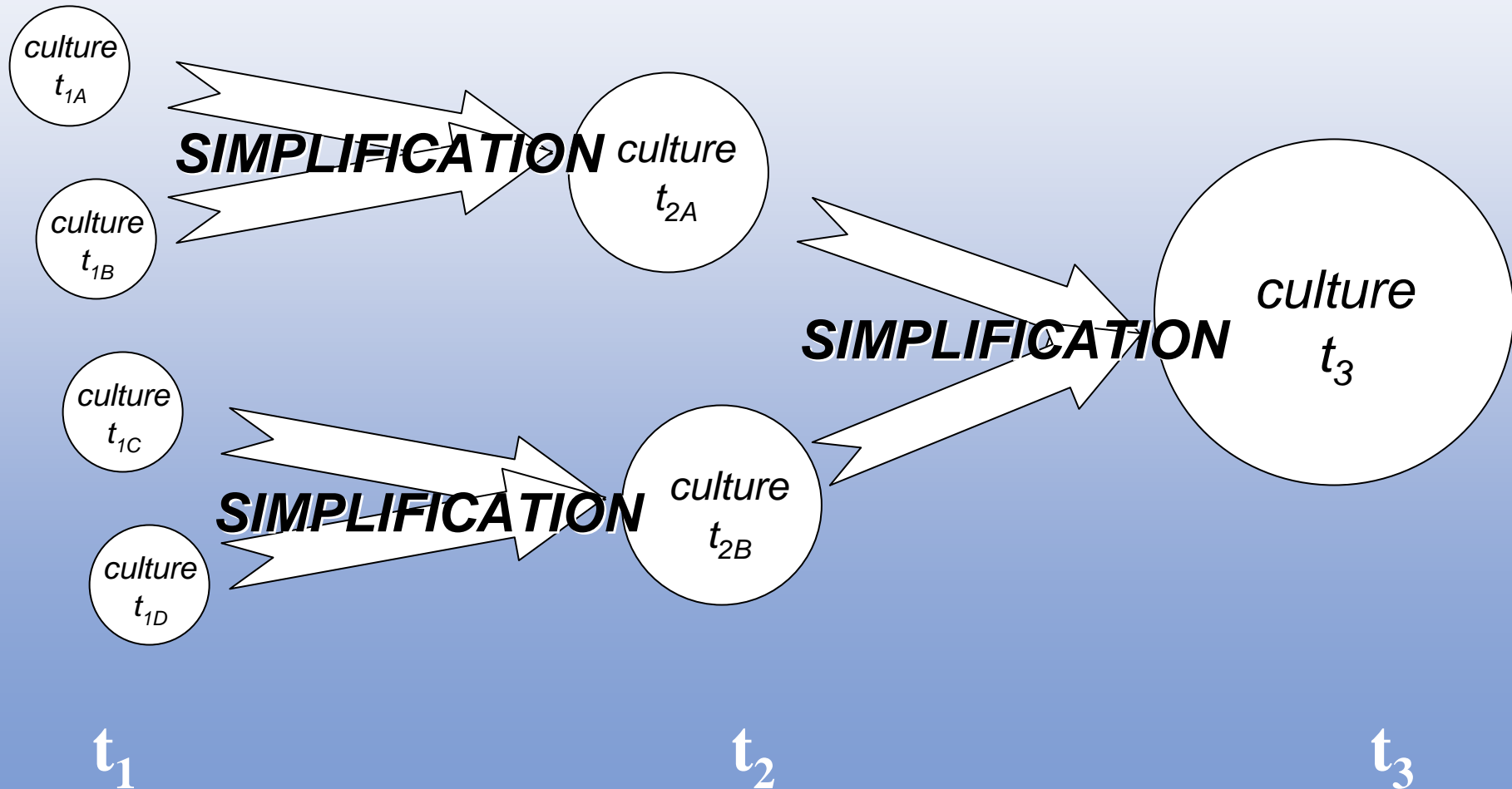
L a n g u a g e s

archaic

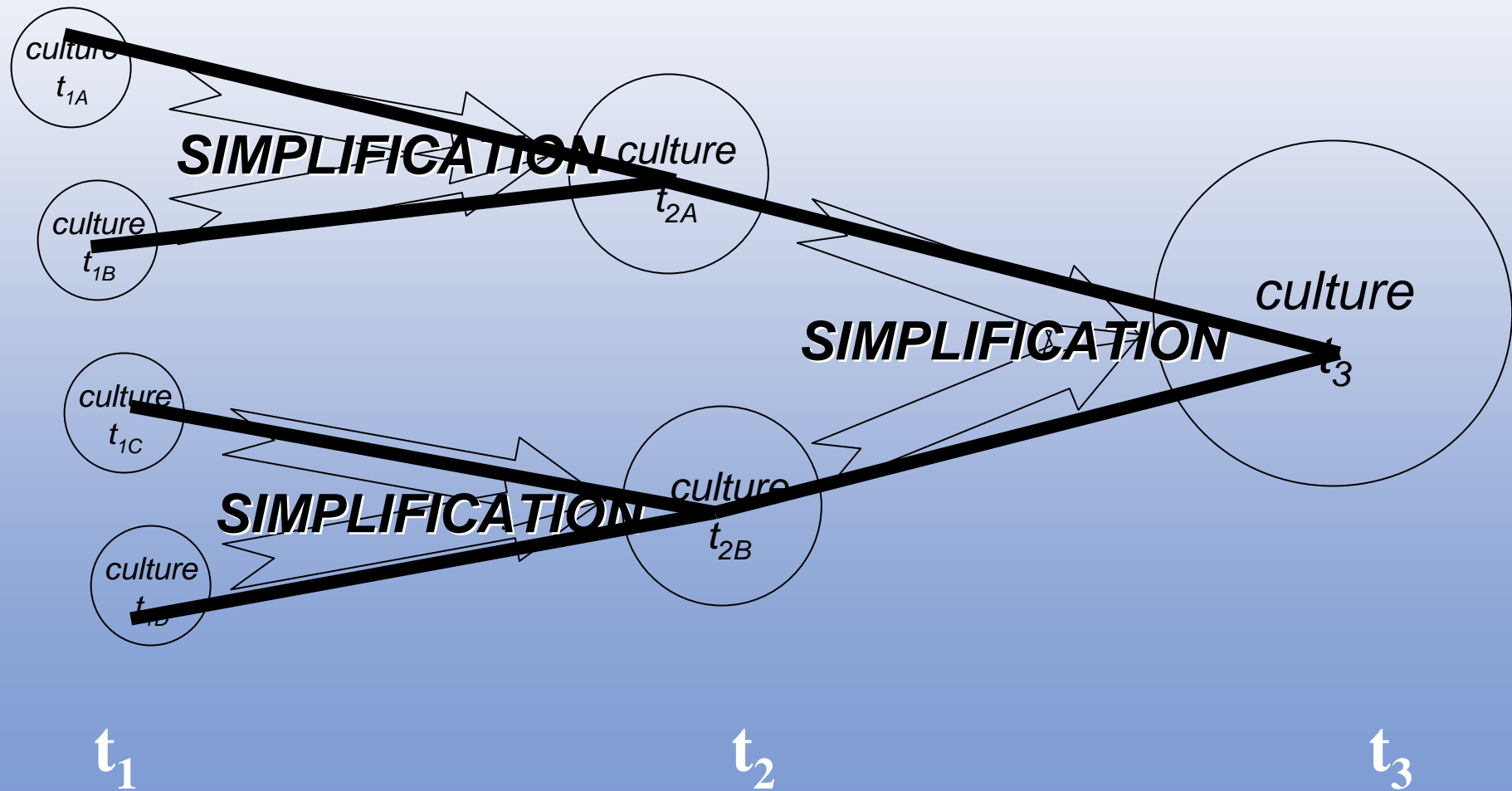
precise & highly
complex grammar

modern

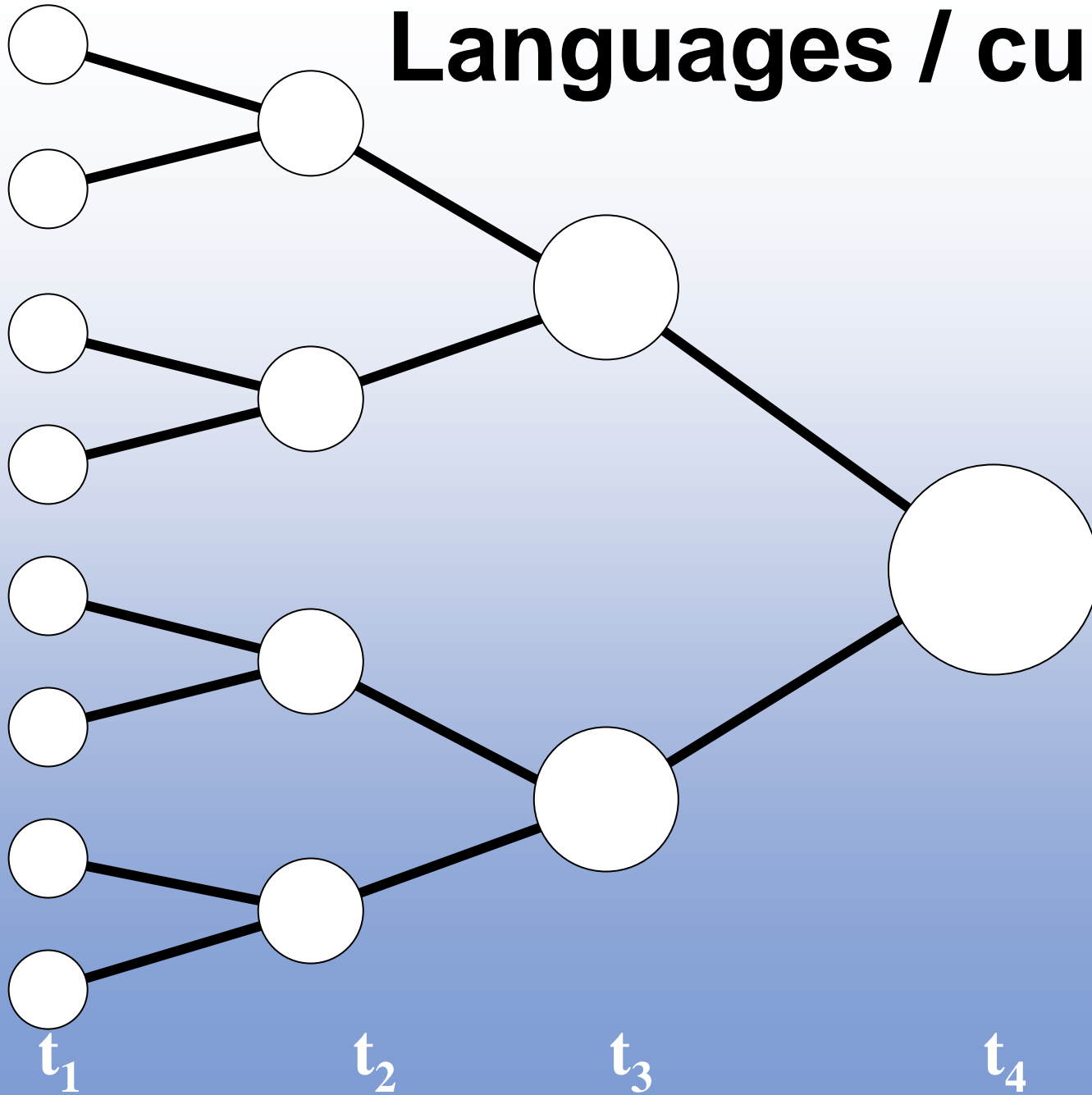
simple grammar



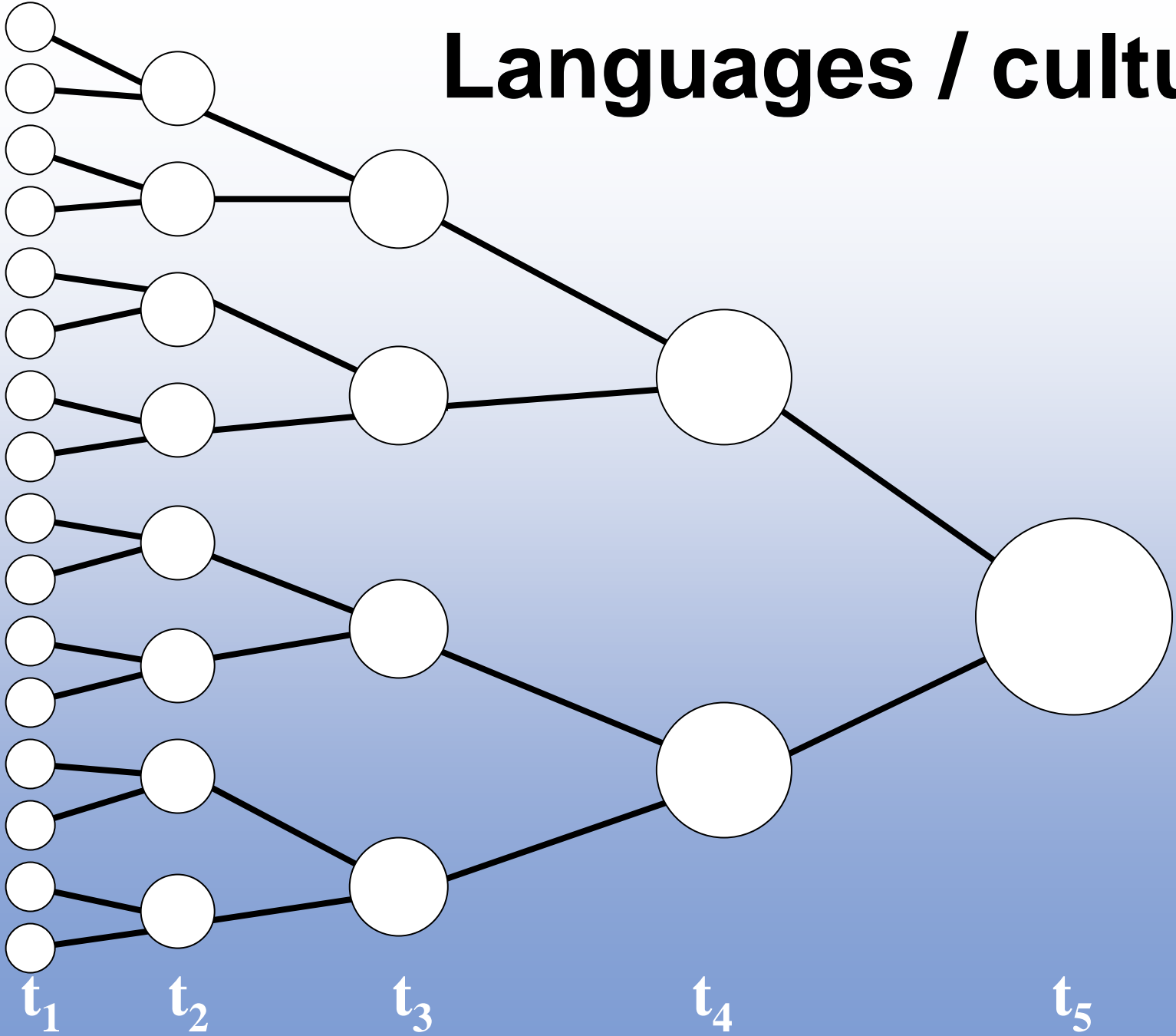
Languages / cultures



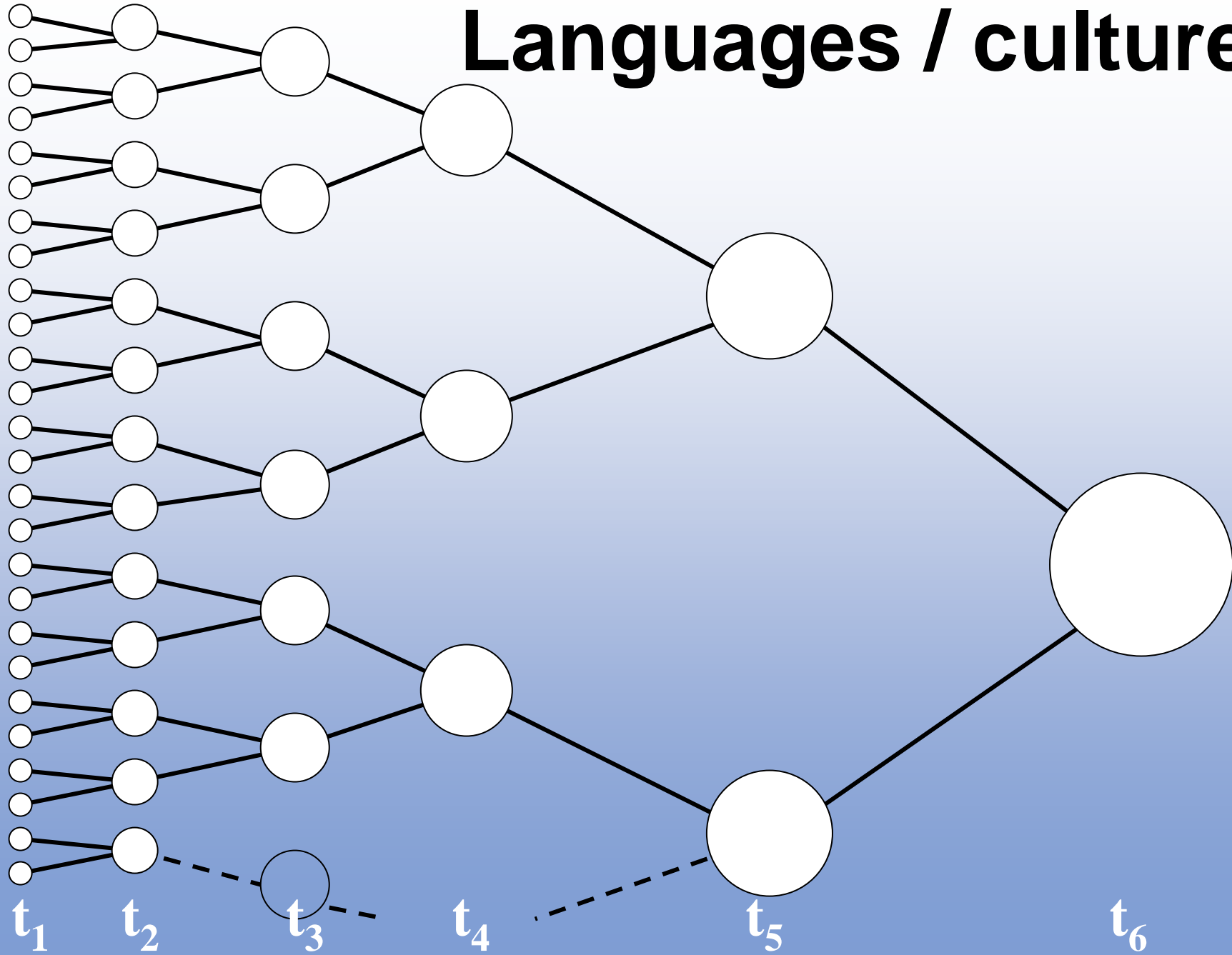
Languages / cultures



Languages / cultures

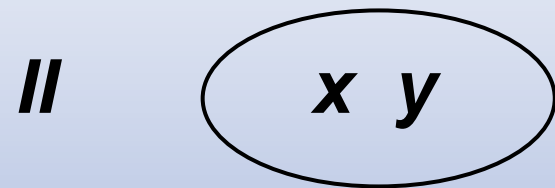


Languages / cultures

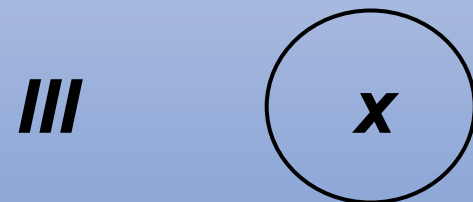




equivalent cultural elements



equivalence class



higher rated element
persists

$$F = A_1 F_1 + A_2 F_2 + \dots + A_N F_N$$

O U R S T U D Y

Practical consideration:

People, who are able to see colours, and who live in a colourful world should be able to designate colours.

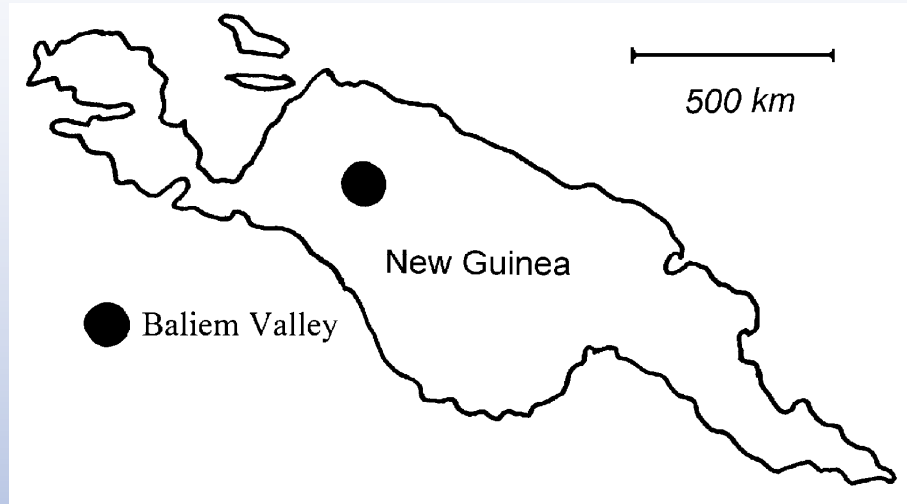
Method:

Minimally invasive field encounter with indigenous subjects.

Procedure:

1. Testing subjects for colour blindness.
2. Presenting standardised colour samples, asking subjects to name them.
3. Presenting these names to another person of the same mother tongue and have it translated into a European language.

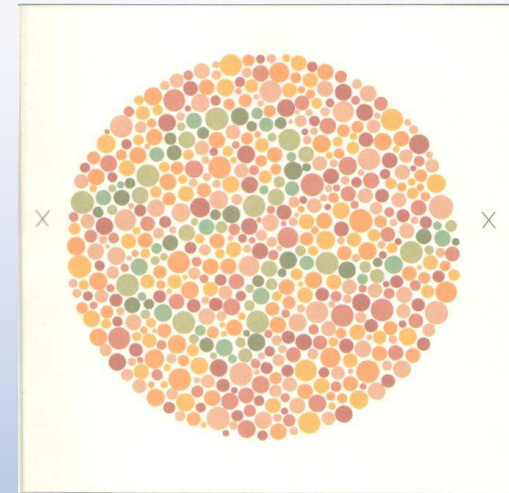
Minimally invasive field encounter



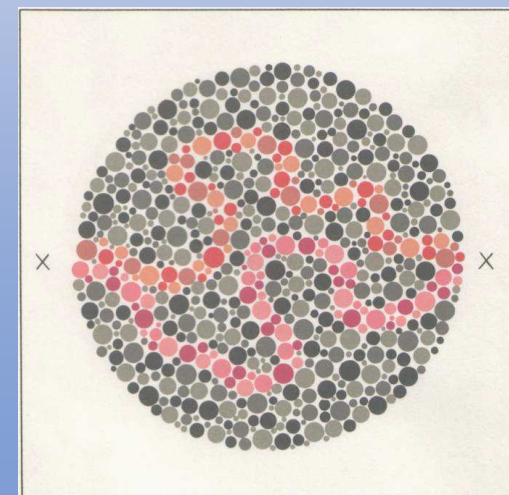
Testing subjects for colour blindness



Pflügertrident test



Ishihara tables



Standardised colour samples



HKS-K No.

Yellow 3

Red 14

Blue 43

Green 65

Orange 7

Brown 82

Purple 34

Turquoise 53

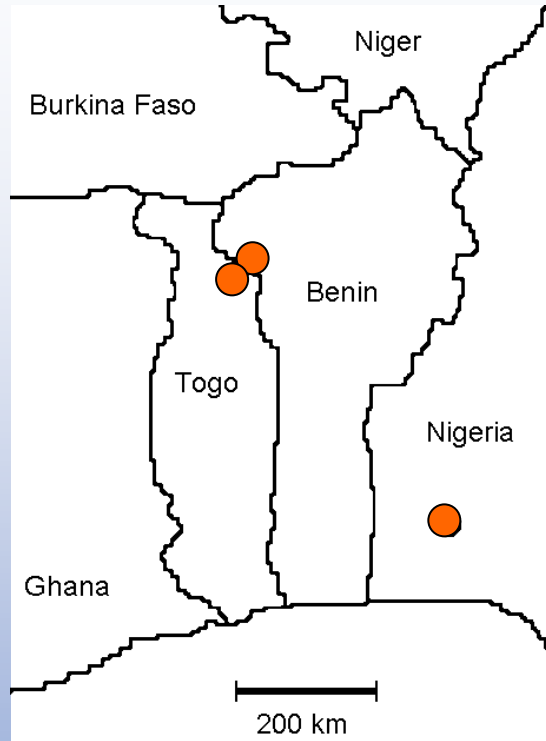
Black 88

White

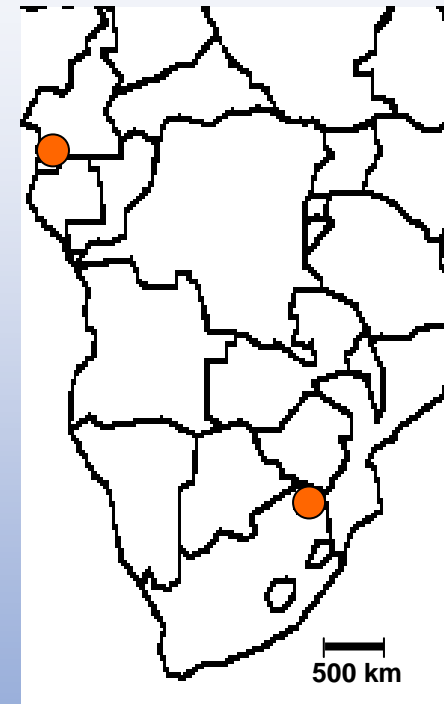
Results

	Dani name	<i>additonal meaning</i>
YELLOW	Howaken	<i>(colour of) net-bag</i>
RED	Mep	<i>blood</i>
BLUE	Kumeleken	<i>(whitish) necklace</i>
GREEN	Gareka	<i>fresh leaves</i>
ORANGE	Saoroken	<i>little (darkish) net-bag</i>
BROWN	Loge	
BLACK	Muli	<i>little seeds inside a certain fruit</i>
WHITE	Gut	
PURPLE	Wiayuken	<i>a certain fruit</i>
TURQUIOSE	Gareka	

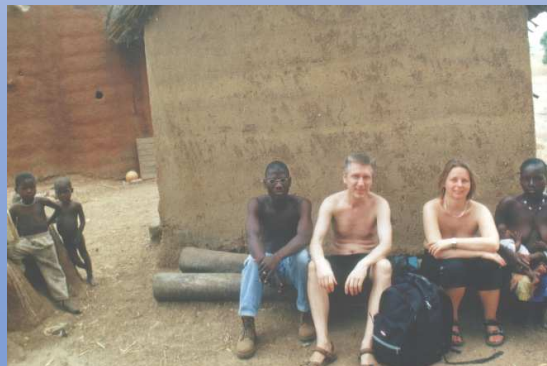
Further investigations



- Benin
- Togo
- Nigeria



- Cameroon
- South Africa



Results University of Ibadan, Nigeria

ENGLISH	ORANGE
YORUBA	OLOMIOSAN - <i>(LIKE ORANGE)</i>
IGBO	ODO - <i>(LIKE ORANGE)</i>
IGARA	OROMI - <i>(ORANGE)</i>
URHOBO	<i>(LIKE ORANGE, ANY ORANGE FRUIT)</i>

ENGLISH	BROWN	ENGLISH	BLACK
YORUBA	ALAWO AMO <i>(MUD)</i>	YORUBA	ONDU
IGBO	AJAJA <i>(LIKE SAND/MUD)</i>	IGBO	OJI
URHOBO	OROGHO <i>(SAND/MUD)</i>	IGARA	OVIVI
HAUSA	JA <i>(LIKE TO RED)</i>	URHOBO	OBIEBI
		HAUSA	BEKI

ENGLISH	BLUE
YORUBA	OLOMI ARO <i>(BLUE)</i>
IGBO	OJI <i>(SOMETHING DARK IN COLOUR)</i>
TIV	KWAR KWAODO <i>(LIKE SKY)</i> NGU-ER-KA KWAV AONDO
OWAN	IBLUE <i>(SKY)</i>
URHOBO	OBIABI - <i>DARK</i>
ISOKO	UVIE
IJAW	BILO

Results University of Ibadan, Nigeria (cont.)

ENGLISH	GREEN
YORUBA	ALAWO EWE (<i>COLOUR OF LEAF</i>)
IBO	AKWUKWO NDU
TIV	NGU-ER-KA IKYA UWER NAHAN
OWAN	EBESUGBO - <i>LEAF</i>
IJAW	DEIBIDE (<i>LIKE TO A PARTICULAR CLOTH</i>)
HAUSA	IGREEN

ENGLISH	VIOLET
YORUBA	ELESE ALUKO (<i>COLOUR OF THE FEATHER OF A PARTICULAR BIRD</i>)

ENGLISH	TURQUOISE		
YORUBA	<i>SAME AS GREEN</i>		
IGBO	AKWUKWO NDU (<i>LIVE LEAF</i>)		
IGARA	ICONO AVI - <i>COLOUR LEAF LIKE GREEN</i>		
URHOBO	ICONOVIE - <i>LIKE GREEN</i>	ENGLISH	WHITE
HAUSA	<i>COLOUR OF THE LEAF</i>	YORUBA	FUNFUN
		IGBO	OCHA
		IGARA	VUNVUN
		URHOBO	OFUNAFUN
		HAUSA	BERI

Results University of Ibadan, Nigeria (cont.)

ENGLISH	YELLOW
YORUBA	ELEZURU (<i>YAM SPECIAL</i>)
IGBO	ONASHARA (<i>LIGHT WHITE</i>)
TIV	NGU-ER-KA KWAU AYABA
ISHAN	OBHALA - <i>LIGHT</i>
OWAN	OYHA - <i>LIKENING IT TO - FRUIT (BANANA)</i>
ISOKO	<i>COMPARE IT WITH BABABA/ORANGE</i>
URHOBO	ODA DIBO - (<i>PAINT OF BANANA</i>)
IJAW	PINAPINA - (<i>JUST LIKE WHITE</i>)

ENGLISH	RED
YORUBA	PUPA
IGBO	UHIE (<i>HAS COLOUR OF BLOOD</i>)
TIV	NYIAN
HAUSA	JA
OWAN	OUME
ISOKO	ODODO
URHOBO	ODA OBARA - <i>HAS BLOOD LIKE</i>
IJAW	KWEKWE

Standardised colours

<u>HKS-K No.</u>	<u>closest NCS equivalent</u>
YELLOW 3	S 05 80 – Y
RED 14	S 05 80 – Y 90 A
BIUE 43	S 2565 – R 80 B
GREEN 65	S 20 70 – G 20 Y
ORANGE 7	S 05 85 – Y 50 R
BROWN 82	S 35 60 – Y 70 R
PURPLE 34	S 30 55 – R 50 B
TURQUOISE 53	S 20 60 – B 70 G
BLACK 88	S 90 00 – N
WHITE	S 03 00 – N



Bagyeli (Cameroon)

TURQUOISE

Pié

avocadoe tree

WHITE

nabambala

ORANGE

mpulæ

particular tree

GREEN

kale kung

leaf of the kung plant

BROWN

mbili

trunk of a part. tree

RED

liquo / matjie

trunk of a part. tree / blood

BLACK

mbiliashje

charcoal

BLUE

bavindi

part. tree with flowers

YELLOW

mbambo / tuncær

part. tree.fruit / part. bush

PURPLE

mpindi / duononi

part. animal / part. bird



Kung

Venda (South Africa)

BLUE	lutombo	<i>sky; little stone (any)</i>
YELLOW	dzivhalamtada	
RED	muridiri	<i>root of part. tree (medical use); part. textile</i>
GREEN	dala	<i>foliage of tree (any)</i>
ORANGE	tshitopana	
PURPLE	lufhafhalwandadzi	
TURQUOISE	matarimadaladala	
BROWN	luvhundi	<i>part. soil used for painting house walls</i>
WHITE	mutshena	
BLACK	mutswu	

Conclusions

- Indigenous subjects are able to designate colours.
- The extent, to which conventionalised, abstract colour terms exist varies from language to language.
- The existence of abstract colour terms does not follow a stage pattern as proposed by Berlin & Kay (1969) and others.

Possible reasons for former misconceptions

Lack of validity due to inadequate field research methods, especially non-integrative encounters, therefore lack of insight.

Inadequate research design, especially no counter-check mechanism, therefore lack of reliability.

Lack of a stable cultural theory upon which a robust argumentation could be built.

Alternative explanations of the phenomena

Cultural synthesis goes along with language change. Cultures, which have gone through less phases of synthesis, have a language, which is generally more specific and less abstract.

The higher number of abstract, conventionalised colour terms in languages of cultures, which have gone through more phases of synthesis results from cultural-linguistic mechanisms, which are reflected in simplified/standardized communicative patterns.

However, neither culture nor language are autonomous entities; they are manifest in, and concretions of, human interaction. Thus, colour terms are part of interactional patterns within a given social system, determined by its cultural history.

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Thank you for your attention!



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