

Oral Communication

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Communication of Technical Information In Research & Business Organization



Sukhvinder S. Sandhu, Ph.D.

Employee Professional Development Training Courses

➤ **Effective Technical Communications:**

-A 3 day course by *Center for Professional Advancement, East Brunswick, NJ* (J & J Sponsored)

➤ **Effective Presentations:**

- A 2 day Course by *Colgate-Palmolive Co. Management Development Program*

➤ ??

➤ ??

What is Communication?

“Process by which an individual (**the communicator**) transmits stimuli to modify the behavior of other individuals” *Hovland, Janis & Kelley*

“Process of creating a meaning between two or more people” *Tubbs & Moss*

“The act of transmission of information, ideas, emotions, skills, etc. by use of symbols, words, pictures, figures, graphs, etc.” *Berelson & Steiner*

Elements of Communication

Certain **Common Elements** That Together Define **Communication Process**

- People
- Messages
- Channels
- Feedback
- Noise
- Context (setting)
- Effect



Communication:

Most Fundamental Characteristics of Human Behavior

- Written Messages
- **Oral Communication**
- Body Language
 - Facial Expressions*
 - Gestures & Head Nods*
- Acoustics: Use of Drums
- Smoke Signals
- Heliography: *Use of Light & Mirrors*
- **Pheromones: Chemicals secreted by animals**

Skills & Behaviors Necessary for Effective Performance in an R&D Environment

- Effective Communication:
 - *Written*
 - *Oral*
- Time Management
- Managing People
- Promote Team Work
- Value Unique Contributions
- Give and Seek Feedback
- Set The Example

Types of Communications

- Verbal: (Intellectual Activity)
 - **Verbal/non-vocal**
only words, no speaking: written messages
 - **Verbal/vocal**
communicate through spoken words
- Non-verbal: (Emotional Activity)
 - **Non-verbal/vocal**
no words, only sound: sighs, groans
 - **Non-verbal/non-vocal**
no words, no sound, only gestures and appearance

Part A:

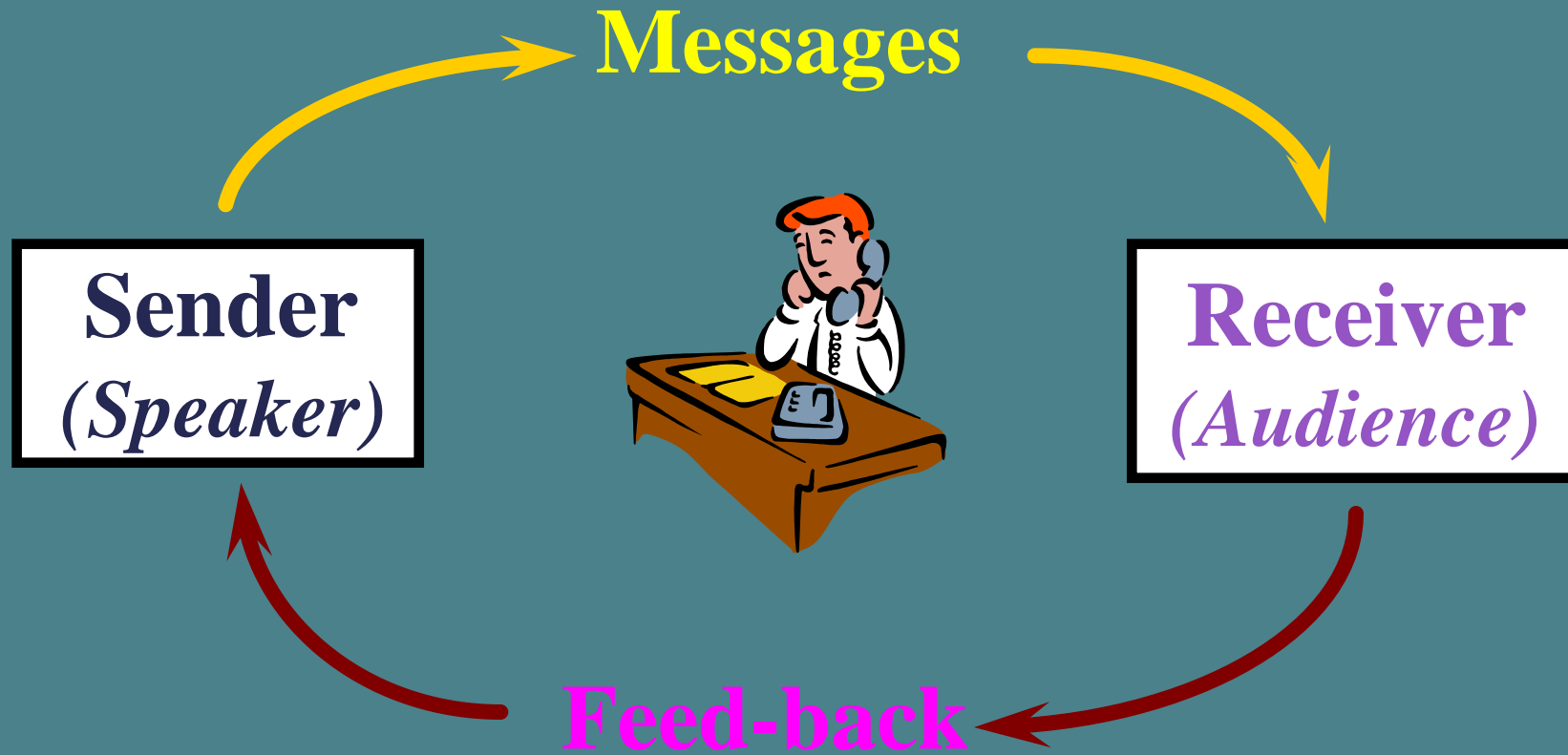
Written Communication

Part B

Oral Communication

SOME BASICS; FIRST

Communication as Interaction



Oral Communication

Non-Verbal Plays a Big Role

Nonverbal Modes of Communication

Vocal cues:

Tone/volume
Quality &
Resonance
Rhythm & Accents
Pitch
Rate
Stress
Non-fluencies
Vocalizations

Spatial cues:

Distance: intimate,
personal, social, public

Visual cues:

Body movements
Facial expressions
Personal appearance

Sensory Cues:

Olfactics
Acoustics

When nonverbal contradicts the verbal, the non-verbal is more likely to be believed

Nonverbal Communication

Women vs. Men

*Women, as a group, are better skilled than men to **send** and **receive** non-verbal messages expressed by strangers.
(Especially Negative Non-Verbal Signals)*

Gestures.....

**Non-verbal, non-vocal mode
of communication**

No Words, No Sound

***Gestures can lead to misunderstanding,
especially across cultures***

(we will revisit this topic at the end)

Oral Communication of Technical Information

Planning A (Scientific) Talk

➤ Selection of Information

Conclusions

Facts

Supporting Data

➤ Organization of Information

Introduction

Materials, Methods, Exp. Designs/Concepts

Results

Discussion

Steps in Preparing An Oral Presentation

- Specific Purpose
- Introduction
- Thesis: *Statement that Summarizes the Focus of Your Presentation & Your Point of View*
- Content: *With Supporting Materials & Visual Aids*
- Conclusion
- Acknowledgments

Oral Presentations

VISUAL AIDS

- ❖ *Slides*
- ❖ *Diagrams*
- ❖ *Graphs*
- ❖ *Pictures*

WHY USE VISUAL AIDS??

Using Visuals:

Why use Visual?

- Visuals are superior to Verbal Communication
- *Visuals account for > 80% of information conveyed*
- Visuals communicate much faster than words
- Visuals are perceived and processed automatically

Do Not Require Mental Involvement

One picture says more than a thousand words...

*(or, in this case, 123)**



A man, a woman and a girl, the girl is hugging the woman and the man, all are smiling, all are wearing black clothes, the man and the woman wear sunglasses, the woman wears gloves and holds a bottle of water in her hand, she is also wearing a backpack, the girl is blond, the man has short, light brown hair, the woman has medium long, dark brown hair, it looks like winter, it seems to be pretty cold, it is probably winter, in the near background are banks and a gutter, further behind people skating on an ice rink, the sun is shining, further in the back are trees without many leaves, behind the trees are skyscrapers, some very tall, others not

***A picture of average complexity takes only 1 ½ to 2 seconds to be processed...**

...in the same time, only 7 to 10 words can be processed!

Using Visuals:

Contd..

- **Why Use Visual ?**

- Visuals are stored stronger and remembered better than words and can be retrieved more easily

(the long term memory has an almost unlimited capacity for storage of pictures)

- Visuals Don't wear out easily

Confucius
Chinese
Philosopher
551-479 BC



***“ I Read And I Forget,
I see And I Remember,
I Do And I Understand.”***

Using Visuals:

Cont....

- **Why Use Visuals:**

- **Visuals convey much more emotional information than words:**

Because they portray reality much more vivid, colorful and concrete than words

“Visuals convey much more emotional information than words...”

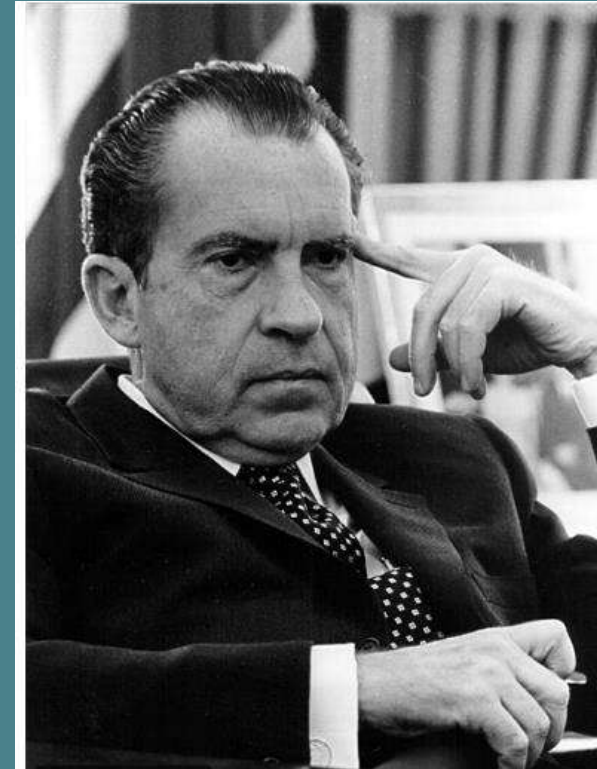
A Real Life Story

First US Presidential Debate

(November 8, 1960)



Vs.



John F Kennedy
35th. US President: Democrat
Assassinated

Television Viewers: Kennedy Won

Richard M. Nixon
37th. US President: Republican
Impeached

Radio Listeners: Nixon Won

Using Visuals:

Cont.....

- **Why Use Visuals?**
 - Visuals can communicate even complex messages
 - Visuals undermine rational control
visuals are not scrutinized as much as words.
 - Unlike words, visuals can communicate logical contradictions
distortions that are not credible verbally are more readily accepted via visuals

Step #1 in Preparing for Oral Presentation

Develop an outline

Steps In Preparing an Outline

Cont.

- Identify points that can be developed with the help of visual aids
- Develop a Conclusion/Summary
- Finalize the speech into Rehearsal form
- **Practice/Refine & Limit your speech**

Using Slides

- Do Not Show Too Many Slides
- Do Not Show a Slide With Too Much Detail

Break it up into 2/3 different slides

Why visuals are superior – You saw this heading before

- **Visuals communicate much faster than words**
- **Visuals are perceived and processed automatically**
(do not require mental involvement)
- **Visuals are stored stronger and remembered better than words and can be retrieved more easily**
(the long term memory has an almost unlimited capacity for storage of pictures)
- **Visuals undermine rational control – visuals are not scrutinized as much as words. Unlike words, visuals can communicate logical contradictions**
(distortions that are not credible verbally are more readily accepted via visuals)
- **Visuals can communicate even complex messages**
- **Visuals don't wear out easily**
- **Visuals convey much more emotional information than words**
(because they portray reality much more vivid, colorful and concrete than words)

Using Slides

➤ Do Not Show Too Many Slides

➤ Do Not Show a Slide With Too Much Detail

Break it up into 2/3 different slides

➤ Do Not Show a Table With Too Many Numbers

Break it up into more than one slide

Using Slides

Contd....

- Each Slide Should Have a Concise Heading
- Check Slides For Clarity
- Arrange the Slides In Same Order As Your Notes
- Give Audience time to look at each slide and Help them to interpret the slide

(Make Sure Each Slide Is The Right Way up)

Delivery

- Begin with Confidence to **Capture Attention**
- Use a pointer to point at the screen
- Look at your audience when you speak
- Stay way from the projector (& next to your notes) when you speak
- *Avoid nonfluencies: “uh” “uhm”, “like” “sort of”*
- Speak loud so that every one can hear
- **Nonverbal cues: Very Important**

Major Barriers To Public Speaking

- Fear of Being Judged
- Uncertainty About the Audience
 - who they are*
 - what they are thinking*
 - how they may react*

Remember

**Effective Written and Oral
Communication is a Product of
Simplicity and Clarity**

Remember

*Effective Communication, **both Written and Oral**, is Absolutely Vital for the Growth of **Science** as well as the Professional Growth of a **Scientist***

*“A Scientist Who Can’t Write or Speak Clearly
is Like A Computer That Has No Read-Out”*

“not exactly a high priced machine”

Bruce C Kline, ASM New, 495, 41 (1975)*

** ASM = American Society of Microbiology*

Повторение - мать учёнья.
Povtoreniya - mat' ucheniya.

Repetition is the mother of learning.

An Interesting Fact.....

~50% of all Marriages in USA End Up in Divorce

Main Reason: Poor Communication

Suggested Readings....

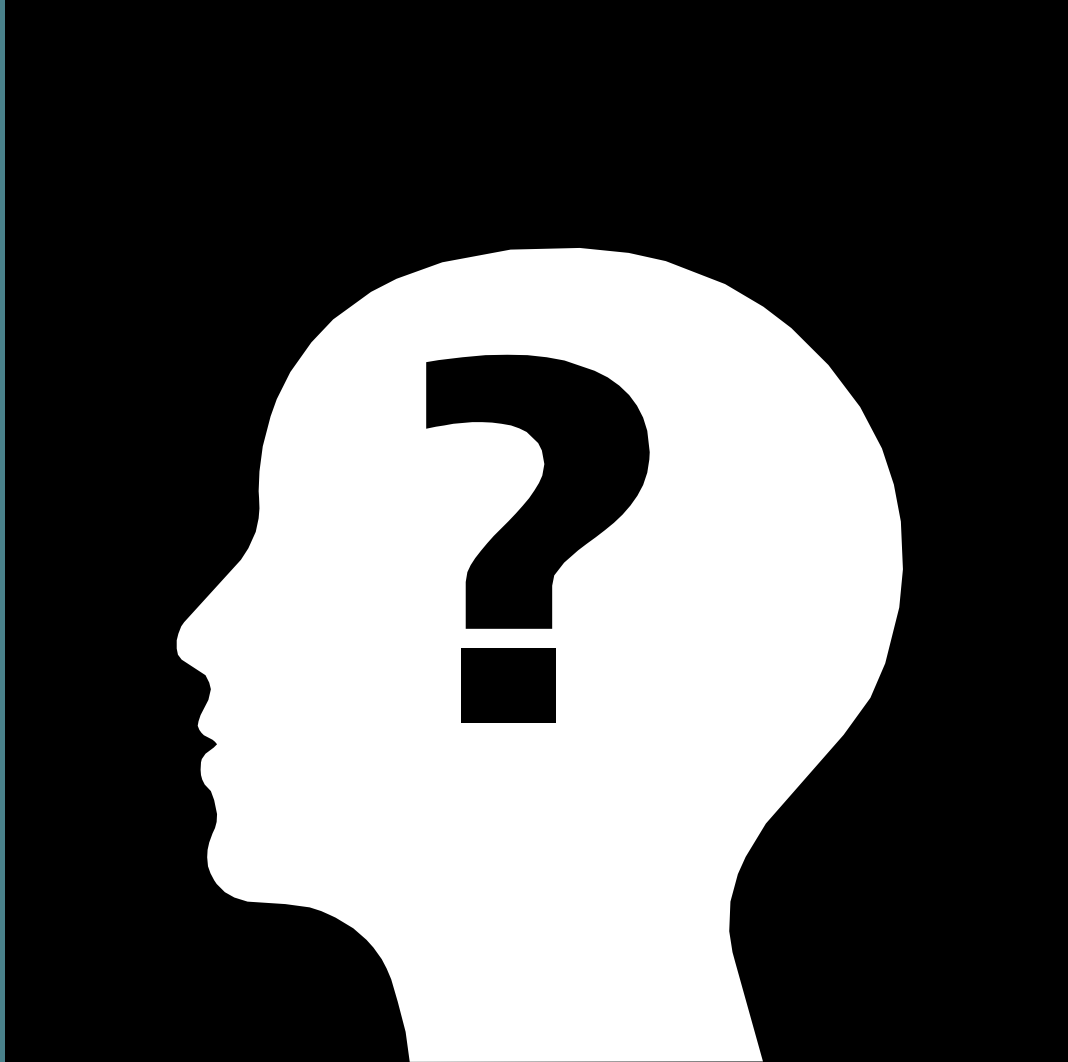
Effective Writing for Engineers, Managers, Scientists

H.J. Tichy

Scientists Must Write

*Robert Barrass**

(Students Must Write: Robert Barrass)*



**Let's Discuss Gestures
An Important Part of
Non-Verbal Communication**

Gestures.....

Non-Verbal, Non-Vocal Mode of Communication

No Words, No Sound

***Gestures Can Lead to Misunderstanding,
Especially Across Cultures***

Gestures: Body Language

Non-Verbal , Non-Vocal Mode of Communication

In Different Countries, the same Gestures, Head Nods, Postures, Leg Movements are Used to Convey a Different Message

Something Good in one country

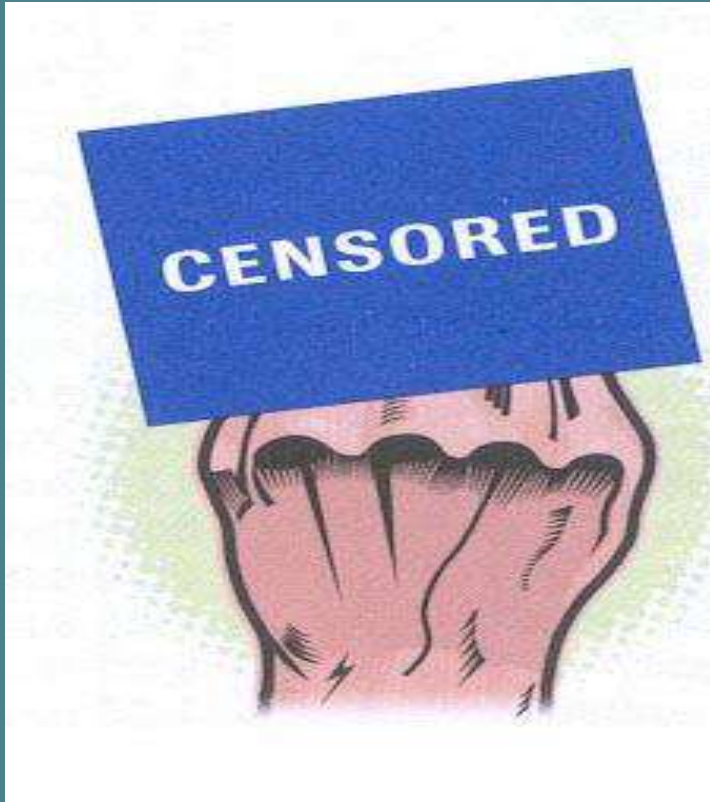


Negative meaning in another culture

**Let's Look at Some of the Gestures
&
What Message Do They Convey in
Different Countries/Cultures***

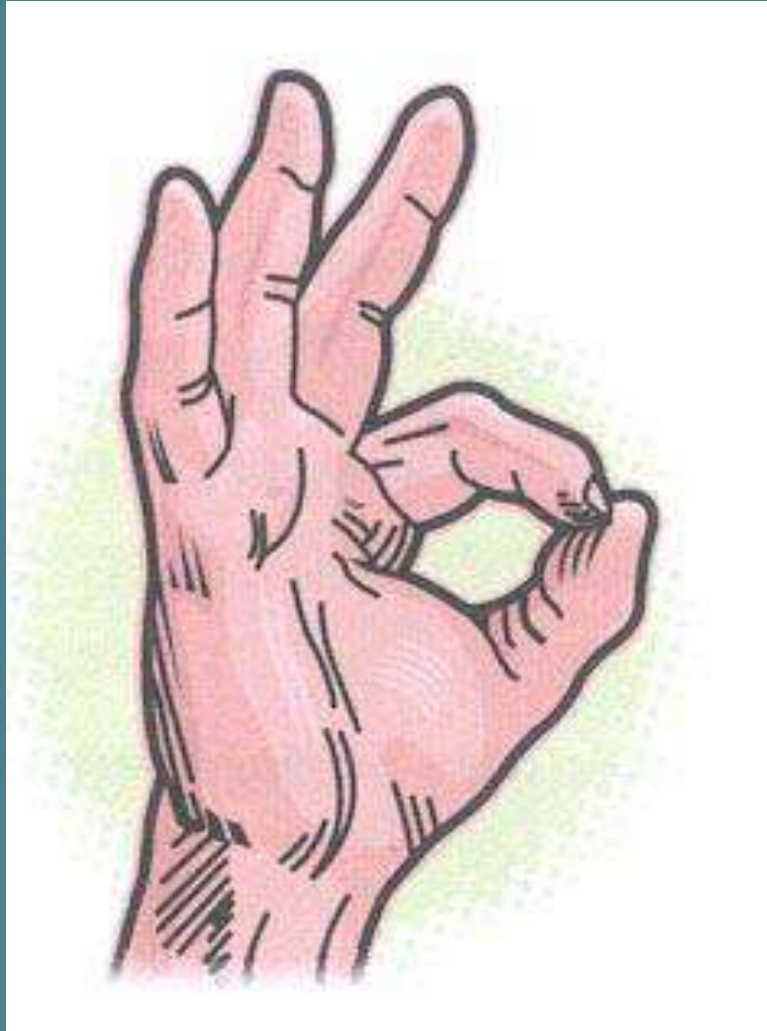
***Source: American Express International Gestures Travel Guide**

The Universal Insult



*Message of the
“one finger salute” is
understood pretty much
every where*

International Gestures Guide....



“OK”

- **USA:** “A-okay”
- **France:** “Zero or Worthless”
- **Japan:** “Money” *(the finger circle symbolizes the outline of a coin)*

OK sign has rude, sexually suggestive connotations through out the following countries:

Latin America, Germany, Greece, Malta, Portugal, Russia, Sardinia, Tunisia and Turkey

International Gestures Guide...

Contd.



“Thumbs Up”

North America & most of Europe: “Good Going”, “right on” or “can I hitch a ride”

Australia: “up yours” especially when accompanied by an up-ward thrust”

Germany: When counting, used to signal “one”

Japan: When counting, used to signal “Five”

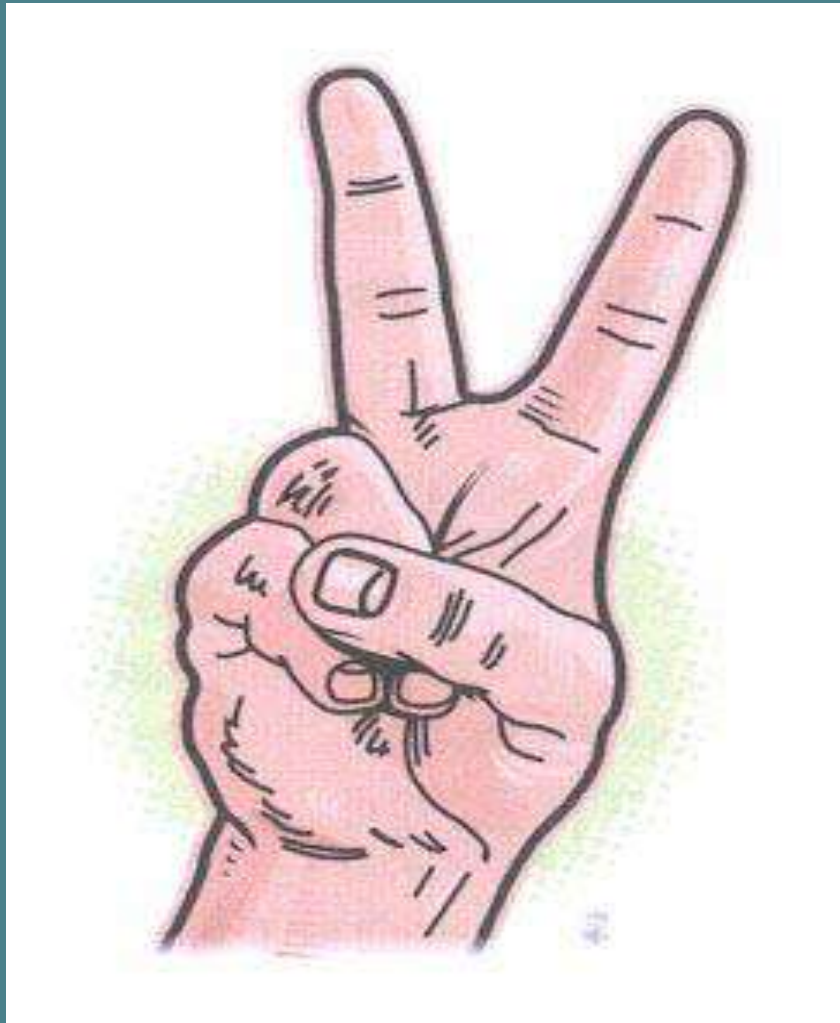
Nigeria: Generally obscene and insulting.

Considered very rude in the following countries

Bangladesh, Ghana, Greece, Iran,
Middle East, Russia, Turkey

International Gestures Guide...

Contd.



“V” Sign

USA: (with Palm & fingers facing out): Victory or Peace, “two” (in picture being taken), “Rabbit ears”

England & Australia

(with palm and fingers facing in and reinforced by an upward jerk of the fingers): **“Up yours”**

International Gestures Guide... Contd.



“Palm-up Index Finger Curl”

USA: Come Here

Australia, Hong Kong, Indonesia, Japan, Malaysia & former Yugoslavia: “Come Here” to **Animals**.

Gesture is considered impolite when directed at humans

In much of Europe and Latin America, the preferred way to beckon someone is to extend a hand-palm down and making an inward scratching motion with the fingers



“The Hand Push”

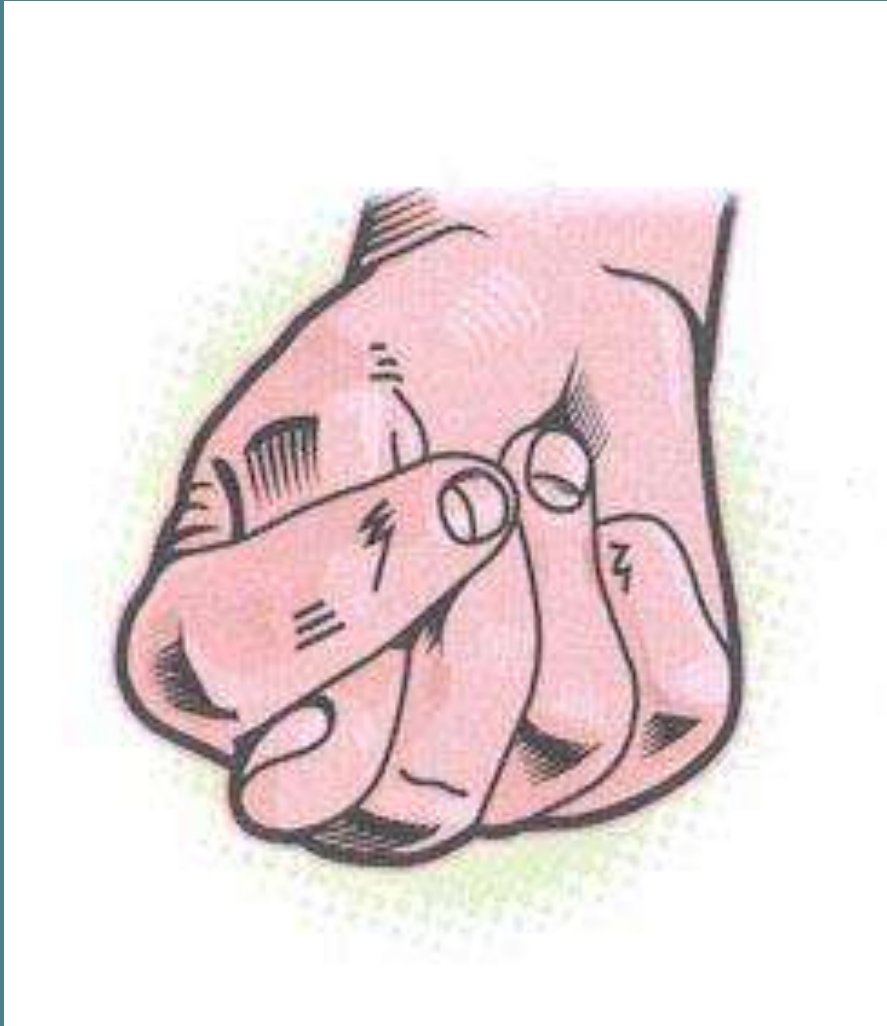
USA: “Stop” or “I don’t want to hear it” (as in talk to the hand)

Greece: Generally insulting, signifying dirt being rubbed into your face.

Japan & China:

Open hand is preferred over the forefinger for pointing.

Many Latin Americans point by pursing their lips in the direction of the object being designated



The “Fig”

Brazil: Good Luck in much of Latin Amrtica

America: fig shaped charms are thought to ward off evil

Greece & Turkey: A sexual insult

Tunisia and the Netherlands: A sexually suggestive gesture

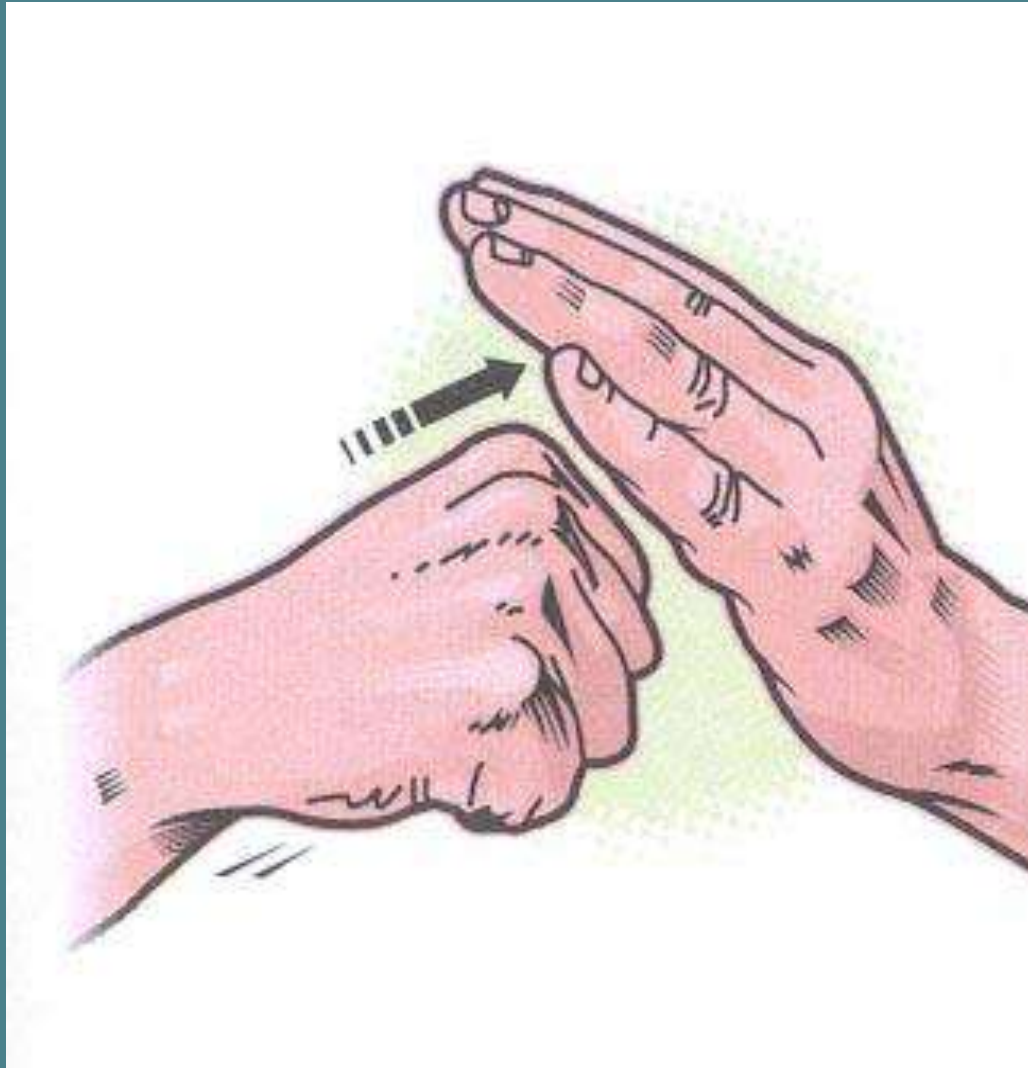
Former Yugoslavia: “Zip”, “nada”, “nothing”

“The Hand Flap”

USA: “Yak, yak, yak” used to indicate that someone on the other end of the phone line is going on and on

South Africa & Part of Latin America: Used to alert a passing motorist that his or her lights are on unnecessarily

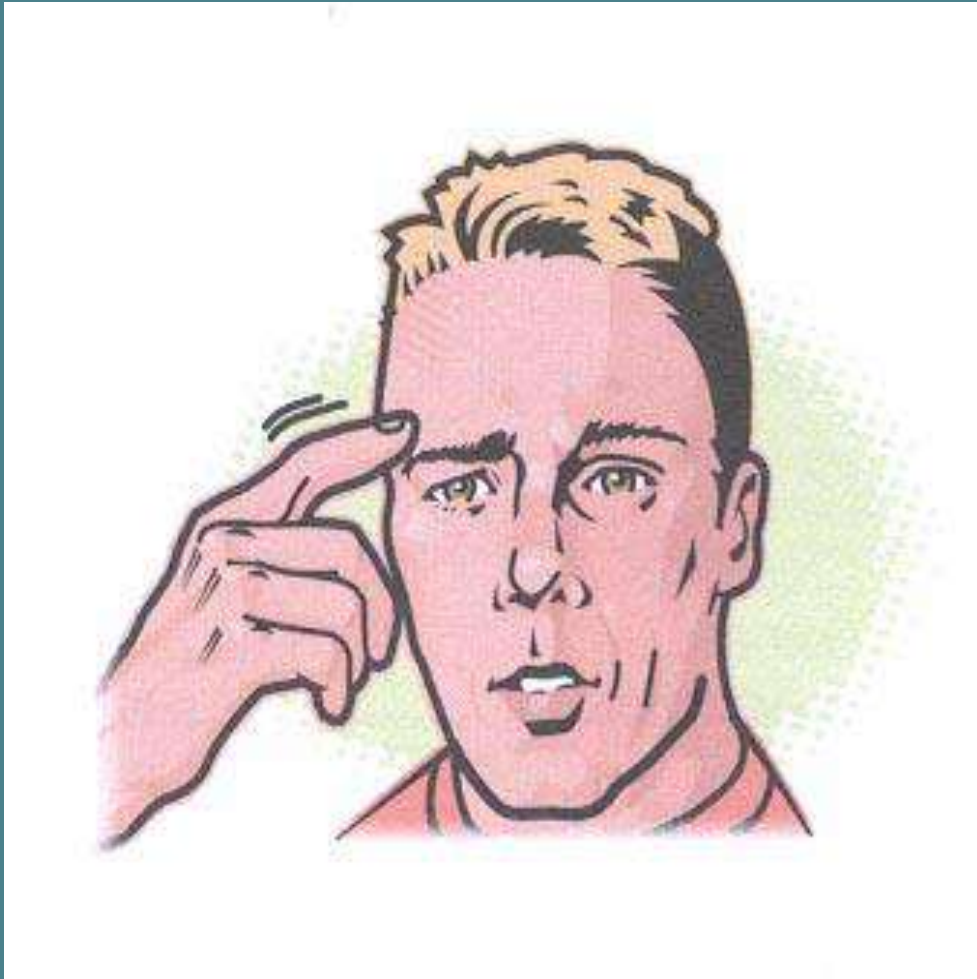




“The Fist Slap”

USA: smacking the fist of one hand into the other hand’s palm is usually an idle gesture, an expression of impatience or a sign of an impending fight

France, Italy, Chile & elsewhere:
“up yours” in no *uncertain* terms



“The Forefinger Head Tap”

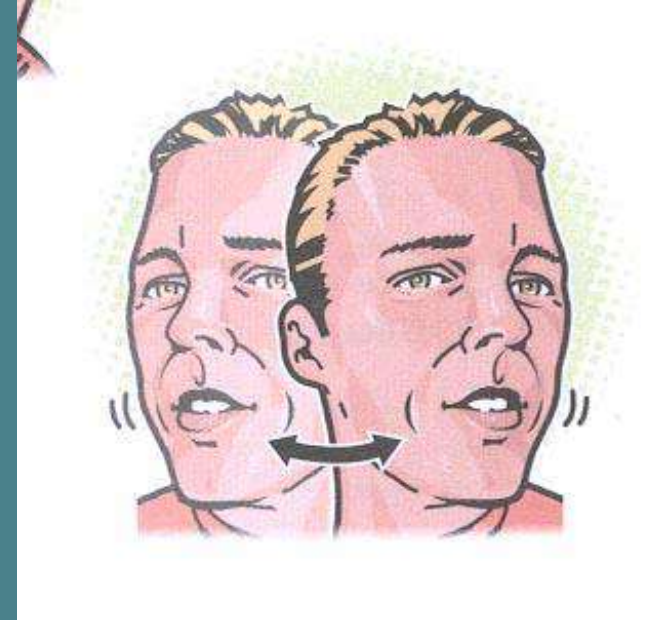
USA & Most of the World:

“He/She is very smart” or
“he/she is crazy”

Argentina & Peru:

“I am thinking” tapping the
temple signifies “very
intelligent”

The Netherlands: Insanity is signified
by tapping the center of the
fore head



The Head Nod/Head Shake

USA & Most of the World:

Nodding: Yes

Shaking: No

**Bulgaria, Parts of Greece,
Yugoslavia, Turkey, Iran.**

Nodding: No

Shaking: Yes

US TV Host Tomi Lahren's Praise of Trump Backfires in Hindi



BBC News
August 24, 2020

**President Trump is an
IDIOT/Stupid**

PLEASE Pay Close Attention to TWO Words

OWL

ULLU





English: Owl = Wise Bird

Hindi: Ullu = Stupid/Idiot

Thank You

