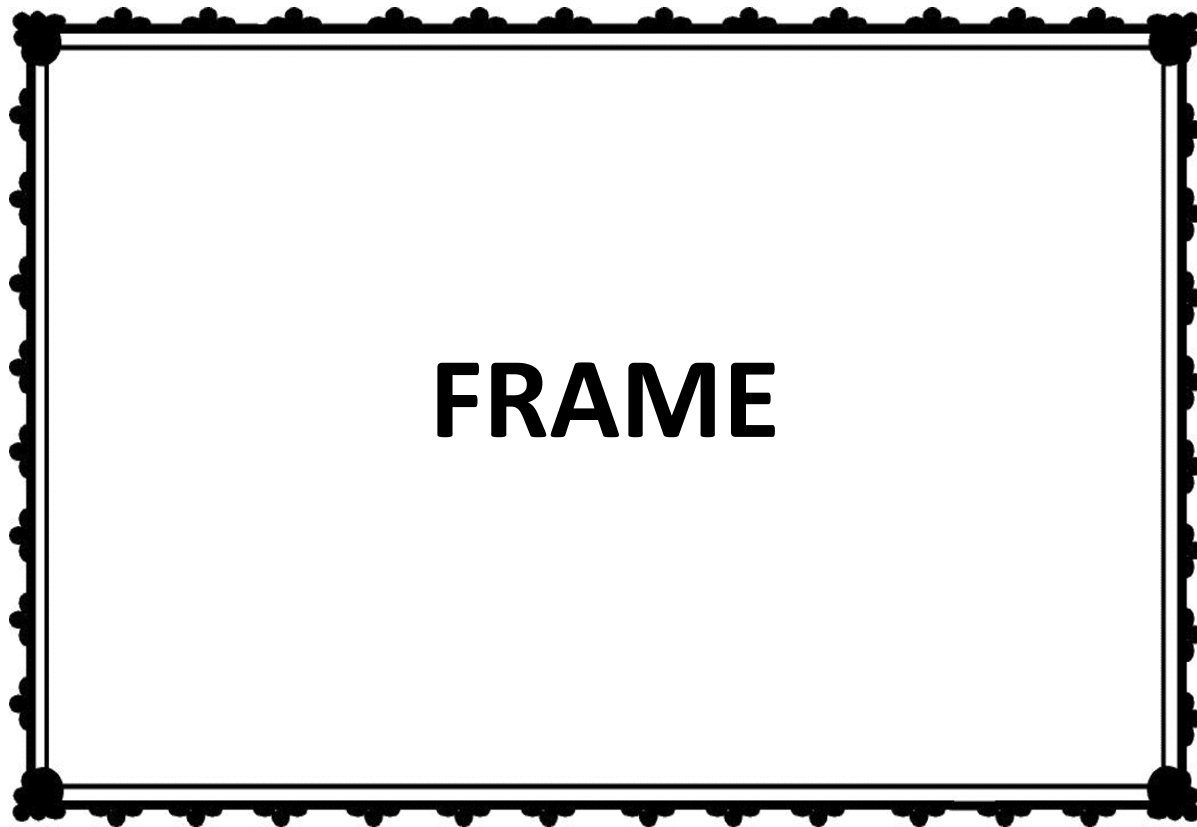


# Think 53: Food Talks

## Dan Jurafsky & Yoshiko Matsumoto

### Frames, Food and Talk

Tuesday, April 25, 2017



- Your unconscious knowledge about things around you may be larger than you imagine.
- The world (scientific, natural, and human) can be framed in many different ways.

# THE CONCEPT OF FRAME

- Employed in various fields of study including psychology, sociology, AI, cognitive science, and linguistics (syntax, semantics, discourse, etc.)
- Also referred to as scene, script, schema, idealized cognitive model (ICM), ....

(See Tannen 1979)

# Outline for today

1. Frames – AI
2. Frames – Grammar and Meaning
3. Frames – Talks/Texts and Social Science

# FRAMES – AI (Cognitive Science)

*Jane was invited to Jack's party.*

*She wondered if he would like a kite.*

(Minsky 1975, 1985)

**Marvin Minsky** (1927 – 2016)

Pioneer in Artificial Intelligence



# FRAMES – AI (Cognitive Science)

“When one encounters a new situation (or makes a substantial change in one's view of the present problem) **one selects from memory a structure called a *Frame***. This is a remembered framework to be adapted to fit reality by changing details as necessary.”

Minsky 1974 [(1975, 1981)] A Framework for Representing Knowledge

# SCRIPT– AI

- Shank and Abelson 1977
- Script is:
  - a structure that describes an appropriate sequence of events in a particular context
  - has slots, and they are interconnected
  - a predetermined, stereotyped sequence of actions that define a well-known situation
  - a very boring little story

Shank, Roger C. and Robert P. Abelson 1977. Scripts, Plans, Goals and Understanding: an inquiry into human knowledge. Hillsdale N.J.: Erlbaum.



# Script – AI

“Stories can invoke scripts in various ways.

Usually a story is a script with one or more interesting deviations.”

1. John went into the restaurant.  
He ordered a hamburger and a coke.  
He asked *the* waitress for *the* check and left.
2. John went to a restaurant.  
He ordered a hamburger.  
It was cold when *the* waitress brought it.  
He left her a very small tip.

Shank, Roger C. and Robert P. Abelson 1977. Scripts Plans, Goals in Understanding: an inquiry into human knowledge. Hillsdale N.J.: Erlbaum.

# FRAMES in LANGUAGE

**Charles J. Fillmore** (1929 – 2014)

Case Frames (grammar)

- The case for case (1968)
- The case for case reopened (1978)

Frame Semantics (meaning)

- Frame semantics (1982)
- Frames and the semantics of understanding (1985)

FrameNet (cognition)

- Baker, Fillmore, and Lowe (1998) “The Berkeley FrameNet project”
- Fillmore and Baker (2009) “A frames approach to semantic analysis”



- The meanings of linguistic expressions are anchored in human experiences and human institutions.

# Frame in Grammar

## Commercial Transaction Frame

<the Buyer, the Seller, the Goods, the Money>

- The use of on the verbs evokes the entire frame and provides a perspective.

*BUY*: the Buyer, the Seller, the Goods, the Money

*SELL*: the Buyer, the Seller, the Goods, the Money

*PAY*: the Buyer, the Seller, the Goods, the Money

Chris *bought* a textbook (from Pat for \$10).

Pat *sold* a textbook (to Chris for \$10).

Chris *paid* \$10 (to Pat for a textbook).

# Frame in Meaning

## *Breakfast*

<Time>

- First meal in the day in a multiple-meal cycle community
- Eaten shortly after a nightly sleep

**Breakfast served anytime.**

<Combination of Food>

- Eggs, bread, cereal, coffee, juice...  
“The Wongs have chicken soup for breakfast”

# Breakfast – American and Japanese



Eggs, bread, cereal, coffee, juice...



A **fluffy**, thick toast with butter, ham and eggs and **a green salad.**

# Breakfast – varieties



# Lukewarm liquids



Lukewarm coffee

*Nurui* kōhī

(lower temperature than desired)

Lukewarm beer

*Namanurui* bīru

(higher temperature than desired)



cf. The English *lukewarm* is not a framing word



# Frame Semantics

Charles J. Fillmore 1982, *inter alia*

## FRAME

- a general cover term for ‘schema’, ‘script’, ‘scenario’, ‘ideational scaffolding’, ‘cognitive model’, or ‘folk theory’.

(Fillmore 1982)

# Frame Semantics

Charles J. Fillmore 1982, *inter alia*

- **An approach to describing the meanings of independent linguistic entities by appealing to the kinds of conceptual structures that underlie their meanings and that motivate their use.**

(Fillmore 2006)

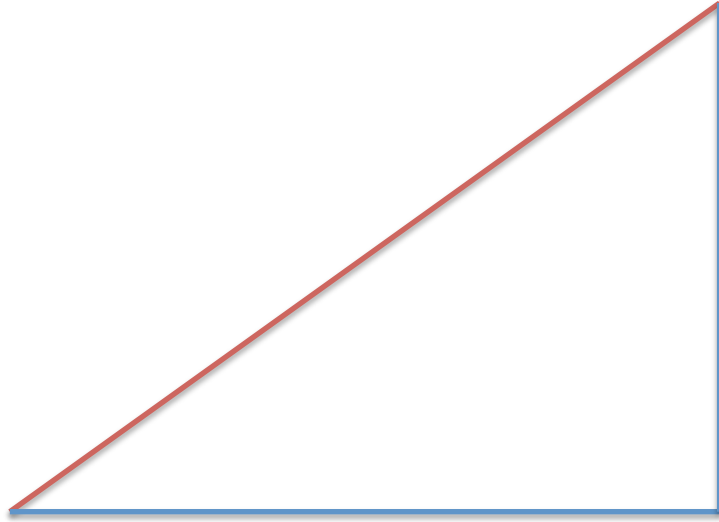
# Frame Semantics

Charles J. Fillmore 1982, *inter alia*

## FRAME

- “Any system of concepts related in such a way that to understand any one of them you have to understand the whole structure in which it fits; when one of the things in such a structure is introduced into a text, or into a conversation, all of the others are automatically made available.”

(Fillmore 1982:111)



Contrast *Within* Frames  
Contrast *Across* Frames

**STINGY : GENEROUS**

**THRIFTY : WASTEFUL**

“He’s not **stingy** – he’s really **generous**.”

“He’s not **stingy** – he’s **thrifty**.”

The same facts can be presented in different framing.

***Reviewers praised the chef.***

“Nice haircut!”



- Need more than context and literal meaning to explain the most natural out-of-context interpretation.
- Need words and the frames

# Frames in Discourse

- Recipes
- Menus
- Advertisements
- Etc.

Chocolate snack

*Kinoko no yama* (mushroom mountains)



Chocolate snack

*Otona no Kinoko no yama*  
(mushroom mountains for **adults**)





10/7  
今日は  
オトナの日

Kit Kat  
Have a break, have a Kit Kat.®

ストップ！未成年者飲酒・飲酒運転  
のお酒は楽しく適量で。  
のんだあとはリサイクル

大人の★生。  
サッポロ生ビール  
黒ラベル

SAPPORO  
生  
黒ラベル

STOP! 未成年者飲酒 飲酒運転

# Word Magic!

- KitKat キットカット /kittokatto/

*Kitto katto (kitto katsu)*

surely (you'll) win

**“You will surely win!”**

# Word Magic!



# Magic of Words

## Japanese New Year's Food and Homonyms

- ***tai*** (鯛), 'red seabream'
- ***medetai*** (めでたい) 'congratulatory'.



## Magic of Words

### Japanese New Year's Food and Homonyms

- ***Kobumaki*** (昆布巻き) 'kelp rolls'  
***yorokobu*** (喜ぶ) 'be happy'



- ***daidai*** (ダイダイ), 'Japanese bitter orange'  
➤ ***daidai*** (代々) 'many generations'



# Naming and Framing

- “Naming and framing are different. **Framing is conceptual**, it is about ideas that allow you to understand what you are experiencing. **Naming is giving language to those ideas** – often ideas you already have, possibly as part of your unconscious brain mechanisms. Naming can make the unconscious conscious.”

NOVEMBER 29, 2014 *By George Lakoff in*  
POLITICAL 3 COMMENTS

# WHAT IS FRAME?

Anthropology, Psychology, Sociology  
<Talks and Texts>

**Bateson** (1972) *Steps to an Ecology of Mind*

**Goffman** (1974) *Frame Analysis*

- Subjective involvement in the organization of one's experience
- "Definition of a situation"
- Structure of expectation

- A frame is a “psychological concept” (Bateson 2000 [1972]:186)
- “By excluding certain messages certain others are included,” and **like picture frames**, they direct viewers to “attend to what is within and do not attend to what is outside” (p. 187).
- “Every metacommunicative message is or defines a psychological frame,” and conversely, “a frame is metacommunicative” (p. 188).
  - Metacommunicative signs are used by humans and even by other animals to convey a message



# CONCEPTS OF (RE)FRAMING

- **Play Frame** (Bateson, Goffman, many others)

## **“This is play”**

- A “play” frame conveys that the ongoing interaction is “play” and not real.
- It establishes a “paradoxical” frame. (What looks like physical aggression by dogs (or monkeys) is understood as play when that is signaled by play bows.)

# CONCEPTS OF (RE)FRAMING

- Play Frame (Bateson, Goffman, many others)  
“This is play”
- **Quotidian Frame** (Matsumoto 2011)  
“This is grounded in quotidian events”

Cf.

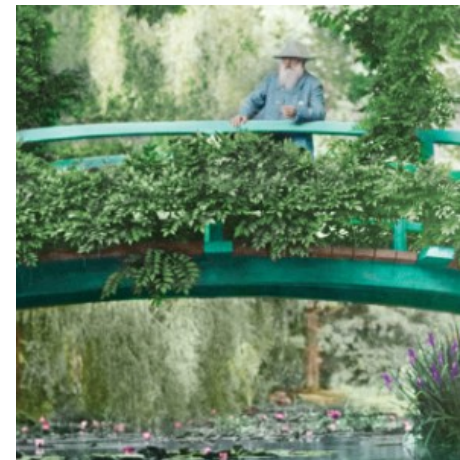
- Various context-based frames

Relevant in reframing to a quotidian frame is the participants’ *perspective* toward the ongoing interaction (and not the social role she/he takes in a frame). (keying)



# Frames in Discourse

## QUOTIDIAN (RE)FRAMING



# QUOTIDIAN REFRAMING

- Inserting a scene that is reminiscent of the **ordinary life** while recounting memory of a grave event
- *Reframing* the narrative from a **quotidian** perspective

# QUOTIDIAN FRAMING CUES

## *Linguistic cues of Quotidian framing*

- Repetition
- ‘Constructed dialogues’
- Details of an everyday scene
- Everyday vocabulary, onomatopoeia
- Laughter, etc.
  - Repetition, ‘Constructed dialogues’ (Tannen 1989)
  - ‘Contextualization cues’ (Gumperz 1982)

# President Obama at a charitable dinner

Obama: ... This is the third time that Governor Romney and I have met recently. As some of you may have noticed, (er..) I had a lot more energy in our second debate. I felt really well rested after the nice long nap I had in the first debate.

[From the video tape posted in *Voice, October 2012*]

- Induced rapport with the public through reference to ordinary life
- Making light of his embarrassing performance at the first debate for the presidential election
- Manipulation of the evaluation of a serious situation

# President Nixon at a bill-signing ceremony

- It's **1973**.
- After a **bill-signing ceremony** in the Oval Office, President Nixon said in a **teasing voice** to UPI's Helen Thomas:

**Nixon:** Helen, are you still wearing slacks? Do you prefer them actually? Every time I see girls in slacks it reminds me of China. ...but I think you do very well. Turn around.

Nixon asked Thomas **how her husband liked her wearing pants outfits**.

[Cited in Goffman, 1981:124]





# Additional Notes on Nixon's reported utterance

“Helen, are you still wearing slacks?”

*[Women's fashion of wearing slacks in official occasions was not yet well established in the U.S. in early 1970s.]*

“Every time I see girls in slacks it reminds me of China.”

*[Nixon had visited China in 1972, and Thomas had been part of the press corps. People in China, men and women, wore simple trouser suits. The image below is a typical garment worn by women in 1950s-1970s.]*

([https://www.powerhousemuseum.com/hsc/evrev/mao\\_suit.htm](https://www.powerhousemuseum.com/hsc/evrev/mao_suit.htm))

“But I think you do very well. Turn around.”

*[Thomas did a pirouette.]*



- Nixon's quotidian reframing of the bill-signing gathering was **successful in reducing psychological tension** among the speaker and bystanders.
- However, another aspect of this quotidian reframing was that Nixon **reframed the professional status of Helen Thomas to that of an ordinary woman**, and to someone who was expected to follow men's commands.

(Matsumoto 2015)

# Change of footing

- The Nixon anecdote also illustrates the change of footing.
- A change in footing implies a change in the **alignment** we take up to ourselves and the others presented as expressed in the way we **manage the production and reception of an utterance.** [Goffman, p. 128]
- Participants over the course of their speaking constantly change their footing, these changes being a persistent feature of natural talk. [Goffman, p. 128]

# Footing

- Structure of communication in social encounters
- Participant's alignment, or stance, or projected self is at issue.
- Speakers change their pitch, volume, rhythm, stress, tonal quality.

- The person who uttered reported words in the described scene and the person who utters those words in the speech situation have a **different footing, even if both utterances were made physically by the same person.** The former is the source of speech (the **figure**) and the latter is the **animator**.

# Production Format of Utterance

## Goffman

**The speaker** can take an **alignment** towards the speech activity as:

- The **author** – the agent who puts together, composes, or scripts the lines that are uttered.
- The **animator** – the sounding box
- The **principal** – the party to whose position, stand, and belief the words attest.

# Participation Framework

## Goffman

The participation roles of **the hearers**

- The **addressee**
- The **overhearers**
- The **eavesdroppers**

# Interactive Frames

## Tannen and Wallat

- Frames and schemas – structures of expectation
- Frames – “refer to the anthropological/ sociological notion of **interactive** frames of **interpretation**” (p. 205)
- “A monkey needs to know whether a push from another monkey is intended within the frame of play or the frame of fighting. People are continually confronted with the same interpretative task.” (p. 206)



# Knowledge Schemas

## (as used in T&W)

- Schemas – “refer to the cognitive psychological/ artificial intelligence notion of **knowledge** schemas” (p. 207)
- **participants’ expectations** about people, objects, events and settings in the world, as distinguished from, alignments being negotiated in a particular interaction
- The word "hammer" can have no meaning to someone who has never seen a hammer used
- The only way anyone can understand any discourse is by filling in unstated information which is known from prior experience in the world

# Frame Shifting

- **Each interactive frame**, i.e., each identifiable activity that speaker is engaged in within the interaction, entails her establishing a **distinct footing** with respect to the other participants. (211)

# Frames in Food Talk

- [https://www.youtube.com/watch?v=rNuIOPfA2HA&index=4&list=PL5vtqDuUM1DmXwYYAQcyUwtcalp\\_SesZD](https://www.youtube.com/watch?v=rNuIOPfA2HA&index=4&list=PL5vtqDuUM1DmXwYYAQcyUwtcalp_SesZD)



# Frames in Food Shows

- General context (“ambiance”)
- Reporting frame (official)
- Personal conversational frame (also quotidian)
  - Food shows revolve around frequent switching from reporting frame to conversational frame, giving the impression that the TV personalities are directly addressing the viewer and are having a casual conversation between them.

# Summary

- Different concepts of FRAME are used in many research disciplines
- The concepts of FRAME give useful tools to describe how people understand, organize and present their experience
- The concepts of FRAME illustrate that people can hold and express (and sometimes manipulate) multiple views of the world
- Find words and events, and analyze them using FRAME concepts!