

- **1. Harold Lasswell**

- **A. Not Jew**

- **B. Trained in political science**

- 1. Main interest in political power

- **C. Attempts to relate Freudian psychoanalytic theory with political science resisted**

- **2. Influenced by**

- **A. Freud**

- 1. Psychoanalysis and political science

- **B. Karl Marx**

- 1. Critical of thinking that world proletarian revolution was the only possible outcome after age of capitalism had reached its zenith
- 2. Instead, argued that prolonged struggle between capitalist and communist nations may be so bitter only police and military could main order
 - a) Creating a garrison state in which surveillance and repression would grip society

- **C. George Herbert Mead**

- 1. Use of symbols in his propaganda studies

- **3. Conducted 2 propaganda studies**

- **A. First qualitative and critical**

- 1. Cited specific examples of propaganda

- **B. Second quantitative and statistical**

- 1. Aided US war effort by creating propaganda

- **4. Developed**

- **A. Content analysis as CR tool**

- 1. Investigation of communication messages, by classifying content, to measure certain variables

- **B. Five-questions model**

- 1. Who, says what, to whom, in what channel, with what effects

- **C. 3 functions of communication**

- 1. Surveillance: Understand environment and reduce uncertainty
- 2. Correlation: How to think about; make sense of what is going on
- 3. Transmission: of cultural heritage, values, history, etc.
- 4. Entertainment: as fourth function added by scholars after Lasswell

- **D. Policy science**

- 1. An integrated approach of social sciences (political science, law, sociology, psychology) on public choice and decision making

- 2. To ameliorate certain political and social problems facing modern society

• 5. Impact

- **A. Five-questions model led to emphasis on determining effects**
 - 1. Failed to include 'why' or 'noise'
 - 2. Steered study away from other important topics
 - 3. Assumed intentional and unidirectional communication, oriented towards a desired effect
- **B. Pioneered content analysis methods**
 - 1. Qualitative and quantitative measurements of communication messages
- **C. Study of propaganda as important early type of communication research**
 - 1. Impact not dissimilar to Chicago's Payne Fund studies
 - 2. Note that communication did not exist as a discipline then yet
- **D. Introduced Freudian psychoanalytic theory to social sciences in America**
 - 1. By using id-ego-superego via content analysis to political science problems
- **E. Helped create policy sciences**
 - 1. An interdisciplinary movement to integrate social science knowledge with public action

• 6. Walter Lippmann

- **A. Lasswell's propaganda analysis colleague**
- **B. Influential newspaper columnist**
- **C. Most influential non-academic**

• 7. Developed

- **A. Defined propaganda as a**
 - 1. Situation where communication flows are restricted
 - 2. And a set of individual wishing to distort news
 - 3. Thus barrier between actual event and public must be present for propaganda to occur
- **B. Agenda Setting theory**
 - 1. Stereotypes as key factor in public opinion process, giving simplicity to confusion
 - 2. 1922 Public Opinion book argued that media is principal connection between event in world and images in public's mind
 - a) Pseudo-environment in people's mind a result of **gatekeeping**
 - 3. Media help people determine knowledge (what to think about) over attitude (what to think), though
 - a) Transfer of salience through placement and frequency
 - b) A result of aggregate impact of very large number of messages
 - 4. Process of media agenda setting (measured by CA) > public agenda setting > policy agenda setting
 - 5. Proven by McCombs and Shaw's 1968 study of presidential election

• 8. Impact

- **A. Indirect effects era**
 - 1. Agenda-setting came at time when scholars dismayed at direct effects model
 - 2. Led scholars to think about how media can have few direct effects, but strong indirect effects in influencing public agenda
- **9. Paul F. Lazarsfeld**
- **A. Jew**
 - 1. Blocked his career advancement
 - a) But helped him gain the Rockefeller fellowship
 - 2. Research Centre to be raided by Nazis
 - 3. Wife and friends arrested
 - 4. Gymnasium High School job lost later
- **B. Trained in maths**
 - 1. Provided him with basic skills for his methodological expertise
- **C. Love to work with data; methodologist**
 - 1. Preferred to work on methodologies than field of communication
- **D. Focus on social research, and later applied research (RRP)**
 - 1. Shaped by studies of contemporary social problems at University of Vienna
 - 2. Marienthal Study of Unemployment
 - a) To help him gain fellowship to US
- **E. Launched Research Centre for Economic Psychology (Vienna Research Institute)**
 - 1. To provide later communication research centre with framework of organisational form
 - 2. To seek relief from financial problems
 - 3. Did audience study for Radio Vienna
 - a) First media audience study, to shape his radio research project in US
- **F. Migrated to US with help of Robert Lynd**
 - 1. Lynd later recommended Lazarsfeld as director to RRP
- **G. Not involved in US War efforts**
- **H. Tried bridging critical and empirical school, but failed**
 - 1. Brought Adorno in for the RRP
- **I. From Office of Radio Research to Bureau of Applied Social Research**
 - 1. Robin hooding: shuttling funds from one study to another to pay for deficit
 - 2. Serving two masters: applied research for corporate sponsors and later academia
 - a) Unpopular with sociologist, who wanted academic sociology well removed from applications
 - 3. Absence of statistical tests: exploratory research
 - 4. Favour localised designs to random samples (? - though he was methodologist)

- a) Enable study of interpersonal communication and social relationships

• 10. Influenced by

• A. Vienna

- 1. Lazarsfeld home, was influenced by Freudian thought and socialism (? p. 342)

• B. Edward L. Bernays

- 1. father of PR, on his opinion leaders/two-step flow model theory

• 11. Researched on

• A. Marienthal Study of Unemployment

- 1. One of the first few study of unemployment
- 2. Provided him with academic reputation which aided in his migration to US

• B. From market research to political communication

- 1. A lot of market research on consumer behaviour
 - a) Dependence on soft money, unlike Stanford's support for Schramm's communication school
- 2. Attempts to relate consumer goods and politicians resisted

• C. 'War of the Worlds' radio broadcast

- 1. Study led by Cantril, co-partner at RRP, aided by Lazarsfeld
- 2. Led to departure of Cantril from RRP and move to Columbia
 - a) Disagreement over authorship of 'Invasion from Mars' study
- 3. Found:
 - a) Some frightened, others not
 - b) No single cause, contingent on other factors, e.g. education, religiosity, etc.
- 4. Impact:
 - a) Bullet Theory undermined, yet perception of powerful media persist

• D. Erie County study (1940)

- 1. Longitudinal design panel study
 - a) Conducted at monthly interval
 - b) Enables determining of time-order of various independent variables
 - c) Very difficult to undertake
- 2. Probability sampling: allows generalisation
- 3. Control groups: as check to people unexposed to messages
- 4. Deviant case analysis
- 5. Found:
 - a) Most people decide early and remain unchanged, contrary to expectations
 - (1) Three patterns of media campaign influence: activation, reinforcement, conversion (minority)
 - b) Social categories linked to voting intentions and elections participations

- c) Mass communication functions through a nexus of mediating factors to influence audience
- d) Launched era of limited (and indirect) effects in mass communication
 - (1) Media expected to have direct and powerful effects, but not true
 - (2) Only persuaded a few (opinion leaders), who magnified the effect through interpersonal communication with their 'followers'

- **E. Two-step flow model (as a result of limited effects)**

- 1. Interpersonal communication => Mass media
 - a) Contradicts prevalent fear of impact of mass communication
- 2. Media influence is indirect; through opinion leaders
- 3. Problems:
 - a) active/passive dichotomy
 - b) dubious classification of opinion leaders
 - c) discounting direct effects of media
- 4. Found: Media effects not automatic, all powerful, but contingent on various factors

- **F. Decatur Study (1945)**

- 1. Study of influential by Wright Mills
 - a) Recognition that interpersonal communication was very important
- 2. Found
 - a) Media provided information, but individuals only motivated to act when information is transmitted interpersonally

- **12. Developed**

- **A. Question-and-interviewing design**

- **B. Cross tabulation; early proponent of triangulation**

- 1. Use of multiple methods of measurement, data gathering and analysis to obtain many-sided view
- 2. Sought to combine qualitative with quantitative

- **C. Lazarsfeld-Stanton Program Analyser**

- 1. Enabled measuring of audience responses while they still remember
 - a) To be adopted by advertising agencies later

- **D. Focus group interviewing**

- 1. Allow eliciting of qualitative data, to probe reasons for likes and dislikes

- **E. Deviant case analysis**

- 1. Strategy for examining unusual/uncommon cases that does not conform to relationship characterising most others

- **F. By Herta Herzog: Uses and Gratification**

- 1. "Soap operas" study of gratification obtained by housewives

- a) Inverted media effects paradigm
- b) People not interested in what media do to people; but what people make of media

• 13. Impact

• A. Initiated media effects tradition

- 1. Became dominant paradigm in US mass communications research

• B. Led to era of minimal, limited and indirect media effects

- 1. Media ineffective in changing people's thinking
- 2. Effects not automatic, all-powerful, but functions through a nexus of mediating factors to influence ors

• C. Advanced communication research methods

- 1. e.g. deviant-case analysis, triangulation, focus group interviewing
- 2. Transformed public opinion polling methods from descriptive to survey analysis

• D. Created prototype of research institutes

- 1. Imitated the organisational structure at Bureau of Applied Social Research at Columbia University

• E. Pioneered studying role of interpersonal vs mass media communication

- 1. Opinion leadership
- 2. Two-step flow of communication

• F. Similarity between market research and mass communication research

- 1. Lazarsfeld founded both fields
- 2. Bureau's emphasis on specific, measurable, individual, behavioural and attitudinal short-term effects stem from marketers desire to sell their products

• 14. Criticisms

• A. Abstracted empiricism

- 1. Focus too much on stuff he can measure, data
- 2. Too abstract, drawn away from real world social problems, like those Chicago scholars studied

• B. Overemphasis on individual effect

- 1. Than on societal level

• C. Entrepreneurial role

- 1. Sociologists wanted practical application well separated from academic sociology

• D. Bureaucratisation of social research

- 1. Bureau's studies were cluttered with facts and contain little observations by researchers

• 15. Robert Merton

• A. Key member of the Bureau of Applied Social Research

• B. Theoretically-inclined

- 1. Well matched for Lazarsfeld the methodologist

• C. Diplomatic skills helped extricate Lazarsfeld from problems with others

• 16. Researched on

• A. Self-fulfilling prophecy

- 1. Working unconsciously to attain a certain view, once held

• B. Theories of the middle range

- 1. Range of abstraction
- 2. Low, descriptive and non-theoretical; high, abstract and untestable
- 3. To focus on theories that can be empirically examined and tested

• C. Narcotising dysfunction

- 1. People surround themselves with media for surveillance, believing they're actually doing something, but not
- 2. Similar to Marx's false consciousness
 - a) too much information out there, sense of engagement/participation, but doesn't mean actively involved

• D. Pseudo-Gemeinschaft

- 1. False sense of community, belonging (also false consciousness?)
- 2. Study of how popular singer Kate Smith's broadcast for 18 hours brought in \$39 million purchases and pledges for US war bonds
- 3. Findings:
 - a) Media can have direct effects on a massive scale (vs Bureau's findings of limited/indirect effects),
 - (1) when persuasive messages are highly emotional, and
 - (2) come from a source made credible by sentiments

• 17. Kurt Lewin

• A. Jew

- 1. Persecuted like Lazarsfeld
- 2. Marginal university status
- 3. Prejudice influenced his scholarly interests later (see Influenced by)

• B. Nazi authoritarian rule shifted his intellectual interests

- 1. Mother died in Nazi concentration camp
- 2. Became interested in group influences on individual behaviour (see Influenced by)

• C. Experimental Psychologist at University of Berlin

- 1. Experimental and gestalt approach to psychology
 - a) Examines holistically by filling in partial lack of information to form overall impression

• D. Differ from Berlin Gestaltist

- 1. Gestaltists focus on individual perception and learning
- 2. Lewin focuses on needs, personality and social factors

- a) in forces leading to individual action (field theory)
- **E. Dependent on soft money for research**
 - 1. Like Lazarsfeld's Bureau
 - 2. Came with strings attached: e.g. expectation of a solution to a practical problem
 - a) May have influenced him towards applied/action research
- **F. Applied/action research did not earn him respect he felt he deserved in US psychology**
 - 1. Interested and involved in application, which took up much of his time
 - 2. Resisted by other psychologists of his day (like other sociologists and Lazarsfeld)
 - 3. Belief that applying a theory can test its validity
 - 4. Thus both practical and theoretical, though his research still driven by theory than data
- **G. Easy going and engaging; free of status consciousness**
- **H. Totally rejected the German norms of learning concerning student-professor contact**
 - 1. Inspired doctoral students, who went on to spread his ideas
- **I. Thinking-by-talking approach**
 - 1. Encouraged open discussion with his doctoral students on their research in quasselstube groups he formed at each of the universities he taught
- **J. Enlisted as German soldier in WW1**
- **K. Moved to MIT from Iowa in 1945**
 - 1. Due to inhospitable climate from criticisms of frequent absences, and from Clark Hull followers
 - 2. Formed the Research Centre for Group Dynamics (RCGD)
- **18. Influenced by**
 - **A. His prior study**
 - 1. Medicine, maths and especially physics, where he adopted many concepts to his field theory
 - **B. Gestalt-orientation**
 - 1. Concern with coherent wholes
 - **C. Intellectual shift with persecution and his move to America**
 - 1. From individualistic psychology to social psychology of small-group
 - a) e.g. from Zeigarnik effects to group dynamics
 - 2. Focus on group influences on individual behaviour, e.g. self-hatred among minority group
 - a) e.g. sweetbreads, leadership style studies
 - 3. Focus on social and human communication problems
 - a) e.g. prejudice, race relations, authoritarian leadership, status of women
 - b) and less on individual learning-and-perception psychology by Berlin Gestaltist at Berlin University
 - 4. Focus on applied problems
 - a) e.g. wartime field experiments (sweetbreads)

- 19. Researched on

- **A. Self-hatred among minority group, such as Jews**

- 1. No member of minority group allowed to leave, due to greater power of majority group
 - a) Such frustration turns individual against his own group and himself

- **B. Leadership Style Studies**

- 1. Conducted by his doctoral student Ronald Lippitt
- 2. Politically motivated by prejudice and persecution by authoritarian Nazis
- 3. Compare performance of making theatrical masks by four groups of 11-year-old boys under different leadership style
 - a) High degree of control (authoritarian) vs low degree of control (democratic and laissez-faire)
- 4. 2 studies conducted
 - a) First study (Authoritarian vs Democratic)
 - (1) Autocratic group less happy, less productive, more scapegoating, more aggressive, more individualistic with little regard for group goals or interests of others
 - (2) Democratic group friendlier with each other and showed more group spirit
 - (3) Flaws
 - i) Small sample size
 - ii) No random assignment
 - iii) But overlooked due to relevance of topic during Hitler's invasion
 - b) Second study (Authoritarian vs Democratic vs Laissez-faire)
 - (1) Added laissez-faire, 'janitor' criticism, switching of groups
 - (2) Findings
 - i) Happiness and productivity: democratic > laissez-faire > authoritarian
 - ii) Members of laissez-faire that came from authoritarian group frightened
 - iii) All but one of the 20 boys prefer democratic group
 - (3) Flaws
 - i) Still small sample size, insufficient for statistical test of significance
 - ii) Fail to account for order effect

- **C. Changing Food Habits/sweetbreads study**

- 1. Use of lecture vs discussion style to encourage consumption of undesirable glandular meat
- 2. Findings: Only 3% of lecture vs 32% of discussion participants served the meat
- 3: Flaws:
 - a) Different person who conducted lecture and group discussion
 - b) Lecture-style did not include public commitment by showing hands,
 - c) nor where they informed of follow-up

- 4. Developed 3-step model for behaviour change and gatekeeping theory
- **D. Harwood Pajama Factory studies**
 - 1. Participatory management as means of bringing about change
 - 2. Employees attain production goals set by themselves rather than by factory
 - 3. Involving employees in discussion of changes help maintain productivity
- **E. Westgate study of communication network (Leon Festinger)**
 - 1. Study of communication links of all married couples in Westgate apartments at MIT
 - 2. Significance: non-laboratory study by an experimental researcher
 - 3. Physical/spatial distance a major/main determinant in where a dyadic link occurred
- **F. Network research (Alex Bavelas)**
 - 1. Examine performance in solving group problems of experimentally-created networks with different levels of restrictions
 - a) e.g. wheel > star > chain
 - 2. Found: networks with less restrictive communication had higher performance, though star outperformed wheel due to information overload
- **20. Developed**
 - **A. Field theory**
 - 1. Metatheory, a grand theory. Not theory of middle range.
 - 2. Behaviour as determined by totality of an individual's situation
 - 3. Study of individual in his field (lifespace) as a result of forces in his immediate surroundings
 - 4. Defined human behaviour as a function of individual (e.g. needs, personality) and his immediate environment (social factors)
 - a) Underlying needs and subjective experience
 - 5. Borrowed concepts from physics: field, valence, vector, barrier
 - 6. Combined humanistic with scientific research
 - a) Personally debrief respondents to understand their perceptions of their behaviour
 - 7. At cross with with Clark Hull's behaviourism, centred on S-R learning
 - **B. Gatekeeping theory**
 - 1. Control flow of messages in a channel
 - 2. Originated from housewives controlling food in families in sweetbreads study
 - **C. 3-step model for behaviour change**
 - 1. Unfreezing (process of disconfirming a person's former belief system), moving, freezing
 - 2. Group discussion and public commitment of discussion-style sweetbreads study had freezing effect
 - **D. Group dynamics**
 - 1. Legacy

- a) From a training programme to encourage group discussion and decision making, where its participants could treat each other as peers
- b) Research was woven into the programme
 - (1) Trainers and researchers collected detailed observations and recording of group activities
 - (2) Met during the evening to discuss interpretation and observation of the event
 - (3) Participants requested to join, and the meetings became the most important part of the training
- 2. Formation of groups
 - a) Interdependence of fate
 - (1) Groups come into being by virtue of some characteristic beyond their control
 - b) Task interdependence
 - (1) Weak form of interdependence
 - (2) Positive interdependence: when one's success facilitates others
 - (3) Negative interdependence: when one's success is another's failure
- 3. Elements of T-group
 - a) Feedback: Adjustment of a process informed by information about its results/effects
 - b) Unfreezing: Process of disconfirming a person's former belief system
 - c) Participant observation: To participate emotionally and observed themselves objectively
 - (1) See Experiential learning
 - d) Cognitive aids: Such as Johari Window
- **E. Group cohesion and group think**
 - 1. Causes: group homogeneity, directive leadership, isolation
 - 2. Factors
 - a) Illusion of invulnerability
 - b) Belief in inherent morality of group
 - c) Close-mindedness
 - (1) Rationalisation: focusing on past successes, downplaying negative information
 - (2) Stereotyping of outsiders: close of ideas from outside of group
 - d) Pressure towards uniformity
 - (1) Self-censorship
 - (2) Mindguarding: discouraging others from expressive their own views, suppressing information
 - (3) Direct pressure: on any deviance from any assumed group consensus
 - (4) Illusion of unanimity: members discouraged from straying away from making the decision
 - 3. Prevention:
 - a) vs Group homogeneity
 - (1) Bring in critical evaluators

- b) vs Directive leadership
 - (1) Avoid being directive
 - (2) Open climate
- c) vs Isolation
 - (1) Avoid insulation
- **F. Experiential learning**
 - 1. Learning best facilitated when there is a conflict between immediate concrete experience and detached analysis within the individual
- **G. Action Research**
 - 1. Investigations intended to lead to social action by solving social problems, with the researcher deeply involved in system of study
 - 2. Cyclical: identifying, planning, action, evaluating, replanning, action
 - 3. Fell out of vogue in 1960s
 - a) Criticised as non-scientific
 - b) Associated with radical political activism
 - 4. But gaining in popularity in some quarters, e.g. education
- **H. Cognitive Dissonance (Festinger)**
 - 1. Dissonance created by inconsistency between cognitions (e.g. attitudes, beliefs, knowledge, action)
 - 2. Dissonance as a psychologically uncomfortable and aversive state
 - a) People have a natural drive to avoid them
 - 3. Two basic predictions
 - a) Dissonance will motivate person to try to reduce it and achieve consonance by
 - (1) Changing cognitions
 - (2) Adding cognitions
 - (3) Altering importance of cognitions
 - b) In addition to trying to reduce it, the person will actively avoid situations and information which will increase dissonance
 - (1) Engage in selective exposure, avoid exposure to conflicting message
 - 4. Examples
 - a) Minimal justification
 - (1) Behaving against one's belief for something infinitesimal will change one's attitude and reduce dissonance
 - b) Post decision dissonance
 - (1) Favouring the alternative one has selected more strongly after making a decision to select it
- **21. Impact**

- **A. Founded distinctive school of cognitive and experimental social psychology in America**
 - 1. Field theory puts subjectivism back into psychology
 - a) Offered an alternative to Clark Hull's behaviourism
 - 2. Field theory pioneered a cognitive approach to psychology, still dominant today
 - a) Contents of one mind product of received communication, what is communicated taken from content of same mind -- contents that have undergone transformation and interacted with each other
- **B. Exerted great academic influence through brilliant students he trained**
 - 1. e.g. Leon Festinger (cognitive dissonance) and Alex Bavelas (network)
- **C. Developed group dynamics theory**
 - 1. More than field-theory, which was metatheory
 - 2. Testable, theory of the middle range
- **D. Emphasised role of communication**
 - 1. Close correspondence of cognition with communication puts Lewin as forefather of communication study
- **E. Made applied/action research respectables**
 - 1. Argued that applying a theory to real world problems can test its validity
 - a) and that application can be guided by theory

• **22. Carl Iver Hovland**

- **A. Trained at Northwestern University**
- **B. Yale University: Institute of Human Relations**
 - 1. Funded by Rockefeller Foundation
 - 2. Dominant and strong in academic psychology
 - 3. Adopted a multidisciplinary approach to solve social problems
 - 4. Entered a period of self-doubt and questioning
 - a) People looking for solutions from their research, but none was coming
 - 5. Hull arrive at IHR, built behaviouristic approach to human motivation and learning, S-R model
- **C. Served in World War II**
 - 1. Named Chief Psychologist, later director of experimental studies, Research Branch of Info & Ed
 - 2. Hired by Samuel Stouffer
 - a) Who was an expert at survey research, but not experimental methods
- **D. Researched on 'Why We Fight' film series**
 - 1. Film series to educate (impart factual knowledge) and motivate (shape beliefs and opinions, motivate people to enlist and serve)
 - 2. Evaluated the impact of the films by designing field experiments on persuasion

• **23. Influenced by**

- **A. Clark Hull's behaviourism and S-R theory**
- **B. Freudian psychoanalytic theory, from Hull's influence**
- **C. Lewin's field theory and psychoanalysis**
 - 1. Despite his mentor Hull's dislike of Lewin's theory
- **24. Researched on**
- **A. Attitude**
 - 1. as core conceptual variable in his wartime study
 - 2. as positive/negative feeling towards object/individual that serves as predisposition to action
 - 3. as a prediction of overt/behaviour by an individual at a later time
 - 4. *But evidence suggest otherwise, thus important to find out when it does or when it doesn't*
- **B. Persuasion**
 - 1. Measure impact of
 - a) Source credibility
 - b) Fear appeal
 - c) One-sided vs two-sided messages
 - 2. Through pencil-and-paper techniques
 - a) Knowledge of film content
 - b) Attitude change, increased willingness to fight
 - c) Determine aggregate effects
 - 3. Combined with qualitative approach
 - a) Enlisted Merton from Bureau of Applied Social Research
 - b) Used Lazarsfeld-Stanton Program Analyzer
 - c) Determine what is it about the film's content that produce the observed effects
 - (1) Helped interpret results and suggest new hypotheses
 - 4. Great deal of control: randomisation, pretest-posttest
 - 5. But constrained by film message
 - **6. Found:**
 - a) Effects of film fit hierarchy of effects model: knowledge > attitude > behaviour
 - b)
 - c) High **credibility** sources bring about more attitude change immediately, but fade over time
 - d) Mild **fear appeals** can help increase persuasiveness, but strong ones can backfire
 - e) **One-sided** messages work better with lower educated people
 - f) People with lower **self-esteem** more likely to change behaviour
 - g) Stating **conclusion** in message adds clarity to persuasiveness

- h) **Active participants** bring about more attitude change (like Lewin's sweetbread)
- i) Individuals with strong **group identity** have less attitude change (like Lewin's group dynamics)
- **C. Source credibility**
 - 1. Respondents not allowed to interact with each other after receiving the messages
 - a) From sources of different credibility: academic journals v Russian newspaper, Pravda
 - 2. Contributed to internal validity (controlled extraneous variables) but limited external validity (artificial setting of study)
 - 3. Found: sleeper effect
- **25. Developed**

- **A. Message-learning-approach**

- 1. Proposed independent variables, categorised into categories based on Shannon's transmission model
 - a) Source
 - (1) Number, and their unanimity
 - (2) Similarity to receiver
 - (3) Attractiveness
 - (4) Credibility, but fades over time (sleeper effect)
 - (5) Power
 - (6) Intent to persuade
 - b) Message
 - (1) Comprehensibility
 - (2) Number of arguments
 - (3) Rewards
 - (4) Arousal/reduction of fear
 - (5) Organisation, order of presentation, repetition
 - i) Stating conclusion adds clarity and leads to more attitude change than leaving it implicit
 - (6) Style of presentation
 - (7) One-sided and two-sided message
 - c) Channel
 - (1) Modality, face-to-face or ...
 - (2) Attributes, interactivity
 - (3) Context: solitary vs group experience
 - d) Receiver
 - (1) Demographics: ethnicity, age, gender
 - (2) Psychographics: *intelligence, *self-esteem
- 2. Proposed model of attitude change: attention, comprehension, yielding, retention

- 3. Later developed by William McGuire extended Hovland's MLA to the matrix model
- **B. Sleeper effect**
 - 1. Effect of source credibility is maximum at time of communication, but fades with passage of time
 - a) People forget the credibility of source over time, but retain the information
- **C. Fear appeals**
 - 1. Moderate level of fear appeals can help increase persuasiveness of message, and need not be counterproductive to bringing attitude change
 - a) Need to be assured that practising the recommendations can minimise threat

• 26. Impact

- **A. Steered communication research towards the study of effects**
- **B. Inspired subdiscipline of interpersonal communication**
 - 1. from the mass communication focus by Lazarsfeld
- **C. Led to tradition of micro-level studies on individual attitude change**
- **D. Led to tremendous research literature on persuasion**
- **E. But findings contradict Lazarsfeld's minimal effects on media audiences**
 - 1. 1/3 to 1/2 of Hovland's respondents were influenced by single exposure to a persuasive message

• 27. Criticisms/Limitations

- **A. Oversimplification of communication process**
 - 1. one-way persuasion than interactive
- **B. Single component approach to studying in MLA**
 - 1. rules out interaction effects between different components of SMCR
- **C. Controlled experiments, lacked external validity**

• **28. Norbert Wiener**

- **A. Russian Jewish heritage**
 - 1. But hidden from him by his parents
 - 2. Knowledge of Jewish ethnicity traumatised him
- **B. Father traumatised Wiener's childhood**
 - 1. Brilliant self-taught man with very high expectations
- **C. Child prodigy**
 - 1. Home-educated at 7, college at 11, BA in mathematics at 15, PhD in philosophy at 18
- **D. Joined and transformed MIT**
 - 1. Not taken seriously at first, with slow promotions, until his career took off
 - 2. Found his life's niche in mathematics
 - 3. Helped transform mathematics from a service subject to state of art theoretical subject
- **E. Brilliant odd man**

- 1. Talkative and open, but insecure
 - a) Due to traumatic childhood
 - b) Craved for his father's praise
 - c) Became even more insecure about his academic productivity in middle age
- **F. Wiener-wegs**
 - 1. Random wandering around MIT
- **G. Multidisciplinary and international scholarship**
 - 1. Multidisciplinarity enabled him to keep a diverse personal network to advance his cybernetic theory
 - 2. Travelled frequently to international conferences and corresponded with scholars such as Margaret Mead and Gregory Bateson
- **H. Postwar (WW2) rebellion**
 - 1. Refuses to use any federal funding after atomic bombing
- 29. Influenced by
 - A. -
- 30. Researched on
 - **A. Improving accuracy of antiaircraft guns ("Yellow Peril")**
 - 1. Focus on the role of feedback
 - a) Degree which previous shell approached target treated as feedback to improve next
 - 2. Human operators of AA guns led Wiener towards transdisciplinary thinking (not just machines)
 - a) Later studied human neurophysiology, brain functioning, and to a lesser extent intra/interpersonal
 - 3. What would become cybernetic theory, and information theory (from Shannon-Weaver)
 - **B. Advanced cybernetics into study of human brain and nervous system**
 - 1. With Harvard Dr. Arturo Rosenblueth, may be due to his failed Zoology course
- 31. Developed
 - **A. Mathematical model of how feedback controlled a system**
 - 1. Idea of feedback already existed before Wiener's work
 - **B. Cybernetics as theory of self-regulating systems**
 - 1. The control of future conduct of a system, by information about its past performance
 - a) Feedback as a response by a receiver to the source's previous message
 - (1) Enabling source to gradually self-correct the effectiveness of a series of messages,
 - (2) making them closer to what is needed to accomplish their intent
 - 2. Two key concepts
 - a) Feedback and stabilising properties: positive (amplifying) and negative (stabilising) feedback
 - b) Information transmission (Communication) makes parts whole, by unifying discrete parts

- (1) Concerned with how messages are exchanged between two or more units so that each influences the other
 - i) How Information Theory/Systems theory came about?
- 3. Circular causality (feedback loop)
 - a) A causes B, B causes C, C causes A so that it causes itself again
 - (1) e.g. speaker modifying presentation while monitoring audience reactions to it
- 4. Wiener saw wide applications, from servomechanisms to human nervous systems to prostheses
- 5. Multidisciplinary development of cybernetics
 - a) Through Macy conferences
 - b) Humanising influence by anthropologist Mead and Palo Alto school Bateson
 - (1) Focusing discussion on social science so it did not get overlooked
 - (2) Bringing talk back to plain English when it threatened to go off into technical jargon

• 32. Impact

- **A. Importance of feedback as a type of communication message flow**
- **B. Implies a dynamic, processual view of behaviour over time, as opposed to discrete events**
- **C. Reflexive, self-learning system. Assumed control of system lies within system itself.**
- **D. Wide applications**
 - 1. Now used to television ratings and programming, public opinion, organisational communication
- **E. Infected social sciences, mathematics and neurophysiology with multidisciplinary approach**
 - 1. Macy conference provided Wiener and his cybernetics theory with fertile ground to do so
- **F. Led to systems theory, reaction against reductionist approach**
 - 1. Holistic: stresses interrelationships among the parts of a whole
 - a) Offered an alternative to previous scientific procedures of linear causality
 - 2. Lead to major change in basic conceptions of science
 - a) Due to systems theory movement in 1960s
 - 3. Rejects atomistic research that was adopted from classical physics
 - a) Reject analysing communication behaviour of individuals,
 - b) but look at networks and relationships of individual with others
- **G. Cybernetics as communication theory, though not widely applied because**
 - 1. Need mathematical ability
 - 2. Competed with Shannon's information theory
 - a) Which fitted better with the effects-oriented approach
 - 3. Wiener also generally opposed extension of cybernetics to social science problems
 - a) Thought human communication more complex than m-m/h-m relationships

- 4. Marked departure from convention thinking in behavioural sciences (intra and inter, vs social sciences)
 - a) Strongly resisted when applied to many fields