INTRODUCTION AND OVERVIEW TO, AND HISTORY OF INDUSTRIAL/ORGANIZATIONAL (I/O) PSYCHOLOGY
INTRODUCTION AND OVERVIEW TO, AND HISTORY OF INDUSTRIAL/ORGANIZATIONAL (I/O) PSYCHOLOGY

Objectives:
- explain how I/O relates to the profession of psychology as a whole
- be able to understand the major fields of I/O psychology
- understand how and why psychologists are licensed
- learn history of I/O psychology, including major people, events, and eras
- give reasons for the cross-cultural interest in I/O psychology
What is I/O Psychology?

• A specialty area of psychology
• The scientific study of work-related behavior
• The application and extension of scientific psychological principles and facts to enhance the effective use of human resources and the facilitation of well-being at work
• Represented by Division 14 of American Psychological Association (APA), i.e., the Society for Industrial and Organizational Psychology (SIOP)
I/O Psychology as Both a Science and Practice

• An area of scientific study and professional practice that addresses psychological concepts and principles in the work world
• Two sides of I/O
  ▪ science
  ▪ practice
• A field of applied psychology
I/O Psychology as Both a Science and a Practice

• As a SCIENCE, I/O psychology uses scientific methodology to research and advance knowledge about people at work

• And as a PRACTICE, I/O psychology is a profession concerned with the application of psychological knowledge to solve real-life problems in the world of work
Sub-specialties or Fields of I/O Psychology

PERSONNEL PSYCHOLOGY

- Recruitment
- Selection
- Placement
- Psychometrics
- Individual differences
- Criterion development
- Performance appraisal
- Training and development
- Team selection and training
- Legal issues — Equal Employment Opportunity, Title VII, CRA 1991
Applicant/employee flow through and interactions with various personnel systems

Recruitment → Selection → Placement → Performance Appraisal → Termination

Training

Training
ORGANIZATIONAL PSYCHOLOGY (Behavior)

- Organizational commitment
- Communication
- Job satisfaction
- Leadership
- Organizational attitudes & behavior
- Work motivation
- Organizational change & development
- Quality of worklife
- Team (processes & dynamics)
ENGINEERING PSYCHOLOGY/HUMAN FACTORS

- Person-machine systems
- Working conditions
- Equipment, tool, and machine design and function in recognition of operator limitations in strength, perception, reaction-time, etc.
INDUSTRIAL RELATIONS

- Labor-union relations
- Employee/employer relations
- Cooperation & conflict resolution
- Arbitration, negotiation & bargaining
VOCATIONAL & CAREER COUNSELING

- Career choice, change, and retirement

CONSUMER PSYCHOLOGY

- Consumer choice and preference for products
- Purchasing behavior & decision making
Increased globalization — resulted in increased interest and focus on the generalizability of concepts and research findings to people and work in other cultures and societies
Dual orientation (science & practice) reflected in principal work settings of I/O psychologists

- Universities (37%)
- Consulting firms (38%)
- Industry (18%)
- Gov't (7%)
Income

Productivity:

1. Michigan State University
2. University of Minnesota
3. University of Iowa
4. University of Florida
5. University of Illinois at Urbana-Champaign
6. Texas A&M University
7. University of Maryland
8. Cornell University
9. Purdue University
10. Pennsylvania State University
11. Ohio State University
12. New York University
13. Bowling Green State University
14. Queen’s University, Kingston, Ontario
15. University of Houston
16. Georgia Institute of Technology
17. University of South Florida
18. Colorado State University
19. University of Western Ontario
20. Florida International University
Productivity
Productivity Ratings in the Top Five I/O Psychology-Oriented Journals, 1996-2000 (Gibby et al., 2002)

1. Michigan State University
2. University of Illinois at Urbana–Champaign
3. Bowling Green State University
4. Florida International University
5. University of Akron
6. University of Minnesota
7. University of Michigan
8. University of Maryland
9. Pennsylvania State University
10. George Mason University
11. **Texas A&M University**
12. Purdue University
13. New York University
14. Tulane University
15. University of South Florida
16. Colorado State University
17. University of Connecticut
18. University at Albany–SUNY
19. Columbia University
20. University of Georgia
21. University of Calgary
22. DePaul University
23. Central Michigan University
24. Rice University
25. Illinois Inst of Technology
26. Georgia Inst of Tech
27. Wright State University
28. University of Houston
29. Louisiana State University
30. Ohio University
31. Kansas State University
32. University of Missouri–St. Louis
33. Portland State University
34. University of Waterloo
35. Rutgers University
36. Wayne State University
37. Claremont Graduate University
38. Clemson University
39. Virginia Tech
40. George Washington University
41. University of Central Florida
Productivity
Productivity Ratings in the Top Ten I/O Psychology-Oriented Journals, 1999-2003 (Oliver et al., 2005)

1. Michigan State University
2. University of South Florida
3. Pennsylvania State University
4. Bowling Green State University
5. University of Minnesota
6. University of Illinois at Urbana–Champaign
7. George Mason University
8. University of Georgia
9. University of Maryland
10. University of Akron
11. Texas A&M University
12. University of Tennessee – Knoxville
13. Wayne State University
14. Baruch College, City University of New York
15. University of Western Ontario
16. Georgia Institute of Technology
17. Central Michigan University
18. Teachers College, Columbia University
19. Portland State University
20. Alliant International University – Los Angeles
21. Florida International University
22. University of Central Florida
23. Purdue University
24. University of Missouri–St. Louis
25. University of Michigan
26. Clemson University
27. New York University
28. University of Oklahoma
29. University of Waterloo
30. Rice University
31. Virginia Tech University
32. Louisiana State University
33. University at Albany, SUNY
34. University of Calgary
35. Illinois Institute of Technology
36. North Carolina State University
37. Colorado State University
38. University of Tulsa
39. Ohio University
40. University of California, Berkeley
Common Job Titles for I/O Psychologists

• **Professor of ...** Psychology, Management, Organizational Behavior, Industrial Relations

• **Staff member, Manager, Dir, VP of ...** Personnel, HR, Organizational Planning, Personnel Development, OD, Management Development, Personnel Research, Employee Relations, Training, Affirmative Action

• Management Consultant
Professional Associations Related to Personnel Psychology

• American Psychological Association (APA) – www.apa.org
• Society for Industrial/Organizational Psychology (SIOP) – www.siop.org
• American Psychological Society (APS) – www.psychologicalscience.org
• Academy of Management (AoM) – www.aom.pace.edu
• Human Factors and Ergonomics Society (HFES) – hfes.org
• Society for Human Resource Management (SHRM) – www.shrm.org
• American Society for Training and Development (ASTD) – www.astd.org
• International Personnel Management Association (IPMA-HR) – www.ipma-hr.org
Summary - Personnel Psychology

• Application of psychological theory and research to HR problems in organizations
• Measuring and predicting individual differences in behavior and job performance
• Focus on individual people
• Strive for efficient use of human resources
• Subfield of Human Resource Management (excludes labor law, org planning, comp & benefits, and labor relations)
Licensure for I/O Psychologists

- Licensure requirements vary by state
- Regulates membership [psychology]
- Controversy about licensing of I/O psychologists
  - not in clinical practice
  - different mandate than healthcare providers
- SIOP’s policy – recognize the requirement and offer guidance
History of I/O Psychology
History of Applied Psychology

• Distinction between history of
  – applied psychology
    • pseudopsychology
  – industrial psychology
    • post-scientific revolution
Pseudopsychology

- Phrenology
- Physiognomy
- Mesmerism
Psychology & Advertising

Harlow Gale (1862-1945)
  - in fall of 1895 sent a questionnaire to 200 businesses in Minneapolis & St. Paul asking them about their advertising views and practices (return rate of only 10%)

  • Advertising firms were looking for experts like
    - Walter Dill Scott & Harry Hollingworth
  
  • Scott stressed the *power of suggestion*
    - viewed the consumer as a “nonrational, suggestible creature under the hypnotic influence of the advertising writer”
History of I/O Psychology
(late 1800’s, early 1900’s)

• 1897: Bryan’s paper on telegraphers
  – published paper on how telegraphers develop skill in sending & receiving important codes (Morse)

• 1903, 1908: Walter Dill Scott’s books:
  – Theory of Advertising
  – Psychology of Advertising

• 1911: Frederick W. Taylor’s book:
  – Principles of Scientific Management
Hollingworth & Advertising

• The Coca-Cola trial & Harry Hollingworth
  – studied the effects of *caffeine* on sensory, cognitive, and motor functioning in humans

• According to Hollingworth, advertisement was meant to do 4 things:
  – GET the person’s attention
  – HOLD it to the message of advertisement
  – FIX the message in the person’s memory
  – MOTIVATE the person to take desired action
History of I/O Psychology
(early 1900’s)

• Mental testing
• Vocational counseling
• Industrial revolution
• Immigration & high birthrate
• Education & urban growth
  – above conditions led to social reform and
  “Industrial Psychology” as a field emerged in
  1910
Watson’s Behavioristic Approach to Advertising

• John B. Watson (founder of behaviorism)
  – worked with J. Walter Thompson Advertising Firm (one of the largest ad firms in NY city)
  – promoted the use of testimonial advertisements featuring celebrity endorsements of products
    http://www.youtube.com/watch?v=PmrTDZy3f2M&feature=related
  – considered 3 innate emotions to motivate buying
    • fear
    • rage
    • love
Münsterberg & Industrial Psychology

• In 20th century “efficiency” was the buzz word in American business

• Published one of the most important books
  – *Psychology and Industrial Efficiency* (in 1913)

• Article on business psych in a pop magazine
  – brought several consulting opportunities
  – asked by San Francisco & Portland Steamship Company to devise tests to select ship captains (6 months before sinking of Titanic)
Carnegie Inst. Of Tech’s Division of Applied Psychology

- *Walter Van Dyke Bingham* joined CIT faculty as Director of Division of Applied Psychology
- Bingham’s two broad emphases
  - help students identify their talents & match those talents to the jobs they are best suited
  - teach students to use psychology to be able to better understand human behavior
- Bingham began Bureau of Salesmanship Research
  - investigate research questions w/ funds supplied by local business partners (Heinz Foods, Carnegie Steel, etc.)
  - hired Walter D. Scott
One Right Way

• *Frederick W. Taylor*, a mechanical engineer, recognized the employee-employer conflict
  – developed “scientific management” (also called Taylorism) – referred to the “one right way” to do a job
  – studying a particular job, observing workers on the job, breaking workers’ actions into individual movements, timing each movement

• Popular w/ management, but not workers
  – workers had NO input in the system
Lillian Moller Gilbreth

• Pioneered Industrial Mgmt. techniques
• First to recognize the effects of stress & fatigue on workers
• Engineers studied inanimate objects, it was psychologists’ responsibility to study humans at workplace
• One of her most famous books “Cheaper by the Dozen”
World War I (1917-1918)

• Robert Yerkes (Prez. of APA) — instrumental in applying psychology to war effort

• Bingham & Scott — instrumental in the Committee for Classification of Personnel in the Army
  – classified & placed enlisted soldiers
  – conducted performance ratings of officers
  – developed & prepared job duties

• Army Alpha Test

• Army Beta Test
Between Wars (1919-1940)

- Industrial Psychology was formally recognized
  - *Journal of Applied Psychology* – 1917
- Psychological Research Bureaus & Consulting firms emerged
- Bureau of Salesmanship Research – Bingham
- Psychological Corporation – James Cattell
- Hawthorne studies – Western Electric – 1924
  - study of the relationship b/n illumination & productivity
- Hawthorne effect
World War II (1941-1945)

• **Advisory Committee on Classification of Military Personnel** – Walter V. Bingham
  – developed Army General Classification Test (ACGT) for selection & placement of army personnel
  – 12 million soldiers classified in military jobs

• **Office of Strategic Services (OSS)**
  – developed situational stress tests

• Selection & training of pilots to fly warplanes

• Employment tests in industries increased
History of I/O Psychology
(1940’s-1980’s)

• 1946: Division 14: Industrial Psychology
• 1956: Management Progress Study at AT&T
  – Use of Assessment Centers to examine promotions
• 1964: Civil Rights Act
  – *Cannot* discriminate on the basis of race, color, religion, sex, & national origin
• 1967: Age Discrimination in Employment Act (ADEA)
• 1973: Division 14: I/O Psychology
History of I/O Psychology (1940’s-1980’s)

• 1976: First I/O Handbook
• 1978: Uniform Set of Employment Guidelines
• 1982: SIOP’s Frontiers and Professional Practice Series
• 1983: Project A – Identify the predictors of good soldiers
History of I/O Psychology (1990’s)

• 1990 Americans with Disabilities Act (ADA)
• 1990 1st of 4 volumes of the Handbooks of I/O Psychology
• 1991 Civil Rights Act (updated)
• 1993 Family & Medical Leave Act (FMLA)
• 1996 History of Applied Psychology documented in the *Journal of Applied Psychology*
History of I/O Psychology: The Information Age (1994-Present)

- UAVs
- Simulations and simulators
- Massive multiplayer games
- Internet
  - UIT
  - Internet-based training
    - “e-learning”