# 101 Great Insights from Psych 101

Quick facts to review, preview, or just learn psych's basics
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You don't have to be a psychology major or even having taken intro psych ("Psych 101") to appreciate the many great insights of this field. These facts, theories, findings, and occasional pieces of psych trivia will give you a quick way to see what all the fuss in psychology, and why it continues to remain one, if not *the*, most popular college major.

I've organized this list of 101 insights into an order that approximately follows the organization of the typical course. You can scan through it until you find the area that interests you the most, starting with the basics of field and ending with clinical and social psych. If you want to challenge yourself, see how many of these facts you actually already know. If you want to figure out whether psychology is the field for you, count how many of these insights actually draw your interest.
Time to get started!

**1. There are 55 separate subfields of psychology:** The APA website lists psychology's many subfields, from arts to business to sports, as well as traditional areas like neuroscience, personality, and clinical.

**2. Psychologists tend to draw from multiple perspectives:** The major theories cut across psychology's subfields. Most psychologists draw from at least 2 or more for their professional, if not personal, interests.

**3. Psychology is the scientific study of behavior and mental processes:** Psychologists are trained in scientific methods including those whose practice requires that they stay on top of the latest scientific developments.

**4. There are many ways to study behavior:** Psychologists draw from archival studies (e.g. analyzing data in stored records), case studies, surveys, and observational approaches as well as the traditional lab experiment.

**5. Both participants and experimenters test hypotheses:** Psychologists have to devise clever ways to gather data from people who assume they're being tricked, but still stay within the ethical guidelines that govern psychological research.

**6. Both animals and humans must be treated ethically:** Researchers who work with non-human species follow strict ethical guidelines.

**7. Placebos aren't always perfect:** Experimenters testing out medications must use placebos that produce the same side effects as the medications.

**8. You can control your body's "automatic" responses:** We can learn to monitor, and then control, such basic bodily reactions as blood pressure and heart rate.

**9. Stronger stimuli don't produce stronger responses from neurons:** The all-or-none law says that neurons don't fire stronger, but fire more rapidly in the presence of a strong stimulus.

**10. Neurons are capable of plasticity:** Neurons can grow more elaborate dendritic "trees" through learning and can even regenerate or take over functions of neurons lost through aging, disease, or damage.

**11. Many neurotransmitters serve multiple functions:** Acetylcholine is used for memory but also

used to control of motor movement.

**12. The brain doesn't actually "light up" while being scanned:** The brain scans we typically see from neuroimaging studies are actually photo-shopped to make them patterns distinct.

**13. Nervous, immune, and endocrine systems interact in important ways:** Stress can affect us physiologically due to these interactions, studied by psychoneuroimmunologists.

**14. Human thresholds are incredibly sensitive:** We can see the equivalent of a candle 30 miles away on a dark night and feel a bee wing fall on our cheek from 1 cm (really!).

**15. The central portion of the retina sees the clearest in bright light:** Cones are located most densely in the fovea; rods at the periphery see in dim light.

**16. As people age, they lose their ability to see objects at short distances:** "Presbyopia" (old vision) results from thickening and of the lenses which can't refract the light that bounces off objects at close range.

**17. Wearing sunglasses can preserve your vision:** Ultraviolet rays of the sun are damaging to the lens of the eyes, accelerating the formation of the cloudy areas (cataracts) that normally develop as people get older. Wearing polarizing sunglasses can delay or prevent this process.

**18. The smallest bones in the body are in the middle ear:** 3 tiny bones magnify sound waves from the outer ear before they reach the inner ear.

**19. There are four, or maybe five, types of taste:** We have four basic tastes (sweet, salty, sour, bitter) and umami (meat) is a fifth according to some scientists.

**20. Our past experience is responsible for our susceptibility to most visual illusions:** Because we know that objects don't change size in reality even when they appear different from far or close, we learn to make corrections. This leads us to over-correct in situations such as seeing the moon as larger at the horizon.

**21. Subliminal perception is just another form of priming:** People can be "primed" by subthreshold stimuli. For example, by having animal pictures flashed quickly on a screen people will say "squirrel" when asked for an "S" noun than with the name of a fruit.

**22. Inattentional blindness is a common occurrence:** In a famous experiment, people told to count the number of basketball passes between players failed to see a man in a striped prison suit walking across the court.

**23. People can dream during non-REM sleep:** There is evidence that the dreams of non-REM (Rapid Eye Movement)sleep has different content than REM sleep, but dreaming can occur in both.

**24. Sleep consolidates memory.** People who sleep in between learning and testing do better than people who do not spend the time sleeping.

**25. Hypnosis is just another form of consciousness.** Researchers don't know exactly how or why hypnosis works, but evidence suggests it's due to dissociation.

**26. The average person is moderately hypnotizable.** Most people can be suggested to perform 4-5 tasks (such as arm-lifting) while hypnotized.

**27. Facial expressions can influence emotional states.** The facial feedback hypothesis says that you

can be made happier by smiling or sadder by frowning.

**28. What you think can affect how you feel.** Cognitive theories propose that your view of experiences influences how you feel about them. It follows that…

**29. You can change your emotions by changing your thoughts.** Challenging irrational thoughts are irrational ("everyone has to love me, and if someone doesn't, I'm a bad person") can help you see the world, and yourself, in a more positive light.

**30. Depressed people may be more realistic.** "Depressive realism" means that people who are sad pay more attention to the details of what's going on around them without the rosy glow of optimism.

**31. It's more difficult to differentiate between two stimuli when one is already at a high level.** "Weber's Law" explains why you can't tell when 1 tsp of pepper was added to a salsa that's already spicy than one completely plain. The same principle may apply to economics. A $5 difference in prices worse when you start at $1 than $100.

**32. Only some of images reaching the eyes cross to the other half of the brain.** The images that reach the left brain regions are only from the right half of the right eye's visual field that has to make its way to the left brain (through the optic chiasm).

**33. 40% of young adults engage in binge-drinking.** Monthly binge-drinking rates are 35% (non-college) to 39% (college) in the U.S. Unfortunately, all this alcohol kills off brain cells not to mention creating a host of other problems.

**34. 30 minutes of playing music in an earphone can damage your cochlea.** Noise can kill off the cells in your inner ear, in a cumulative and permanent way.

**35. You can control pain by closing the "gate."** An inhibitory gate can shut off pain from small nerve fibers. Thinking about something else or rubbing a sore spot are two ways to accomplish this form of pain relief.

**36. ESP may be explained by "sensory leakage."** So-called psychics are often super-sensitive to slight cues. The lead character on the TV show "Psych" illustrates this as he's exceptionally good at spotting small details which he passes off as psychic visions.

**37. An extinguished response may reappear.** Conditioned responses come back on their own through spontaneous recovery, which can help explain flashbacks of trauma victims.

**38. Even negative reinforcement increases a behavior.** Desired behaviors can be increased by rewarding them with removal of an aversive stimulus.

**39. Variable ratio reinforcement leads to high response rates.** Organisms will respond at a consistently high rate if they don't know how many responses it will take to get a reward (as in slot machines).

**40. You can't retrieve if you don't encode.** Memory requires that you properly store information to be learned in the first place. Can you recall what words appear on the head of a penny, and where?

**41. Chunking can help your memory.** By putting large amounts of information into groups ("chunks") you can increase your recall power.

**42. Eyewitness memory is unreliable.** We can be easily swayed by question wording when asked to describe an event from the past.

**43. The limbic system controls both memory and emotions.** Neural connections between hippocampus (memory) and amygdala (emotions) mean that memories can be easily biased by feelings.

**44. Deeper processing ensures better memory.** By making sense of what you're learning you'll encode it more completely and remember it longer.

**45. Avoid problem-solving disasters by thinking flexibly.** Tendencies to form mental sets impair our ability to see new and better solutions.

**46. Heuristics can lead to mistaken judgments.** Mental shortcuts can save time, but they can lead to the wrong answers such as judging events to be frequent because we can remember them easily.

**47. People like to confirm their own biases.** It's easier to see why something's right than why it's wrong.

**48. Children speak in sentences by 18 months.** By this age, children use 2-word sentences called telegraphic speech such as "mommy cookie."

**49. Bilingual speakers have cognitive advantages.** Speaking 2 or more languages can benefit so-called executive functioning, such as ability to switch between tasks.

**50. Most humor takes advantage of lexical ambiguity. L**exical ambiguity occurs in puns when one word has two meanings or two spoken words (spelled differently) have different meanings.

**51. Body language can convey more than words.** Reading nonverbal cues can tell you what a person is actually thinking or feeling because these giveaways are harder to disguise than are words.

**52. You can improve your balance with practice.** Standing on one foot for 1-2 min can train your postural neurons, no matter what your age.

**53. Gestaltists invented laws of perception still used today.** The "whole is greater than the sum of its parts" was just one discovery that helps explain how we perceive.

**54. You can't make up lost sleep.** Sleep debt accumulates and can never be completely overcome.

**55. Animal trainers still use Skinner's basic methods.** Through "shaping," animals learn complex behaviors they would never otherwise perform.

**56. Much of what we learn is implicit.** Without being aware, you're constantly acquiring new memories.

**57. Sentences can be syntactically correct but have no meaning.** Chomsky's "Colorless green ideas sleep furiously." is actually a sentence.

**58. Many animals use language.** Researchers are constantly finding new data to support language use in non-humans.

**59. Emotional and practical intelligence may be more important than academic intelligence.** Non-traditional views of intelligence emphasize "street smarts" and abilities to understand yourself and others.

**60. People perform optimally when moderately aroused.** Being not anxious enough can impair your performance as must as being too anxious.

**61. There are universal facial expressions of emotion.** Across cultures, people recognize a small number of basic emotions.

**62. Stereotypes can influence people subconsciously.** Your performance can be influenced through stereotype "threat," or being reminded of your gender, race, or age.

**63. Men rate themselves higher academically.** Gender differences are especially strong in self-rated math skills.

**64. Women and men communicate differently.** Women look more at others while listening, men look more while speaking.

**65. Rape is common on college campuses.** 25% college women were victims of rape or attempted rape; fewer than 5% report rape to police.

**66. The most common disease in the U.S. is chlamydia.** Not just of STDs; chlamydia is the most common disease of all.

**67. Nature and nurture interact to influence development.** Through epigenesis, maternal stress can influence a child's development, even altering the child genetically.

**68. Most studies of aging are flawed because they don't actually study aging.** Comparing age groups rather than following people over time can lead to biased results.

**69. Developing children are most influenced during critical periods.** Harmful effects of the environment, both prenatally and postnatally, have their strongest effects at certain points in development.

**70. Early bonding with parents influences personality through life.** A child's emotional attachment sets the pattern for later development of a sense of self.

**71. Children benefit the most from authoritative parenting.** In between being too permissive and too authoritarian, parents who set limits seem to be the most effective.

**72. In Piaget's theory, children go through a series of cognitive stages.** Children don't just know less than adults, Piaget believed they have their own unique concepts as they go through their early years.

**73. Important learning for children takes place with peers.** Many theories of development, but particularly Zygotsky's, propose that children develop cognitively through social interaction.

**74. Having an identity crisis in adolescence can be healthy.** As long as people grow out of it, exploring alternatives is an important step in developing a sense of self.

**75. The transition to adulthood can last for 12 years or longer.** "Emerging adulthood" is the period from 18-29, though some individuals remain in this stage for a few more years.

**76. Theories of aging contrast genetic programming with random error.** Aging may be set by our genes, but if it is, we can accelerate its pace by exposure to harsh environments and poor health habits.

**77. Verbal abilities tend to remain steadier than non-verbal abilities with age.** Older adults maintain their vocabulary and even verbal memory well into the 70s but spatial reasoning skills start to decline far earlier.

**78. There aren't "stages" of dying, but the terminally ill benefit from being able to talk to others.** Kübler-Ross may have gotten it wrong with the 5 stages of dying (which don't hold up in research) but brought important attention to the needs of the dying.

**79. Freud's theory was valuable in showing the importance of unconscious needs.** Even hard-core neuroscientists are beginning to recognize that, like priming, the "unconscious" can affect behavior.

**80. Some defense mechanisms work better than others.** The "immature" defense mechanisms such as acting out are less adaptive than the "mature" ones, such as humor or intellectualization.

**81. Psychodynamic theory is about more than sex.** Current theories emphasize self, identity, and relationships apart from sex.

**82. Personality changes throughout life.** Studies are showing that personality isn't set by 5, 12, 30 or even 50 but can continue to morph through the later decades of life.

**83. High self-efficacy is an important coping skill.** Saying "I can" helps you achieve your goals and overcome stress.

**84. Be careful of the "Barnum Effect."** Don't rely on personality tests for self-understanding, especially those that provide results so general they could apply to anyone.

**85. Even positive life events can be challenging.** The amount of adjustment, not whether it's good or bad, is the key determiner of stress. A new job that you want can still cause stress.

**86. Little things can get to you too.** The "hassles" of life can be stressful, not just major life events.

**87. There's no one best way to cope.** Both problem- and emotion-focused coping can be adaptive, depending on the situation.

**88. Negatively-framed health ads don't always work.** Scaring you with gruesome pictures of smokers may not make you more likely to adopt healthy habits.

**89. The DSM-5 changed the way psychological disorders are classified.** For better or worse, some disorders are gone (e.g. Asperger's) and new ones were added (binge-eating).

**90. Therapy works.** This might be your most important personal lesson from the course.

**91. Schizophrenia doesn't mean "split mind" or "multiple personality."** New conceptions of schizophrenia view it as a biologically-based disturbance involving distortions of reality; DSM-5 eliminated subtypes.

**92. Psychodynamic therapy can be brief.** Focused treatments that attempt to zero in on one life problem at a time are replacing long-term analysis.

**93. Electroshock therapy is still used.** Though its mechanisms aren't known, in extreme cases of depression, this treatment may the only recourse.

**94. Clinicians continue to use psychosurgery.** The notorious lobotomies of the past are gone, but sophisticated neurosurgical techniques can target specific brain regions.

**95. Persuasive ads are more cognitively engaging.** Advertisers try to reach you through "central-route processing."

**96. Attitudes and behavior compete in cognitive dissonance.** You may think one way but act another, or have two competing beliefs, both of which create discomfort.

**97. We don't always judge ourselves (or others) rationally.** Common attribution errors lead us to blame others for the same behavior we excuse ourselves for committing.

**98. The group can evoke conformity.** Studies in social psychology show how easily we are swayed by peer pressure.

**99. Aggression is often caused by frustration.** Some may argue that we're programmed to be hateful and destructive, but circumstances can provoke even calm people.

**100. Groups often make foolish decisions.** "Groupthink" can lead everyone from political leaders to families planning a reunion to come up with no-go ideas that backfire.

**101. People act in altruistic ways more than we realize.** Ending on a positive note, pro-social behavior is common, and may even be innate, as shown by studies of helping behavior in tots.

That's it, you made it to the end! Check out any of the above links or else go back to the main Psych Today site for more great insights on our great field.