Cognitive behavioral psychology is based on the premise that our feelings are largely determined by our thoughts. To oversimplify, most forms of cognitive behavioral psychotherapy are based on the idea that we can change how we feel by changing how we think. Thinking can be differentiated into content of thought (i.e., what we think about) and form, structure, or process of thought (i.e., how we think). Cognitive distortions are errors in the process of thinking, which can then lead to various fears, anxieties, and resentments.

An important cue or signal that one or more errors in thinking is operating is a person’s degree of emotional distress or interpersonal conflict. An important distinction can be made between perceptions (i.e., what someone actually says or does in a specific situation that can be seen or heard), inferences (i.e., how someone interprets what is seen or heard in a specific situation based on one’s underlying assumptions), and assumptions (i.e., the underlying attitudes, core beliefs, or cognitive schemata that provide a filter by which perceptions are interpreted. The basic cognitive equation is that, if we want to change how we feel, we need to change how we think. The basic behavioral equation is that, if we want to change how we think, we need to change how we act. In reality, people often act their way into better thinking faster than they think their way into better actions.

Cognitive behavioral concepts have become part of the public domain, which includes many concepts and terms adapted from various original sources including the writings of researchers and psychotherapists such as Albert Ellis, Ph.D., Aaron T. Beck, M.D., Donald Meichenbaum, Ph.D., James P. McCullough, Ph.D., Martin Seligman, Ph.D., Marsha Linehan, Ph.D., and others.

**Absolutistic thinking** occurs when a person’s beliefs, feelings, or opinions are equated with reality. The underlying belief is, “If I think it’s so, then it’s so.” This process involves an egocentric assumption (largely “unconscious” or outside of awareness) that one’s thoughts are in fact reality, often accompanied by the claim that others’ beliefs are not reality. In other words, absolutistic thinkers equate their certainty with absolute truth. This type of thinking leads to rigidity, inflexibility, bigotry, and lack of emotional and behavioral freedom.

**All-or-nothing thinking**, which is less often termed “all-or-none” thinking, is a form of absolutistic thinking that occurs when a person thinks in terms of “always,” “every,” “never,” or “there’s no other choice.” Few aspects of life are ever so absolute. We are all prone to slipping into reductionist type of thinking from time to time, partly because it simplifies information. At the same time, all-or-none thinking reduces our choices when we ignore exceptions, gradations, and the middle ground. All-or-none thinking is a binary, bifurcated, or dualistic type of thinking, often described as “black and white” thinking. In contrast, as most people have experienced, the wide array of colors in the real world are much more complex than simply shades of gray. To the binary thinker, the various shades of gray may feel too “fuzzy” for comfort. From a psychological perspective, all-or-none thinking is often associated with personality traits such as inability or difficulty tolerating ambiguity, ambivalence, or uncertainty.

**Arbitrary inference** involves drawing a conclusion when evidence is lacking or contrary to the conclusion. It can also involve taking a single quotation or verse out of context, while attributing to it a highly personalized meaning. It may involve ignoring
the cultural, historical, or semantic context of a quotation or saying while giving an idiosyncratic or highly personalized interpretation to it.

**Attribution theory** is a conceptual model based on the idea that we attempt to understand the behavior of others by attributing feelings, beliefs, and intentions to some other source (i.e., usually to ourselves or to another person). Attributions can be *internal* (attributed to self) or *external* (attributed to others). In an external (or situational) attribution, a person infers that another person’s behavior is due to situational factors. By contrast, in an internal attribution, we attribute some behavior or event to internal factors within the other person (or within ourselves). We have a tendency to attribute positive events to internal characteristics within ourselves, and we are more likely to attribute negative events to external or situational factors outside of ourselves. For example, when bad things happen to us, we attribute those events to others or to circumstances or forces outside ourselves, whereas when good things happen to us, we attribute those events to the internal traits of within ourselves. In other words, we attribute positive outcomes to our own actions, whereas we are more likely to attribute negative outcomes to circumstances or forces outside ourselves.

**Binary thinking** is another term for *dichotomous reasoning*, which refers to *all-or-none* thinking. It is also known as *dualistic* thinking, in contrast to *holistic* thinking (which some writers term non-dualistic thinking, which itself reflects dualistic categories). A binary thinker may use categories such as right-wrong, good-bad, us-them, normal-abnormal, and so forth. Our world in general is filled with binary thinking such as pessimism and optimism, suffering and thriving, vulnerability and resilience, and so forth. Emotional truths often involve paradox—not one dimension or the other, but rather a blend of both and others.

Optimal emotional functioning requires going beyond binary thinking.

Binary thinking is also expressed in the logical fallacy known as the *false dilemma*, also known as the *fallacy of false choices*, in which something is falsely claimed to be an “either/or” situation, when in fact there is at least one additional option. This type of bifurcated thinking usually takes the form of acknowledging only two options—one of which is usually extreme—from a continuum of possibilities. For example, “Either we accept the belief in ____________, or we must no longer call ourselves religious.” The fallacy of the false dilemma is sometimes the result of a habitual tendency, whatever the cause, to view the world with limited sets of options. One antidote for mutually exclusive “either-or” thinking is a more inclusive “both-and” thinking.

**Cognitive deficiency** occurs when an important aspect of one’s life situation is disregarded, dismissed, or ignored. The term does not refer to a mental defect or intellectual disability, but rather it comes closer to the psychodynamic concepts of denial, repression, or lack of awareness. While judging others harshly, a cognitively deficient person might ignore his or her own self-righteous hypocrisy.

**Confirmation bias** refers to the tendency to interpret new evidence as confirmation of one’s own pre-existing beliefs or theory. Even the most objective scientific researchers must be continually on guard against seeing what they expect to see in the data. **Perspective-taking**, which involves striving to understand a subject matter from the perspective of the other person or an alternative hypothesis, is one way to guard against confirmation bias.

**Dichotomous reasoning** is another term for binary thinking or *all-or-none-thinking*. It involves viewing situations as binary rather
than multidimensional. Rather than seeing in color or even in shades of gray, dichotomous thinking involves seeing in black and white. A dichotomous thinker may view events as either good versus bad, which ignores the subtle nuances of how some activities involve a blend or combination of the sacred and secular. In a similar manner, a dichotomous thinker may see others in a binary way.

**Disqualifying the positive** is a form of minimization that involves negating, minimizing, discounting, or “shooting down” positive experiences for highly personalized reasons. This distortion is also known as **discounting the positive**, in which we claim that the positive things that we or others do are trivial (e.g., “That’s what she is supposed to do—she’s my wife”).

**Emotional reasoning** occurs when we let our feelings guide our interpretation of reality. It is a process by which our emotional reaction “proves” something is true, despite all evidence to the contrary. Without being aware of this distortion, our “emotional truth” may exist in direct conflict with the inverse empirical reality. For example, even though a partner may have shown only devotion and fidelity, the unconscious (i.e., outside of our awareness) process of emotional reasoning might lead the person to conclude, “I know my partner is cheating on me because I feel jealous.” Emotional reasoning can also amplify the effects of other cognitive distortions.

**Literalism** is not so much within the purview of cognitive behavioral theory, literalism is a characteristic sometimes associated with pragmatic language, which is more within the purview of clinical and developmental psychology. **Pragmatic language** refers to the social language skills that we use in our daily interactions with others. It includes context-specific language (i.e., how appropriate our interactions are in a given situation) and non-verbal communication (eye contact, facial expressions, body language etc.). Pragmatic language can be distinguished from **structural language**, which refers to the literal arrangement of words, phrases, and clauses in a sentence. The grammatical meaning of a sentence is dependent on structural organization (also called syntax or syntactic structure or, in written language, the mechanics of writing), whereas the deeper, intended, and underlying meaning of language is more dependent on pragmatic language. In comparison, structural language conveys the surface meaning of spoken language, whereas pragmatic language carries the deeper meaning. In other words, structural language refers to what we say, and pragmatic language refers to how we say it.

Although literalists are by no means people with mental disorders, there are some people with mental disorders who have difficulty understanding the non-literal and non-verbal cues of pragmatic language. For example, individuals who are impaired by a condition known as **social communication disorder** suffer from difficulty understanding affect, gestures, and facial expressions in others’ non-verbal language. As a result, they may have difficulty understanding the meaning of double-entendre, idiomatic phrases, humorous intentions, metaphorical expressions, or hidden meaning (i.e., “reading between the lines”) in spoken language. Such individuals are often quite concrete and literal in their speech. As a result, they may be more inclined toward literalism in other areas of their lives.

**Magnification** occurs when the meaning of an event is exaggerated. **Minor** events are misconstrued to be **major** problems, such as “making a mountain out of a molehill.” Remember, the only difference between stumbling blocks and stepping stones is how we use them.
Mind reading occurs when a person believes that he or she knows the thoughts or feelings of another person without asking the other person. Mind reading can also involve the expectation that the other person will meet my needs, regardless of whether I state what I need. This cognitive error can contribute to conflicts in interpersonal relationships.

Minimization occurs when major problems are misconstrued as minor issues. This type of thinking occurs when one “doesn’t care” or when major important issues “don’t matter,” or “aren’t important.” This error in thinking may occur when a person focuses only on the negative and minimizes the positive aspects of an interaction or situation. It may also occur in reverse, such as when a person minimizes his or her faults or shortcomings, while minimizing the other person’s virtues or strengths.

Overgeneralization occurs when a single instance such as failure is viewed as a sign that similar incidents will recur. This type of thinking includes the use of words such as “everybody,” “always,” or “never.” Overgeneralizations such as “you always” or “you never” can create conflicts in relationships. Overgeneralizing can lead to stereotyping others, which can lead to us paying more attention to how we are different rather than how we are similar to others.

Projection refers to the process by which we attribute our impulses, feelings, or motives to others. In this sense, projection is related to attribution theory, although the concept of projection originated in psychoanalytic theory as a defense mechanism in which we unconsciously attribute our unacceptable impulses onto others. The “unconscious” refers to that which is outside of our awareness.

In a broad sense, projections can be negative or positive. Our religious “enemies” may be those onto whom we project our own unacceptable impulses that we are not able or willing to recognize within ourselves. On the other hand, our religious “friends” may be those onto whom we project our idealized images of ourselves.

Prophesizing, which has also been described as “fortune telling,” occurs when a person “tells the future,” and then consequently acts in a fashion that makes the prediction come true, such as “I won’t succeed.” When applied to oneself, this type of thinking is also called a “self-fulfilling prophesy.”

Self-Other rating occurs when a person rates global worth, rather than rating traits of one’s self or others. It can also involve “comparing one’s insides to others’ outsides.” A self-other rating is a form of overgeneralization, which can produces depression, hostility, or feelings of inadequacy.