

Attitude Change

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Glossary

Attitude A global evaluation of a person, object, or issue indicating the extent to which it is liked or disliked.

Attitude change Modifying one's evaluation to become different from what it was.

Attitude strength The extent to which an attitude is persistent, resistant, and influences thinking and behavior.

Central route Persuasion through effortful thought and extensive elaboration that involves generating issue-relevant thoughts.

Dissonance An attitude change technique that involves having a person engage in inconsistent thought or action.

Inoculation Providing arguments against one's attitude in an attempt to strengthen it from future attacks.

Peripheral route Persuasion through less effortful mechanisms including mental shortcuts, simple associations, and the impact of contextual cues.

Resistance The extent to which attitudes remain firm when confronted with an attempt to persuade.

Attitudes refer to people's global and relatively enduring (i.e., stored in long-term memory) *evaluations* of objects, issues, or persons (e.g., I oppose capital punishment; I like the President). Numerous procedures have been developed to modify these evaluations with some change techniques involving considerable thinking about the attitude object and some requiring little. Attitudes are one of the most studied and important constructs in psychology because of the critical role of attitudes in guiding everyday choices and behavior.

Overview of Attitudes and Attitude Change

Attitudes are based on some combination of cognitive, behavioral, and affective (emotional) influences and are typically measured by self-report scales such as the *semantic differential*, where a person rates the target on bipolar evaluative dimensions such as how good/bad or favorable/unfavorable it is. Increasingly, in addition to assessing people's explicit or deliberative attitudes, assessments are made of the evaluations that come to mind automatically without much reflection (i.e., quick evaluative associations) using *implicit measures*. Measures such as Greenwald's Implicit Association Test (IAT) and Fazio's evaluative priming measure are popular in this regard. Often, implicit and explicit measures yield the same outcome, but sometimes there are discrepancies which might suggest that people are unwilling to report their attitudes due to social desirability concerns or might be unable to report them due to limited access.

Furthermore, in addition to assessing attitudes on a positive to negative continuum, scholars have also found it useful to assess attitudes on dimensions other than their valence such as their accessibility (how quickly the attitude comes to mind), ambivalence (how consistent the basis of the attitude is), and certainty (how confident people are in the validity of their attitudes). These indicators of attitude 'strength' are useful in determining which attitudes are consequential and which are not. Strong attitudes are those that persist over time, are resistant to change, and predict other judgments and actions. At any given moment, one's expressed evaluation can be influenced by a variety of contextual factors, but a common assumption is

that one's core 'attitude' is the underlying evaluation that is capable of guiding behavior (one's actions), cognition (one's thoughts and memories), and affect (emotional reactions).

Attitude change occurs when one's core evaluation shifts from one meaningful value to another, and is typically inferred from a change in either an implicit (automatic) or explicit (deliberative) measure of evaluation. Often, an attitude change induction produces change on both kinds of measures but sometimes change is more likely on one type of measure than another. Most studies of attitude change involve exposing individuals to a persuasive communication of some sort, but as explained shortly, some attitude change techniques do not involve exposure to any message. The earliest work on attitude change attempted to examine which variables and procedures increased and which decreased the likelihood of change.

Two Routes to Attitude Change

After numerous studies, the accumulated evidence suggested that even the simplest variables (e.g., being in a positive vs. negative mood; using a high vs. low credible source) sometimes increased, sometimes decreased, and sometimes had no impact on the likelihood that a person's attitude would change. Numerous theories and psychological processes were proposed to account for these divergent results. Even though the many theories of attitude change that were developed have different names, postulates, and particular effects and variables that they explain, the many different theories of attitude change can be thought of as emphasizing just two relatively distinct *routes to persuasion*: the *central route* and the *peripheral route*.

Central Route Approaches to Attitude Change

The first attitude change technique, persuasion via the central route, focuses on the information that a person has about the central merits of the object under consideration. Some of the theories and techniques that utilize the central route assume that comprehending and learning the information presented is

critical for attitude change, whereas others focus more on the evaluation, elaboration, and integration of this information.

Message Learning Approach

One of the most influential programs of research on attitude change was that undertaken by Carl Hovland and his colleagues at Yale University in the years following World War II. The Yale group studied how source, message, recipient, and channel factors affected the comprehension, acceptance, and retention of the arguments in a persuasive communication. Although no formal theory tied together the many experiments conducted by this group, they often attempted to explain the results obtained in terms of general learning principles, such as the more message content you learned, the more your attitudes should change. Contemporary research shows that people can be persuaded without learning or remembering any of the message content. That is, people are sometimes persuaded solely by the 'cues' associated with the message (e.g., the source is expert). Or, the message might elicit a favorable thought that persists in the absence of memory for the information that provoked it. Message learning appears to be most important when people are not engaged in an online evaluation of the information presented to them such as when they do not think they have to form an opinion at the time of information exposure. In such cases, subsequent attitudes may be dependent on the valence of information they have learned and can recall.

Self-Persuasion Approach

Self-persuasion theories hold that people's attitudes can change in the absence of any new external information. This is because people can self-generate reasons to favor or disfavor any position. The powerful and persisting effects of completely self-generated messages were shown in early research on 'role-playing' where people were asked to generate messages on certain topics (e.g., the dangers of smoking). The subsequent attitudes of these people were compared to those who had either passively listened to the communication or who had received no message. A consistent result was that active generation of a message was a successful strategy for producing attitude change, and these changes persisted longer than changes based on passive exposure to a communication. Finally, merely asking someone to think about an issue, object, or person can lead to attitude change as a result of the evaluative thoughts generated. *Cognitive response* theorists hold that just as one's own thoughts can produce change in the absence of a message, so too are one's own thoughts responsible for attitude change even when a persuasive message is presented. That is, to the extent that a person's thoughts in response to the message are favorable, persuasion should result, but to the extent that they are unfavorable (e.g., counterarguments), resistance or even boomerang is more likely. These theorists hold that persistence of persuasion depends upon the decay function for cognitive responses rather than message arguments per se.

Expectancy-Value Approach

The message learning and self-persuasion approaches focus on the information (either externally or internally generated) that

is responsible for persuasion. Neither approach has much to say about the particular features of the information that are critical for influencing attitudes. In contrast, expectancy-value theorists analyze attitudes by focusing on the extent to which people expect the attitude issue to be related to important values or produce positive and negative consequences. In one influential expectancy-value model, Fishbein and Ajzen's *theory of reasoned action* holds that the attributes (or consequences) associated with an attitude object are evaluated along two dimensions – the *likelihood* that an attribute or consequence is associated with the object and the *desirability* of that attribute or consequence. If a persuasive message says that raising taxes will lead to reduced crime, the effectiveness of this argument should depend on how likely people think it is that crime will be reduced if taxes are increased (likelihood), and how favorably they view the outcome of reducing crime (desirability). Although some questions have been raised about the necessity of one or the other of these components, a large body of research supports the idea that attitudes are more favorable the more that likely-desirable consequences (or attributes) and unlikely-undesirable consequences are associated with them. The major implication of this theory for persuasion is that a message will produce attitude change to the extent that it introduces new attributes of an object, or produces a change in the likelihood and/or the desirability components of an already accepted attribute. Another proposition of this theory is that the items of information constituting an attitude are combined in an additive fashion. Other theorists, however, have contended that an averaging mechanism is more appropriate.

Self-Validation Approach

Not all of the thoughts that people have with respect to an attitude object will necessarily be used to form an overall evaluative judgment. According to the self-validation approach, people are more likely to rely on thoughts in which they have confidence (i.e., see as valid) than thoughts about which they have doubt. For example, if two people have equal numbers of favorable thoughts about a proposal and each assesses the likelihoods and desirabilities of the consequences as equivalent, the person who has high confidence in the thoughts generated will show more attitude change than the person who has doubts about these thoughts. Numerous studies have identified a wide variety of variables that can affect thought confidence. One well-studied factor is the ease with which thoughts come to mind. For example, it is easier to generate two reasons to stop smoking rather than 12. Because things that come to mind easily are seen as more valid, people who generate two reasons could show more attitude change than those who generate 12, reversing the typical effect of number of thoughts on persuasion. This is because when people generate only two reasons, they have confidence in these reasons, but when they generate 12, there is less confidence in their validity. Other variables have been shown to affect thought confidence and thus reliance on one's thoughts. These variables include whether people are nodding (up and down) rather than shaking (side to side) their heads during the persuasion attempt, and whether they are made to feel powerful or happy right after thought generation. If people have generated mostly favorable thoughts during the message,

increasing thought confidence will lead to more persuasion, but if people have generated mostly unfavorable thoughts during the message, increasing thought confidence will result in reduced persuasion. Finally, it is important to note that people assess their thought confidence primarily when they are motivated and able to think carefully about the message, such as when they are high in their need for cognition or the personal relevance of the topic is high. When motivation and ability are low, meta-cognitive activity (i.e., thinking about one's thoughts) is also low.

Functional Approach

In their expectancy-value theory, Fishbein and Ajzen speculate that five to seven attributes or consequences are critical in determining a person's overall attitude. It is not clear, however, which particular attributes will be the most important (i.e., how the attributes are weighted). Functional theories of persuasion focus on the specific needs or functions that attitudes serve for a person and are therefore relevant for understanding the underlying dimensions of the attitude that are most important to influence. For example, some attitudes are postulated to protect people from threatening truths about themselves or to enhance their own self-image ('ego-defensive function'), others give expression to important values ('value-expressive function'), or help people to understand the world around them ('knowledge function') or facilitate achieving rewards and avoiding punishments ('utilitarian function'). According to these theories, change depends on challenging the underlying functional basis of the attitude. Thus, if a person dislikes lowering taxes because of concern about social inequality (value expressive function), an argument about the amount of money the taxpayer will save (utilitarian function) will be ineffective.

Consistency Approach

Just as functional theories hold that attitudes serve important needs for individuals, dissonance and related theories hold that attitudes are often in the service of maintaining a need for consistency among the elements in a cognitive system; in Leon Festinger's original formulation of *dissonance theory*, two elements in a cognitive system (e.g., a belief and an attitude; an attitude and a behavior) were said to be consonant if one followed from the other, and dissonant if one implied the opposite of the other. Two elements could also be irrelevant to each other. One of the more interesting dissonance situations occurs when a person's behavior is in conflict with his or her attitudes or beliefs because behavior is usually difficult to undo. According to the theory, dissonance, experienced as an aversive tension, can be reduced by changing beliefs and attitudes to bring them into line with the behavior. Thus, if you were opposed to the election of Candidate Smith, it would be inconsistent to sign a petition in favor of this candidate. According to dissonance theory, signing such a petition would produce discomfort that could result in a more favorable evaluation of the candidate in an effort to restore consistency.

Although early dissonance research was generally supportive of the theory, several competing formulations were proposed. Although it is now clear that many of the behaviors described by Festinger induce in people an 'unpleasant

tension,' just as the theory predicts, current research has begun to focus more on understanding the precise cause of that tension. For example, some have questioned Festinger's view that inconsistency per se produces tension in many people. Rather, some argue that people must believe that by their behavior they have freely chosen to bring about some foreseeable negative consequence, or that the inconsistency involves a critical aspect of oneself or a threat to one's positive self-concept.

Peripheral Route Approaches

Each of the central route approaches described above assumes that attitude change results from people actively considering the merits of some position either in a fairly objective manner or in a biased way (such as when seeking to restore consistency). The next group of theories does not share this assumption. Instead, these theories suggest that people often prefer to conserve their limited cognitive resources and form or change attitudes with relatively little cognitive effort. The peripheral route focuses on eliciting attitude change without much thinking about information central to the merits of the attitude issue. Thus, the peripheral approaches deal with changes resulting from rewards, punishments, and affective experiences that are associated directly with the attitude object, or simple inferences that people draw about the appropriate attitude to adopt based on their own behavior or other simple cues in the persuasion environment.

Inference Approaches

Rather than effortfully examining and thinking about all of the issue-relevant information available, people can make an evaluative inference based on some meaningful subset of information. One popular inference approach is based on 'attribution theory' and holds that people come to infer underlying characteristics about themselves and others from the behaviors that they observe and the situational constraints imposed on these behaviors. Bem suggested that people sometimes have no special knowledge of their own internal states and simply infer their attitudes in a manner similar to that by which they infer the attitudes of others. In his *self-perception theory*, Bem reasoned that just as people assume that the behavior of others and the context in which it occurs provides information about the presumed attitudes of these people, so too would a person's own behavior provide information about the person's own attitude. Thus, a person might reason, 'since I signed Candidate Smith's petition, I must be in favor of her election.'

The attribution approach has also been useful in understanding the persuasion consequences of making inferences about relatively simple cues. For example, when external incentives (e.g., money) provide a salient explanation for a speaker's advocacy ('he was paid to say it'), the message is less effective than when a discounting external attribution is not possible. Research indicates that these simple attribution processes are most likely to influence attitudes when people are relatively unmotivated or unable to think carefully about the issue, such as when they have relatively little knowledge on the topic and the issue has few anticipated personal consequences.

Like the attributional framework, the *heuristic-systematic model* of persuasion postulates that, when people are not motivated or able to process all of the relevant information available, attitude change can result from the use of certain heuristics or rules of thumb that people have learned on the basis of past experience and observation. To the extent that various persuasion heuristics are available in memory, they may be invoked to evaluate persuasive communications. For example, either because of prior personal experience or explicit training, people can evaluate a message with many arguments by invoking the heuristic 'the more arguments, the more valid it is.' If so, no effortful learning or evaluation of the actual arguments presented is necessary for influence to occur.

Approaches Emphasizing Affect

The attribution and heuristic models focus on simple cognitive inferences that can modify attitudes. Other peripheral route theories emphasize the role of affective processes in attitude change. One of the most direct means of associating 'affect' with objects, issues, or people is through *classical conditioning*. In brief, conditioning occurs when an initially neutral stimulus (the conditioned stimulus, CS) is associated with another stimulus (the unconditioned stimulus, UCS) that is connected directly or through prior conditioning to some response (the unconditioned response, UCR). By pairing the UCS with the CS, the CS becomes able to elicit a conditioned response (CR) that is similar to the UCR. So, in Pavlov's initial conditioning studies, when food was paired over and over again with a bell, eventually the bell elicited salivation in the absence of food.

Considerable research has shown that attitudes can be influenced by pairing initially neutral objects with stimuli about which people already feel positively or negatively. For example, peoples' evaluations of words, other people, political slogans, consumer products, and persuasive communications have been modified by pairing them with such affect-producing stimuli as unpleasant odors and temperatures, the onset and offset of electric shock, harsh sounds, and elating and depressing films. People are especially susceptible to the simple transfer of affect from one stimulus to another when the likelihood of object-relevant thinking is rather low. Some recent research by Jones, Fazio, and Olson suggests that conditioning in the domain of attitudes (*evaluative conditioning*) occurs by means of a simple misattribution process. That is, although people are actually feeling unpleasant because of the UCS (e.g., an pleasant odor), they misattribute (confuse) this feeling as originating from the CS (e.g., the persuasive message).

Another procedure for modifying attitudes through simple affective means was identified by Robert Zajonc in his work on *mere exposure*. In this research, Zajonc and his colleagues have shown consistently that when objects are presented to an individual on repeated occasions, the mere exposure is capable of making the individuals' attitudes toward these objects more positive. Recent work on this phenomenon indicates that simple repetition of objects can lead to more positive evaluations even when people do not recognize that the objects are familiar. Mere exposure effects have been shown in a number of studies using a variety of stimuli such as polygons, tones, nonsense syllables, Chinese ideograms, photographs of faces, and foreign words. Interestingly, what these stimuli have in

common is that they tend to be meaningless and are relatively unlikely to elicit spontaneous thought. In fact, the simple affective process induced by mere exposure appears to be more successful in influencing attitudes when processing of the repeated stimuli is minimal. When more meaningful stimuli have been repeated such as words or sentences, mere exposure effects have been less common. Instead, when processing occurs with repetition, the increased exposures enhance the dominant cognitive response to the stimulus. Thus, repeating strong arguments tends to lead to more persuasion (at least to the point of tedium), and repeating weak arguments tends to lead to less persuasion.

A Dual Process Approach to Understanding Attitude Change

Although the theories just described continue to be useful in accounting for a variety of persuasion phenomena, much of the contemporary literature on attitude change is guided by one of the available 'dual process' models of judgment. For example, one of the earliest approaches of this type, the *Elaboration Likelihood Model* (ELM), was introduced by Petty and Cacioppo and represented an attempt to integrate the many seemingly conflicting findings in the persuasion literature under one conceptual umbrella by specifying a finite number of ways in which source, message, recipient, and contextual variables have an impact on attitude change (for reviews of the ELM, the related heuristic/systematic model, and other dual process approaches). The ELM is based on the notion that people want to form correct attitudes (i.e., those that will prove useful in functioning in the environment) as a result of exposure to a persuasive communication, but there are a variety of ways in which a reasonable position can be adopted.

The most effortful procedure for evaluating an advocacy involves drawing upon prior experience and knowledge to carefully scrutinize and think about all of the issue-relevant information available in the current environment along the dimensions that are perceived central to the merits of the attitude object. According to the ELM, attitudes formed or changed by this *central route* are postulated to be relatively persistent, predictive of behavior, and resistant to change until they are challenged by cogent contrary information along the dimension or dimensions perceived central to the merits of the object. However, it is neither adaptive nor possible for people to exert considerable mental effort in processing *all* of the persuasive information to which they are exposed. This does not mean that people never form attitudes when motivation and/or ability to think are low; in contrast, they may change via a peripheral route, wherein relatively simple associations, online inferences, and well-learned heuristics are utilized. For example, a person might be more persuaded by a message containing nine rather than three arguments because each of the arguments is evaluated and determined to be compelling (central route), or because the person simply counts the arguments and reasons and assumes 'the more the better' (peripheral route). Attitudes formed or changed by the central route processes are postulated to be relatively more persistent, resistant, and predictive of long-term behavior than those based on peripheral route processes. Thus, the ELM

holds that both central and peripheral processes are important for understanding attitude change, but their influence varies depending on the likelihood of thinking.

The ELM holds that there are many variables capable of affecting elaboration and influencing the route to persuasion. Some variables affect a person's motivation to process issue-relevant information (e.g., the personal relevance of the issue; personal accountability for a decision; whether the person is relatively high or low in need for cognition), whereas others affect their ability or opportunity to think about a message (e.g., the presence of distraction; the number of times the information is repeated; the amount of issue-relevant knowledge available). Some variables affect processing in a relatively objective manner (e.g., distraction disrupts whatever thoughts a person is having whether favorable or unfavorable to the proposal), whereas others influence elaboration in a biased fashion (e.g., a positive mood makes positive thoughts more likely than negative thoughts when people are motivated and able to think). Biases can stem from ability factors (e.g., a biased knowledge store) and motivational factors (e.g., when a desire to maintain one's current attitude is more salient than one's desire to objectively consider new information).

Research on the ELM has shown that when the elaboration likelihood is high (e.g., high personal relevance, high knowledge of topic, simple message in print, no distractions, etc.), people typically know that they want and are able to evaluate the merits of the information presented, and they do so. When thinking is high, the number, valence, and confidence people have in their thoughts determine the extent of influence. The extensive thinking that people do can be relatively objective or biased. On the other hand, when the elaboration likelihood is low, people know that they do not want and/or are not able to carefully evaluate the merits of the information presented (or they do not even consider exerting effort). Thus, if any evaluation is formed, it is likely to be the result of relatively simple associations or inferences (e.g., agreement with an expert source; counting the number of arguments presented). When the elaboration likelihood is moderate (e.g., uncertain personal relevance, moderate knowledge, moderate complexity, etc.), however, people may be unsure as to whether the message warrants or needs scrutiny, and whether or not they are capable of providing this analysis. In these situations, they may examine the persuasion context for indications (e.g., is the source credible?) as to whether or not they should attempt to process the message.

There are at least two important implications of the ELM. First, the model holds that any one variable can produce persuasion by different processes in different situations. For example, putting people in a positive mood can influence attitudes because of a simple inference process when the likelihood of thinking is low (e.g., 'I feel good so I must like it'), bias thinking when the likelihood of thinking is high (i.e., making positive interpretations more likely than negative ones), and influence the extent of thinking when it is not already constrained to be high or low (e.g., thinking about an unpleasant message less when happy than when sad). In addition to considering the extent of thinking, it is also important to consider the timing of key persuasion variables such as whether they are salient before or after message processing. For example, if a person is motivated and able to think about

a message, inducing happiness prior to the message will likely lead to biased thinking about the message. However, when happiness is induced right after message exposure, it is likely to affect the confidence people have in the thoughts that they have already generated. Thus, by considering the likelihood of thinking and the timing of persuasion variables, the mechanism by which the variable affects attitudes can be understood. Second, as explained next, the ELM holds that the mechanism of persuasion has implications for the strength of the changed attitude. The ELM holds that not all attitude changes of the same magnitude are equal. Specifically, thoughtful attitude changes (central route) tend to be more consequential than nonthoughtful changes (peripheral route).

Consequences of Attitude Changes Produced by Different Processes

It is now clear that there are a variety of processes by which attitudes can be changed, and that the different processes dominate in different situations. That is, some attitude change processes dominate when motivation and ability to think are high, but other change processes dominate when motivation and ability to think are low. Research suggests that attitudes formed by different processes often have different characteristics. For example, *persistence* of persuasion refers to the extent to which attitude changes endure over time. When attitude change is based on extensive issue-relevant thinking, it tends to persist longer than when it is not. However, multiple exposures to positive cues can also produce relatively persistent attitudes.

Resistance refers to the extent to which attitude change is capable of surviving an attack from contrary information. Attitudes are more resistant the stronger the attack they can withstand. Although attitude persistence and resistance tend to co-occur, their potential independence is shown conclusively in William McGuire's work on cultural truisms. Truisms such as 'you should brush your teeth after every meal' tend to be highly persistent in a vacuum, but very susceptible to influence when challenged. People have very little practice in defending truisms because they have never been attacked. These beliefs were likely formed with little issue-relevant thinking at a time during childhood when extensive thinking was relatively unlikely. Instead, the truisms were probably presented repeatedly by powerful, likable, and expert sources. As noted above, the continual pairing of an attitude with positive cues may produce a relatively persistent opinion, but it may not prove resistant when attacked. The resistance of cultural truisms and other attitudes can be improved by motivating and enabling people to defend their positions in advance of a challenging communication. One such *inoculation treatment* involves exposing people to a few pieces of counterattitudinal information prior to the threatening communication and showing them how to refute it. The inoculation procedure does not change the valence of a person's initial attitude, but it makes it stronger. Other persuasion treatments that seem ineffective in changing the valence of attitudes might nonetheless be effective in modifying the strength of the attitude, making it more or less enduring, resistant, or predictive of behavior than it was initially.

Perhaps the most important consequence of attitudes changed by high rather than low thought processes is that these attitudes are more likely to predict and guide behavior. There are several reasons for this. First, as noted above, high thought attitudes are more likely to be stable over time so that they will be available to guide behavior when the opportunity arises. Second, however, attitudes based on high amounts of thought are also held with greater confidence, making people more willing to act on these attitudes. Interestingly, recent research by Barden and Petty shows that if attitude confidence is increased even in the absence of enhanced thinking, people are more willing to act on these attitudes, providing a relatively low thought way to increase attitude strength.

Summary

In sum, contemporary persuasion theories hold that changes in attitudes can come about through a variety of processes which imbue them with a multiplicity of characteristics and render them capable of inducing a diversity of consequences. According to the popular dual process logic, the processes emphasized by the central route theories should be largely responsible for attitude change when a person's motivation and ability to scrutinize issue-relevant information is high. In contrast, the peripheral route processes should become more dominant as either motivation or ability to think is attenuated. This framework allows understanding and prediction of what variables affect attitudes and in what general situations. It also permits understanding and prediction of the consequences of attitude change. It is now accepted that all attitudes can be based on cognitive, affective, and behavioral information, and that any one variable can have an impact on persuasion by invoking different processes in different situations. Finally, attitudes that appear identical when measured can be quite different in their underlying basis or structure and thus can be quite different in their temporal persistence, resistance, or in their ability to predict behavior. Work on attitude change to the present has focused on the intrapsychic processes responsible for change in adult populations mostly in Western cultures. Future research is needed on the interpersonal processes responsible

for attitude change, and the potentially different mechanisms that produce change in different population groups (e.g., children vs. elderly individuals, those in individualistic vs. collectivist cultures). In addition, as the field matures, current theories are ripe for exportation to important applied domains such as health promotion (e.g., AIDS education), political participation (e.g., determinants of voter choice), and others.

See also: [Persuasion](#).

Further Reading

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Relevant Websites

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