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Abstract

Perhaps the most oft-cited phrase in all the interpretation literature is a sentence written by an anonymous U.S. National Park Service ranger in an obscure administrative manual a half century ago:

Through interpretation, understanding; through understanding, appreciation; through appreciation, protection.

When Freeman Tilden quoted the manual in *Interpreting Our Heritage*, little did he know that those few words would evolve into a philosophical orientation around which interpreters all across the globe would soon rally. In this article, Tilden's claim is reexamined in light of contemporary cognitive and social psychology. Does the chain of events Tilden describes really stand up, or is it just a nice, warm, and fuzzy phrase? Is there a substantiated theoretical basis for claiming that "interpretation" can create a kind of "understanding" that would indeed lead people to "protect" the places they visit? According to the weight of evidence from cognitive science, the answer is yes.

From Interpretation to Protection: Is There a Theoretical Basis?

Perhaps the most oft-cited phrase in all the interpretation literature is a nine-word sentence written by an anonymous U.S. National Park Service ranger in an obscure administrative manual a half century ago:

Through interpretation, understanding; through understanding, appreciation; through appreciation, protection.

When Freeman Tilden (1957: 38) quoted the manual in *Interpreting Our Heritage*, he said he hoped interpreters everywhere would remember and recite the philosophy frequently:

...almost like a canticle of praise to the Great River of all we have, for in the realest sense it is a suggestion of which must always be the finest end product of our preserved natural and man-made treasures. (p. 38)

Were Tilden alive today, however, even he might be struck by the reach of his own impact. A half century later, those nine words have evolved into a philosophical orientation around which interpreters all across the globe have rallied.

But does the chain of events Tilden describes really stand up, or are his words just a nice, warm, and fuzzy phrase? Is there a substantiated theoretical basis for claiming that “interpretation” can create a kind of “understanding” that would indeed lead people to “protect” the places they visit? I think the weight of the evidence says yes.

If we see interpretation as a communication process, we’re able to draw on recent advances in cognitive and behavioral psychology to examine the cause-and-effect-relationships he (and the anonymous ranger) claimed would occur when interpretation is done well. In fact, in just the past 30 years, hundreds of published studies have looked at these very relationships. The two main theoretical foundations that have guided these studies are the elaboration likelihood model of persuasion (ELM) and the theory of planned behavior (TPB). When we re-examine Tilden’s hypotheses in light of these theories, a plausible conclusion is that the man was even more brilliant than we earlier realized. The ideas contained in his famous quotation turn out to be not only defensible according to many studies, but because he promoted this view of “protection through interpretation” nearly 20 years before either the ELM or TPB were known to cognitive scientists, his insights into the communication process seem all the more impressive.

In this article, I separately consider the three logical assertions contained in Tilden’s quotation and attempt to analyze each in terms of its consistency with the research record. Respectively, the three assertions are that “interpretation can lead to understanding,” that “understanding can lead to appreciation,” and that “appreciation can lead to protection.”

Through Interpretation, Understanding

In the fifth chapter of *Interpreting Our Heritage* (1957), Tilden was emphatic that we mustn’t see interpretation as some sort of “instructional” or “teaching” exercise in the academic sense. Borrowing from Ralph Waldo Emerson, he gave us a now famous dichotomy, “not instruction, but provocation,” as a basic framework to show what interpretation should and should not try to achieve:

It is true that the visitors...frequently desire straight information, which may be called instruction and a good interpreter will always be able to teach when called upon. But the purpose of Interpretation is to stimulate the reader or hearer toward a desire to widen his horizon of interests and knowledge, and to gain an understanding of the greater truths that lie behind any statements of fact...to search out meanings for himself. (p. 32–33, 36)

In this way, Tilden was telling us that the main thing interpretation should aim to accomplish is provoking visitors to think for themselves, and in doing so, to find their own personal meanings and connections. Furthermore, he cautioned against seeing interpretation as serving some sort of academic teaching function. Readers familiar with Tilden's philosophy will know that his formula for "success" hinged on two "Rs," relevance and revelation. The best (most successful) interpretation, as he envisioned it, would connect to what people care most about (themselves and their own experience in life) and it would be presented in such a way that the thing being interpreted would "reveal" its inner meanings (or "greater truths") to the people—that is, they, themselves, would find their own personal meanings in the thing.

Tilden's idea that interpretation's success would be based on the meanings that visitors themselves make, as opposed to the knowledge interpreters want them to acquire, was a "constructivist" approach to thinking about interpretation. Although the term wasn't used much in park management in those days, Tilden was thinking like a constructivist when he wrote "not instruction, but provocation." Today, however, it is common for analysts of interpretation to invoke constructivist thinking. Examples can be found in Ballantyne and Hughes (2006), Brody, Tomkiewicz, and Graves (2002), Falk and Dierking (2000), Falk and Storksdieck (2005), Goldman, Chen, and Larsen (2001), Ham (2007), Larsen (2003), Leinhardt and Knutson (2004), Markwell (2004), and Silverman and Masberg (2001).

Thus, in Tilden's view, interpreters shouldn't be trying to teach anything to anybody in the instructional sense, but rather attempting to provoke them to deep thought. In psychology, effortful thought is called elaboration. The process of thinking about something produces a person's subjective understanding of it. That is, when we think deeply about a thing, we make our own meanings about it, and these meanings constitute our understanding of it. Therefore, the more interpretation provokes people to think about something, the more they understand the thing in their own way. Tilden referred to these as "personal truths."

Research on the ELM has indeed demonstrated that the more communication provokes us to think, the more we create personal meanings about the subject (Petty & Cacioppo, 1986). Studies also show that the more personally relevant a presentation is to its audience, the more likely those people are to attend to and elaborate on the information being presented (Petty & Cacioppo, 1979; Petty, Cacioppo, & Goldman, 1981). That is, relevant messages provoke thinking, which in turn leads to the formation of subjective meaning, or personal understanding.

It is important to recognize, however, that "understanding" is not necessarily the same as "knowledge" that one might be expected to master and later recall (on a test or exam of some kind). In fact, one study (Cacioppo & Petty, 1989) found that the more strongly relevant a message was to an audience, the less likely they were to do well on a test of the facts they were actually presented. Cacioppo and Petty found that although a

highly relevant message led to greater attitude impacts, people exposed to that message could recall significantly *less* about the content of the message than could people who were exposed to a less-relevant message. A conclusion from this finding is that the people who were exposed to the more personally relevant message were provoked to think more about what the message *meant to them*, rather than about what the message, itself, actually was. This conclusion is corroborated by other ELM studies showing that even when a message is highly relevant to an audience, it does not necessarily lead to greater memory of actual message content (Cacioppo, Petty, & Morris, 1983; Petty & Cacioppo, 1979; Petty, Cacioppo, & Goldman, 1981; Petty, Cacioppo, & Heesacker, 1981; Petty, Cacioppo, & Schumann, 1983). It is also consistent with interpretive research by Tarlton and Ward (2006) and Bucy (2005), who found that connection-making caused by an interpretive encounter can be high even when audience memory of the program's content is modest. Cacioppo and Petty (1989) explained it this way:

This is not to suggest that memory is unimportant, but rather that comprehension, associations, elaborations, and inferences are more important than verbatim memory of the arguments. (p. 10)

In this sense, understanding is a more personal set of “facts” (what Petty, Cacioppo, & Goldman (1981) have called a “self-schema”) that wouldn't necessarily be included in a factual-recall evaluation. It is apparent from Tilden's advice on provocation versus instruction that he already knew this, even though it was inconsistent with prevailing communication theory during his time.

Our understanding about something is simply what we think about it; it is composed of a set of beliefs we have about the thing that psychologists call a “schema.” To be sure, our beliefs about something may not be entirely accurate, and other people might disagree with them, but they are, for all intents and purposes, *our understanding* of it. So when interpretation provokes a person to think, it causes an elaboration process that creates or otherwise impacts understanding, generating a sort of internal conversation in the person's mind that, in turn, produces new beliefs or causes existing beliefs either to be reinforced or changed. Since what we believe about something constitutes our understanding of it, Tilden indeed seemed to be on the right track by claiming that interpretation, done well, can lead to personal understanding.

Through Understanding, Appreciation

But how might understanding lead to appreciation? Enter here the TPB that has led to literally hundreds of studies showing that people's beliefs about something give rise to their attitude about it (Ajzen & Fishbein, 2005). Attitudes are not the same as beliefs. Whereas a belief describes what “is,” an attitude describes a person's evaluation of the thing, whether it's good or bad, right or wrong, positive or negative. Sentiments such as liking, loving, caring, and appreciating are attitudinal. When Tilden says that our understanding of something can lead to an appreciation of it, he's saying that our beliefs about a thing give rise to attitudes about it that are consistent with the beliefs. This is well established in psychological research, provided that we're clear on the thing the beliefs and attitude refer to.

The last sentence above is important because a concept like “appreciation” is vague until the object of appreciation is specified. In other words, what is it that is being

appreciated? For understanding to lead to appreciation—that is, for beliefs to lead to attitudes—the beliefs and attitude must focus on the same thing. If we wish visitors to appreciate a *place*, then it will be their understanding of the *place* that will determine their attitude about that *place*; if we want them to appreciate a concept like “*biodiversity*,” then it will be their beliefs about *biodiversity* that will determine their attitudes about it. This need to match beliefs and attitudes to their object (the place, the concept, etc.) is called in psychology the principle of compatibility (or symmetry). The evidence supporting this principle is so strong that it is now being discussed as a law of human psychology (Ajzen, 2005). To strongly influence an attitude about something (an attitude object), a communicator *must* first influence the beliefs a person holds about that same thing. Tilden rightly saw a far-reaching range of potential attitude objects:

...a national park, a prehistoric ruin, an historic battlefield, or a precious monument of our wise and historic ancestors. (p. 37)

What he was saying, and which is supported by many studies conducted in just the past two decades, is that if an interpreter provokes an audience to think and make personal meanings about any one of these things, then a positive evaluation of that thing is likely, provided that the meanings made are positive ones (Ajzen & Fishbein, 2005; Fishbein & Ajzen, 1975; Chaiken, 1980; Holbrook, Berent, Krosnick, Visser, & Boninger, 2005; Petty, Haugtvedt, & Smith, 1995; Petty, Rucker, Bizer, & Cacioppo, 2004). If we take “appreciation” to mean a generally positive evaluation of something, then we can conclude from these studies that understanding can indeed lead to appreciation.

Through Appreciation, Protection

When Tilden described the link between appreciation and “protection,” he was saying that having an appreciative attitude about something would lead to certain behaviors. For the most part, he was referring to deterring vandalism and careless actions such as throwing lit cigarettes into dry vegetation:

He that understands will not willfully deface, for when he truly understands, he knows that it is in some degree a part of himself.... If you vandalize a beautiful thing, you vandalize yourself. And this is what true interpretation can inject into the consciousness. (p. 38)

“Appreciation” to Tilden was a special type of attitude, a *general* one of the kind a parent feels for a child. He reasoned simply that people would not knowingly harm the things they care about. Since he was referring to a general case, he couldn’t possibly anticipate every conceivable action a person might or might not carry out. But the point he was trying to make was that if a person is provoked to deep thought about a thing then that person will make a lot of personal meanings with respect to it. Meaningful things matter to us, and given the opportunity to act one way or another with respect to a meaningful thing, we will normally choose to behave in a respectful or protective way. Both common sense and research back up this claim.

Today, however, interpreters are often interested in using interpretation as a management tool aimed at deterring or eliminating *specific* visitor behaviors in fragile settings. My own research over the past 10 years has dealt with problems of proper food

storage by campers in bear country (Lackey & Ham, 2004), reducing wildlife feeding and persuading national park visitors to carry out litter left by other visitors (Ham, Weiler, Hughes, Brown, Curtis, & Poll, 2008), keeping dogs on leashes in protected areas (Hughes, Ham, & Brown, in press), and convincing tourists to donate to local conservation funds (Ham, 2004; Powell & Ham, 2008). The behavior of interest in each of these cases was very specific and different from the rest, and the word “protection” in Tilden’s philosophical statement doesn’t capture the specificity of each of these behaviors or the differences between them.

A consistent finding in studies on human behavior modification is that in order to be successful in influencing people to behave consistently in a given way, we must succeed in influencing those people’s beliefs about that specific *behavior* (Ajzen, 2005; Ajzen & Fishbein, 2005; Fishbein & Manfredo, 1992; Fishbein & Yzer, 2003). If their beliefs about engaging in the *behavior* are predominantly positive, it will lead them to have a positive (appreciative) attitude about the *behavior*, which in turn increases the likelihood that they will behave as we want.

Studies, however, do not back up the idea that a general attitude about a thing will lead to specific behaviors with respect to the thing (Ajzen, 2005; Ajzen & Fishbein, 2005; Bamberg, 2003; Fazio, 1986; Fishbein & Ajzen, 1974; Weigel, 1983; Weigel & Newman, 1976). Rather they show that other factors influence our attitudes about a specific behavior that might have little to do with our general attitude. This explains why all environmentalists don’t recycle at home, and not all of them donate money to every cause or join every conservation organization. Those behaviors (recycling at home, donating, and joining) are subject to beliefs, not just about nature and the environment, but about the specific behavior in question. This is the above-cited “principle of compatibility” at work again. According to many TPB studies, to influence a behavior we would do well to start by influencing people’s beliefs about that specific *behavior*.

But the principle of compatibility does not in any way refute Tilden’s logic that “appreciation” leads to “protection.” Indeed, if we think of “appreciation” as having a positive attitude about something, and if that something is a behavior, then the attitude-behavior link holds up well according to dozens of studies conducted in the past 30 years or so (Ajzen & Fishbein, 2005). Therefore, interpretation that provokes the formation of positive beliefs about the outcomes of a given behavior will result in a positive attitude about that behavior. When this occurs, the likelihood that a visitor will engage in the desired behavior (if presented the opportunity) is significantly enhanced. In other words, through appreciation, protection.

Conclusion

While it may not surprise some to hear that Tilden actually knew what he was talking about, we must remember that the chain of events he described was based on an intuitive understanding of communication that was not supported or advocated by cognitive science during his time. His constructivist idea that meanings were personal conclusions generated in the visitor’s mind (rather than being put there by the fact-bearing interpreter) was nothing short of radical thinking in the 1950s when a more didactic view of communication was prevalent (Ajzen, 1992). Yet Tilden apparently already understood that the only caring any of us is capable of doing will be that which is based on the meanings we, ourselves, make. Interpretation that provokes visitors to think in positive ways about a thing can make that thing matter to them. When things matter to us, we are

likely to act in their behalf if confronted with the opportunity to do so. Although today this makes plain sense to most interpreters, Tilden's understanding of this process, and his articulation of it in those nine words 50 years ago, suggest that he (and perhaps the anonymous ranger) were even brighter than some of us might have thought.

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