Persuasion and Pragmatics: An Empirical Test of the Guru Effect Model

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Abstract

Decades of research have investigated the complex role of source credibility in attitude persuasion. Current theories of persuasion predict that when messages are thoughtfully scrutinized, argument strength will tend to have a greater effect on attitudes than source credibility. Source credibility can affect highly elaborated attitudes, however, when individuals evaluate material that elicits low attitude extremity. A recently proposed a model called the guru effect predicts that source credibility can also cause attitudinal change by biasing the interpretation of pragmatically ambiguous material. The present studies integrate models of explanatory pragmatics and persuasion in order to empirically assess these hypotheses. Experiment 1 found that text difficulty and attitude neutrality reflect independent persuasion variables. Experiment 2 found that higher source credibility causes more favorable attitudes toward messages eliciting low attitude extremity. Text difficulty was not found to have a significant effect on attitudes. These results confirm the predictions of prior social cognition research but no do not support the guru effect model. The implications of these studies for pragmatics and persuasion research as well as the value of interdisciplinary research between these fields are discussed.

Keywords: persuasion, pragmatics, guru effect, ambiguity, Relevance Theory, social cognition; attitudes

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 "It's funny. All you have to do is say something nobody understands and they'll do practically anything you want them to." - J.D. Salinger (1951), *The Catcher in the Rye*

Although the formal study of rhetoric began in the 5th century BCE with Sicilian scholars Corax and Tisias (Cole, 1991; Hink, 1940), it was Aristotle who formulated the first comprehensive theory of persuasion (Dillard & Pfau, 2002). Of particular importance is his discussion of the role of *ethos*, or proofs dependent upon the believability of the speaker (Golden, Berquist, Coleman, & Sproule, 2003), in rhetorical persuasion. Aristotle argued in *Rhetoric* that "we believe good men more fully and more readily than others: this is true generally whatever the question is, and absolutely true where exact certainty is impossible and opinions are divided" (trans. 1941, I.2: 1356a5-8). Social psychologists have focused on persuasion in the context of attitude change, that is, increasing positive or negative orientation toward an object or message (Krosnick & Smith, 1994). Early social psychology researchers such as Lorge (1936) researchers shared Aristotle's intuition that high source credibility generally increases positive attitudes, and therefore quickly became puzzled by the inconsistent effects of source credibility across various conditions (Petty & Cacioppo, 1986). As scientific interest in the psychological effects of source credibility began to grow during the late 1940s (Hass, 1981; Petty, Barden, & Wheeler, 2009; Pornpitakpan, 2004), numerous theories of attitude change were formed but little consensus was reached about how the source of a message affects persuasion (Cacioppo, Petty, & Crites, 1994; Petty & Briñol, 2008). Researchers made significant progress when they began focusing upon the cognitive responses underlying persuasion processes and the thoughts that individuals generate in the persuasion situation (Petty,

Ostrom, & Brock, 1981). The current research uses this focus on cognitive processes to examine a persuasion process called the guru effect recently predicted by Sperber (2010).

Cognition in persuasion

Current social cognitive theories of persuasion such as the Elaboration Likelihood Model (Petty & Cacioppo, 1986), Heuristic-Systematic Model (Chaiken, Liberman, & Eagly, 1989), and the Unimodel (Kruglanski & Thompson, 1999) share an emphasis on the importance of cognitive investment as a determinant of the effects of source credibility on attitudes (Petty & Wegener, 1999). Although these theories differ in several respects (which are beyond the scope of the current work), these approaches to persuasion all suggest that differences in the persistence, resistance, and behavioral effects of attitudes result from the level of cognitive elaboration, or processing effort, employed during their formation, with higher levels of cognitive effort leading to more influential and resilient attitudes (Petty, Haugtvedt, & Smith, 2014). For example, when cognitive elaboration is low, high source credibility generally has a positive effect on attitudes toward messages of both high and low argument strength (e.g., Chaiken, 1980). This occurs primarily through the utilization of peripheral cues, which are low cost, nonanalytic processes such as the use of mental heuristics pertaining to expertise (e.g., "experts can be trusted"; Todorov, Chaiken, & Henderson, 2002). Conversely, when messages are more thoughtfully scrutinized, argument strength tends to have a greater effect on attitudes than does source credibility (e.g., Petty, Cacioppo, & Goldman, 1981).

Cognition in pragmatics

Pragmatics research has also benefited from models addressing the role of cognitive elaboration in communication. Relevance Theory (RT; Wilson & Sperber, 1994), an explanatory

pragmatics model, highlights the tradeoff between processing costs and the cognitive effects of

utterance interpretation. Following on the seminal work of Grice (e.g., 1961; 1989), RT posits

that the indeterminacies of communication require the employment of context-dependent

inferential processes to understand communicators' intentions and interpret their utterances

(Wearing, 2015). Similar to social cognitive theories of persuasion, RT models cognition as a

tradeoff between an individual's limited cognitive resources and motivation to invest effort in

information processing.

Relevance describes the relationship between the cognitive effects expected from and

processing effort required for an input (Nicolle, 2003). Cognitive effects occur when an

individual's existing assumptions are strengthened, contradicted, or interact inferentially (Allott,

2013). All else being equal, the greater the cognitive effects of the information, the higher its

relevance; contrarily, the more processing effort required, the lower its relevance (Sperber &

Wilson, 2004). RT argues that human cognition has evolved to "allocate attention to inputs with

the greatest expected relevance, and process them in the most relevance-enhancing way"

(Wilson, 2009, p. 394).

Persuasion and RT

Persuasion and pragmatics research rarely intersect, but RT may provide a fruitful

interdisciplinary bridge between these disciplines (Taillard, 2000). Sperber (2010) has recently

made such an attempt, arguing that intellectual authority increases the perceived relevance of

obscurely expressed information through a process called the guru effect. When individuals are

presented with hard-to-understand material from a highly credible source, they can either

question the authority of the author or accept the obscurity of the statements as being evidence of

the complexity and difficulty of their contents. When receiving hard-to-understand information from an unauthoritative source, individuals' already limited relevancy expectations diminish in light of the effort required to process the information. When receiving such a message from a highly credible source, however, individuals anticipate greater relevancy and therefore believe that greater processing effort will in turn produce greater cognitive effects. Choosing this positive interpretation may bias attitudes, subsequently enhancing the writer or speaker's authority on the basis of obscurity of expression alone. This mechanism may function as the catalyst for a feedback loop in which each subsequent encounter with a highly credible author's texts increases her authority.

Prior experimental research supports the effects of source credibility on persuasion processes predicted by RT. In general, the persuasive effects of source credibility are known to diminish when individuals engage in extensive concentration, effort, and thought about weak or strong arguments, such that experts and nonexperts are evaluated similarly in conditions of high cognitive involvement, such as when readers expect to be tested over the content of an essay or are evaluating a policy that will have a direct effect on them (Andrews & Durvasula, 1991). Some evidence suggests that the effects of expertise reemerge, however, during the evaluation of materials with so-called ambiguous argument strength. Chaiken and Maheswaran (1994) found that when strong and weak arguments are combined to generate messages with ambiguous argument strength, source credibility significantly impacts attitude formation even in high involvement conditions. In this case, individuals are highly motivated to critically evaluate the message, but are unable to form definite attitudes due to the ambiguous quality of the arguments presented. In response, peripheral cues such as source credibility influence the generation of message-relevant information and subsequently bias attitudes (Petty, 1994; Todorov et al., 2002).

Recent work by Tormala, Briñol, and Petty (2007) suggests that source credibility affects the favorability of issue-relevant thoughts when it is known prior to the interpretation of a message with ambiguous argument strength. Highly credible sources increase thought favorability, which subsequently biases attitudes.

Nonetheless, there are several connections between social cognitive theories of persuasion and RT relevant to the guru effect that empirical research has yet to address. In particular, previous studies on the persuasive effects of 'ambiguity' have primarily addressed aspects of *low attitude extremity* (i.e., *attitude neutrality*), which reflect the degree to which an individual likes or dislikes a message (Krosnick & Smith, 1994). Chaiken and Maheswaran (1994), for example, investigated attitudes toward product advertisements containing a combination of easily understood strong and weak arguments. Across source credibility and involvement conditions, these messages with ambiguous argument strength elicited less extreme, more neutral evaluations of the advertised product than messages containing solely strong or weak arguments. Tormala et al. (2007) also utilized readily comprehended messages that had been pretested to elicit moderate though slightly positive evaluations from highly involved participants. In these studies, ambiguity refers to moderate argument strength and correspondingly low attitude extremity, evidenced by evaluations at or near the midpoint of a bipolar scale. The claims of the guru effect, however, largely concern pragmatic ambiguity, or *text difficulty*, which refers to the degree of contextual difficulty individuals experience in interpreting and comprehending a message.

Although these forms of ambiguity are conceptually distinct, previous persuasion research has not addressed the degree to which these two forms of "ambiguity," attitude neutrality and high text difficulty, are empirically distinct. The first goal of the current research

is thus to examine *Hypothesis 1*: Text difficulty and attitude neutrality reflect distinct aspects of the persuasion process. We expect that modifying a passage to alter the ease of reading but not message content will affect ratings of text difficulty (i.e., difficulty of comprehension) but not attitude extremity (i.e., the degree of positive/negative evaluation).

Most crucially to our research, if source credibility biases the interpretation of hard-to-understand material, this process should in turn produce a biased evaluation of the message, the central claim of the guru effect (Sperber, 2010). The current research therefore also examines *Hypothesis 2*: Text difficulty interacts with source credibility to influence attitudes. Based on the predictions of the guru effect, we predicted that individuals will form more favorable opinions about a difficult-to-understand message when it is attributed to a highly credible source than when it is attributed to a low-credibility source.

Overview of the Current Research

The present investigation sought to address the gaps between RT and prior persuasion research by assessing the basic mechanism of competence enhancement underlying the guru effect. A pilot study was conducted in order to select appropriate texts for the first experiment (see Supplementary Materials for results). The passages used in this study were taken from the writings of philosophers and other authors within the so-called continental tradition of philosophy. Many continental philosophers, in contrast to those of the analytic tradition, are known for utilizing non-argumentative literary and poetic writing styles, as well as pursuing and even praising ambiguity in their work (Miščević, 2014). This approach may lead to abstruse passages and subsequently problematic interpretation for some readers (Sperber, 2010).

The pilot study assessed six passages (ranging from 238 to 380 words): four expanded quotations of Derrida (1982), Sartre (1943/2001), McLuhan (1964/1994), and Heidegger (1927/1996) taken from examples provided by Sperber (2010), as well as two quotations from Beauvoir (1948) and Kierkegaard (1845/1988). Using the measures described below, participants rated all texts as being pragmatically ambiguous and reported slightly negative moods. All texts except the Derrida passage evoked slightly positive though moderate attitudes, indicative of high evaluative ambiguity (i.e., attitude neutrality). The McLuhan, Kierkegaard, and Beauvoir passages were selected for Experiment 1 because they evoked slightly positive attitudes and more positive moods. Given robust findings that negative moods can produce heightened processing, whereas positive and neutral moods do not differ (Bodenhausen, Sheppard, & Kramer, 1994), we wanted to avoid passages that might increase processing due to their mood effects.

Two experiments were conducted in order to address the main hypotheses. To test the first hypothesis, participants in the first experiment read passages modified to differ in their degree of difficulty while eliciting similar levels of attitude neutrality. The second experiment assessed the second hypothesis by having participants read passages that elicited similarly low levels of attitude extremity but differed in their degree of text difficulty. This design allowed for any independent effects of text difficulty to be discerned. Source credibility and personal involvement were also manipulated.

Experiment 1

The goals of Experiment 1 were two-fold. First, for practical purposes, we wished to develop easier-to-understand counterparts to the relatively difficult to understand original texts. Our second and more crucial goal was to investigate the statistical independence of text difficulty

and attitude neutrality by demonstrating that passages that differed in text difficulty would not necessarily differ in attitude extremity, as predicted by Hypothesis 1.

Method

Participants. A total of 187 participants were recruited through Amazon's Mechanical Turk service (see Burmester, Kwang, & Gosling, 2011; Gosling, Vazire, Srivastava, & John, 2004; Mason, 2012). Eight participants were removed for either not completing the majority of the survey, failing an attention check, or indicating that they had looked up a passage. Of the remaining 179 participants (126 men, 53 women; $M_{age} = 29.8$ years, age range = 18 - 70 years; 8 Hispanic; 150 white, 11 African-American; 20 Asian or Asian-American, 1 Native American) 10% of participants had high school diplomas or GEDs, 29% some college experience, 52% associate's or bachelor's degrees, and 9% master's or doctorate degrees.

Materials and procedures. We selected three passages from McLuhan (1964/1994), Kierkegaard (1845/1988), and Beauvoir (1948) that we anticipated most participants would find hard to understand. Additionally, we created three simplified, easier-to-understand versions of these passages. These texts were almost identical in length and content to the originals but used language appropriate for a lower reading level (mean Flesch-Kincaid grade level for original texts = 11.1 and simplified texts = 10.1). For instance, the second paragraph of the original version of McLuhan (1964/1994) began "The instance of the electric light may prove illuminating in this connection. The electric light is pure information. It is a medium without a message, as it were, unless it is used to spell out some verbal ad or name." The modified version was "The electric light bulb is a good example. The light bulb does not provide any way of communicating unless it is used to spell a name or some advertisement, and thus does not itself have any message or content.." Participants were randomly assigned to read one of the six

passages. In order to motivate increased cognitive elaboration, we told participants that they would take a quiz over the material at the end of the study and that high scorers would receive bonuses (in reality, all participants received bonuses after data collection ended).

Participants then completed four, 7-point inventories. Participants completed semantic differential scales measuring attitudes (Tormala et al., 2007; Cronbach's a = .87); items included anchors such as *negative-positive* and *unfavorable-favorable*. Participants completed a semantic differential scale of current mood (Lorr & Wunderlich, 1988; a = .80); scale anchors included items such as *cheerful-depressed* and *energetic-tired*. Participants rated a 5-item rating scale of text difficulty created for this research (Cronbach's a = .86) which included questions such as "Is this text difficult to understand?" and "Is it hard to interpret the meaning of this text?" and three items modified from Petty, Cacioppo, and Goldman (1981). Additionally, participants completed a 5-item experience with philosophy (a = .90) scale, intended to control for possible effects of prior experience with philosophy, which included items adapted from Stewart (2013) such as "What is your level of interest in philosophy?" and "How often do you obtain information about philosophy from books, articles, or other audio/visual media?" The results of the key analyses described below were the same whether or not this covariate was included, so results are reported without the covariate. (See Supplementary Materials for the full set of items in the latter two measures.)

Results

Because mood can affect depth of processing, we first wished to ensure that there were no differences in mood when participants read the original versus less-ambiguous simplified version of the passage. A paired-samples t-test indicated that none of the paired texts significantly differed in mood ratings, all $t < 1.6$, $p > .10$.

The key theoretical question that Study 1 addressed was whether ratings of text difficulty, the subjective difficulty of comprehending the passage, is statistically independent from attitude neutrality, the degree of positive/negative evaluation of the passage. To test our hypothesis, we created a measure of attitude neutrality by taking the absolute value of the difference between the participant's attitude rating and the scale midpoint of 4 and subtracting this value from the maximum range (3), so that higher values represented a response closer to the midpoint (i.e. lower attitude extremity, representing more "ambiguity" in the attitude). We then standardized both the attitude neutrality and text difficulty ratings to ensure that both were on the same scale. (Note: the same pattern of significant results occurs both when these analyses are conducted using unstandardized values and using the original attitude measure). A 2 (Rating: attitude neutrality vs. text difficulty) X 2 (Version: original vs. simplified) X 3 (Passage: Beauvoir vs. Kierkegaard vs. McLuhan) mixed-model ANOVA showed the predicted 2-way interaction, $F(1, 173) = 11.90$, $p = .001$, , $\eta^2_p = .06$. This was not qualified by a 3-way interaction with passage, $F(2, 173) = 1.51$, $p = .24$, $\eta^2_p = .02$. The simplified and original versions differed in text difficulty (Ms [SDs] = -0.35 [0.93] vs. 0.37 [0.94], $t[(77) = 5.09$, $p < .001$, $d = 0.76$) but not attitude neutrality (Ms [SDs] = -0.019 [0.95] vs. 0.018 [1.05], $t(177)) = 0.25$, $p = .81$, $d = 0.04$) for the original versus simplified versions, respectively.

Discussion

The core goal of Experiment 1 was to demonstrate that text difficulty and attitude neutrality are independent dimensions. We found support for this hypothesis across three distinct pairs of philosophical texts. The original and simplified versions of these passages differed in their degree of text difficulty while retaining the same degree of attitude neutrality. This supports our claim that these dimensions are independent. Our more practical goal in Experiment 1 was to

identify a passage pair to use in Experiment 2. We selected the McLuhan passages for

Experiment 2 (see Supplementary Materials) because they evoked positive but fairly neutral

attitudes.

Experiment 2

Method

  Participants. A total of 303 participants were recruited through Amazon's Mechanical

Turk service. We removed 14 participants for not completing the majority of the survey, looking

up the passage during the study, or knowing the author of the passage. Of the remaining 289

participants (112 men, 177 women; M_{age} = 34.7 years, age range = 18 - 71 years; 23 Hispanic;

230 white, 29 African-American, 2 Hawaiian or Pacific Islander, 31 Asian or

Asian-American, 6 Native American [note that participants could identify with multiple racial

categories]) 9% of participants had high school diplomas or GEDs, 35% some college

experience, 41% associate's or bachelor's degrees, and 15% master's or doctorate degrees.

  Materials. All items in this study were scored from 1 to 7 in order to facilitate

comparison across scales. Items within scales were randomized in order to avoid order effects.

  Manipulation checks. Involvement was assessed by forming a composite index (a = .91)

of responses to three questions regarding participant's focus, attention, and involvement. The

Text Difficulty scale from Study 1 (a = .89) was again used as a manipulation check of the

passages' textual ambiguity. Sperber (2010) defines authority as an individual's perceived

competence and reliability. We therefore measured perceived source credibility using the

Competence subscale (α = .93) of the Measure of Source Credibility Scale (McCroskey &

Teven, 1999).

Dependent variable. As a measure of attitudes toward the passage, participants completed Tormala et al.'s (2007) semantic differential scales. These were averaged for a composite attitude index ($a = .88$) where higher scores indicate more positive attitudes.

Individual differences. We collected need for cognition ($a = .94$; Cacioppo, Petty, & Kao, 1984), tolerance of ambiguity ($a = .73$; Herman, Stevens, Bird, Mendenhall, & Oddou, 2010), and experience with philosophy ($a = .91$) scores as potential covariates. Need for cognition measures individual enjoyment of and tendency to perform cognitively effortful tasks (Cacioppo et al., 1984) and is associated with the persuasiveness of messages emphasizing cognitive information (Haddock, Maio, Arnold, & Huskinson, 2008). Tolerance for ambiguity indexes how an individual perceives and processes ambiguous stimuli (Furnham & Ribchester, 1995). Including these measures in any of the subsequent analyses did not change the direction or significance of the effects. Therefore, these scores are not further discussed.

Procedure. Participants were randomly assigned to a condition in the 2 (source credibility: high versus low) x 2 (involvement: high versus low) x 2 (passage version: original versus simplified) study design. To motivate increased cognitive elaboration participants in the high involvement conditions were told that they would take a quiz over the material at the end of the study, and that high scorers would receive bonuses (as in study 1, all participants received bonuses after data collection was completed). This procedure was modified from an involvement manipulation developed by Andrews & Durvasula (1991), who instructed high involvement participants to expect an interview to determine how carefully they read an advertisement.

Participants in the high credibility conditions were told prior to reading the passages that they came from "the award winning book *Modernity* written by world-renowned philosopher and bestselling author Alex Wells"; the low credibility conditions stated that they came from the

"essay 'Modernity' written by college student Alex Wells for an introductory philosophy class."

After reading the passage and completing the manipulation check measures, participants listed up to ten thoughts they had about the passage while reading (see Cacioppo, Harkins, & Petty, 1981). As a measure of mean thought favorability, participants subsequently classified each thought as positive, neutral, or negative. (The analyses of these ratings were not germane to our two central hypotheses and are not discussed here.)

Participants then completed the attitude measure and the measure of source credibility, followed by the individual difference measures. Individual mean imputation was used to fill in missing data values for scales (see Downey & King, 1998; Hawthorne & Elliott, 2005; Shrive, Stuart, Quan, & Ghali, 2006).

Results

Manipulation checks. Independent samples t-tests were conducted to assess the efficacy of the involvement and text difficulty manipulations. High involvement participants ($M = 6.07$, $SD = 1.17$) were not significantly more involved than low involvement participants ($M = 6.04$, $SD = 1.09$), $t(285) = .28$, $p = .78$, $d = 0.03$. For this reason, we collapsed across involvement conditions in all subsequent analyses. Participants in the high source credibility condition ($M = 5.20$, $SD = 1.15$) rated the author as being significantly more competent than those in the low source credibility condition ($M = 4.53$, $SD = 1.37$), corrected $t(286.5) = 4.55$, p < 0.01, $d = 0.53$. As in Experiment 1, the original passage condition ($M = 5.24$, $SD = 1.29$) was significantly more difficult to understand than the simplified passage ($M = 4.42$, $SD = 1.46$), corrected $t(286) = 5.04$, $p < .001$, $d = 0.59$.

Main analyses. Experiment 2 tested *Hypothesis 2*: Text difficulty interacts with source credibility to influence attitudes. Based on the predictions of the guru effect (Sperber, 2010), we predicted that attitudes about a difficult-to-understand message would be more favorable when it is attributed to a highly credible source than when it is attributed to a low-credibility source. In order to test this, attitude scores were subjected to a two-way, between-subjects ANOVA for source credibility and text version (original versus simplified). Based on the predictions of the guru effect (Sperber, 2010), we expected a significant interaction between the source and text conditions. Contrary to this prediction, the hypothesized passage version x source credibility interaction was non-significant, $F(1, 285) = .08$, $p = .78$, $\eta^2_p < .001$. Examining the main effects, source credibility had a significant main effect on attitudes, $F(1, 285) = 7.49$, $p = 0.007$, $\eta^2_p = .03$, such that high source credibility ($M = 4.43$, $SD = 1.27$) elicited more favorable attitudes than low source credibility ($M = 4.01$, $SD = 1.32$), consistent with prior research (Chaiken & Maheswaran, 1994; Tormala et al., 2007). Attitudes toward the original versus simplified text did not significantly differ, $F(1, 285) = 0.35$, $p = .56$, $\eta^2_p < 0.001$.

As an alternative test of Hypothesis 2, we examined the interaction between the source and the participants' subjective ratings of text difficulty in a regression framework. When regressing attitudes toward the passage on source condition (coded as 0 = non-expert and 1 = expert author), rated text difficulty, and their interaction, the interaction was again non-significant, $\beta = -.027$, $t = 0.15$, $p = .88$. In contrast to the results of the ANOVA on condition, subjectively rated text difficulty significantly predicted less favorable attitudes, $\beta = -.47$, $t = 6.35$, $p < .001$, but there was no significant effect of source condition, $\beta = .13$, $t = 0.73$, $p = .47$.

Discussion

The goal of Experiment 2 was to test *Hypothesis 2*: text difficulty interacts with source credibility to influence attitudes. We did not find support for this hypothesis using either the randomly assigned text version (original versus simplified) or the participants' subjective rating of text difficulty. However, the predictions of RT are based on the need for a sufficient amount of relevance, possibly due to the importance of the message due to its source, to overcome the obstacles posed by a challenging text. In the current study, participants in both conditions reported very high involvement (means above 6 on a 7-point scale), perhaps because the participants were drawn from a labor pool that incentivizes attention and careful processing (Kaufmann, Schulze, & Veit, 2011). These individuals thus may have had sufficient motivation to engage with the texts regardless of source. Additionally, the fact that they were being asked to read the passage as part of a paid experiment conducted by academic researchers may mean that participants viewed the text as coming indirectly from an expert source, the university professors responsible for the research.

General Discussion

The current research examined the role of source credibility in persuasion using theoretical frameworks from both social cognition and pragmatics. In particular, our studies were consistent with the predictions of past social cognition research on attitude extremity, but do not provide support for the persuasion process hypothesized by Sperber (2010). Consistent with our first hypothesis, attitude neutrality and text difficulty were found to be independent persuasion variables. Contrary to our second hypothesis, however, we did not find evidence for a persuasive effect of source credibility on attitudes that was dependent on text difficulty. While higher source credibility caused more favorable attitudes across passage version conditions, and subjective

ratings of text difficulty were associated with less favorable attitudes, there was no interaction between source credibility and text difficulty either based on subjective ratings or on the version of the McLuhan (1964/1994) passages. These results thus do not provide support for Sperber's (2010) guru effect model.

The present investigation offers new empirical insight into the relationship between Relevance Theory and social cognitive theories of attitude persuasion. RT has been helpful in explaining various aspects of language and communication from pragmatic impairment in young children (Leinonen & Kerbel, 1999) to grammatical structures and functions (Ramos, 1997). Although the predictions of RT have also been tested for important psychological processes such as inferential reasoning (e.g., Medin, Coley, Storms, & Hayes, 2003; Sperber, Cara, & Girotto, 1995) and theory of mind (Happé, 1993), they have not been empirically assessed in persuasion research. Conversely, while previous social cognition research has addressed the relationship between source credibility and attitude extremity, and has examined metacognitive effects of thought favorability and certainty (Briñol, Petty, & Tormala, 2004; Tormala et al., 2007), it has given surprisingly little attention to the difficulty of understanding a message and its potential effects as a persuasion variable.   Although the present research did not find support for Sperber's (2010) guru effect, it does serve as an empirical demonstration of how pragmatics and social psychological perspectives can be integrated for the scientific investigation of attitudinal change and persuasion processes (Taillard, 2000).

In our studies, we found that two constructs related to "ambiguity", text difficulty and attitude neutrality, reflect empirically distinct elements of the persuasion process. Previous persuasion research on ambiguity has largely focused upon evaluations of messages that elicit varying degrees of attitude extremity, but it has not thoroughly addressed the message

characteristics that influence interpretations of these arguments. RT specifically models these interpretative processes and thus addresses a critical component of individuals' cognitive responses to these persuasion situations. Although we did not find that text difficulty moderated the effects of source credibility, it may be possible that this interaction would emerge in lower involvement contexts in which individuals might be more likely to completely disengage from the task of reading something that appears both unimportant and unduly challenging to understand.

Alternatively, it may be the case that, although the passages differed in difficulty, the less difficult passage was still seen as highly difficult to understand by participants (consistent with its mean rating slightly above the scale midpoint and its mean Flesch-Kincaid grade level of 10.1). It is thus possible that a greater difference between the ambiguous and less ambiguous passages would be necessary to observe the predicted interaction. Nonetheless, an important step for future research is to address whether text difficulty affects other important persuasion variables related to both the interpreter and the context of the communication.

Although the present set of studies addressed the basic persuasion effects predicted by the guru effect model, they do not address the larger feedback process by which a communicator may become an intellectual leader. Sperber (2010) doubted that individuals are predisposed to continuously generate biased interpretations of ambiguous material unless they are involved in a social group that encourages continued analysis of the communicator's messages. Further research on the guru effect will need to address whether a potential interaction between text difficulty and source credibility requires active involvement with a social group. It is possible that appreciable attitude change will not occur until multiple individuals are simultaneously interpreting and evaluating the same messages. It is important to point out, however, that

participants' prior experience with philosophy was not found to affect the direction or

significance of the results in either Study 1 or Study 2. Although this does not directly address

the importance of involvement in an intellectual group, it does tentatively suggest that prior

philosophical experience and interest does not in itself affect the persuasiveness of pragmatically

ambiguous philosophical texts. This may suggest against the Sperber's (2010) prediction that

difficulty in understanding plays a central role in the development of intellectual gurus and their

subsequent philosophical schools. Given that the texts utilized in our research were all less than

500 words, it may also be the case that longer passages are required to elicit the expected effects

of text difficulty on attitudes.

Even with its limitations, the present work is the first to empirically assess integrated

predictions from highly related theories of persuasion and pragmatics. Social cognitive theories

of attitude persuasion and RT make similar assumptions about the nature of human cognition,

and each emphasizes the role of cognitive elaboration in communication and attitude formation.

Consistent with previous social cognition research (Chaiken & Maheswaran, 1994; Tormala et

al., 2007), source credibility was associated with more favorable attitudes toward the passage.

Furthermore, as predicted by RT, text difficulty and attitude extremity were found to represent

distinct aspects of persuasion. This empirical demonstration should facilitate further research on

the potential persuasive effects of text difficulty. Taken together, this work suggests that

integrating models of message interpretation and evaluation may lead to a more integrated and

satisfying understanding of attitude persuasion processes than considering "ambiguity" as a

single construct. Although the guru effect is an exemplary model in this regard, our studies did

not provide support for Sperber's (2010) predictions. A number of hypotheses concerning the

guru effect remain to be empirically assessed, however, providing fruitful ground for future

interdisciplinary research between attitude persuasion and pragmatics researchers.

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