

Chapter 4

Message Factors

While the source of message plays an important role in the persuasion process, the message itself can also have a significant impact on its persuasiveness (Michener et al. 2004; O’Keefe 2002). This chapter briefly reviews the message factors studied in persuasion literature and discusses how those factors have been applied and examined in the recommender system realm.

4.1 Message Factors in Human–Human Communication

Messages differ in their contents, structure as well as the way they are presented to targets. O’Keefe (2002) illustrated that the message factors discussed in past studies fall under three categories: message structure, message content and sequential-request strategies (Fig. 4.1).

4.1.1 Message Structure

Extensive research has been conducted on how the structure of a message can influence its persuasiveness, including *order of presentation*, *conclusion drawing*, *message specificity* and *message format*.

Previous research generally indicates that the arguments presented first and last are recalled better than those presented in the middle (Krugman 1962; O’Keefe 2002). This suggests that a communicator’s important arguments should be presented early or late in the message but not in the middle. However, many other studies noted that varying the order makes little difference to overall persuasive effectiveness (Gilkinson et al. 1954; Gulley and Berlo 1956). Thus, the arrangement of arguments in a message needs to be sensitive to the particulars of the persuasion circumstances. There is an indication that the effects of presentation order can vary depending on the message receiver’s elaboration. Haugtvedt and

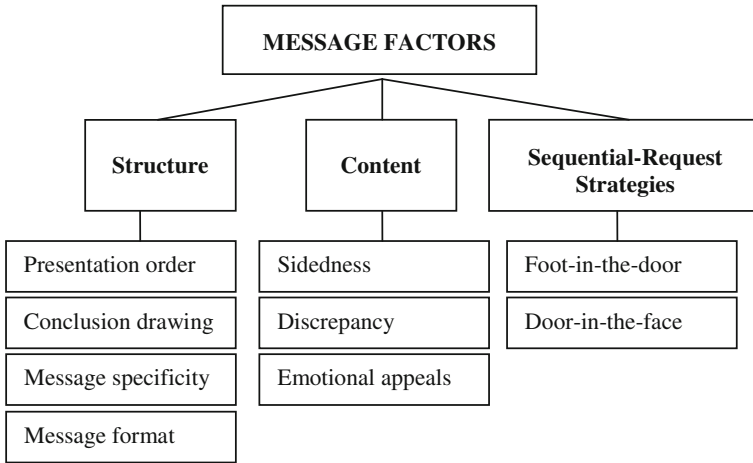


Fig. 4.1 Overview of relevant message factors

Wegener (1994) suggested that a message presented first can be more persuasive when the message receiver’s elaboration is high while a message presented last tends to be more effective when elaboration is low. The study explains that the first message can produce targeted attitudes since highly motivated message receivers perceive that the message is interesting and familiar. In contrast, the last message can be more persuasive when audiences are less involved because the last message is more prominent in their memories.

Researchers have also examined whether a message should explicitly state a firm conclusion or let receivers figure the conclusion out themselves. The research evidence suggests, in general, messages containing explicit conclusions are more effective than messages that omit such statements (O’Keefe 1997; Struckman-Johnson and Struckman-Johnson 1996). However, some studies have shown that the effectiveness of conclusion drawing may depend on the message receivers, the type of topic, and a variety of situational factors (Hovland and Mandell 1952). For example, Chance (1975) found that open-ended advertising messages were more memorable and effective for some cases since the unanswered conclusion allows message receivers to draw their own conclusions and therefore reinforces the points being made in the message. This suggests that the target audiences’ characteristics should be considered when a communicator designs the message structure.

Another message structure decision involves message specificity. Past studies compared messages that provide a general description of the advocate’s recommended action to the messages that provide a more detailed recommendation. The findings of such studies indicate that more specific recommendations are more persuasive than general recommendations (Evans et al. 1970; Frantz 1994; O’Keefe 1997).

In addition, the impacts of message format have been examined in some studies. Previous studies have compared the persuasiveness of messages presented

in different formats (written, audiotaped, and videotaped messages) and suggest that there is no general advantage associated with one or another of these forms (Sparks et al. 1998; Pfau et al. 2000; Wilson and Sherrell 1993). However, the findings suggest that the communicator’s characteristics take a greater role in influencing persuasive outcomes when the message is presented in audiotape or videotape formats. It was explained that audiotape and videotape formats provide more information about the communicator than the written format, thus enabling the message receiver to decode and evaluate source characteristics more effectively. Alternatively, messages in the written format are more likely to enhance the impact of message content variation and dampen the influence of communicator characteristics (O’Keefe 2002).

4.1.2 Message Content

Previous studies have tested different content variables such as *message sidedness*, *discrepancy* and *emotional appeals* to investigate their persuasive effects.

Message sidedness has been examined in a number of studies. Researchers compared a one-sided message that mentions only supporting arguments with a two-sided message that presents both supporting and opposing arguments. The findings show no general difference in persuasiveness between one-sided and two-sided messages but rather there appear to be many possible moderating factors (O’Keefe 2002). One of the moderating factors is the nature of the target audience (Michener et al. 2004). Studies found that one-sided messages work better when the target audiences already agree with the source and they don’t know much about the issue while two sided messages are more effective when the target audiences hold the opposing opinions or know a lot about the alternative positions (Karlins and Abelson 1970; Pechmann 1992; Sawyer 1973).

A number of investigations have examined how the variations in message discrepancy—the difference between the position advocated by the message and the target audience’s position—influence persuasive outcomes. While there is no simple answer for the relationships between message discrepancy and persuasive outcomes, an inverted U-shaped curve reasonably explains the relationship. This suggests that the messages that are moderately discrepant are more effective in changing a target’s opinion and attitudes than messages that are only slightly or extremely discrepant. However, the effects of message discrepancy have been found to be influenced by a number of factors including source credibility and message receiver’s involvement. For example, message receivers are more likely to accept a highly discrepant message from a highly credible source than from a less credible source (Aronson et al. 1963; Fink et al. 1983).

In addition, emotional appeals to fear or humor have been found to be the effective techniques (Belch and Belch 2009; O’Keefe 2002) in persuasion attempts.

4.1.3 Sequential-Request Strategies

The effectiveness of two sequential-request strategies was investigated in some previous studies. One strategy is *the foot-in-the-door (FITD) strategy* that initially makes a small request, and then makes the larger target request. In contrast, *the door-in-the-face (DITF) strategy* begins from a large request, which the receiver turns down, and then makes the smaller target request. Previous studies have shown that target audiences are more likely to accept requests when these strategies were used compared to only asking the target request in the first place (Cialdini et al. 1975; DeJong 1979; Freedman and Fraser 1966; O’Keefe 2002).

4.2 Applying Message Factors to Technology

Previous findings indicate that the content and format of recommendations can have a significant impact on a recommender system user’s evaluation of a system as well as the recommendation itself (e.g. Cosley et al. 2003; Sinha and Swearingen 2001; Xiao and Benbasat 2007; Wang and Benbasat 2007). In these recommender system studies, the influences of message discrepancy, specificity, sidedness and presentation format (text vs. visual) have been tested. In addition, the importance of transparent explanations, recommendation display layout and site navigation were also investigated.

4.2.1 Recommendation Content

In a recommender system context, it has been found that the recommendations that are only slightly discrepant from system users’ positions are more persuasive than highly discrepant recommendations. Swearingen and Sinha (2001) found that recommended products that were familiar to users were helpful in establishing users’ trust toward recommender systems. A study by Cooke et al. (2002) also observed that unfamiliar recommendations lowered users’ evaluations of recommender systems. While these findings are not consistent with the results in traditional persuasion literature that suggests maximum effectiveness of messages with moderate levels of discrepancy, it may indicate that recommender systems are still not perceived as a highly credible source of advice. Past studies have found that message receivers are more likely to accept a highly discrepant message from a highly credible source but not from a source perceived as low in credibility. This suggests that the influence of message discrepancy should be further investigated as the system technology evolves as well as an increasing number of people use and get familiar with recommender systems.

More specific recommendations appeared to positively influence users’ perceptions of recommender systems. Sinha and Swearingen (2001) suggest that

detailed product information available on the recommendation page enhances users' trust in the recommender system. Cooke et al. (2002) also explained that the attractiveness of unfamiliar recommendations can be increased if recommender systems provide detailed information about the new product. Similarly, Gretzel (2006) argued that integrating narrative descriptions in recommendations can help the systems better match various users' preferences and also provide system users with means to effectively process the recommended information. A recent empirical finding (Ozok et al. 2010) also supports users' preference for specific recommendations.

In addition, a considerable number of studies examined that explaining why certain items were suggested is important to enhance users' trust toward the systems. Wang and Benbasat (2007) found that explanations of the recommender system's reasoning logic strengthened users' beliefs in the recommender system's competence and benevolence. Herlocker et al. (2000) also reported that explanations were important in establishing trust in systems since users were less likely to trust recommendations when they did not understand why certain items were recommended to them. Bonhard and Sasse (2005) emphasized that recommender systems must establish a connection between the advice seeker and the system through explanation interfaces in order to enhance the user's level of trust in the system. Similarly, Zanker and Ninaus (2010) explained that recommender system's perceived usefulness is enhanced when the system provides informative explanations about why a certain item was recommended. Additional studies (Pu and Chen 2007; Tintarev and Masthoff 2007) also confirmed that system users exhibited more trust in the case of explanations integrated in the interfaces.

The influence of message sidedness was also tested. Nguyen and his colleagues (2007) compared one sided recommendations with two-sided recommendations and found that system users perceived that two-sided messages were significantly easier to follow, less boring and more persuasive.

4.2.2 Recommendation Format

The format in which recommendations are presented to the user also appears to influence users' evaluation of recommender systems. Recommendations were found to be more persuasive when recommender systems presented them using both text and video in contrast to text and image combinations or text only formats (Nanou et al. 2010). It seems that users are more likely to accept rich multimedia recommendations since users can use more information when they evaluate the recommended items.

The interface navigation and layout of the page presenting the recommendation was found to be a significant factor determining users' satisfaction with the system (Sinha and Swearingen 2001; Swearingen and Sinha 2001). For example, Shinha and Swearingen (2001) found that users were generally dissatisfied when they needed to execute too many clicks to access the item information or if only a few

recommendations were displayed on each screen. Consistent with these findings, Yoon and Lee (2004) showed that interface design and display format influenced system users' behaviors. A recent empirical study (Ozok et al. 2010) suggested the recommendations should be placed on the lower-middle section of the screen and the recommended items should not amount to more than three items per main product screen. However, a study conducted by Bharti and Chaudhury (2004) did not find any significant influence of navigational efficiency on users' satisfaction. In addition, Schafer (2005) suggested that merging the preferences interface and the recommendation elicitation interface within a single interface can make the recommender system be seen as more helpful since this "dynamic query" interface can provide immediate feedback regarding the effect caused by the individual's preference changes. Since such an approach merges the input with the output interface, this suggestion touches upon cues such as transparency already discussed in the context of source characteristics.