Information Processing in Bible Study Groups

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Abstract

This study focuses on information processing in Christian Bible study groups through surveys of three Midwestern churches. By considering the significance of the small group as integral to the vitality of religious organizations, this study will consider how these groups process information from sermons, books, and peers. This processing is considered in three parts: pre-discussion, local discussion, and post-discussion. Pre-discussion information processing includes all of the topic-specific information that members of these groups obtain prior to meeting as a group. This information is either unique to an individual or shared among many individuals in a group, and the nature of this information affects how it is used in actual discussion. Because of the religious nature of these groups, the study will explore the authoritative nature of information used, and whether or not this nature affects processing of information. Results show that Bible study groups report a significantly larger than expected quantity of unique information, but also that this information is continuously corrected by what is considered biblically correct. It is concluded that members join Bible study groups primarily for spiritual and relational purposes, but that this purpose does not restrain members from debate and discussion.

Keywords: Small groups, information processing, churches, religious information

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Introduction

Small groups have been an essential element of religious worship for centuries. The Apostle Paul noted that early Christians would meet as a church in the house of Priscilla and Aquila (*New International Version*, Romans 16:5). Americans are turning more and more to house churches and other meeting types to fulfill their religious needs. Only 56% of adult church-goers attend *only* the conventional church service, with one-in-five adults participating in two or more types of churches (Barna, 2008). These other *types* of churches include house groups, internet religious activities, and community events (Barna, 2008). This study will consider the information processing in religious small groups that occurs outside of the Sunday sermon.

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Small groups can have a tremendous impact on religious institutions. Members of small groups are more likely to attend worship services, tithe, and volunteer (Baylor University, 2010). “Small groups are the center of the church—not just one of many programs” (Baylor University, 2010). There are a variety of types of religious small groups, including elected church boards, recreational leagues, and volunteering groups. A specifically important small group in the church, however, is the Bible and prayer group, which has been shown to promote discipleship and spiritual growth (Baylor University, 2010).

The external impact of small groups within churches is clear; what is not as clear, however, is how these groups themselves affect information received from the sermon, books, or other sources. The topic of information processing in small groups has been studied extensively (Bonito, 2001; Hinsz, Tindale, & Vollrath, 1997; Mojzisch, Schulz-Hardt, Kerschreiter, & Frey, 2008). However, fewer articles consider the *Bible* or *prayer group* as an information processing group. This study has relevance for both small group research and churches, as they will note strategies for fostering optimal results in religious small groups according to church-level mission statements.

Review of the literature

Pre-Discussion Information

Information drives group discussion (Hinsz et al., 1997), so it is essential to understand information as it is acquired by the individual prior to group discussion. Pre-discussion information includes all of the information available to group members prior to discussion. This information is either unique to only one or a few members of the group, or it is shared by most members (Larson et al., 2002). Members often bring information from previous readings or personal experiences.

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Unique information. Some information brought to Bible study groups is held *uniquely* by certain members. Unique information is information that only one or two members of a group are aware of (Hinsz et al, 1997). This type of information is usually gained by reading books other members have not read (Lehtinen, 2005). Even books read by all group members prior to discussion can provide unique information; this may occur if all members do not read the entire book, or if members are assigned different parts of a book to read (Lehtinen, 2005).

Unique information is important to goal achievement, because this information contributes to *information pooling*. Information pooling occurs when group members contribute all of the information they have about a certain topic or discussion. Mojzisch and Schulz-Hard (2010) studied information pooling using a *hidden profile model*. In this model, a *best* solution exists, but the only way to identify correctly the best solution is to pool the information of every member. If every member contributes his or her own unique information—given to them prior to discussion—the group will have all of the information needed to identify the best solution. This model assumes that, if every member of a group shares his or her unique information that is relevant to the group discussion, the subsequent information pooling will result in the most optimal results (Mojzisch & Schulz-Hardt, 2010).

Larson et al. (2002) studied the ability of a group to choose a correct drug over other options of clearly incorrect drugs. Individual group members were given different information profiles about a drug. Some information about the drug was given only to one or two members, while other information was included in all profiles. Groups were then asked to decide on the best drug treatment for a specific case. They discovered that, when individuals shared unique information from their given profile, the resulting information pooling increased the likelihood that the correct drug would be chosen (Larson et al., 2002).

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Shared information. Many Bible studies, however, begin discussion with a *known answer* regarding a biblical text (Lehtinen, 2005). This known answer represents shared information. A known answer is any answer to a question about the Bible that has been answered by leading commentators on the Bible (Lehtinen, 2005). Proper biblical interpretation is one example of a known answer and is often mass distributed in religious books (Todd, 2005). The religious sermon is a second source of known answers. Echterhoff, Higgins, and Levine (2009) noted that religious groups share common ground often as the result of shared information given through a Sunday sermon.

Shared information is seen often within religious groups who inevitably share a common ground of religious experience (Echterhoff et al, 2009). Todd (2005) identified the presence of shared images and metaphors in Bible study groups. These metaphors were collectively stored in the minds of group members as *interpretive repertoires* (IRs). These IRs allowed members to talk about complex issues through a heuristic model of religious ideology (Todd, 2005). Members who viewed the Bible more traditionally were constrained by metaphors that highlighted the authority of the Bible and the correctness of leading biblical scholars (Todd, 2005). Members who viewed the Bible contingently were able to employ metaphors that highlighted the acceptance of loose interpretation (Todd, 2005). Members come to Bible study discussion with a pre-selected base of metaphors from which to choose.

The study by Day (2005) is an example of repertoire sharing in a Bible study group that shared a common theological perspective of the *Fall*. This shared information was revealed by the focused effort of the group to make sense of the chaos apparent in the world (Day, 2005). It can be concluded that this theological perspective was the result of information distributed by books (Todd, 2005) and sermons (Echterhoff et al, 2009). Members of small religious groups

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create meaning out of the complex stimuli of their world by converging available information with a restructured Christian theology; this is a type of healing exercise (O'Brien, 1997). In this way, Bible study members indicate the presence of shared information by means of shared religious experiences, sermons, theological perspective, and metaphor use.

H1: Shared information will be more present in religious Bible study groups than unique information.

Authority of information

Information can be either authoritative or non-authoritative. Authoritative information includes information that is developed by leaders in biblical interpretation (Todd, 2005). Non-authoritative information includes information that comes as a result of an individual's processing of biblical information irrespective of what is considered correct by religious leadership (Todd, 2005).

The presence of nonauthoritative information can lead to disagreement with leaders in biblical commentary. Many Bible study groups tend to disagree with biblical authority, as the group setting allows members to express disagreement with leading authoritative sources for biblical information (Todd, 2005). This disagreement forms in individual members before discussion and tends to be perpetuated by the group during discussion. Because Bible study groups usually occur without the presence of biblical scholars, it is hypothesized that these groups will express more flexibility in their interpretation of the Bible. A more flexible structure is operationalized by less time spent in lecture by a group leader and more time spent in discussion.

H2: An increase in group time dedicated to discussion will be positively correlated with an increase in disagreements with the Bible.

Group-level Information Processing

The context of a group includes the strategies used by the group to achieve objectives (Hinsz et al., 1997). An important aspect of this context is the discussion itself (Bonito, 2001). Some authors argue that the discussion changes the content of pre-discussion information (Lehtinen, 2005). Others argue that, rather than the information itself, the metaphors used to describe this information change when that information is discussed (Hinsz et al., 1997).

Lehtinen (2005) found that religious small group members changed the tense and pronoun use in Bible stories in order to apply that story to a personal story of their own. These *second stories* attempt to tell a story about one's own life that incorporates elements of the first story in the biblical text. This process fundamentally changes the content of the Bible information (Lehtinen, 2005). Similarly, O'Brien (1997) noted that storytelling is a means of restructuring information. These stories become points of overlap among members, and between members and the text they are studying (O'Brien, 1997). The stories are told about the lives of individual members, but through the act of storytelling, the very lives of these individuals are altered, thereby altering the story itself. Storytelling changes the information in a story. If that information is not *told* in a story, the information would not change (O'Brien, 1997).

The speaking element of a small group discussion, therefore, impacts the information content. Bible study groups give individuals an opportunity to speak what they believe (Echterhoff et al., 2009). It can be concluded that Bible studies give members an opportunity to speak that is not possible in the setting of a pastoral sermon. The importance of the *saying is believing* effect for Bible study groups is noted when a speaker in a group believes what he or she *said* rather than what he or she was initially *told* or initially believed (Hirst and Echterhoff, 2008).

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H3: An increase in the use of the Bible as a source of pre-discussion information will correlate with an increase in the reported telling of personal stories.

Information Priming

Small groups are primed to discuss certain information (Hinsz et al., 1997). Group members pay attention to certain information without being aware that they are doing so. The pre-discussion information that a group member brings into group discussion is attended to according to the priming of the group. For example, a Bible study group will be less likely to discuss the harsh realities of the economy if its objective is to study the redemption of God's goodness (Day, 2005). The Bible study group is inherently primed to discuss things from a Christian perspective (Lawson, 2006). Members of a group will unconsciously attend to different pieces of information because they are primed to do so (Hinsz et al., 1997).

An important element of this unconscious influence is *groupthink*. Groupthink causes groups to neglect information processing depth in favor of group cohesiveness (Janis, 1972). People tend to use groupthink to avoid certain issues (Janis and Mann, 1977). The tools of groupthink include denial, unreasonable trust of unreliable information, and agreement with weak argumentation (Janis, 1972). Bible study groups often use theology as a groupthink tool to avoid difficult issues (Day, 2005). This avoidance is used to maintain group uniformity. In order to maintain this, group members neglect to raise controversial issues or show disagreement with poor arguments. Bible study groups show similar tendencies.

H4: Those who joined groups for relational or spiritual purposes will show higher tendencies to agree with other members of that group.

Consensus Output

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Many groups process information to gain one of two objectives: a) understanding or b) fostered relationships. One potential output of small groups is, though, consensus. Consensus requires groups to converge on a single answer. The literature tends to suggest that Bible study groups are not interested in consensus (Lehtinen, 2005). There are some groups, however, that must come to consensus about prayer requests before they can actually pray (Day, 2005). In other words, members must all agree about the problem and the requested solution. It is unclear whether or not consensus is completely absent from most Bible study groups.

Bible study groups tend to produce relational outcomes independent of any group consensus. Group members do not need to agree on *ideas*; rather, they need to agree that meeting together is itself important. Because Bible study groups tend to steer away from conflict, they rarely produce a consensus (Todd, 2005). In contrast to hidden-profile studies, Hinsz et al. (1997) noted that judgment-based tasks have no correct answer. These groups, therefore, cannot be evaluated based on external measures of consensus statements.

Understanding Output

Another potential output of Bible study groups is understanding. Wuthnow (1994) challenged the notion that Bible groups engage only in relational outputs by noting that this relationship motivation of Bible study groups was not only for self-esteem, but also for gained understanding of the world (Wuthnow, 1994, 358). The process of relationship brings epistemic understanding about the world.

Methodology

Recruitment

After obtaining IRB approval, participants were recruited from three Midwestern churches. A letter of invitation was sent to the pastor of each church, outlining the purpose and

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context of the study. The pastors then sent invitations to church members in newsletters and church bulletins. These invitations included a generic link to an online questionnaire. A unique URL was provided for members to complete a questionnaire using Qualtrics software.

Sample

The sample for this study came from three churches of similar theological backgrounds. The first church is a member of the Evangelical Covenant Church (ECC) tradition, established in 1885 (The ECC, 2011). The ECC affirms that the Bible is central to all its activities, and that the Church as a whole includes the fellowship of all believers (The ECC, 2011). The ECC is divided into 11 regional conferences in the United States, with more than 800 ECC congregations in the United States and Canada (The ECC, 2011). The present sample comes from the Midwest region. The ECC website includes numerous resources for churches interested in establishing or continuing small groups.

The second two churches are members of the Nazarene tradition, established in 1908. The Nazarene church is affiliated with the Wesleyan-Holiness tradition. The agreed statement of belief by the Nazarene church affirms that the Old and New Testament Scriptures “given by plenary inspiration, contain all truth necessary to faith and Christian living” (Church of the Nazarene, 2011). There are over 26,000 Nazarene churches worldwide (Church of the Nazarene, 2011). The Church of the Nazarene website also includes resources for the development and use of small groups.

Questionnaire

The questionnaire for this study was prepared using information from a comprehensive review of the literature on small group activity and religious small groups. The questionnaire included both closed- and open-ended questions. Closed-ended questions were grouped

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according to a) motivations for group participation, b) self-description of group activities, c) individual involvement in group activities, and d) general demographic items. Open-ended questions were included to allow greater freedom on the part of the participant to answer in his or her own words those items that were considered of central importance to the study. These included the purpose of the groups and how individuals added to or changed their initial information because of activities in the group.

Open-ended survey data was collected and coded by the researcher. Closed-ended questions that allowed for text entry were also coded to provide a more comprehensive overview of responses. Other closed-ended questions were analyzed for statistical and qualitative significance.

Results

Eighty-three members of three churches participated in the online questionnaire. The majority of these respondents were over the age of 50 ($N = 45$). The sample included more females ($N = 41$) than males ($N = 27$). Fifteen respondents did not complete the survey. As assumed by the denominations included in the sample, the largest number of participants reported a moderate religious belief (48%) on a scale of fundamentalists, moderates, and liberals. On a scale of biblical view, all respondents reported a belief that the Bible should either be taken literally word for word or that the Bible is the inspired word of God but not everything in it should be taken word for word.

Unique information was operationalized as the seeking of any type of information prior to group discussion. The literature is clear that no specific type of information makes it unique; rather, the process of acquiring information is itself unique—as each individual processes information differently. Shared information was operationalized as a lack of information seeking prior to group discussion. It is assumed that, if participants did not seek information, they would

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be more susceptible to the phenomena of groupthink than those who had specific information about the topic.

A chi-square test was conducted to assess whether participants significantly differed in their seeking of information about the topic of the Bible study. Twelve participants did not provide the requested information. The results of the test were significant, $\chi^2(1, N = 71) = 31.11, p < .001$. A larger number of participants did seek information prior to group discussion ($N = 59$) than did not ($N = 12$). If more participants did seek information, therefore, it can be concluded that more unique information was present in the groups. This rejects hypothesis 1 that stated more shared information would be present in religious small groups than unique information.

Additional chi-square tests were conducted to determine which sources were used more frequently. Of those information sources noted in the questionnaire, participants reported using the Bible more than any other source, $\chi^2(1, N = 47) = 7.41, p < .01$. Interestingly, significantly fewer than expected reported using the sermon as information for group discussion, $\chi^2(1, N = 5) = 52.41, p < .001$.

Hypothesis 2 stated that participants in small groups would be more likely to express disagreement with biblical authority because of the group setting. Disagreement with biblical authority was measured by participants' level of agreement with the statement that all answers given in a small group discussion must be biblically correct. The type of group setting was measured by the percentage of time spent in lecture, discussion, and fellowship. More lecture time indicated a setting more similar to the sermon. It was hypothesized, therefore, that higher lecture times would be correlated with lower disagreement with the Bible. Consequently, more fellowship and discussion time should be correlated with higher disagreement with the Bible because of a more relaxed setting. Percentages of time spent in fellowship and discussion were

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recoded as continuous variables on a 5-point scale. Correlation coefficients were computed to assess the relationship between relaxed or structured settings and the need for answers to be biblically correct. There was no correlation between relaxed settings ($M = 2.11$, $SD = .61$) and biblical correctness ($M = 3.78$, $SD = 1.28$), $r = -.00$, $p = .975$. There was also no significant correlation between lecture setting ($M = 2.06$, $SD = .80$) and biblical correctness, $r = .18$, $p = .20$. Hypothesis 2, therefore, was rejected. Participants maintained high levels of biblical correctness across group types.

According to hypothesis 3, people interpret the Bible according to their own second stories. So it is expected that those who used the Bible would be more likely to report the telling of personal stories in discussion. A t-test was conducted to evaluate whether there were significant differences in the use of the Bible and the telling of personal stories. Analysis shows that there is no significant difference in the telling of personal stories between those who used the Bible prior to discussion ($M = 4.27$, $SD = .69$) and those who did not ($M = 4.27$, $SD = .70$), $t(65) = .03$, $p = .97$. Hypothesis 3 is not supported. Rather, participants tend to use the Bible as originally written without adding personal stories to change this original text.

Hypothesis 4 stated that participants in small religious groups will tend to agree with other members of that group due to the spiritual purpose of these groups. Group purpose was determined by participants' responses to their purposes for joining the group. Not enough participants indicated meeting new people as a reason for joining the group, so this variable was thrown out. Therefore, members either joined for spiritual reasons or cognitive reason. The dependent variable was the change in a participant's willingness to disagree with other members. A t-test was conducted to evaluate whether there were significant differences in willingness to disagree with members based on an individual's purpose for joining the group. Analysis shows

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that there are significant differences in willingness to disagree between those who joined the group for cognitive purposes ($M = 3.29$, $SD = 1.14$) and those who joined for spiritual purposes ($M = 4.05$, $SD = .78$), $t(17.50) = -2.33$, $p < .01$. Those who joined for spiritual purposes were actually more likely to show willingness to disagree with other members than those who joined for the purposes of learning. Hypothesis 4, therefore, is rejected.

Discussion

The present study is limited in generalizability due to a relatively small sample size and the nonprobability methodology used to recruit participants. Any conclusions, therefore, are limited by the nature of any pilot study. As an initial attempt at the study of information processing in Bible study groups, however, the study does provide valuable information for future research and the development of a reliable and valid instrument for the measurement of this processing.

The present findings shed light on the ability of small groups to process religious information, as well as the nature of this processing. As church members are increasingly turning to Bible studies, it is important to understand what is occurring in these groups. Although studies have noted the centrality of small groups and the impact of these groups on church vitality (Baylor University, 2010), it is concluded from the present research that these groups are more than mere supplements to the Sunday sermon. The significantly limited use of sermon information prior to and during discussion, leads to the suggestion that individuals join these groups as *another* source for spiritual and relational growth than what is afforded them in the traditional church model.

The current research does not support conclusions from other studies that religious small groups avoid conflict and disagreement in order to strengthen relationships (Day, 2005). These

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groups tend to engage in higher levels of disagreement in relation to the spiritual purposes of the groups. This suggests that conflict can actually increase levels of purposeful interpersonal engagement, and the success of these engagements.

The current research does not support conclusions from other studies that religious small groups engage in the processing of similar information (Day, 2005; Echterhoff et al., 2009). Rather, the groups in the present study were very engaged in the collection of information prior to discussion. It is suggested that this engagement in the material prior to discussion is the impetus for the presence of more discussion and less lecture found within these groups. Also, because of the presence of unique information—and the increase in information pooling noted by the sharing of this information (Bonito, 2001)—it can be concluded that religious small groups could provide similar results to effective task groups in business organizations. The present study is limited in any assumption regarding output, however, as the groups under study tend to aim for relational consensus rather than task-oriented or decision consensus. Future research is suggested into how these relational objectives can be measured.

Conclusion

In general, Bible study groups provide church members with an important extra opportunity for developing spiritual and interpersonal relationships. Members of these groups are highly engaged in the accumulation of information, while still considering relationship building the priority of meeting together. These groups use the Bible as a source of correct information, yet feel free to utilize other information sources as supplements to the biblical literature. Religious small group activity provides a captivating and unique context for the study of information processing.

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