GROUP LOYALTY AND GROUP IDENTIFICATION: 
THE INITIAL DEVELOPMENT AND EVALUATION OF A NEW MEASURE 
OF GROUP LOYALTY 

A Thesis 

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By 

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* * * * * 

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Loyalty to a group can lead to acts of heroism and to acts of inhumanity. Identification with a group is also hypothesized to have similarly impressive consequences within and between groups. Yet the relationship between group identification and group loyalty remains under-researched within social psychology. This thesis presents a model of the relationship between group identification and loyalty from a social identity perspective. This model includes three components of group identification, each directly influencing group loyalty, which is defined here as a willingness or disposition to act for the benefit of the group and to refrain from acting against the group. After reviewing prior research on the concept and measurement of group loyalty and commitment, this thesis describes the initial development and evaluation of a new measure of group loyalty which was used in an initial experimental test of one of the links within the proposed model.

In a preliminary survey study, participants were asked what loyalty to one of their important loyalty groups meant to them. Based in part on the results of this study, a self-report measure of group loyalty was constructed. In a second survey study using the new loyalty scale, participants provided identification and loyalty ratings for up to seven in-groups. One of the purposes of this survey was to provide a modest assessment of the new scale's reliability and validity. Aversion of the scale demonstrated good internal consistency as well as reasonable convergent, discriminant, and factor validity.

Although further adjustments to this initial scale are called for, the scale analysis results justified using the scale in an initial test of one component of the proposed model. In an experimental study, participants' level of group identification was manipulated and the consequences for group loyalty were assessed. Although expected effects of the experimental manipulations on group identification were obtained, the predicted loyalty
effects were not observed, indicating that the initial model is inadequate. Several adjustments to the model are briefly discussed, most notably the possibility that no single component of group identification is sufficient to determine group loyalty.
Dedicated to my wife and best friend, Lisa Silver.

Without her constant support, love, and sacrifice, this work would not exist.
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Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author and do not necessarily reflect the views of the above organizations.
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CHAPTER 1

GROUP IDENTIFICATION AND GROUP LOYALTY

Group Loyalty

Over the last several centuries, many nation-states have been created and others destroyed based on a people's desire for a national identity. While some of these conflicts were resolved peacefully (e.g. Czechoslovakia), many devolved into bloodshed (e.g. Yugoslavia). Thousands of people have fought, killed, and died for a national identity. And the potential exists in areas of the world today for further examples (e.g. Quebec and Canada, Meadwell, 1993; Chechnya and Russia, Lieven & McGarry, 1993). In order to begin to understand why people are willing to sacrifice so much on behalf of group interests social psychologists need to know more about group attachment and group loyalty. This thesis presents theoretical and empirical work which was inspired by the above issues. Specifically, this thesis presents 1) a model of the relationships between group identification, group loyalty, and behavior on behalf of the group, 2) research related to the development of a new measure of group loyalty, and 3) an experimental test of one part of the proposed model using this new loyalty measure.

Before moving on, a brief working definition of group loyalty is in order. There are several possible definitions of group loyalty and this thesis revolves around the development of one conceptualization and its relationship to group identification. A more detailed definition will be presented later in this chapter. Generally, however, group loyalty in this thesis refers to a disposition towards doing positive things for one's ingroup and avoiding doing negative things against one's in-group. While the working definition used when this research project began defined group loyalty only in terms of sacrificing for the group, the definition above has been informed by research reported here in Chapter 2 on
how individuals define loyalty to the groups to which they belong. Note that the current definition is more general than sacrificing for the group (e.g. it may include sticking up for the group, not betraying the group, etc.). This definition also differentiates group loyalty (related to one's in-group as a collective) from interpersonal loyalty (related to other individuals, even if those others are members of one's in-group). Finally, and importantly, this definition describes group loyalty as a disposition rather than an overt behavior: a willingness to act rather than the act itself. More will be said about this later in this chapter.

The research reported herein was part of a larger project devoted to the development and testing of a new model of group loyalty and its relationship to group identification using the perspective of social identity theory and social categorization theory as a foundation. Within that project, the research reported herein had two main goals. Since group loyalty has been an under-researched topic within the field of social psychology, the first goal was to explore the meaning of group loyalty from a social psychological perspective. Secondly, since no self-report measures of group loyalty as defined here exist, the main goal of this research was to develop such a measure and provide initial tests of that measure, for future use in the development and testing of the proposed model. The model itself was not fully tested in the research reported here, although findings from the research reported here have implications for the model. Those implications will be discussed in the final chapter. The remainder of this chapter is devoted to describing the background for this research, including past work on group loyalty, a more complete overview of the key features of the group loyalty model, and a more complete description of the goals of the present research.

Social Identity Theory and Self-Categorization Theory

The only antecedent of group loyalty that will be discussed in this thesis is group identification from the perspective of social identity theory and self-categorization theory, and this is made explicit in the model described below. Therefore, although this research focuses on the loyalty aspect of the model, a brief overview of these theories is important to ground the current work.
Tajfel (1981, p. 255; Jackson & Smith, 1996) originally defined social identity as "that part of an individual's self-concept which derives from his knowledge of his membership in a social group (or groups) together with the value and emotional significance attached to that membership." While over the years several different combinations of components have been proposed (Jackson & Smith), some form of social categorization is always among them. According to social identity theory (Tajfel, 1982; Tajfel & Turner, 1986; Hogg, 1996), social categories partially define who we are and how we should act within in-groups as well as with out-groups. These social categories are social identities and are based on the groups to which the individual perceives he or she belongs. They are "cognitive tools that segment, classify, and order the social environment and thus enable the individual to undertake many forms of social action" while they also "create and define the individual's place in society" (Tajfel & Turner, p. 15-16). Such social identities can be made salient through a number of factors, but whichever identity is salient guides subsequent perceptions of the in-group and out-groups and behavior towards each.

The theory also states that the need for self-enhancement is an integral part of social identity. This self-enhancement need biases perception and behavior towards positive evaluations of the self. Within the social realm, this extends to perceptions of the in-group and oneself as a member of that group. While quite a bit of research has supported the importance of group categorization to social identity, there has been little support for the self-enhancement proposition as an explanation for why people adopt particular social identities (Brewer and Miller, 1996).

Self-categorization theory (Turner, 1985; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), expands on the categorization aspect of social identity theory without requiring an underlying motivation for self-enhancement, nor an affective component. According to this theory, as one categorizes oneself as a member of a group or social category, one's sense of self becomes depersonalized. That is, one's concept of oneself exists in reference to the in-group rather than as an individual distinct from the in-group: "a shift towards the perception of the self as an interchangeable exemplar of some social
category and away from the perception of self as a unique person" (Turner et al., 1987, p. 50). This depersonalization then influences intragroup processes such as cohesion and intergroup processes such as prejudice: "Through depersonalization, self-categorization effectively brings self-perception and behavior into line with the contextually relevant ingroup prototype, and thus transforms individuals into group members and individuality into group behavior" (Hogg, Terry, & White, 1995, p 261).

As Hogg (1996) points out, the research inspired by both social identity theory and self-categorization theory (for convenience referred to from this point onward as the social identity perspective) has focused primarily on intergroup processes (biases, prejudice, etc.) although these theories are also theories of intragroup processes. The minority of research from this perspective into intragroup processes has included phenomena such as group solidarity, cohesiveness, and social influence (Hogg, 1993, 1996). However, one intragroup construct has been under-researched from this perspective: group loyalty.

Past Research on Group Loyalty

As mentioned above, quite a bit of research has been conducted on the implications of the social identity perspective for relations between groups. However, very little has been conducted regarding the loyalty of individuals to the groups to which they identify.

Within social psychology, perhaps the closest area of research to group loyalty is research on prosocial behavior for the sake of a group (collectivism; Batson, 1994) and particularly research on social dilemmas (Brewer & Schneider, 1990). Behavior motivated out of concern for another individual member of one's in-group (altruism; Batson) is not the same as (collectivistic) prosocial behavior for the sake of the in-group as a whole (even if that behavior is manifested as helping that one in-group member). Therefore, altruistic behavior does not correspond to the group loyalty domain discussed here, while collectivistic behavior might. However, collectivism as described by Batson refers to behavior towards any group, not just an in-group (for example, a middle-class, middle-aged white American man may donate money to starving children in central Africa, without doing so based on a sense of one-ness as human beings but rather out of a desire
to help that out-group as a whole). As such, collectivism in general does not fit the domain of group loyalty discussed here, but of course a special case of collectivism would, i.e. behavior specifically for the benefit of an in-group.

With regard to the in-group case of collectivism, probably the greatest amount of research within social psychology relating to group loyalty deals with social dilemmas. A social dilemma is a situation which pits the interests of the individual against the interests of the individual's ingroup (for example, the decision to donate personal resources to a common pool or to resist taking resources from a common pool).

Several researchers have investigated group-relevant behaviors in social dilemmas from a social identity perspective and have found that making group identity salient can induce people to sacrifice self-interest for the benefit of the group. Research in this area has also identified several moderators of such effects, such as group size and the type of social dilemma (Brewer and Kramer, 1986; Brewer and Schneider, 1990; Dawes, van de Kragt, & Orbell, 1990; but see Batson, 1994, and Dawes, McTavish, & Shaklee, 1977, for possible qualifications to the claim that such purported collectivistic behavior is not actually egoistic, self-serving behavior). Of course, sacrifice behavior in social dilemmas isn't necessarily due to loyalty to a group, even if it is related to identification with the group. That is, any pro-group behavior could be due to any number of factors (principalism, a perception of accountability to that group or even another group or individual, etc.). However, group loyalty as defined here has not been previously discussed as a mechanism through which social identity may influence group-related behavior. In this thesis, group loyalty is discussed as one such mechanism and it is proposed that research into that mechanism is worthy of investigation in its own right.

As the discussion above indicates, there has been virtually no research on group loyalty per se within social psychology. Most research related to group loyalty has been conducted within industrial-organizational (I/O) psychology, though other fields including management, organizational behavior, sociology, and political science have also explored it to varying degrees. Within most of this literature, the construct most often investigated is organizational commitment, which includes several definitions (Mowday, Porter, & Steers,
1982; Mathieu & Zajac, 1990), all of which differ somewhat from the definition of loyalty given here. However, to the extent that these conceptualizations come close to the definition of loyalty presented here, or include components which do, work on organizational commitment can inform theory and research on the present conceptualization of group loyalty. Further, understandably, most of this previous research has not used the social identity perspective (though exceptions will be mentioned below).

Although, as mentioned above, several definitions of organizational commitment exist, the one that has been applied most often within the I/O and management literatures (Mathieu & Zajac, 1990) is the definition for attitudinal organizational commitment given by Mowday et al. (1982; see also Porter, Steers, Mowday, & Boulian, 1974, for an earlier but similar version):

[T]he relative strength of an individual's identification with and involvement in a particular organization. Conceptually, it can be characterized by three factors: a) a strong belief in and acceptance of the organization's goals and values; b) a willingness to exert considerable effort on behalf of the organization; and c) a strong desire to maintain membership in the organization” (p. 27).

While the aspect of this definition that has received the most research attention deals with the desire to maintain membership, the definition of group loyalty presented in this thesis is most compatible with the “effort” aspect of the definition above. In fact, the “intent to stay” component of most organizational commitment definitions is often explicitly labeled “loyalty” by I/O psychologists and others using the same perspective, although more recently others have proposed different terms (e.g. “continuance commitment”, Allen and Meyer, 1990).

Several previous definitions also come close to the definition of loyalty defined here (and in fact were used by Porter and colleagues in coming to their definition of organizational commitment). For example, Sheldon (1971; also cited in Mowday et al., 1982) defined organizational commitment as “an attitude or orientation toward the organization which links or attaches the identity of the person to the organization” (p. 143), and Kanter (1968; also cited in Mowday et al.) partially defined it as “the willingness of social actors to give their energy and loyalty to social systems” (p. 499,
emphasis added). While these definitions do not capture the full sense of group loyalty as defined here or its relationship with group identification, together they capture the important notions of loyalty as a mediating variable and loyalty as a type of disposition, both of which are integral to the definition of loyalty used here.

It should be apparent that the Mowday et al. (1982) definition above also includes what might translate into organizational identity, or more broadly, group identification (although the individual factors do not necessarily correspond to identification; Mael and Tetrick, 1994). Over the last several years, researchers within I/O psychology and related fields have questioned Mowday et al.'s (1982) conceptualization and have proposed alternatives (Mathieu & Zajac, 1990).¹

One focus of adjustments to Mowday et al.'s (1982) conceptualization of organizational commitment has been the separation of the identity aspect from the rest of the commitment concept (Allen & Meyer, 1990; Ashforth & Mael, 1992; Mathieu & Zajac, 1990). For example, Mael and his colleagues (Ashforth & Mael, 1989; see also Mael & Ashforth, 1992, and Mael & Tetrick, 1994), have explicitly conducted their research from the social identity perspective, especially incorporating self-categorization theory, and have operationally and conceptually differentiated identity and attitudinal organizational commitment as defined by Mowday et al. (1982). Mael and colleagues have shown that their measure of identification (which will be discussed further in Chapter 3) is at least reasonably distinct factorially (Mael & Tetrick) from the standard organizational commitment measure (the Organizational Commitment Questionnaire; Mowday et al., 1979) and predicts behavior for the benefit of the group (e.g. alumni financial contributions, Mael & Ashforth). However, they have not compared the relative effects of identification and organizational commitment components, especially loyalty as defined here, nor have they investigated the potential mediating effects of loyalty on criterion behaviors such as financial contributions. (That work remains to be done, but the work reported in this thesis prepares for that work.) Additionally, while Mael and colleagues have apparently demonstrated that identity and organizational commitment can be conceptually and operationally differentiated, their definition of identity is closer to self-
categorization theory than it is to the original formulation of social identity theory and focuses exclusively on the cognitive representation of membership, excluding affect.

As mentioned above, other researchers have proposed alternatives to the dominant conceptualization of organizational commitment. One last example of modifications of the Mowday et al. (1982) model is the work of Mueller, Wallace, & Price (1992). Working from a sociological perspective, they defined loyalty as “an affective response to and identification with an organization based on a sense of duty and responsibility” (p. 213). Parsing organizational commitment in a different manner than Mael and his colleagues, loyalty for Mueller et al. is a form of identification; it is also a mediating variable between the structure of the organization (and several other factors) and intent to stay in the organization. The model presented in the next section differs from Mueller et al.’s conceptualization in that: 1) both identification and loyalty are defined quite differently, and 2) loyalty is placed as a mediator between group identification and group-relevant behavior (of which staying in the organization is only one potential example).

The discussion above points to differences between previous definitions of group identification and group loyalty and those presented in this thesis. Specifically, the model presented in the next section reintroduces affect as a component of group identification (as in Tajfel’s original formulation of social identity). The model also defines loyalty not as affective attachment to the group (as considered by Ashforth and Mael, 1989, and others) nor as only a willingness to exert effort for the group (as Mowday et al.’s 1982 definition above does), but more generally as a willingness to act positively for the group and to refrain from acting in ways that would harm the group. It is also more general than those that define loyalty primarily in terms of intent to stay with an organization (Mueller et al., 1992) or that define it only in terms of organizations in decline (i.e. Hirschman, 1970).2 Finally, Mael and his colleagues have demonstrated the utility of differentiating identity from organizational commitment in the Mowday et al. sense. A similar conceptual and empirical differentiation of loyalty, such as that described here, might be equally useful.
A Model of the Relationships Among Group Identification, Group Loyalty, and Behavior

As mentioned earlier, there are models of other in-group processes and states such as organizational commitment (Mowday et al., 1982). However, no explicit model of the relationship between group identification and group loyalty as we have defined it exists. Such a model was created using the social identity perspective as a foundation as well as Kanter's (1968) notion of willingness to act for the group, and is partially presented in this thesis. The model presented here is an adaptation of a larger, more comprehensive, model and focuses on the most important aspects of the relationship between group identification, group loyalty, and group-related behavior (see Figure 1.1 for the model presented in this thesis; see Brewer & Silver, in press, for another version of the original model focused on collective action). The full model includes a consideration of potential moderators, feedback patterns, and the possible effects of multiple ingroups; however, for the most part these will not be addressed here as they were not investigated in the studies discussed. Below is a brief overview of the model presented in Figure 1.1.

**Figure 1.1:** The initial group identification - group loyalty model.
The model represents group loyalty as an intervening construct, or disposition, that links the various components of group identification to behavior on behalf of the group as a whole. Group identification is postulated to be composed of three components (roughly cognitive, motivational, and affective) which influence each other simultaneously and which together influence group loyalty, each component having an independent effect on group loyalty. The cognitive component was the primary one investigated in the research reported here and will be discussed a bit more in Chapter 4. Briefly, however, this component includes the categorization of oneself as a member of the group and the perceived level of interdependence between the individual and the group. This component has roughly the same effects on perception as categorization in Turner et al.’s (1987) self-categorization theory. The motivation component involves concern for the group’s welfare. The emotional significance component is essentially the same as the affective component described by Tajfel (1982) in social identity theory: the emotional significance attached to being a member of a given group. Since these last two components were not addressed in the research reported here, they will not be discussed further except to note that they are integral to the full model.

Note that the term “group identification” is being used to distinguish it from social identity as defined by Tajfel and colleagues. The term “group identification” has been used in the past by Tolman (1943) and is also borrowed from Klandermans and de Weerd (in press), although the components presented here are not addressed by these other authors. Although the group identification construct included here is based on social identity theory and self-categorization theory, it differs from them in that it includes affect (unlike self-categorization theory) and consists of a different third component than that proposed in social identity theory. Specifically, Tajfel’s model included the individual’s evaluation of oneself as a member of the group as a separate component while this model subsumes this evaluation under emotional significance. Also, this model includes “motivation” or a concern for the group’s welfare as a third component (one not addressed by Tajfel or Turner). Additionally, unlike many other models of organizational commitment which
consider affective attachment as a component of commitment (e.g. Mowday et al. 1982) this model assumes that affective attachment, here defined as the emotional significance attached to membership in the group, is an antecedent of loyalty.

Note also that the model refers to identification with, and loyalty to, a group as a whole, not necessarily with any given individual member of the group. In the organizational literature, Becker (1992) describes other potential foci of commitment (e.g. one’s work supervisor), and other researchers in social psychology have described alternative perspectives of social identity based on interactions with individual group members (Rabbie & Horowitz, 1988) rather than self-categorization theory’s proposed change in the cognitive representation of the self as a member of the group with or without interaction with other group members (see Turner & Bourhis’s 1996 rebuttal to Rabbie and colleagues on this point). However, this thesis deals only with identification with and loyalty to the group as a whole. While the issues above are important to identity and loyalty in general, they are beyond the scope of this thesis.

Probably the key feature of the model in Figure 1.1 is the mediating role played by the level of disposition to act for or against the group. Group identification per se is postulated to have no direct influence on behavior, although it is possible that other, unspecified mediators exist in addition to group loyalty. In defining group loyalty as a disposition, it is important to relate it to the concepts of attitude and intention. In the sense used here, group loyalty is a type of disposition and therefore can be thought of as a type of attitude, but not an attitude toward the group (which may be an antecedent or consequence of group identification) nor an attitude about oneself as a member of the group (which is, at least in the current model, included in the emotional significance component of group identification). Rather group loyalty here is an attitude toward potential behaviors that might affect the group. It involves a willingness to act in a particular way, because of the potential positive effects (or avoidance of negative effects) on the group as a whole.

Additionally, group loyalty here is not quite a behavioral intention (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980) in that one can be generally willing to perform some
act (e.g. dying for one's country), or acts in general, for the group yet have no intention of actually doing so. In Fishbein and Ajzen's (1975; Ajzen & Fishbein, 1980) terms, a behavioral intention mediates the relationship between an attitude and a behavior. Such an intention will do so here as well, although the attitude to the group is not explicitly displayed in this model while the attitude towards behaviors towards the group is. As with other attitude-behavior relationships, intentions will mediate the relationship between all these attitudes and behavior, although intentions will also mediate the effects of other antecedents as well (e.g. perceived norms). For simplicity then, neither intentions nor the attitude toward the group as a whole are displayed in this model. As with the general link between attitude and behavior, however, it is acknowledged in this model that prediction of specific group loyalty behavior would be best met by a measure of specific intentions. On the other hand, a general measure of loyalty may be able to successfully predict group loyalty behavior in general.

Also, loyalty as defined here is broader than the organizational commitment loyalty component which generally focuses on intent to stay in the organization. While intent to stay in the organization is obviously an important variable in organizational psychology, in more general terms it people will occasionally realize that it would be best for the group if they left the group (Hirschman, 1970). The more general definition of loyalty given here allows this possibility, among others, and therefore can apply to more groups and more situations than the organizational commitment loyalty/intent to stay definition.

Although the research reported in this thesis does not address group loyalty behavior, such behavior is included in the model presented to allow a general perception of the overall goal of the model. Also, it may be important to briefly note the importance of the general distinction between group loyalty as a mediating variable and the loyalty behavior itself. Some researchers (Becker, 1964; Salancik, 1977, cited in Mowday et al., 1982; Staw, 1977, also cited in Mowday et al.) argue that the actual behavior defines loyalty (actually “commitment” is the concept addressed by these researchers) and whatever comes before that behavior is something different. This is partially a definitional issue, but in this model, the position is taken that behavior towards a group can be due to
many possible causes and "loyalty" to that group is only one of them (e.g. an individual who writes a pro-Cuba essay is not necessarily doing so out of loyalty to Cubans). Defining loyalty in only behavioral terms misses this point. The mediating variable was labeled Group Loyalty here to represent a psychological disposition which leads to loyalty behavior, even though such behavior may also not occur for any number of reasons. The specific labels for these two variables are less important and may change in future versions of the full model. Also, more generally, as alluded to above, there are many possible causes of behavior for or against a group. The model presented here, however, focuses only on how group identification affects such behavior through group loyalty.

Finally, the model presented here has several potential advantages over other models of group loyalty and/or organizational commitment. First, as mentioned earlier, it is far more generalizable than Hirschman's (1970) model of loyalty related to organizations in decline. Second, unlike many other organizational commitment conceptualizations (e.g. Mowday et al.'s 1982 framework and others closely related to it), it explicitly considers group identification as an antecedent of loyalty and loyalty as a mediator between this identification and behavior, potentially allowing for more precise manipulation, description, and prediction of the variables of interest. Third, unlike Ashforth and Mael's (1989) model, the inclusion of affective and motivational components within group identification explicitly distinguishes between affect and loyalty and allows for the independent influence of affect and motivation on loyalty. However, as shown, the current model may not be as accurate at describing or predicting some more specific behaviors, such as intent to stay in a specific organization. On the other hand, the full model which is not shown here does include general contextual variables that allow for the moderating effects of intra- and inter-group structure, personal and group consequences for action or inaction, etc., which would improve the adaptability of this model for those specific contexts.

The Need for a Measure of Group Loyalty

In order to test the model above with regard to group loyalty, some measure of group loyalty is necessary. Further, because of the hypothesized relationship between
group identification and group loyalty at the individual level, an individual-level measure is necessary. Finally, because group loyalty is defined here as a disposition, a self-report measure, rather than a behavioral measure, seems to be a reasonable form.

However, a search of the English-language psychological literature dealing with "loyalty", "commitment", and other potentially-related constructs led to the conclusion that no published self-report measures of group loyalty as defined here exist. One measure labeled as a loyalty scale exists (Scott, 1965), but as will be mentioned below it is actually not an appropriate measure for the purposes here. As mentioned earlier, there are several measures of organizational commitment, though most of them are either highly specialized (e.g. Gordon et al.'s, 1980, 37-item measure of union commitment), tap forms of organizational commitment that do not include the definition of loyalty addressed in this thesis (Meyer & Allen, 1984; McGee & Ford, 1987), remain unevaluated psychometrically (Meyer & Allen), or fall into some combination of the above. The most notable, and evaluated, measure is the 15-item Organizational Commitment Questionnaire (OCQ; Mowday et al., 1979; 1982). But as mentioned earlier, the OCQ and other organizational commitment scales tend to measure not only what is being called loyalty here but also identity, affective attachment, etc. and/or do not measure what would be called loyalty here beyond "intent to stay" in the organization. Also, these organizational commitment scales are specialized for business-related organizations and are not designed to be used with other groups without significant alteration.

One study may serve as a concrete example of the potential value of such a group loyalty scale. James and Cropanzano (1994) proposed the interesting concept of dispositional group loyalty (DGL) as "relatively stable individual differences in inclinations to experience group loyalty and its behavioral outcomes" (p. 181). However, empirical support for their DGL construct was less than it might have been due to a lack of an adequate measure of group loyalty. Specifically, in the first of four studies they used the four identity subscale items of the Collective Self Esteem Scale (Luhtanen and Crocker, 1992) and, after realizing that these items probably tapped self-esteem more than loyalty, in three other studies used 20 items from a larger measure created by Scott (1965, a
sociologist interested in, among other things, values within groups). These last items formed a loyalty subscale in Scott's instrument and James and Cropanzano applied them to their research as a measure of group loyalty. Unfortunately, the Scott loyalty subscale is actually designed to measure the degree to which individuals value being loyal in general (the dependent variable being the degree to which the participant admires or dislikes a target behavior or attribute). Scott's scale does not measure one's degree of loyalty to any particular group or even in-groups in general (which would seem to have been the James and Cropanzano's goal). A more appropriate measure of group loyalty would have benefited these researchers and might benefit future researchers as well.

Considering the above, a measure which could be used on a wide range of groups and social categories (including formal work organizations, church groups, ethnic categories, etc.) with minimal adjustment could be a valuable tool for future group loyalty research. Also, an explicit goal of the larger project of which the research reported in this thesis is a part is the exploration of multiple group loyalties. Therefore, another reason for a general measure (more general than the OCQ, for example) of group loyalty is to allow reasonably quick and easy application to multiple groups for the same individual at the same session, with minimal adjustment to each group and maximum similarity among measures. A short but reliable and valid general self-report measure of group loyalty would be helpful for this purpose. One of the main goals of the research reported in this thesis was the development of such a measure.

Purpose of the Research Reported

As mentioned above, the primary goal of the research reported here was to develop a short, reliable, and valid self-report measure of group loyalty based on the definition of group loyalty given above. While a full validation of the developed measure was not completed in time for this thesis, the initial studies reported here indicate that the developed scale is indeed both reliable and valid and may be a useful tool in further group loyalty research. Further, a version of the scale was used to test part of the group identification-loyalty model described in detail above. Finally, as an initial part of the scale development process, participants were asked how they defined loyalty to their in-groups,
the results of which not only led to more focused scale items but also informed the model and the working definition of group loyalty itself. This preliminary research will be discussed next, in Chapter 2.
CHAPTER 2

DEVELOPMENT AND INITIAL EVALUATION OF A
SELF-REPORT MEASURE OF GROUP LOYALTY

As mentioned in Chapter 1, there are no self report measures of loyalty to groups. An initial step in developing such a measure was to survey individuals about their definitions of group loyalty. Based in part on the responses from participants in such a survey and in part on the definition of group loyalty described in Chapter 1, an initial group loyalty scale was constructed. This chapter describes the preliminary survey and a subsequent study which allowed partial evaluation of the reliability and validity of the initial group loyalty scale.

The goal of the larger project of which this research is a part involves loyalty to groups which tend to be relatively impersonal — those not allowing strong interpersonal bonds among all members of the group (e.g. social categories such as gender or ethnicity, and large groups such as local church groups). This delimitation of the domain of investigation rules out many smaller groups such as families and groups of best friends, although it includes some groups which happen to be relatively small in size such as community sports teams, some work units, etc. Therefore, the scale, when validated, is intended only to be used for assessing loyalty to relatively impersonal groups and social categories. Construction and validation of a scale to be used with more personal or intimate groups was not the purpose of the present work.
The Meaning(s) of Group Loyalty: An Initial Survey Study

In order to develop a valid self-report measure of group loyalty, it seemed reasonable to explore how people define loyalty to the groups to which they belong. As part of a larger survey which will not be discussed here, participants answered one open-ended question about what loyalty to a particular group meant to them. Their responses were coded along several dimensions, as a step toward the creation of items for the initial group loyalty measure.

Method

Participants and Design

Ninety introductory psychology students (43 female, 47 male) at Ohio State University took part in a survey study for partial course credit. Within this survey, participants answered questions about groups for which they felt some degree of loyalty. The open-ended question discussed here was embedded within those questions for one of those groups. Participants completed the survey packets individually in sessions of three to six participants. Forty seven participants were not included in the current analyses because they either left the item blank or listed groups which did not match those of interest for the purpose of scale construction. Several participants listed personal groups such as families, while others gave responses about entities which were not groups at all (e.g. God) or groups of which they were not currently members (e.g. the New York Mets). Omitting these participants resulted in a total of 43 participants (23 female, 20 male) included in the analyses reported here.

Procedure

Participants arrived for a session and either completed the survey immediately (if they were recruited specifically for the survey study) or participated in an experiment first (if they had been recruited for participation in an experiment), in which case they completed a consent form regarding the survey study, then completed the survey.

The survey's first page instructed participants to think for 30 seconds about what it means to be loyal to a group, and used loyalty to their immediate family as an example.
After 30 seconds, they turned the page and listed at least two groups to which they felt loyal, but were instructed not to include their immediate or extended families. The participants next turned the page and ranked the groups they had just listed (limited to five groups) based on how loyal they felt towards the groups right then. The rest of the survey asked questions about the top-ranked and second-ranked groups. The first question was the key open-ended item discussed here and referred to the top-ranked group. After completing the survey, participants were debriefed, given participation credit, thanked, and released.

**Dependent Measure**

Although the full survey consisted of many questions about two groups to which the participants felt most loyal, the sole dependent measure of interest here was the single item asking "How do you define 'loyalty' to your first group? What does loyalty mean for you when you think of this group?" Participants were given 6 blank lines in which to respond to this question.

**Results**

As mentioned above, groups listed by participants were categorized as small groups, large groups, and social categories. Small groups were further categorized as family/friends or not. All large groups and social categories listed were eligible for inclusion in the analyses and all family/friend groups were excluded. However, some small groups were included if they seemed to satisfy the requirement that they be groups which would not involve strong personal bonds among all members (e.g. work units). Large groups included fraternities/sororities, student associations, and local church groups. Social categories included race/ethnic, national, gender, and religious groups. Of the participants who answered the question and who listed eligible groups, 22 (51 percent) listed a small group as their first-ranked loyalty group (12 females, 10 males), 9 (21 percent) listed a large group (6 females, 3 males), and 12 (28 percent) listed a social category (5 females, 7 males).

Responses to the open-ended item were coded as falling into one or more of four categories. The two primary, general categories were "positive behaviors toward the
group", and "not doing negative behaviors towards the group." Two additional categories were included based on the model of loyalty presented in Chapter 1: "sacrificing for the group" and "defending the group." Of course, these last two categories can also be thought of as special cases of "positive behaviors."

Due to the exploratory nature of the survey, only one coder (not the author) was used and no inter-rater reliability information is available. However, the coder completed several practice codings (on data not entered into later analyses) and the results matched well those of the author. Based on this evaluation, the coder went on to code the real data. The coder was given no expectations about the number of each type of response and was as blind as possible to the groups to which the responses referred. (The name of the group was unreadable and the participants were identified only by a four-digit code number; however, some participants referred to their group by name in their responses, and these were not marked out because each could potentially add context necessary to categorize the related definition.) Table 2.1 presents the types of responses which were coded into each response category.

There were a total of 105 responses coded (since most participants wrote more than one categorizable response). Of these responses, 89 (85 percent) fell into the general "do good" category, 6 (6 percent) into the general "do not do bad" category, 5 (5 percent) into the sacrifice category, and 5 (5 percent) into the defending category. If the sacrifice and defending categories are collapsed into the general "do good" category, that more inclusive category then would hold 99 (94 percent) responses. Obviously, while "not doing bad" things against your group is sometimes salient and/or important, the bulk of responses referred to doing positive things for the group. Table 2.2 gives a breakdown of response type by group size/type.
Positive behaviors towards the group (other than sacrifice and defense)

- Be dependable/honest/trustworthy
- Share experiences with other members
- Maintain friendships, being a friend to group members
- Conform to group norms/expectations, obey group rules
- Loyalty-like concepts (faithful/dedicated/commited)
- Praise group (other than defending)
- Respect group
- Serve group needs
- Support group goals, promote group beliefs
- Be a positive representative of group
- Willingness to give time/resources to group (without explicit sacrifice reference)
- Focus one’s attention on the group, make the group one’s highest priority
- Love the group, care about the group
- Have/show pride in the group

Not doing negative behaviors towards the group

- Don’t hurt/kill group members
- Don’t betray group trust
- Don’t let the group down
- Don’t hurt the group’s image

Sacrificing for the group

- Willingness to sacrifice time/money/effort/life (an explicit reference to giving something up; a reference to a loss for the participant)

Defending the group

- Defend the group as a whole (not explicitly its members)

Table 2.1: Types of responses within each category of group loyalty-relevant behavior.
<table>
<thead>
<tr>
<th>Response Category</th>
<th>Group Size</th>
<th>Social Category</th>
<th>Category Totals</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Small Group</td>
<td>Large Group</td>
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</tr>
<tr>
<td>Good</td>
<td>33</td>
<td>20</td>
<td>36</td>
</tr>
<tr>
<td>Not Bad</td>
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<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Sacrifice</td>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Defending</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Size Totals</td>
<td>38</td>
<td>22</td>
<td>45</td>
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</tbody>
</table>

Table 2.2: Response categorization as a function of group size. Numbers are responses, not participants.

Discussion

While some participants in this study defined loyalty in terms of a disposition, willingness, or attitude as in the definition of loyalty used for the model presented in Chapter 1, most participants defined loyalty in terms of overt behavior. While the definition of loyalty most often given by participants differs in this way from that used in the model, the conceptual distinction between a willingness to act and acting itself was retained for purposes of scale development. Therefore, to create a measure which taps willingness to act, several of the behaviors identified in the preliminary study were used to create items that frame the behaviors in terms of willingness. Construction of the group loyalty measure will be discussed in detail in the next section of this chapter.

Development and Validation of an Initial Group Loyalty Measure

Based in part on the results of the previous study, an initial group loyalty scale was constructed. This scale was then included in a survey study exploring the relationship between group identification and group loyalty for multiple membership groups. A description of this survey will be limited to those portions most relevant to the evaluation of the loyalty scale.
It must be kept in mind that this scale was the first of several iterations and the scale is still considered to be in development. Further, the reliability and validity checks performed here are preliminary and later versions of the scale will be assessed more completely in the future. The goal of the current study was to provide an initial assessment of the initial scale’s reliability and validity. Specifically, the assessment included measures of internal consistency, as well as some measures of construct validity (including both convergent and discriminant validity). Other forms of reliability (e.g. test-retest) and validity (predictive) were not assessed in this study. If the scale were internally consistent, its items should show reasonably high item-total correlations and the scale as a whole should show a high Cronbach alpha value. To demonstrate construct validity, measures of group identification and group loyalty should be positively correlated, yet the measures should also be distinct correlationally and factorially. That is, a correlation matrix of identification and loyalty scale scores for multiple groups should show positive correlations, but still indicate distinctions between identification and loyalty, while identification and loyalty items relating to a single group should load on separate but positively-correlated, factors.

**Scale Development**

Initial scale items were generated from two basic sources: actual loyalty-definition responses from participants described earlier in this chapter and items selected or adapted from Scott’s (1965) loyalty subscale (described in Chapter 1; although these items also essentially matched definitions given by participants in the previous study). As mentioned earlier, respondents usually defined loyalty in terms of actual behavior. Based on the working definition of loyalty as a willingness to perform such behaviors, however, items adapted from participants’ definitions were worded in terms of willingness to perform a behavior (e.g. “How willing are you to help when this group needs you?”).

Items were constructed to cover a range of the potential areas covered by loyalty discussed earlier (e.g. defending the group, not lying to the group). Two items in the
measure were essentially the same as items in Scott’s (1965) subscale (relating to organizing activities and criticizing the group in public), and one item was very similar (relating to defending the group publicly) to one in the Scott subscale.

The above process resulted in an initial scale of 10 items (see Table 2.3 for a list of these items and Appendix B for how they were presented to participants). This initial measure included the ten items shown in Table 2.3 and instructions for the participant to indicate a degree of willingness to perform each behavior by choosing a scale value from 0 ("not at all willing") to 4 ("extremely willing").

1. How willing are you to risk your life fighting to defend this group?
2. How willing are you to help organize activities for this group?
3. How willing are you to lie to this group? (R)
4. How willing are you to obey this group’s rules and standards?
5. How willing are you to defend this group publicly, even if this causes controversy?
6. How willing are you to donate your free time to this group?
7. How willing are you to donate money on a regular basis to this group?
8. How willing are you to help when this group needs you?
9. How willing are you to criticize this group in public? (R)
10. How willing are you to wear a symbol (distinctive clothing, etc.) of this group?

Table 2.3: Items used in the initial group loyalty measure. (R) indicates a reverse-scored item.

Method

The first test of the group loyalty measure was as part of a larger survey study looking into the relationships between identification and loyalty to multiple groups and their effects on other variables such as attitudes towards in-groups and out-groups. The bulk of that research will not be addressed here (see Brewer & Silver, in press, for
discussion of some results). However, as part of this study, participants filled out identification and loyalty scales for several groups. What will be discussed here is the internal consistency of the loyalty scale and the relationship between the identification and loyalty items and scales.

Participants

Three hundred forty-three introductory psychology students (177 female, 166 male) at Ohio State University took part in the survey study mentioned above for partial course credit. However, for simplicity, 18 foreign students (4 female, 14 male) were dropped from most of the analyses reported here because the primary target group analyzed was "Americans." This resulted in a final maximum number of 325 participants (173 female, 152 male) for most analyses. However, for some analyses reported below, sample sizes are slightly lower because of missing data. Participants completed the survey individually in sessions consisting of 10 to 16 participants.

Procedure

As part of the survey study, participants filled out group identification and loyalty scales for up to seven groups, "OSU Students", "Americans", and up to five in-groups selected by the participant as ones whose membership was important to them. These self-designated in-groups were selected from a previous list of potential in-groups (see Appendix A for the group list, Appendix B for a sample identification measure, and Appendix C for a sample loyalty measure). The order of target groups was always "OSU Students", then "Americans", then groups 1 through 5, with the identification measure given first for a group followed by the loyalty measure for that group.

The loyalty measure was the initial measure described above (see Appendix C). The group identification measure was Mael and Tetrick's (1992) 10-item Identification with a Psychological Group Scale (IDPG; see Appendix B). The IDPG measures identification with a group by having participants indicate their level of agreement with each of ten statements (e.g. "When I talk about this group, I usually say 'we' rather than 'they'") on a four-point scale ranging from 0 (strongly disagree) to 3 (strongly agree). (A "not applicable" response option was added for this study.) Mael and Tetrick developed
the scale to tap the cognitive component of social identity. To the extent that it is effective in this it would also tap the cognitive component of the group identification construct of the model presented here in Chapter 1, and was selected for this purpose. The IDPG and variations of it have been shown to have good predictive validity (Mael & Ashforth, 1992) and the scale does seem to measure primarily the cognitive component of identification with a group.

After completing the identification and loyalty measures, participants completed other measures related to group attitudes and judgments which will not be discussed here. Participants were then debriefed, given credit, thanked, and released.

**Results**

Although participants completed measures for up to seven groups, for simplicity, most of the scale analyses were conducted using responses to the measures of loyalty and identification with “Americans” as the target in-group. Some of the discriminant analyses also involved the responses regarding the five groups the participants ranked as ones with which they most identified. Finally, with few exceptions, although data regarding group identification were collected, results regarding identification will not be reported except as they apply to the main focus of this chapter: the development and validation of the loyalty measure.

The scale values reported here are sums of the scale items (with reverse-scored items reversed) unless otherwise indicated. Scale scores on the IDPG could range from 0 to 30. Scale scores on the full ten-item loyalty scale could range from 0 to 40; however, as will be discussed below, two items were dropped from analyses and the effective upper limit to the scale is 32.

**Initial Internal Analysis**

After the data were collected, it was realized that the two reverse-scored items, items 3 and 9, simply did not make sense in the context they were placed. For example, item 3 asked participants to report, *if the group really needed them*, how willing they were to lie to the group. For conceptual reasons it was decided to drop these items from further analyses. The results of initial internal analyses of the loyalty measure supported this
decision. Corrected item-scale correlations (each item correlated with the scale consisting of all items except that item) for the “Americans” target group ranged from .14 to .69 (n = 322). The two lowest such correlations were the two reverse-scored items: .14 for item 3 and .22 for item 9. The next lowest correlation was .49 (item 1). When the reverse-scored items were removed from the scale, the new range of corrected item-scale correlations was .47 to .70 (n = 323). Two other indices were computed to assess further the eight-item measure’s internal consistency. The mean inter-item correlation for the eight-item scale for the “Americans” target group was .43 (n = 323). Also, Cronbach’s alpha for this target group was .85 (n = 323). These numbers indicate reasonably high internal consistency for the eight-item group loyalty scale.

In general, then, there were conceptual reasons to drop the two reverse-scored items and there was empirical support for the decision to do so. All further analyses of this data include only the eight positively-scored items (leaving 32 as the upper bound to scale-level, total-score, analyses).

Convergent and Discriminant Validity of the Loyalty Measure

As expected, the IDPG correlated highly with the loyalty measure, r(323) = .58 for the “Americans” target group and r(323) = .60 for the “OSU Students” target group (both ps < .01). Participants also provided identification and loyalty ratings not only for up to five groups they had listed as important membership groups (e.g. “Republicans”, “African-Americans”; see Appendix A for the full list). One partial test of the convergent and discriminant validity of the loyalty scale involves inspection of the correlations among identification and loyalty ratings for these five groups (see Table 2.4). This analysis included 308 participants for all correlations; those excluded completed materials incorrectly or incompletely (e.g. those who listed fewer than five group and/or completed measures for fewer than five groups).
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<tr>
<td>10. Group 5</td>
<td>.22</td>
<td>.28</td>
<td>.28</td>
<td>.23</td>
<td>.59</td>
<td>.37</td>
<td>.44</td>
<td>.39</td>
<td>.52</td>
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</tbody>
</table>

Table 2.4: Correlations among identification and loyalty scores for groups one through five. $n = 308$. All correlations are significant at $p < .01$. 
If the group loyalty measure is valid, one would expect positive correlations between it and the identification measure for all five groups. Further, these correlations should not be too high or one could reasonably conclude that the two scales are measuring the same construct (and that being identification given the IDPG's previous validation record). Finally, when correlations between groups are compared (e.g. ratings between Group 2 and Group 5) loyalty ratings should correlate more with identification ratings for the same group than with loyalty towards a different group, but should also correlate more strongly with other loyalty ratings (e.g. loyalty to Group 2 correlated with loyalty to Group 5) than with comparable identification ratings (e.g. loyalty to Group 2 correlated with identification to Group 5).

First, as can be seen from Table 2.4, all correlations were positive (all ps < .01, all dfs = 307), ranging from .17 to .61. Second, as mentioned above, one of the key sets of correlations was the set of identification and loyalty ratings for the same group (e.g. Group 1 identification and loyalty). These correlations ranged from .51 to .61, with a mean correlation of .57, indicating a highly positive relationship, but not so high as to justify a conclusion that the two scales were measuring the same construct. Finally, for correlations between groups, loyalty ratings consistently correlated more strongly with other loyalty ratings (e.g. the correlation between loyalty to Group 2 and loyalty to Group 5 was .44; the mean correlation was .43) than with comparable identification ratings (e.g. the correlation between loyalty to Group 2 and identification to Group 5 was .27; the mean correlation was .26).

Another indication of the validity of the loyalty measure is displayed in Table 2.5. Mean identification and loyalty ratings were computed for each of the five groups listed by participants. Since the participants had initially chosen those groups and ranked them from one to five in decreasing order of the importance of their membership in those groups, one would predict measured identification and loyalty scores to decline over that range. As can be seen in Table 2.5, this is exactly what occurred. (The sample sizes differ from each other and from that in the correlation matrix of Table 2.4 due to differences in the number of participants who completed all items within a given analysis.)
<table>
<thead>
<tr>
<th>Group</th>
<th>Identification</th>
<th>Loyalty</th>
<th>Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Group 1</td>
<td>20.54</td>
<td>5.08</td>
<td>19.27</td>
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<td>Group 2</td>
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<tr>
<td>Group 4</td>
<td>17.47</td>
<td>5.36</td>
<td>15.05</td>
</tr>
<tr>
<td>Group 5</td>
<td>16.83</td>
<td>5.62</td>
<td>14.35</td>
</tr>
</tbody>
</table>

Table 2.5: Means and standard deviations of identification and loyalty scores for groups one through five. Higher scores indicate more of the construct. Identification $n = 309$, Loyalty $n = 311$.

As can be seen in Table 2.5, scale values are highest for groups with which the participant had reported higher membership importance (Group 1) and decrease systematically according to ranked membership importance (Groups 2 - 5). These results provide further support for the construct validity of the loyalty scale.

**Factor Validity of the Loyalty Measure**

Confirmatory factor analyses were conducted to evaluate the hypothesis that the group loyalty scale and the IDPG measure distinct but correlated constructs. Two competing models were tested: a single-factor model implying that the loyalty items measure the same construct as the identification items, and a two-factor model implying that the loyalty and identification items measure distinct but correlated constructs. If the loyalty scale is indeed measuring a somewhat different construct than that measured by the identity scale, the two-factor model should fit better than the one-factor model. Also, for brevity, only the analyses for the “Americans” target group are reported in this chapter. A comparable analysis for the “OSU Students” target group is provided in Appendix D.

These analyses were conducted using RAMONA within SYSTAT for Windows, version 6.0 (SYSTAT, June, 1996; Browne & Meis, 1996). The analyses included 18
items: the ten items of the IDPG and the eight positively-scored items from the initial loyalty measure. The Maximum Wishart Likelihood (MWL) method of estimation was applied to the 18 x 18 correlation matrix for these analyses. The two-factor model allowed the factors to be correlated, and of course it was expected that this correlation would be positive. A total of 298 participants were included in these analyses (excluded were 18 foreign students, and 27 participants who completed relevant measures incorrectly or incompletely).

The primary index of fit used was the estimate of the root mean square error of approximation, RMSEA (Steiger & Lind, 1980, cited in Browne and Cudek, 1993). The RMSEA has a lower bound of zero (indicating a perfect fit of the data to the model) and, as a rule of thumb (Browne and Cudek), good fit is indicated by a value below .05 (with reasonable fit between .05 and .08, mediocre fit between .08 and .10, and poor fit beyond .10). It must be reemphasized that these are not strict criteria but rather rough guidelines based on past experience with various models. The RMSEA has the advantage over some other indices (such as the root mean square residual) of allowing the computation of a confidence interval around the point estimate of fit. Another advantage over some other indices (such as the raw discrepancy function value) is that the RMSEA does not inevitably increase as parameters are added to the model. That is, simply adding parameters (including common factors) will not necessarily improve the fit of the model. As too many parameters are added to the model, the RMSEA will increase, indicating a worse fit: a penalty for a lack of parsimony. This means that if the one-factor model were really more appropriate, the addition of a second factor would necessarily decrease the raw discrepancy function value, "incorrectly" indicating a better fit of the two-factor model, while the RMSEA would decrease, "correctly" indicating a poorer fit of the two-factor model.

While the RMSEA is provided as the primary index of fit, two other indices are provided as well for completeness and comparison. The first is the $\chi^2$ test statistic, provided with the exceedance probability associated with the use of the test statistic in the "test of close fit." The test of close fit uses the $\chi^2$ test statistic to test the hypothesis that
the RMSEA is less than or equal to the .05 level generally agreed upon to indicate a close fitting model (Browne & Cudeck, 1993). The test statistic decreases as the model improves. The second index reported is the Expected Cross Validation Index (ECVI; Browne & Cudeck, 1989), which provides an estimate of how well the model would generalize to the population. Like the RMSEA, the ECVI also allows a confidence interval to be computed. Also like the RMSEA, smaller values indicate better models and the value will increase if parameters are added that are not supportable by the sample size. Although its reliability is restricted for small sample sizes, the current sample size should allow it to be interpreted with some confidence. A disadvantage of all these indices is that the models presented here can only be compared descriptively, not statistically (e.g. no test exists for the difference between two RMSEAs from non-nested models). Descriptive indices of the difference between a given model and a baseline model (poor/worst-case and ideal models) exist (e.g. the Non-Normed Fit Index; Bentler & Bonett, 1980) which can give an indirect comparison of alternative models. However, the indirect nature of such a comparison would not add much information beyond that already available through comparing the magnitudes of RMSEAs and ECVIs. Therefore, such indices were not computed.

As can be seen from Table 2.6, all loadings for both models were positive and above generally-accepted lower limits for practical significance (.30 - .35). Further, with only one exception, all loadings increased from the one- to the two-factor model (the only exception, loyalty item 10, stayed the same). Importantly, the RMSEA and its confidence interval for the one-factor model indicated poor fit (.11, .11 - .12, respectively) while the RMSEA for the two-factor model indicated reasonably good fit (.08, .07 - .08, respectively). (Also, as expected, the correlation between Factors 1 and 2 was \( r = .66, p < .01 \).)

The \( \chi^2 \) test statistic and the ECVI also decreased from the one- to the two-factor model, indicating better fit for the two-factor model. The test of close fit tests the hypothesis that the RMSEA is less than or equal to the .05 level generally agreed upon to indicate a close fitting model. The outcome of this test is statistically trivial since the
<table>
<thead>
<tr>
<th>Item</th>
<th>One-Factor Model</th>
<th>Two-Factor Model</th>
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<tbody>
<tr>
<td></td>
<td>Factor 1</td>
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<tr>
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<td>IDPG 2R</td>
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<tr>
<td>Loyalty 10</td>
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</tbody>
</table>

RMSEA (CI): .11 (.10 -.12) | .08 (.07 -.08)
χ², df, p <: 636.69, 135, .001 | 357.99, 134, .001
ECVI (CI): 2.39 (2.13-2.66) | 1.46 (1.28 - 1.66)

Table 2.6: Loadings and fit indices for two models of identification and loyalty for the "Americans" target group. IDPG = Identification with a Psychological Group scale item. Loyalty = Loyalty scale item. RMSEA = Root Mean Square Error of Approximation. CI = 90% confidence interval. χ² = Chi-squared test statistic. df = degrees of freedom. p = p-value for the test of close fit (less than). ECVI = Expected Cross Validation Index. "--" indicates a parameter not included in the model.
lower bound of both confidence intervals is above .05. However, the test statistic and the p-value are presented for completeness. Clearly, neither model fits the data "closely" using the conventional guidelines (Browne & Cudeck, 1993). However, the two-factor model fits the data reasonably well and is easily interpretable. The analysis of the "OSU Students" target group data provided comparable results, supporting the discriminant factor validity of the loyalty measure (e.g. RMSEA: one-factor = .10, two-factor = .07). (See Appendix D for loadings and other fit information for the "OSU Students" analysis). In general then, it seems reasonable to conclude that the loyalty items are measuring a relatively distinct construct than that measured by the identification items, supporting the validity of the loyalty measure as a whole.

Discussion

In the analyses reported here, the eight-item group loyalty measure demonstrated reasonable reliability and validity over several target groups within the same sample. The internal consistency of the scale was relatively high and its construct validity was tentatively established.

One general issue which deserves some discussion, however, is the reason for the positive correlations among identification and loyalty ratings for the groups presented. That is, it was hypothesized that these measures would correlate positively based on the model presented in Chapter 1. While this occurred, the degree to which it occurred could have been influenced by a number of factors that are not part of that model. For example, one methodological factor is the fact that the loyalty scale was originally constructed to include reverse-scored items, but in its eight-item form it has only positively-scored items. (With the exception of one item, the IDPG suffers from the same problem.) This allows the possibility that an acquiescence bias (towards the positive end of the scale) led to an inflated positive correlation with measures of identification and loyalty.

Another factor which might influence correlations among measures of loyalty to different groups is potential individual differences in the degree to which one feels loyalty to one's groups in general. This is essentially the concept of dispositional group loyalty investigated by James and Cropanzano (1994) and mentioned in Chapter 1. If there is such
an individual difference, one would expect positive correlations for loyalty measures among different in-groups. However, while the existence of this individual difference seems reasonable, James and Cropanzano’s paper describes what is apparently the only set of studies investigating it. As mentioned in Chapter 1, further research is needed to support their dispositional group loyalty hypothesis.

Finally, the level of the positive correlations could also have been affected by the specific types of groups about which participants responded in this research. That is, in the second study reported here, participants were asked to indicate which of 43 pre-selected groups they belonged to and to rank-order the five to which they felt most loyal. Under such circumstances, it is possible that individuals answered loyalty questions about groups to which they felt only compatible (and no conflicting) loyalties.

Asking participants to provide loyalty ratings for groups to which they do not belong, and for groups for which the participant has conflicting loyalties, may address some of the above issues. Of course, including adequate reverse-scored items may also help to alleviate concerns about potential acquiescence bias effects. Additionally, future validation work is necessary to establish the predictive and discriminant validity of the scale, also preferably with a non-student sample to evaluate the generalizability of the scale. (Although testing of the theory presented in Chapter 1 is a goal of the current and ongoing research, evaluating the generalizability of both the scale and the model to non-student populations is an additional goal.) As a preview, in the experiment discussed in Chapter 3, the loyalty scale did not perform identically to the identification scale, further indicating the discriminant validity of the measure.¹⁰

The results reported here provide tentative support for the convergent and discriminant validity of the eight-item loyalty scale. In the future, comparison of this loyalty scale or an updated scale with measures of other constructs (e.g. organizational commitment, need for cognition, social desirability) would be used to make a stronger claim for its convergent and discriminant validity. However, the current analyses seemed to be an appropriate and adequate first step for the initial scale.
General Discussion

The goals of the studies reported in this chapter were to explore how individuals define loyalty to their groups and to create a new group loyalty scale based partially on those definitions. The first goal was accomplished with at least one interesting result: that people tend to think of loyalty to groups as an active and positive process. That is, participants made far more references to doing positive things for the group than to refraining from doing negative things against the group. This was true despite the fact that such negative things could have been easily salient if in no other way than as the reverse of the positive actions mentioned by the participants (e.g. every participant who mentioned sticking up for the group could have also mentioned not letting the group down, yet few did). Of course, this may simply be a linguistic artifact. Even if the negative version comes to mind first, its positive reverse may be more likely to be stated due to conversational norms or other factors. In any case, the responses provided by participants aided in creating the initial version of a new group loyalty scale.

The eight-item version of that scale performed well in the modest assessment of its psychometric properties. Internal consistency and several forms of validity assessments indicated that the eight-item scale seems to be capable of measuring group loyalty. As mentioned earlier, however, because the scale was intended to apply to, and is being validated on, relatively impersonal target groups (e.g. social categories) rather than more personal target groups (e.g. families), the scale can only be recommended for use with the former target groups. It is possible that the scale can be adapted for use with more personal groups, but this was not the purpose of the research reported here.

Further developments of the scale, and further assessments of that scale's properties, are planned for the near future. However, based on the positive results reported in this chapter, the eight-item loyalty scale was used for the experiment discussed in the next chapter.
CHAPTER 3

EXPERIMENTAL USE OF THE LOYALTY SCALE IN A TEST OF THE GROUP IDENTIFICATION - GROUP LOYALTY RELATIONSHIP MODEL

A key feature of the model of group identification and group loyalty presented in Chapter 1 was the proposed direct relationship between the two constructs, with identification hypothesized to be prior to loyalty. The current chapter presents an experiment which provided an initial test of that proposition. This experiment also constituted the first experimental use of the eight-item group loyalty measure described in the previous chapter.

The Optimal Distinctiveness Model

To set the stage for understanding the experimental manipulations, a brief description of optimal distinctiveness theory (Brewer, 1991) is necessary. As mentioned in Chapter 1, social identity theory (Tajfel & Turner, 1986) and self-categorization theory (Turner, et al., 1987) propose that in addition to defining oneself as an individual, one may also define oneself in relation to, or in terms of, the groups to which one belongs. Optimal distinctiveness theory (Brewer, 1991) adds to social identity theory and self-categorization theory in that it proposes that perceived assimilation with others and perceived differentiation from others directly affect the level of identification with a given group, above and beyond the positive or negative evaluation of the group itself. The theory assumes that these two needs, assimilation and differentiation, are competing and inversely related.

Optimal distinctiveness theory differs from other theories (e.g. uniqueness theory, Snyder & Fromkin, 1980, cited in Brewer, 1991) that consider the opposing needs for
assimilation and differentiation by specifying a different method by which people may satisfy those competing needs. Specifically, the theory proposes that people may satisfy a need for assimilation within an in-group, and a need for differentiation by contrasting the in-group with one or more out-groups. That is, the individual may be depersonalized within the in-group yet balance that with differentiation of one’s group from some other group to maintain a harmonious psychological state.

The theory proposes that the better a group satisfies these two needs for an individual, the more the individual will identify with that group. Importantly, the point at which the two needs are perfectly balanced may or may not ever occur and in fact is not the goal of the individual. This balanced, or “optimal”, point of differentiation is instead one possible result of the individual’s attempts to satisfy the needs for assimilation and differentiation. It is the dynamics of these competing needs, not a need for an optimal level, that influences group identification.

Brewer (1991) also proposed that not only will identification with a group vary with that group’s ability to satisfy the competing needs of assimilation and differentiation, but loyalty to the group will vary as well: specifically, the more the group satisfies the two needs, the more loyalty that group will inspire (p. 478). Past research has explored other aspects of the optimal distinctiveness model (Brewer, 1991; Pickett, 1996). However, the loyalty hypothesis has never been tested directly. The experiment reported in this chapter served as a partial exploration of that proposed relationship.

Since optimal distinctiveness theory proposes a positive relationship between group identification and loyalty, it seemed reasonable to use methods developed to test optimal distinctiveness theory to test the model presented in Chapter 1. More specifically, according to the model presented in Chapter 1, if identification with a group is increased, increases in loyalty should follow. In the experiment presented in this chapter, identification with a group was manipulated by heightening an individual’s need for assimilation or differentiation, and the effects on both identification with and loyalty to those groups were assessed.
An Experimental Test of the Group Identification - Group Loyalty Model

**Method**

In order to manipulate group identification, participants were induced to feel a heightened need for differentiation, or were induced to feel a heightened need for assimilation, or were given no such manipulation. They were then asked to report their level of identification and loyalty to two groups, one of which was relatively inclusive while the other was relatively exclusive. According to optimal distinctiveness theory, one would expect participants with a heightened need for differentiation to report greater identification with the exclusive group than the inclusive group (since this need can be satisfied by identifying with a more distinctive or exclusive group but not a more inclusive group) as well as greater identification than all participants in the control condition. Also, one would expect participants who have a heightened need for assimilation to report greater identification with both the inclusive and exclusive groups than would participants in the control condition (since this need is satisfied within a group, regardless of inclusiveness, but is not stimulated in the control condition). Pickett (1996, study 1), for example, using a very different manipulation (participants recalled past instances of excessive distinctiveness or assimilation) and dependent measure (group importance ratings) than those used here, found support for the need for differentiation prediction above but did not find support for the need for assimilation prediction. The relationship between Pickett’s findings and those of the current study will be addressed in the discussion. Also, however, a theoretically trivial main effect was expected for the target group manipulation, with higher identification reported for the exclusive, more personally-important group than the single, rather generic and amorphous inclusive group used. Further, and most important for the present purpose, based primarily on the model presented in Chapter 1, group loyalty was predicted to follow the same pattern as that for group identification.

**Design**

The study used a 3 (differentiation level: need for differentiation, need for assimilation, control/relatively optimal) by 2 (inclusiveness of the target group: inclusive,
exclusive) design, with the former being a between-subjects variable and the latter a within-subjects variable. This design and the approximate pattern of predicted results is represented in Figure 3.1.
Figure 3.1: Approximate pattern of predicted mean scores as a function of target group inclusiveness and motivation manipulation. This pattern was predicted to hold for both identification and loyalty. Higher values indicate greater identification or loyalty. "Need-Diff" = Need for Differentiation. "Need-Assim" = Need for Assimilation. "Tgt" = Target group.
Participants

One hundred seven introductory psychology students at The Ohio State University took part in the experimental study for partial course credit. A requirement for participation was fluency in English due to the subtlety of the written groupness manipulation. Participants completed materials individually in sessions of between one and three participants.

Procedure

During prescreening sessions at the beginning of the academic quarter, participants completed several prescreening questionnaires. One of these was a group membership checklist similar to that used in the second study reported in Chapter 2 (see Appendix A). The checklist included both inclusive and exclusive groups, but was used for the current study to select participants who belonged to at least one group which had been selected a priori as relatively “exclusive” by the experimenters (e.g. “Jews”, “union members”). Participants who were fluent in English and indicated that they belonged to at least one “exclusive” group were then solicited by telephone to participate in a study “designed to look at how much you identify with groups and how loyal you are to them.” Upon arrival at the session, participants completed a consent form corresponding to this information.

Participants were then given a manipulation of assimilation/differentiation needs similar to that used by Pickett (1996, studies 2 and 3; also used by Green, 1995). Participants were informed that they had been selected based on their responses to one of the prescreening questionnaires (the “Normative Factors Assessment”) that they had completed which purportedly categorized them into one of several personality types. Depending on the condition, the participant was told either 1) that he or she was asked to participate in order to get a good overall sample of the OSU student population (the control or baseline condition), 2) that prescreening responses indicated that he or she fell into a common and inclusive personality category among OSU students (overly-assimilated, heightened need for differentiation condition), or 3) that prescreening responses indicated that he or she fell into a rare and exclusive personality category among
OSU students (overly-distinctive, heightened need for assimilation condition). See Appendix E for the manipulation-related materials of the current study.

After this initial manipulation, participants completed two dependent measures, the Identification with a Psychological Group scale (IDPG; Mael & Tetrick, 1992) and the eight-item group loyalty scale, both used in the survey study discussed in Chapter 2 (see Appendix F for the versions of these measures used in the current study). At the top of each measure were instructions to “consider the following group to which you belong” followed by a line with a hand-printed group name. For these two scales, the first group was the same inclusive group for all participants: “People your age.” After completing the loyalty scale for the inclusive target group, the participants read a paragraph designed to reinforce the assimilation/differentiation manipulation (reminding them of the reason they were selected; see Appendix E). They then completed identification and loyalty scales for the exclusive group, with the name of this group hand-printed on the top of each form as it had been for the inclusive group. This group was selected from those the participant had identified during prescreening as an “exclusive” group to which he or she belonged. Therefore, the order of dependent measures for all participants was inclusive identification, inclusive loyalty, exclusive identification, exclusive loyalty.

After completing the second loyalty scale, participants filled out written probes for suspicion and a manipulation check. The manipulation check asked participants “According to the Normative Factors Assessment report, how rare or common is your personality type at OSU?” to which they could choose one of the following: “It indicated most other OSU students share my personality type”, “It indicated very few other OSU students share my personality type”, or “I wasn’t told if my personality type at OSU is rare or common.” When participants had completed the above, they were debriefed (including a verbal probe for suspicion and a detailed explanation of the need for the false feedback manipulation), thanked, and released.

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Results

According to the written probe for suspicion, of the original 107 participants two did not believe the manipulation (one in the need for differentiation condition, one in the need for assimilation condition) and were omitted from the following analyses. Also, 19 participants (18 percent) did not choose the correct response on the written manipulation check, and therefore may not have gotten the manipulation (three of 32 -- nine percent -- in the need for differentiation condition; 10 of 39 -- 26 percent -- in the need for assimilation condition; and six of 36 -- 17 percent -- in the control condition).\textsuperscript{11} Except where indicated, all analyses here include these participants but exclude the two who explicitly expressed disbelief in the manipulation. This resulted in a total of 105 participants, 31 in the need for differentiation condition, 38 in the need for assimilation condition, and 36 in the control condition.

Separate 3 (assimilation/differentiation manipulation; between-subjects) × 2 (target group inclusiveness; within subjects) mixed-model ANOVAs were performed for the identification and loyalty dependent measures. The ANOVA for the identification measures revealed a marginally significant interaction effect, $F(2, 102) = 2.95$, $p = .06$. See Table 3.1 for the means and standard deviations of the identification scores, and Figure 3.2 for a graphical presentation of the means. Additionally, there was also a significant main effect for target group level, with the exclusive group higher than the inclusive group, $F(1, 102) = 9.04$, $p = .003$. Although this analysis revealed only a marginally significant interaction effect, the pattern was similar to that predicted. Therefore, for exploratory reasons further analyses were conducted, testing specific theory-relevant contrasts.
Table 3.1: Means and standard deviations for the identification measures. Possible identification scores ranged from 0 to 30. Higher numbers indicate greater identification.

Figure 3.2: Mean identification scores as a function of target group inclusiveness and motivation manipulation. Possible identification scores ranged from 0 to 30. Higher numbers indicate greater identification. “Need-Diff” = Need for Differentiation. “Need-Assim” = Need for Assimilation. “Tgt” = Target group.
According to optimal distinctiveness theory, a heightened need for assimilation should inspire a greater level of identification with any salient in-group, not just an inclusive one. Therefore, it had been predicted that the mean identification level in the need for assimilation condition would be higher than that in the control condition, regardless of the target group. A planned comparison was conducted to explore this hypothesis, comparing the identification scores (collapsing across target group level) for the need for assimilation ($M = 16.21$) and control ($M = 15.79$) conditions. This contrast was not significant, $F(1, 102) = .18$, $p = .67$, indicating -- counter to predictions -- no difference between the two conditions.

To explore whether this predicted effect might have been obscured by including participants who apparently did not get the manipulation (especially those in the assimilation condition as these were the greatest number), this analysis was re-run without those participants (need for assimilation $M = 16.12$; control $M = 16.07$). However, the effect remained non-significant, $F(1, 83) = .07$, $p = .96$, again indicating no difference between the two conditions (i.e., there was no effect of the need for assimilation manipulation on the level of in-group identification).

An additional key prediction based on optimal distinctiveness theory was that the mean identification score for the need for differentiation/exclusive group cell would be higher than that in the need for differentiation/inclusive group cell as well as the control and need for assimilation cells of the exclusive group. To test this hypothesis, another planned comparison was conducted, this time including the group level, and comparing the need for differentiation condition against the combination of the control and need for assimilation conditions. As predicted, the key target group by motivation interaction of this analysis was statistically significant, $F(1, 102) = 5.89$, $p = .02$. Two follow-up between-subjects contrasts (need for differentiation vs. the other two conditions) within each level of the target group were conducted. The effect for the inclusive group was not significant, $F(1, 102) = .11$, $p = .74$, while the effect for the exclusive group, was significant, $F(1, 102) = 5.01$, $p = .03$. These results indicate that identification for the exclusive target group was highest in the need for differentiation condition, as predicted.
Turning to the loyalty measures, an inspection of Table 3.2 (and Figure 3.3) suggests that none of the hypothesized effects were observed. Several statistical analyses supported that conclusion. The ANOVA for the loyalty measures indicated no significant two-way interaction effect, $F(2, 102) = .35, p = .71$. Also, there was no significant or marginal main effect for target group level, $F(1, 102) = 2.66, p = .11$.

<table>
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<tr>
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<th>$SD$</th>
<th>Control/Relatively Optimal $M$</th>
<th>$SD$</th>
<th>Need for Assimilation $M$</th>
<th>$SD$</th>
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<tbody>
<tr>
<td>Target Group</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclusive Group</td>
<td>15.77</td>
<td>6.59</td>
<td>16.53</td>
<td>5.46</td>
<td>15.87</td>
<td>5.60</td>
</tr>
<tr>
<td>Exclusive Group</td>
<td>17.52</td>
<td>6.65</td>
<td>16.97</td>
<td>7.77</td>
<td>16.76</td>
<td>6.39</td>
</tr>
<tr>
<td></td>
<td>$n = 31$</td>
<td></td>
<td>$n = 36$</td>
<td></td>
<td>$n = 38$</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.2: Means and standard deviations for the loyalty measures. Possible loyalty scores ranged from 0 to 32. Higher numbers indicate greater loyalty.
Figure 3.3: Mean loyalty scores as a function of target group inclusiveness and motivation manipulation. Possible loyalty scores ranged from 0 to 32. Higher numbers indicate greater loyalty. “Need-Diff” = Need for Differentiation. “Need-Assim” = Need for Assimilation. “Tgt” = Target group.
Despite the lack of significance of the above tests, for exploratory purposes planned contrasts were conducted parallel to those conducted for the identification measures above. As with the identification measures, the hypothesis that a heightened need for assimilation should inspire a greater level of identification with any salient in-group was tested using a planned contrast comparing the need for assimilation ($M = 16.32$) and control ($M = 16.75$) conditions (collapsing across target group level). As was apparent from an inspection of the means, but counter to the hypothesis, this effect was not statistically significant, $F(1, 102) = .11, p = .74$, indicating there was no difference between the two conditions.

The other key prediction, that the need for differentiation/exclusive group cell would be higher than those in the need for differentiation/inclusive group cell and the control and need for assimilation cells of the exclusive group, was tested using a planned comparison parallel to that used for the identification measure. This comparison included the target group level and compared the need for differentiation condition against the combination of the control and need for assimilation conditions. Counter to the prediction (and the identification results) however, the key target group by condition contrast interaction of this analysis was not statistically significant, $F(1, 102) = .61, p = .44$.

**Discussion**

The results of this experiment indicate partial support for the basic propositions of the optimal distinctiveness model (those dealing exclusively with group identification as a function of assimilation and differentiation needs and their satisfaction). However, the current results do not support the model of the relationship between group identification and group loyalty presented in Chapter 1.

Specifically, while there was some support for the hypothesis that manipulating needs for assimilation and differentiation would alter identification with a given target group, no such alteration occurred for loyalty as had been predicted. The need for differentiation was apparently satisfied by identifying with (or by thinking about one’s identification with) the exclusive target group but not the inclusive target group. However, while the loyalty scores showed a hint of this pattern, the statistics were far from...
significant in any sense of the term. Also, there was no support for the prediction that identification and loyalty scores would be higher in the need for assimilation condition than the control condition. This pattern for the identification ratings is similar to that found by Pickett (1996, study 1), although the two studies used quite different experimental manipulations and dependent measures. As Pickett speculated regarding her results, it is possible that the manipulations used in this study were adequate to inspire a need for differentiation, but were inadequate to inspire a need for assimilation. Another, though compatible, alternative is that while it may be relatively easy to elevate the need for differentiation in an individualistic culture such as ours, it may be relatively difficult to raise the need for assimilation in such a culture. In more collectivistic cultures, on the other hand, this pattern may be attenuated or even reversed.

Implications for the Group Identification - Group Loyalty Model

Regarding the model presented in Chapter 1, one extreme conclusion about the results observed in the current experiment is that the model is completely wrong in its basic premise: perhaps group identification has no causal influence on group loyalty whatsoever. This possibility, however, is unintuitive and, more importantly, is unsupported by roughly parallel research regarding organizational commitment (e.g. Mael & Ashforth, 1992). At the other extreme is the possibility that the model is perfectly correct and the modest results observed are due to poor measures. The identification measure has been used in the past, although not extensively, and has so far demonstrated reasonable reliability and validity. The loyalty measure is still under development. However some preliminary support for its reliability and validity were presented in the previous chapter, including its ability to distinguish levels of loyalty among groups differing in levels of identification. On the slightly positive side, the loyalty scores did not completely follow the identification scores, providing a further indication of the loyalty scale's discriminant validity. On the negative side, of course, the loyalty scale did not perform as predicted by the identification-loyalty model, raising questions about the scale's construct validity -- and/or the validity of the model it was designed to test. Of course, the "correct" conclusion probably lies somewhere between these two extremes.

50
The loyalty scale is still being developed. New potential items have been created and different formats have been considered. The process of development and evaluation will continue until a highly reliable and valid scale is constructed. In addition, the group identification - group loyalty model itself also may need some adjustment. If the model were correct, any change in identification with a group should have led to corresponding changes in loyalty to that group. Yet, this was not observed here, even in the need for differentiation condition. Aside from the methodological alternatives, there are several possible theoretical reasons for this discontinuity.

The reason with perhaps the most potential impact on the model is that the hypothesized links between the identification components and loyalty are not individually sufficient to produce a change in loyalty. For example, while the link between self-categorization and loyalty may (or may not) be necessary, it may not be sufficient to affect loyalty. This example is particularly appropriate because the manipulation chosen, based on prior research on the optimal distinctiveness model, presumably involved a change primarily within the cognitive component. Further, the identification measure used, the IDPG (Mael & Tetrick, 1992), was chosen specifically because it seemed to tap this cognitive representation component. It is entirely possible that while some (or perhaps all) the group identification components are necessary, it requires some combination of components to affect loyalty. It is also possible that one or both of the other components of group identification is individually sufficient to produce a change in loyalty, but that the cognitive component simply is not. Future research will be devoted to exploring these possibilities.

Other possibilities revolve around potential moderators of the effect of group identification on group loyalty. There are a great many potential moderators and this thesis cannot attempt to address all of them. However, a brief overview of two will give a sense of the possibilities.

One set of such potential moderators is the level of trust one has in the group and the degree to which one perceives the group values the member. These are two of the three constructs considered in Lind and Tyler's (1988; Tyler, 1989) group-value model of
procedural justice (the third being the neutrality of the decision-making procedure, which is less relevant here). Their model was designed primarily to address why people support organizational rules, especially governmental organizations and their laws. However, more generally, at least the first two components above can be applied to loyalty towards groups in general as well as to contexts beyond procedural justice issues. For example, even though one may feel highly identified with a group, if one feels little trust for the group, for whatever reason, one is likely to feel less loyalty towards that group. Similarly, if one felt the group did not value or respect one as a member, one is likely to feel less loyalty, regardless of the level of one’s group identification.

Another potential moderator of the group identification - group loyalty relationship is the level of perceived threat to the in-group and/or the level of the perceived need of the in-group.\textsuperscript{12} That is, it is possible that even if an individual identifies with a group, yet feels the group does not need his or her loyalty, that the individual will not experience such loyalty. Also, some groups may need the loyalty of their members more than others, or “need” may mean different things for different groups. For example, under some circumstances the group “Americans” may need the loyalty of its members more than under other circumstances, while under many circumstances “Americans” as a group may need more loyalty than the group “people your age” (used in the current experiment). Further, the needs of a national group such as Americans (e.g. sacrifice of one’s life or income) are likely to differ substantially from the needs of other types of groups, such as “people your age” (e.g. supporting student government proposals), and loyalty to these groups may vary accordingly.

Figure 3.4 presents one possible alternative model to that offered in Chapter 1, incorporating some of the above possibilities. Here, the self-categorization component of group identification is necessary but not sufficient to affect loyalty, while the other two components are sufficient. Also, the two most relevant constructs of Lind and Tyler’s (1988) group-value model (the member’s perceived group valuation of, or respect for, the member, and the member’s trust in the group) are included as moderators of the identification-loyalty relationship.
Figure 3.4: One alternative model of the group identification - group loyalty relationship.

This alternative model is meant to be illustrative, not final. Several other variations are reasonable. The primary goal of future research will be to explore the causal links between group identification and group loyalty. A secondary goal will be the identification of potential moderators of such a relationship.

Conclusion

This thesis describes some of the first explorations of the validity and utility of the group identification - group loyalty model presented in Chapter 1. However, the main purpose of this thesis was to describe the construction and initial evaluation of the group loyalty measure. As mentioned earlier, more work will be needed before a fully acceptable measure is created.

The results discussed in this thesis suggest that such a measure will prove useful in future group loyalty research. However, this thesis also presents results which question the
accuracy of the initial group identification - group loyalty model. Therefore, future work will continue to concentrate on developing the most accurate yet parsimonious model possible.

The relationship between identification to a group and loyalty to that group, especially one's willingness to sacrifice for that group, is an important topic. This thesis has described some preliminary steps in one investigation of that relationship.
ENDNOTES

1 Other conceptualizations, such as Becker's (1960) notion of commitment due to side bets (in which commitment or attachment to an organization is based on previous investments made by the individual in the organization) and Hunt and Morgan's (1994) emphasis on the relationship between global and constituency-specific organizational commitment are important to current organizational commitment thinking, but are beyond the scope of this thesis and will not be discussed here (see Mathieu & Zajac, 1990, for an excellent review of the organizational commitment literature up to that time).

2 There is a separate line of theory and research into group loyalty that must be mentioned, although only briefly because it is of less direct applicability than is the bulk of the organizational commitment literature discussed above. Working from an organizational perspective, Hirschman (1970, also see Graham & Keeley, 1992, for an excellent summary of Hirschman's loyalty construct) described several types of loyalty, all essentially defined as the length of time or amount of hardship an employee would suffer before taking one of several actions (voicing opposition to policies, exiting the organization, etc.). However, Hirschman's theory was developed explicitly to apply to loyalty behavior in what he called organizations in decline (those with rising dissatisfaction among employees). His theory does not address loyalty to non-organizational groups nor even to organizations in general, and therefore has less direct impact on the model and the research discussed here.

3 The family example was given in the instructions because it was felt that an example of a loyalty group would be valuable and the family was felt to be the best example of a potential loyalty group that was also explicitly excluded from the study. Unfortunately, as mentioned above, several participants still listed the family as one of their top groups even though they were explicitly instructed not to.

4 Several versions of the survey were administered. When the first set of sessions were conducted, instructions permitted groups with as few as three people. Later the instructions were changed to specify that groups must be over 50 people to ensure a better match of the responses to the goals stated above. Also, some surveys included more questions than others, but all included the question of interest here.
A comparable analysis for the "OSU Students" target group provided similar results (n = 342, including foreign students). The range for this full scale was .27 to .70. Here, however, the lowest correlation was item 1, which involved a willingness to give one's life for the group. This item was not dropped, however, for two reasons: 1) it had displayed a correlation of .49 for the "Americans" target group and therefore had shown its potential utility for at least some groups upon which this measure is intended to be used in the future, and 2) while OSU students might be willing to do many things for their university, their lack of willingness to die for it should not be unexpected. On the other hand, the next two lowest correlations were the two reverse-scored items, .28 for item 3 and .30 for item 9. While these are not extremely low correlations, the next lowest item's correlation was .42 (item 4). When the reverse-scored items were removed from this scale, the new range of corrected item-scale correlations was .31 to .73 (n = 342).

The mean inter-item correlation for the eight-item scale for the "OSU Students" target group was .37 (n = 342). The Cronbach's alpha for this target group was .82 (n = 342).

Although Mael and Tetrick (1992) developed the IDPG originally intending it to tap two separate dimensions of group identification (shared experiences, SE, and shared characteristics, SC), the validity and utility of this division has not been adequately demonstrated. Further, these two factors identify two potential subcomponents of the cognitive component of group identification, though this subcomponent level of group identification was not of primary interest in this research. To justify treating the IDPG as a single scale rather than two, internal consistency for the full scale would have to be shown to be reasonably high. (Mael and Tetrick did not report full-scale consistency results, although Cronbach alphas were .81 [reasonable] and .66 [mediocre] for the SE and SC factors, respectively.) Basic internal analyses of the IDPG for the "Americans" and "OSU Students" target groups in the current data supported the decision to analyze and report results relating to the IDPG as a single scale. The mean inter-item correlations for the full 10-item IDPG scale were .38 for the "Americans" target group and .30 for the "OSU Students" target group (n = 300 and 289, respectively). Also, the alpha was .86 for the "Americans" target group and .81 for the "OSU Students" target group (with the same n as above). These numbers indicate a high degree of internal consistency for the full-scale IDPG and justify using it as a single scale in the analyses reported in this chapter and in Chapter 3.

It must be noted that the majority of participants in these analyses (249 out of 325 non-foreign students) listed "OSU Students" among the five self-reported groups, and therefore identification and loyalty responses analyzed here include measures for this group at a second time. The correlations between the first and second responses were r(248) = .90 for identification responses and r(248) = .88 for loyalty responses (both ps < .01).
A three-factor model was not evaluated because there was no a priori expectation for a specific multiple factor structure for the loyalty scale. Prior research by Mael and Tetrick (1992) has indicated a two-factor structure for the IDPG which could have justified including a three-factor model which broke up the identification items. However, since the goal of these analyses was to demonstrate the discriminant validity of the loyalty scale, and not to explore the factor structure of the identification scale, this model was not included. That is, such a three-factor model may well fit better than the two-factor model, but it would not reveal anything about the discriminant validity of the loyalty scale that was not already apparent in the results for the two-factor model.

The scale as it currently exists corresponds to what some have called "active" loyalty more than to "passive" loyalty (see Graham & Keeley, 1992, for a brief discussion of the differences). In the management literature, especially from Hirschman's (1970) point of view, active loyalty involves taking action to improve the organization (e.g. voicing discontent with internal conditions) while passive loyalty involves passive acceptance of the current organizational situation (e.g. not voicing such discontent, perhaps in the hope that enlightened superiors will fix all problems in time). It should be noted, however, that Hirschman's main focus was on loyalty and action in organizations in decline. When expanded to include active and passive forms of group loyalty more generally, the active/passive distinction may have implications for the current scale. Specifically, the scale may be better able to predict more active forms of group loyalty behavior than passive ones.

Of the six participants in the control condition who did not respond to the manipulation check item correctly, four (67 percent) responded that they had been given the need for differentiation manipulation while two (33 percent) responded that they had been given the need for assimilation manipulation. Of the 10 participants in the need for assimilation condition who responded incorrectly to the manipulation check item, three (30 percent) responded that they had been given the need for differentiation manipulation while seven (70 percent) responded that they had been given no manipulation (the control condition). Finally, all three participants in the need for differentiation condition who responded incorrectly to the manipulation check item responded that they had been given no manipulation (the control condition).

Thanks to William von Hippel for mentioning this possibility.
APPENDIX A

GROUPS CHECKLIST AND RANKING INSTRUCTIONS:

CHAPTER 2, STUDY 2
GROUPS PACKET

Thank you for taking part in this survey. In this packet you will be answering questions about several groups and about your feelings towards them. Of course, you may skip any question you do not wish to answer without penalty to you. However, since you will not be personally identified with your answers, and since all your answers will be kept completely confidential, we hope you will feel comfortable answering all the questions honestly and completely. Please complete this packet as quickly as possible without making errors. Please raise your hand when you are done, because the experimenter will have more materials for you to complete.

Below is a list of groups, some of which you are a member of. Please put a check mark next to each group to which you belong. Do not mark groups to which you do not belong. Thank you.

___ OSU students
___ Foreign students
___ African-Americans
___ Asian-Americans
___ Hispanic-Americans
___ White/European-Americans
___ Men
___ Women
___ Honors students
___ Union members
___ US military veterans
___ Fraternity/sorority members
___ Conservatives
___ Liberals
___ Feminists
___ Immigrants
___ Athletes
___ Environmentalists
___ Dorm residents
___ Out-of-state students
___ Democrats
___ Republicans
___ Off-campus residents
___ Older adults
___ Young adults
___ Undergraduate students
___ Continuing-education students
___ Ohio residents
___ GALA members
___ Rural students
___ Urban students
___ Agricultural students
___ Arts and sciences students
___ Business students
___ Engineering students
___ Medical students
___ Social work students
___ Evangelical Christians
___ Catholics
___ Jews
___ Mormons
___ Other religion (please specify: )
Now consider the groups you just marked on the previous page. Please rank up to five of those groups based on how important your membership in that group is to you. Write the name of the group which is most important to you in the first space. Write the second group in the second space, and so on. Do not list more than five groups and do not write in the names of groups which did not appear on the previous page. Thank you.

1. _______________________________________

2. _______________________________________

3. _______________________________________

4. _______________________________________

5. _______________________________________
APPENDIX B

SAMPLE TARGET GROUP IDENTIFICATION MEASURE (IDPG)

USED IN CHAPTER 2, STUDY 2
US Questionnaire 1

Instructions:

Now please think about the group "Americans"

Please answer the following questions with THIS group in mind. Please use the scale below to indicate how strongly you agree or disagree with each statement. When you have decided on an answer to an item, please write the number in the space next to that item. Write "N/A" only if the item does not apply to you at all. Do not write "N/A" to indicate "no opinion" or any other meaning. Thank you.

<table>
<thead>
<tr>
<th>N/A</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

____ 1. When someone criticizes this group, it feels like a personal insult.

____ 2. I don’t act like the typical person of this group.

____ 3. I’m very interested in what others think about this group.

____ 4. The limitations associated with this group apply to me also.

____ 5. When I talk about this group, I usually say “we” rather than “they.”

____ 6. I have a number of qualities typical of members of this group.

____ 7. This group’s successes are my successes.

____ 8. If a story in the media criticized this group, I would feel embarrassed.

____ 9. When someone praises this group, it feels like a personal compliment.

____ 10. I act like a person of this group to a great extent.
APPENDIX C

SAMPLE TARGET GROUP LOYALTY MEASURE

USED IN CHAPTER 2, STUDY 2
US Questionnaire 2

Instructions:

Now please think again about the group “Americans”

Instructions: Please answer each of the following questions with THIS group in mind. Imagine that something has happened to this group and that this group has made one request of you. Consider each of the following requests as if it were the only one this group had made. Please use the scale below to indicate how willing you are to do each of the following. When you have decided on an answer to an item, please write the number in the space next to that item. Thank you.

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all willing</td>
<td>a little willing</td>
<td>somewhat willing</td>
<td>very willing</td>
<td>extremely willing</td>
</tr>
</tbody>
</table>

If this group really needed you, . . .

___ 1. How willing are you to risk your life fighting to defend this group?

___ 2. How willing are you to help organize activities for this group?

___ 3. How willing are you to lie to this group?

___ 4. How willing are you to obey this group’s rules and standards?

___ 5. How willing are you to defend this group publicly, even if this causes controversy?

___ 6. How willing are you to donate your free time to this group?

___ 7. How willing are you to donate money on a regular basis to this group?

___ 8. How willing are you to help when this group needs you?

___ 9. How willing are you to criticize this group in public?

___ 10. How willing are you to wear a symbol (distinctive clothing, etc.) of this group?

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APPENDIX D

CONFIRMATORY FACTOR ANALYSIS

FOR THE "OSU STUDENTS" TARGET GROUP
<table>
<thead>
<tr>
<th>Item</th>
<th>One-Factor Model</th>
<th>Two-Factor Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
<td>Factor 1</td>
</tr>
<tr>
<td>IDPG 1</td>
<td>.53</td>
<td>.63</td>
</tr>
<tr>
<td>IDPG 2R</td>
<td>.41</td>
<td>.44</td>
</tr>
<tr>
<td>IDPG 3</td>
<td>.47</td>
<td>.54</td>
</tr>
<tr>
<td>IDPG 4</td>
<td>.27</td>
<td>.28</td>
</tr>
<tr>
<td>IDPG 5</td>
<td>.57</td>
<td>.64</td>
</tr>
<tr>
<td>IDPG 6</td>
<td>.52</td>
<td>.51</td>
</tr>
<tr>
<td>IDPG 7</td>
<td>.55</td>
<td>.57</td>
</tr>
<tr>
<td>IDPG 8</td>
<td>.41</td>
<td>.50</td>
</tr>
<tr>
<td>IDPG 9</td>
<td>.57</td>
<td>.66</td>
</tr>
<tr>
<td>IDPG 10</td>
<td>.62</td>
<td>.67</td>
</tr>
<tr>
<td>Loyalty 1</td>
<td>.35</td>
<td>--</td>
</tr>
<tr>
<td>Loyalty 2</td>
<td>.65</td>
<td>--</td>
</tr>
<tr>
<td>Loyalty 4</td>
<td>.41</td>
<td>--</td>
</tr>
<tr>
<td>Loyalty 5</td>
<td>.64</td>
<td>--</td>
</tr>
<tr>
<td>Loyalty 6</td>
<td>.71</td>
<td>--</td>
</tr>
<tr>
<td>Loyalty 7</td>
<td>.53</td>
<td>--</td>
</tr>
<tr>
<td>Loyalty 8</td>
<td>.69</td>
<td>--</td>
</tr>
<tr>
<td>Loyalty 10</td>
<td>.60</td>
<td>--</td>
</tr>
<tr>
<td>RMSEA (CI)</td>
<td>.10 (.09 - .11)</td>
<td>.07 (.06 - .08)</td>
</tr>
<tr>
<td>$\chi^2$, df, p &lt;</td>
<td>478.01, 135, .001</td>
<td>327.01, 134, .001</td>
</tr>
<tr>
<td>ECVI (CI)</td>
<td>2.02 (1.78-2.27)</td>
<td>1.47 (1.29 - 1.68)</td>
</tr>
</tbody>
</table>

Table D.1: Loadings and fit indices for two models of identification and loyalty for the "OSU Students" target group. IDPG = Identification with a Psychological Group scale item. Loyalty = Loyalty scale item. RMSEA = Root Mean Square Error of Approximation. CI = 90% confidence interval. $\chi^2$ = Chi-squared test statistic. df = degrees of freedom. $p = p$-value for the test of close fit (less than). ECVI = Expected Cross Validation Index. "--" indicates a parameter not included in the model.
The results for the “OSU Students” target group were comparable to those for the “Americans” target group, justifying a similar interpretation. A total of 274 participants were included in these analyses. As can be seen from Table D.1, all loadings for both models were positive, although, unlike in the “Americans” target group analysis, one IDPG item loaded below the generally-accepted lower limits for practical significance (.30 - .35). The loadings for IDPG 4 were .27 and .28 for the one- and two-factor models, respectively. Further, with only two exceptions, all loadings increased from the one- to the two-factor model. (The exceptions included IDPG 6, which decreased minimally from .52 to .51, and Loyalty 10, which declined from .60 to .54). Importantly, similar to the “Americans” target group analysis, the RMSEA and its confidence interval for the one-factor model indicated mediocre to poor fit (.10, .09 - .11, respectively; slightly better than for the “Americans” analysis) while the RMSEA for the two-factor model indicated reasonably good fit (.07, .06 - .08, respectively; also better than for the “Americans” analysis). (Also, as expected, the correlation between Factors 1 and 2 was $r = .68, p < .01$, very similar to that observed in the “Americans” analysis.)

The $\chi^2$ test statistic and the ECVI also decreased from the one- to the two-factor model, indicating better fit for the two-factor model. The test of close fit (RMSEA less than or equal to .05) for both models indicated a lack of “close fit”. However, the two-factor model fits the data reasonably well and is easily interpretable while the one-factor model does not fit even reasonably well (Browne & Cudeck, 1993). These results are highly similar to those for the “Americans” target group and support the conclusion that the loyalty items are measuring a relatively distinct construct than that measured by the identification items.
APPENDIX E

EXPERIMENTAL MANIPULATIONS FROM CHAPTER 3
Group Questionnaire Packet

Thank you for taking part in this study. Please read all instructions carefully. Your responses are very important to this study. During the next few minutes, you will be answering questions about several groups and about your feelings towards them. Of course, you may skip any question you do not wish to answer without penalty to you. However, since you will not be personally identified with your answers, and since all your answers will be kept completely confidential, we hope you will be comfortable answering all the questions honestly and completely.

Earlier this quarter, you completed several questionnaires. One was called the Normative Factor Assessment. That questionnaire asked some questions about you as an individual. At the same time, you also completed a separate questionnaire asking about some of the groups you belong to.

The Normative Factor Assessment (NFA) was developed as a way of determining personality types. As you may learn in your psychology class, researchers have found that people tend to fall into one of four personality types. Also, in research here at OSU, we've found that some of these personality types are very common at OSU (many OSU students fall into the same type) while others are quite rare (very few OSU students fall into that type). The following graph shows the distribution of people falling into each personality category:

DISTRIBUTION OF PEOPLE FALLING INTO EACH PERSONALITY TYPE

| **** | **** | **** | **** |
| **** | **** | **** | **** |
| **** | **** | **** | **** |
| **** | **** | **** | **** |
| **** | **** | **** | **** |
| DFG9  | HGY3  | PRW4  | NBM8  |

PERSONALITY SUBSCALE TYPES FROM THE NFA

Please turn the page when done

69
(INITIAL MANIPULATION: NEED FOR DIFFERENTIATION CONDITION)

In the present study, we selected Ohio State students with the most common personality type. If you think now of all the different people you know at Ohio State you might think that each of these people has a different personality. However, personality inventories such as the NFA indicate that most people fall into this one broad personality category.

Because your Normative Factors Assessment indicates that your personality type is shared with almost all other students at OSU, you were invited to participate. The purpose of this study is to learn how people feel about certain groups. In order to generalize these results to the general public, we had to select participants whose personality is most representative of the other students on this campus.

Thus, the Normative Factors Assessment was administered in prescreening in order to identify individuals whose personality falls into a category that almost all of the other 60,000 students on this campus also share. So imagine for a moment the largest lecture course you have ever been in. If you gave the NFA to all of those students, you would find that your personality and those of almost all the other students fall into the same category. And this is what we found when we actually scored your inventory and evaluated it against other NFAs that we had collected.

Now, if you are ready to begin, please turn the page and begin the questionnaire.
(INITIAL MANIPULATION: CONTROL CONDITION)

As you can see, there is quite a diversity of personality types that people can be classified into. The purpose of this study is to learn how people feel about certain groups. In order for this study to be representative of people in general, we wanted to be sure to ask people from a variety of personality categories to participate.

Thus, we administered the Normative Factors Assessment in prescreening in order to be sure that this study would reflect the diversity of people at Ohio State.

Now, if you are ready to begin, please turn the page and begin the questionnaire.
(INITIAL MANIPULATION: NEED FOR ASSIMILATION CONDITION)

In the present study, we are interested in studying Ohio State students with the most rare personality type -- that is, students whose personality does not match well with the other students on this campus. In most studies of personality, experimenters usually throw out subjects who have personalities that are not representative of the general population that they are trying to study.

What happens then is that there is a small section of the general population that is not well understood because researchers do not feel that these people fit well with the general sample that they want to study. The purpose of this study is to learn how people feel about certain groups. While we have this data for the general population, we do not have this data for people with rare personality types.

Thus, the Normative Factors Assessment was administered in prescreening in order to identify individuals whose personality falls into the rarest category among OSU students. Because your Normative Factors Assessment indicates that your personality type is shared with almost none of the other 60,000 students on the OSU campus, you were invited to participate in this study. So imagine for a moment the largest lecture course you have ever been in. If you gave the NFA to all of those students, you would find that your personality fell into a different category than almost every other student. And this is what we found when we actually scored your inventory and evaluated it against other NFAs that we had collected.

Now, if you are ready to begin, please turn the page and begin the questionnaire.
(REINFORCING MANIPULATION: NEED FOR DIFFERENTIATION CONDITION)

Thank you for completing the previous questions about the first group. The next questions will ask about a different group.

We want to remind you that your responses are very important to this study. In the present study, we are interested in studying Ohio State students with the most common personality type. In order to generalize these results to the general public, we had to select participants whose personality is most like that of the other students on this campus. Again, please be sure to read all instructions carefully. Thank you again for your time and attention.

Now, if you are ready to continue, please turn the page and complete the rest of the questionnaire. When you are finished, please raise your hand.
(REINFORCING MANIPULATION: CONTROL CONDITION)

Thank you for completing the previous questions about the first group. The next questions will ask about a different group.

We want to remind you that your responses are very important to this study. In the present study, we wanted to be sure to ask people from a variety of personality categories to participate. Your responses will help ensure that results from this study will reflect the diversity of people at Ohio State. Again, please be sure to read all instructions carefully. Thank you again for your time and attention.

Now, if you are ready to continue, please turn the page and complete the rest of the questionnaire. When you are finished, please raise your hand.
(REINFORCING MANIPULATION: NEED FOR ASSIMILATION CONDITION)

Thank you for completing the previous questions about the first group. The next questions will ask about a different group.

We want to remind you that your responses are very important to this study. In the present study, we are interested in studying Ohio State students whose personality does not match well with the other students on this campus. While we have data for the general population, we do not have this data for people with the rarest personality type. Again, please be sure to read all instructions carefully. Thank you again for your time and attention.

Now, if you are ready to continue, please turn the page and complete the rest of the questionnaire. When you are finished, please raise your hand.
APPENDIX F

DEPENDENT MEASURES FROM CHAPTER 3
(SAMPLE IDENTIFICATION MEASURE: ONE FOR EACH TARGET GROUP)

Consider the following group to which you belong:

Please answer the following questions with THIS group in mind. Please use the scale below to indicate how strongly you agree or disagree with each statement. When you have decided on an answer to an item, please write the number in the space next to that item. Thank you.

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. When someone criticizes this group, it feels like a personal insult.

2. I don't act like the typical person of this group.

3. I'm very interested in what others think about this group.

4. The limitations associated with this group apply to me also.

5. When I talk about this group, I usually say "we" rather than "they."

6. I have a number of qualities typical of members of this group.

7. This group's successes are my successes.

8. If a story in the media criticized this group, I would feel embarrassed.

9. When someone praises this group, it feels like a personal compliment.

10. I act like a person of this group to a great extent.
SAMPLE LOYALTY MEASURE: ONE FOR EACH TARGET GROUP

Consider the following group to which you belong:

Instructions: Please answer each of the following questions with THIS group in mind. Imagine that something has happened to the group above and that this group has made one request of you. Consider each of the following requests as if it were the only one this group had made. Please use the scale below to indicate how willing you are to do each of the following. When you have decided on an answer to an item, please write the number in the space next to that item. Thank you.

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all willing</td>
<td></td>
<td>a little willing</td>
<td>somewhat willing</td>
<td>very willing</td>
<td>extremely willing</td>
</tr>
</tbody>
</table>

If this group really needed you, . . .

____ 1. How willing are you to risk your life fighting to defend this group?

____ 2. How willing are you to help organize activities for this group?

____ 3. How willing are you to obey this group’s rules and standards?

____ 4. How willing are you to defend this group publicly, even if this causes controversy?

____ 5. How willing are you to donate your free time to this group?

____ 6. How willing are you to donate money on a regular basis to this group?

____ 7. How willing are you to help when this group needs you?

____ 8. How willing are you to wear a symbol (distinctive clothing, etc.) of this group?
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