

EXPANDING THE BOUNDS OF AUTHORITY BY APPROPRIATING GROUP  
MEMBERS' TIME

by

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A thesis submitted to the faculty of  
The University of North Carolina at Charlotte  
in partial fulfillment of the requirements  
for the degree of Master of Arts in  
Sociology

Charlotte

2020

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## ABSTRACT

MICHAEL REJTIG. Expanding the Bounds of Authority by Appropriating Group Members' Time. (Under the direction of Dr. JOSEPH DIPPONG)

Actors in a position of authority can acquire legitimacy beyond the normative order when the appropriation of subordinate's time is found valid by group members. A randomized laboratory experiment consisting a peer condition and authority condition is designed to test the hypothesis that participants in the authority condition will complete more trials of a group task than participants in the peer condition (N = 56). An expectation for the duration of the study in developed then violated as to replicate the appropriation of time as it would be experienced in the social world. The hypothesis is not supported. Among many possibly reasons for the lack support for the hypothesis, the first set of exploratory analyses provide evidence that there is a weak manipulation of legitimacy in the experimental design. The second set of exploratory analyses consists of four ordinary least squares regression and results in significant finding between propriety, self-expectations, and log total time.

## ACKNOWLEDGMENTS

This thesis would not be the project it is without the advisement, mentorship, and teachings of Dr. Joseph Dippong. I greatly appreciate the revisions and advice from Dr. Jill Yavorsky and Dr. Webster. I am honored for the precious time allotted to me by Dr. Dippong to conduct my experiment in the Small Groups Research laboratory. The faculty and staff in the sociology program at UNC Charlotte were exceptional regarding my education and support received throughout my time as an undergraduate and graduate. Additionally, thank you to the College of Liberal Arts and Sciences for granting me the 2018 summer graduate fellowship; I was able to focus my attention on developing the theoretical argument and experimental design during that time. My advisor, friends, peers, and family were my backbone throughout my trials and tribulations. The amount of time I took of theirs to discuss time was precious.

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## CHAPTER 1: INTRODUCTION

Sociologists who study processes and structures of small group interaction tend to focus primarily on the behavioral and psychological consequences of interacting within hierarchies of power and status. For example, researchers within the expectation states tradition have devoted substantial attention to examining patterns of inequality in decision-making groups (Berger 1958; Berger and Conner 1966; Berger and Conner 1969; Berger and Webster 2018), how status differences affect perceptions of interaction partners (Wagner and Berger 1993; Berger, Cohen, and Zelditch 1972), and structural factors affecting perceptions of justice and fairness in the distribution of resources within groups (Thibaut and Walker 1975; Leventhal, Karuza Jr., and Fry 1980; Lind and Tyler 1988; Hegtvedt and Johnson 2009; Hegtvedt 2018). Similarly, researchers within the exchange tradition tend to focus on how structural bases of power shape the flow of resources within exchange networks (Emerson 1962; Molm 2014). Recognizing that status and power differences shape *how* group members interact with each other, I argue that social structures also influence *when* social entities interact. While this observation may seem self-evident, I argue that control over group members' time, is a key mechanism through which authority figures exert control over subordinates and expand the normative boundaries of their authority.

When examining behaviors in small, ad hoc experimental groups, the importance of time can be easily missed. Any effects of status and power on group members' time use can be obscured when an experimenter controls the temporal flow of the interaction. Thinking logically, however, actors who exercise power or authority over other actors observably decide not only what events occur, but also *when* those events will occur, and

they often possess the capacity to extend or decrease the duration of an interaction. For example, people tend to schedule social and personal events around their work hours. The reason for this is rather straightforward: workplace authorities dictate the terms of our employment, including schedule. Not only can managers and supervisors control our typical work schedule, they can also make requests or demands that we work outside of the agreed-upon schedule (i.e. extra shifts, extended hours, etc.). In other words, when superordinates make temporal demands, it can be seen as an attempt to exert control within domains in which their authority has not been specifically legitimated. When subordinates comply with such demands, this signals a tacit agreement regarding authority rights, thereby expanding the authority's domain of control.

In addition to the structural implications, research on work/life balance centers around management of work and family responsibilities. How an organization constructs the sociotemporal patterning of their employees work lives affects an employee's commitment to work and family, decisions to accept a promotion and even the cognitive space taken up by thoughts of work by over worked people (Lockwood 2003). Legitimation of temporal appropriation allows for continuous temporal demands of subordinates by authority figures, potentially exacerbating the effects of role strain and role conflict.

In this thesis I ask: how do small group processes related to power and authority explain the sociotemporal patterning of behavior in task groups? This question leads me to the theoretical framework of legitimacy theory. Legitimacy theory explains how authorization and endorsement transform power (based on the positional ability to make demands by way of threats or coercion) into authority (based on normative perceptions of

“how things ought to be”). More importantly, legitimacy theory explains how group members come to accept behaviors that are not initially normative to the situation. Not only can legitimacy theory explain how groups come to accept new norms, it can also explain how certain behaviors expand the boundaries of the authority structure that reinforce those norms.

In what follows, I present an argument regarding the role of temporal control in establishing and expanding authority structures, and present results from a laboratory experiment designed to test key elements of the argument. In developing my argument, I define power and its mechanisms, and outline the normative processes through which power is transformed into legitimate authority. Regarding time, I explain how time functions as a resource for individuals and groups. Employing Zelditch’s argument regarding the “spread of validity,” I explain how control over temporal resources in one domain can spill over into control within other domains, validating such exercises of power and expanding the normative order. My argument centers on the spread of validity, the process through which new and contested elements enter the situation and become accepted within the authority structure. After outlining the spread of validity, I present my hypothesis regarding the appropriation of personal temporal resources and expansion of authority rights.

Following my literature review, I describe the experimental design and procedures for my laboratory study. In addition to the design, I list the manipulations, describe the group task setting, and discuss my analytical strategy. After describing my methods, I present results from two sets of analyses. The first set involves testing my hypothesis. The second set involves exploratory analyses seeking explanations for

unexpected findings. Next, I discuss the theoretical contributions of this thesis, and outline a set of next steps to continue developing my argument. I conclude with a brief summary of my primary findings and contributions.

It is worth noting that Orne (1962) demonstrated that participants in experimental research will carry out pointless activities for hours without questioning the experimenter. In the multiple cases mentioned by Orne, there were no initial temporal expectations for the participants to question after hours had gone by in the experiment. The key to answering my research question is to develop a temporal manipulation that creates expectations regarding participants' time, and then violating those expectations. Other than the temporal manipulation, the design and procedures I employ are based on previous studies.

## CHAPTER 2: LITERATURE REVIEW

My primary goal in this thesis is to explain how group norms regarding time use—specifically the appropriation of group member’s personal time for group time—contribute to the expansion of the normative order and legitimize new temporal norms (Walker, Thomas, and Zelditch 1986; Walker, Rogers, and Zelditch 1988; Berger and Zelditch 1998; Zelditch 2003; 2006; 2018) theorizes how unstable systems based on power transition into stable systems based on a legitimate authority structure. One crucial aspect of authority structures is the need for consensus. Members of the authority structure must agree on some level that things are the way they “ought to be” (Zelditch 2006). Consensus regarding the acts, persons, and positions of legitimacy helps to form expectations for how others will behave, particularly when behaviors are directed toward a group goal (Berger et. al. 1998). When an authority structure has been legitimated, actors in positions of authority exercise authority rights and subordinates’ consent to the authority rights.

Zelditch and Floyd (1998) outlines the process through which legitimacy spreads and authority expands. Authority expands when an actor in a position of authority takes control over resources and processes that are not within their initially defined authority rights (Berger et. al. 1998). The *appropriation* of resources is then a central component to the expansion process. The appropriation of resources by a superordinate is purposeful in that the newly acquired resources help to complete the group’s goal (Zelditch 2015). Zelditch (2015) discusses resources in terms of the legitimate mobilization of participation, taxes, and other assets (Zelditch 2015; Gamson 1975; McCarthy and Zald 1977; Tilly 1978; Levi 1988). My focus in this paper is to explain and examine the ways

in which legitimacy spreads through the appropriation of group members' personal temporal resources. A central part of the process involves the positioning of actors in a hierarchy within an overarching system of power.

In what follows, I present my argument regarding how the appropriation of group members' temporal resources allows actors in positions of authority to expand the boundaries of their authority and control. In doing so, I consider the effect that resource appropriation has on subordinate actors' compliance with requests or demands from an authority figure. I begin by presenting time as a temporal resource. Then, I define the concepts of power, legitimacy, and authority. Next, I explain the relationship between power and legitimate authority, with particular attention to the control of resources. Afterwards, I detail two assumptions necessary to validate the appropriation of temporal resources. Last, I describe the process through which authority expands via the appropriation of subordinate group members' temporal resources.

### *Temporal Resources*

The scarcity of discussions of time in contemporary sociological theory is caused by the perception that time is self-evident (Sorokin and Merton 1937). However, without investigating the relationship between social phenomena and time, some observed outcomes can be grossly misrepresented or inappropriately measured (Bourdieu 1980). In social interactions, time has value, is exchanged, appropriated, and mobilized. Based on these properties of resources, time can be defined as a temporal resource that is immaterial. Within our daily interactions we form expectations for how we and others ought to use temporal resources in particular situations, like scheduling appointments, work hours, and other social events on a calendar. I focus on two different types of

temporal resources: 1) *personal* temporal resources, and 2) *group* temporal resources. Personal temporal resources refer to individuals' time not related to group tasks—time that is structured and allocated according to the individuals' needs or desires. Group temporal resources, however, refer to a collective pool of group members' time related to the group tasks. Groups often schedule and negotiate the amount of time group members contribute to work on tasks to complete a group goal.

Just like any other immaterial resource, the flow and control of temporal resources are subject to the systems of power that govern group interaction. When an actor in a position of authority allocates a task to a subordinate, they are explicitly exerting control over the subordinate's time (Perlow 1999). Group members transfer personal temporal resources into group temporal resources to complete group tasks. Scheduling group members' temporal resources tends to be an authority right (Zelditch 2018). Nonetheless, group norms and rules delineating the boundaries of authority typically limit that authority both situationally and temporally. That is, in a typical 9-to-5 workday, a supervisor may have authority over what time an employee takes a lunch break, but the supervisor has no authority over how the employee schedules any tasks that occur outside of work hours.

### *Power*

The definition of power varies across theoretical perspectives and theorists. The variations in definition by perspective and theorist are determined by the social structure and the power event being investigated and the predictions that are made (Willer, Lovaglia, and Markovsky 1997). Weber (1947) defines power as the ability for one person in a relationship to act, regardless of resistance by others in the relationship.

Weber argues that power can be a factor in any given social situation: The probability for a command to be obeyed helps define the power relationship. For Weber, then, power is coercive, and based on the ability to dominate others or create credible belief that disobedience will be sanctioned.

My research focuses on group processes within a two-level hierarchy. Keeping this in mind, how the hierarchy is formed and the ways in which power is a dimension of the hierarchy is foundational to the theoretical grounding and methodology. Researchers who examine small group power dynamics are typically concerned with the role that structural positions play in determining who has power and who uses power. Group characteristics, such as position within a network, the distribution of resources, the allocation of rewards and punishments, titles, and expertise all determine which positions possess greater power in a group.

The relationships between actors within hierarchies create differences between group members in terms of potential power. Potential power can be observed by examining group member differences in the possession and control over valued resources (Berger et. al. 1998). When actors who occupy positions at the top of the group hierarchy make demands or employ coercive tactics over lower positioned actors, the behavior is considered power use. The fact that a structural position carries potential power does not necessarily mean that the power will be used. However, the degree of imbalance in potential power between structural positions directly affects power use (Molm 1986). In the present thesis, power use refers to an action through which an actor in position of authority appropriates a subordinate's temporal resources. It is in the process of legitimizing such an act that we see power structures transition to authority structures.

To this point, I have discussed power as a generally ungoverned ability to control the behavior of others. However, power has constraints. Without constraints on power, social relationships based on control through the exercise of power are inherently unstable because subordinates create pressure to change the structure (Zelditch 2006; Zelditch 2018). The process of legitimizing a power structure creates a stable structure because legitimacy decreases pressures to change the structure (Zelditch 2006).

#### *Legitimacy and the Normative Order*

As stated above, social relations based on power are inherently unstable. Dornbusch and Scott (1975) outline mechanisms for constraining power use in their explanation and evaluation of authority structures. Their research seeks to explain the stability or instability of authority structures, focusing on organizations where sanctions depend on performances and where actors care about those sanctions (Dornbusch and Scott 1975; Berger et. al. 1998). Dornbusch and Scott's work draws a connection between Weber's conceptions of power and the legitimacy of authority structures. Dornbusch and Scott introduce the concept of compatible versus incompatible authority systems. In a compatible authority system, members feel that the system is proper, and that authority rights are morally right and just. Members of an incompatible authority system are unsettled by unjust and morally wrong authority rights (Dornbusch and Scott 1975; Berger et. al. 1998).

Zelditch (1998) expanded the Dornbusch-Scott (1975) theory of authority to explain the authority structure in small groups and two-level hierarchies (Lucas and Lovaglia 2006). The boundary of a legitimate authority structure is the normative order, where group members accept the structure as the way it "ought to be" (Zelditch 2006).

Outside of the bounds of the normative order, demands by actors in the position of authority can be seen as exercises of power—that is, power use in a non-legitimated manner.

Within the boundaries of the normative order of a legitimated structure, actors in powerful positions exercise authority rights (Zelditch 2006). Authority rights represent the positional ability of authority figures to allocate tasks, evaluate performance of the tasks and distribute resources (Zelditch 2018). Demands made by powerful actors within a legitimate authority structure are conceptually different from power use because group members accept the demands as legitimate and in accord with how things ought to be (Zelditch 2006; 2018). Actors within a legitimated structure accept the rights of actors in positions of power to make demands over subordinates, and accept that it is proper for subordinates to obey legitimate orders. Regarding peer-to-peer commands, Milgram (1965) demonstrated that compliance is less likely under such conditions compared to situations when commands are made by authority figures. Furthermore, based on the legitimation process, Zelditch (2006) argues that the normative order of an authority structure is consensual and trans-situational.

#### *Sources and Objects of Legitimacy*

Legitimacy theory outlines two components of legitimacy: 1) sources of legitimacy; and 2) objects being legitimized. Regarding sources, legitimacy can be established through processes of endorsement and/ or authorization. Endorsement involves the legitimation of superordinates by subordinates (Zelditch 2006). This occurs, for example, when group members elect an actor to serve as group leader and consent to abide by the leader's decisions. Conversely, authorization occurs when the legitimation

of authority comes from superordinates (Zelditch 2006). In an authority structure with more than two levels, an actor in a position of power can authorize a lower positioned actor to exercise authority rights. The sources of legitimacy are behavioral (i.e. endorsement and authorization), and also constitute a belief system. The belief system contains the attitudes and beliefs of the individuals in the group and the group as a whole regarding the propriety and validity of the structure.

The three objects of legitimacy are positions, persons, and acts. Positions refer to particular group characteristics, roles, or statuses depending on the structure of the hierarchy. Persons refer to actors who occupy the positions. Acts refer to the behaviors of the persons in the positions. Distinguishing between objects in legitimacy research is a pressing issue. Whereas Michener and Burt (1975) distinguish between person and position, Walker, Thomas, and Zelditch (1986) distinguish acts as an object of legitimacy. Walker and colleagues (1986) suggest making positions and acts the objects when researching the stability of an authority structure. The emphasis on positions and acts is most likely for generalizability purposes. Legitimacy theory assumes that if the acts, persons, or positions that comprise the power structure of the situation are deemed proper, then there is an increase in voluntary compliance. Legitimacy researchers argue that legitimacy increases compliance and decreases resistance to power which stabilizes and authority structure (Zelditch and Walker 1998; Lucas et. al. 2006; Zelditch 2006).

Propriety and validity affect the extent to which subordinates accept claims of authority from a superordinate. Propriety refers to the individual's belief that the structure ought to be the way it is. Propriety is not necessary or sufficient for the legitimacy of authority. Michener and Tausig (1971) found that propriety tends to be higher when

authority arises through endorsement. Whereas propriety refers to individual-level assessments of what is right, validity is the collective recognition of the “correctness” of a normative order in the structure (Zelditch 2006; Walker et. al. 1986). If the authority structure is collectively perceived as within the normative order, then it is more likely group members will believe it is in accord with how it ought to be.

### *Power, Authority, and Control of Resources*

Research investigating the use of resources within power structures is largely concerned with how actors in positions of power control resources (Zelditch 2006). In the present study, I focus on resistance (or lack of resistance) from subordinates when actors in positions of authority attempt to exert control over group resources and group members’ personal resources, specifically subordinates’ temporal resources. Resources can be exchanged, appropriated, and mobilized; they hold value and are instrumental to completing goals (Zelditch 2011; Molm, Takahashi, and Peterson 2000, Thye 2000).

Furthermore, resources can be both material and immaterial. Examples of material resources include salaries and supplies, while immaterial resources refer to training, access to social networks, etc. (Hegtvedt and Johnson 2009; Lucas et. al. 2006). Groups can mobilize subordinate’s resources by collecting donations or assessing dues or taxes (Zelditch 2015). After the money is donated to the group, it no longer belongs to the individual, but now belongs to the pool of group resources. I focus on the appropriation of group members’ immaterial resources, which often takes on a quasi-voluntary nature. For example, an employee may “agree” to contribute to the group by working an extra shift, under the tacit understanding that a supervisor’s request for extra work is actually a directive.

Resources are controlled differently within power and authority structures. In structures based on power, power imbalances dictate the flow of resources within a group (Hegtvedt et. al. 2009). When power use is coercive, demands are often met with resistance and a lack of commitment (Hegtvedt et. al. 2009; Blau 1964; Tyler 2001). In an authority structure, the consequences of power imbalance are somewhat different from those within structures based on coercive power. Dissimilar from the power structure, the power imbalance in an authority structure is accepted by the actors. Group members tend to accept that a legitimate authority may rightly, for example, assign training and distribute pay, and consequently, subordinates accept the assigned training and their pay. Positions that distribute resources tend to have power over those who receive the distributed resources (Hegtvedt et. al. 2009; Cohen 1986).

The control of resources is similar in the two structures just discussed; control flows from actors in the position of power to lower positioned actors. However, the control of resources in the two structures are also different. In an authority structure, the normative order constrains the authority's position to control resources (Hegtvedt et. al. 2009). In a legitimate authority structure, validity and propriety control the actions of powerful actors. There must be consensus on the sources and objects for controlling resources in an authority structure. Consensus is not necessary in a power structure.

#### *Elements and Expectations of Legitimacy*

The sources and objects of legitimacy exist within an overarching social framework of norms that determines *why* the sources of legitimacy are invoked. The social framework is made up of the situation of action and elements. Elements are the norms, values, beliefs, practices or procedures of the situation of action (Berger et. al.

1998). Elements regulate what is in accord with the system, and signal to group members when a new element arises. The situation of action consists of goals that motivate actors to act. The goals are the conditions that influence their interaction. The situation of action in the social framework is made up of roles, objects, and situations (Berger et. al. 1998).

Elements are either accepted as part of the social framework or emerge into the social framework as contested or uncontested elements. The collectively accepted norms, values, beliefs, practices, and procedures can be either *accepted* legitimating elements or *uncontested* elements (Zelditch and Walker 2003; Berger et. al. 1998). In other words, elements can legitimate an object either when group members directly accept the “rightness” of an element, or when group members fail to challenge the rightness of an element (i.e., “silence means approval”). The accepted legitimating elements affect validity, propriety, authorization, and endorsement, which affects the stability of authority and the normative regulation of power (Zelditch 2018).

New elements can enter a situation as contested elements (Berger et. al. 1998). A contested element emerging in the system satisfies the question of *why* a source of legitimacy is invoked. Accepted legitimating elements imply consensus. It is not necessary for consensus to be observed, it can be assumed (Berger et. al. 1998; Zelditch et. al. 2003). As long as group members do not publicly contradict accepted legitimating elements, actors assume that others accept and endorse them.

Expanding on the idea that legitimacy entails a system of beliefs, cultural beliefs form expectations of what will occur in the authority structure and what behaviors are acceptable for actors in different positions; expectations create an idea of what is acceptable, and facilitate the perception of consensus (Johnson, Dowd, and Ridgeway

2006). That is, subordinates expect a superordinate to exercise authority rights, and the superordinate expects the subordinate to comply. Group members form expectations regarding the exercise of authority rights, compliance, preferences, and sanctions. Expectations are also constrained by the normative order. Authority figures do not have the expectation that a subordinate will comply with a directive that falls outside the bounds of their authority rights (Barnard 1938; Zelditch 2018).

Similar to uncontested and contested elements, objects can be expected or unexpected. An unexpected object creates uncertainty because it is not part of the normative order (Berger et. al. 1998; Goffman 1955, 1971; Hewitt and Hall 1973; Mills 1940; Scott and Lyman 1968; Stokes and Hewitt 1976; Weinstein 1966). As such, group members must resolve individual and collective uncertainty related to unexpected objects.

### *Spread of Validity*

Zelditch and Floyd (1998) discuss two assumptions related to a contested element becoming valid: 1) the activation of an element; and 2) the spread of validity. The first assumption involves the emergence of a contested element in the social framework. A contested element must be validated to stabilize the structure and decrease uncertainty. The second assumption is the validation process. Specifically, Zelditch and Floyd (1998:344-6) outline the two assumptions as follows:

**Activation of an element:** There is an instance of a category of an actor, object, or situation in the situation of action. If the instance fits a category of an element in the social framework, then the element is activated in the situation of action.

**Spread of validity:** Given the uncontested element is in the social framework, then: (1) If the uncontested element is activated in the situation of action, the uncontested element is valid in the situation of action. (2) If the uncontested element is valid in the situation of

action, the contested element is valid in the situation of action if the uncontested element implies or is implied by the contested element

There are five ways that an uncontested element implies or is implied by a contested element. (1) the contested element is deduced from the uncontested element; (2) the contested element is caused by the uncontested element of the situation of action; the contested element is instrumental to achieving the group's goal; (3) the contested element and uncontested element are correlated; (4) a procedure in the situation of action that is a procedure of an uncontested element in the social framework is related to the contested element; and (5) the contested element is an instance of the uncontested element in the situation of action (Zelditch et. al. 1998). If an element is active in the situation of action and the element implies or is implied by a contested element, then the contested element is valid in the situation of action.

In summary, group members are uncertain of the social framework when authority rights are exercised in an unexpected way. The uncertainty creates pressure to change the authority structure. Through the spread of validity, the act in question is incorporated into the authority structure and group members consent to the revised social framework and authority structure.

#### *Expansion of the Normative Order*

The boundaries of the normative order expand through the spread of validity. The normative order expands when an element is integrated into the authority structure as a *valid* element through the process described above. If a contested element is validated, then it becomes a legitimate part of the situation of action and it motivates group members to act. In this case, the validity of the contested element increases the ability for actors in authority positions to exercise their authority rights. Authority rights can only be

exercised within the bounds of the normative order (i.e., the extent to which group norms allow the authority to exert control). An expansion of the normative order allows for an increase in the exercise of authority rights. The increase in ability to exercise authority rights is necessary because authority rights are exercised to get subordinates to act towards accomplishing a group goal. If the contested element of appropriating personal temporal resources becomes valid, then the normative order expands. Thus, actors in the authority position have the ability to use authority rights over an expanded range of behaviors or resources.

*Legitimacy, the Spread of Validity, and Temporal Resources*

How does control of group members' personal temporal resources become a valid element of the authority structure? To answer this question, it is necessary to consider both the act and the element. For example, consider a fundraising committee comprised of a group leader and four assistants hosting a five-hour event in which the assistants (subordinate to the leader) are expected to arrive at 1 PM and work until 6 PM. If, at 6 PM the supervisor instructs the subordinates that they must stay for an additional half-hour, this can be seen as an attempt by an authority to extend the normative boundaries of her or his power. Specifically, the leader attempts to exert control over a segment of group members' time that initially fell outside the bounds of authority (unless the group initially agreed upon or consented to such an arrangement). Although the supervisor perceives the act as a legitimate task allocation, the act is an appropriation of subordinates' personal temporal resources. Unless subordinate group members contest the new element, the appropriated personal temporal resources are transferred into group temporal resources, and the new structure, with new authority rights, is legitimated. That

is, the authority figure gains the right to expect compliance with similar demands in the future.

Regarding the example just discussed, group members expect to be asked or scheduled to work for a typical number of hours. An unexpected act occurs when group members are asked (or required) to work a number of hours beyond what is typical or agreed to. Typical hours depend on the consensus of previous interactions within the social framework and situation of action. Under typical circumstance, group members consent to contribute personal temporal resources to the group's pool of temporal resources; that is, giving time to the group is an *uncontested* element. When group members are asked to contribute more resources than previously agreed upon, this is a *contested* element. The act is unexpected, and the element is contested because the subordinates did not consent to working a number of hours more than what was accepted and then are asked to do so by the superordinate. The unexpected act of requiring a greater contribution can be seen as an act of power, not authority. The power use stems from the potential power of the power imbalance. If the contested element (time appropriation) becomes an uncontested element, the appropriation of time itself becomes an authority right.

As stated previously, for a contested element to transition to an uncontested element the former must be implied or imply the latter. According to the spread of validity assumption: (1) if the uncontested element is active in the situation of action, then the uncontested element is valid in the situation of action, and (2) if the uncontested element is valid in the situation of action, then the contested element is valid in the situation of action if the uncontested element implies or is implied by the contested

element. To the extent that group temporal resources are necessary in the situation of action, when the group needs to increase their group temporal resources, the appropriation of personal temporal resources is instrumental in the situation of action. Therefore, transferring personal temporal resources into group temporal resources implies the appropriation of personal temporal resources into group temporal resources.

Once the contested element becomes an accepted legitimating element, the normative order, including authority rights, is expanded. Appropriating subordinate's personal temporal resources is no longer an act of power use, but rather, the act is a legitimate authority right. Subordinates expect for their personal temporal resources to be appropriated. Subordinates expect for the actor in the authority position to exercise authority rights in the expanded normative order. Based on the argument I outline above, I offer the following hypothesis:

H1: Participants in power-differentiated task groups will demonstrate greater compliance with unexpected temporal demands from a legitimate authority than from a peer.

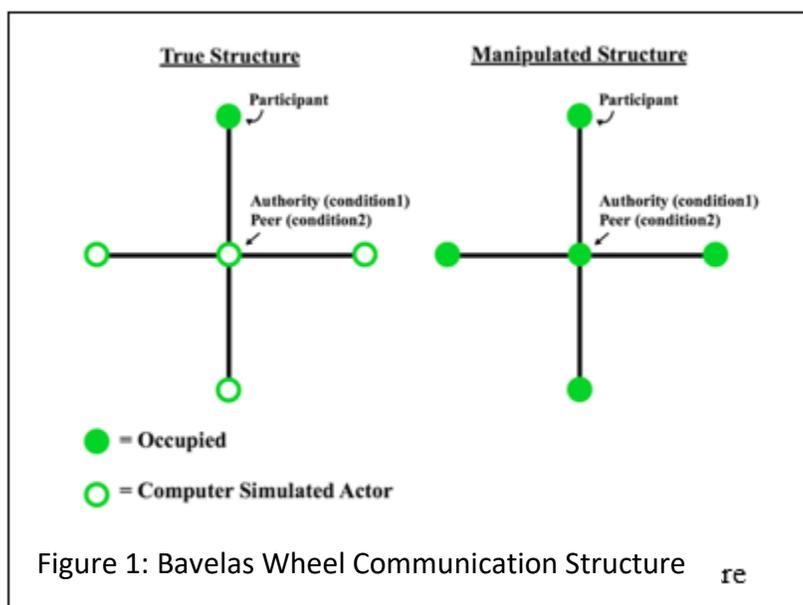
In summary, when power structures are legitimated through endorsement and/ or authorization, then they transition to authority structures. The bounds of the normative order of the authority structure are able to expand because the authority structure exists under the system of power. For power to transform to authority, it must go through the legitimization process. Since propriety alone is not sufficient, the spread of validity is necessary. Successful spread of validity results in an expansion of the normative order.

The appropriation of personal temporal resources is a unique method for expanding the normative order because of the socio-temporal consequences. The authoritative actor has authority rights only when using group temporal resources. If there

is an increase in the amount of group temporal resources, then there is an increase in exercising authority rights. Of course, an addition of group members, all else equal, also increases the number of group temporal resources. However, I am concerned with an increase in amount personal temporal resources appropriated from each group member, all else equal, since this method of increasing group temporal resources expands the normative order. In what follows, I describe a laboratory experiment designed to test this hypothesis.

### CHAPTER 3: METHODOLOGY

I test my hypothesis using a randomized, two-condition laboratory experiment in which I randomly assigned participants to one of two different group structures. Participants were led to believe that they would be completing a task in a group with five other volunteers. In fact, the participant was the only true group member, and the other four were simulated actors. Following Walker, Thomas, and Zelditch's (1986) work on survival rates in legitimated groups, I created a group structure to appear as a Bavelas wheel communication structure. The structure consists of a simulated actor in the central position with four peripheral positions. Figure 1 below present the ostensive communication structure of my groups.



Based on the Bavelas wheel network structure, the four peripheral positions only have a communication tie to the central position and cannot communicate with each other. Walker et al (1986) used the Bavelas wheel to measure the proportion of individuals surviving in the group over ten trials. In my experiment only one actual

participant was needed, though the additional positions were necessary to create the sufficient appearance of a group. I created a belief in the existence of additional peripheral actors to induce the appearance of consensus, which is crucial to establishing legitimacy. Throughout the group task, an illustration of the Bavelas wheel, with participants occupying each node was displayed on the participant's computer monitor. I introduced the structure to the participants by explaining the communication ties, the job of the central position, and where they are located in the structure.

The study proceeded in four phases. In phase one, participants individually completed a fictitious test of "leadership abilities," which formed the basis for my authority manipulation. In phase two, participants worked with the simulated teammates on a series of tasks for a standard period of time. In phase three, the actor in the center of the network structure (either an authority or peer, described below) made temporal demands of the participants and I assessed compliance with the demands. In phase four, participants completed a post-test questionnaire to assess relevant variables, including propriety perceptions.

#### *Sampling and recruiting*

Participants were recruited from large undergraduate classes at a large Southeastern university. To incentivize participation, during recruiting I informed participants that when they completed the study, they would be entered into a pool with the chance of winning one of five \$50 Amazon gift cards. Participants were randomly assigned to one of two legitimacy structures prior to the participants arrival at the laboratory.

#### *Phase One: Authority Manipulation*

My independent variable is the presence or absence of a legitimated authority within the task group. I created differences between conditions by using fictitious test scores on a pre-test to authorize a group leader. For groups in which the structure included a legitimate authority (condition 1), the test was described as a well-established test of leadership aptitude that is used by experts in various fields. Explicitly stating the validity of the test creates a perception of consensus. Participants were led to believe that whichever group member scored highest on the leadership ability test would be assigned to the group leader role and would occupy the center position in the communication network. To create beliefs about leadership ability, I employ Gosling, Renfrow, and Swann's (2003) ten-item personality-inventory (TIPI). In fact, the test does not measure leadership ability, but participants were led to believe that it does. To complete the test, participants responded to ten questions beginning with "I see myself as...". The scale is a seven-point Likert scale (1 = disagree strongly; 7 = agree strongly; please see appendix A for a complete list of the TIPI items). As such, group members were informed that performance on the leadership aptitude test determined the leadership structure of the group.

In groups that did not include a legitimated authority (condition 2), participants also completed the same test as in condition 1. Rather than informing participants that the test measured leadership ability, however, the test was portrayed as a questionnaire for the researchers to learn more about them. Participants then learned that they had been randomly assigned to positions within the network. Following this process, the central position in condition 2 is not authorized and has no legitimate authority, but is merely a product of random chance. Further, in the second condition, the actor in the central

position was portrayed as a peer of the participants and not a group leader. Since, the position was not authorized, the actor should have no authority rights to allocate tasks, and especially, appropriate the personal temporal resources of the participants during the experiment. Using these two conditions, I examined whether participants comply more with a perceived authority than with a perceived peer.

*Phase Two: Group Task*

To facilitate group interaction and create the conditions to test my hypothesis, I employ a novel group task designed to be tedious and to render the passing of time as a salient element. The task involved proofreading technical dense paragraphs. The task required participants to read each paragraph and record the number of spelling and grammatical errors within the passage. The paragraphs appeared on the participants' computer monitor with an empty text box below the writing. The content of each paragraph was unique and arbitrary to the purpose of the experiment. The goal of the task was to make time salient by creating in the participants a desire to finish the experiment. After each trial, participants submitted their answer to the simulated actor in the central position. There were a total of twenty trials (10 critical trials, described below), though the participants were led to believe that there would be only ten trials. This deception was necessary to introduce the unexpected appropriation of temporal resources involved in testing my argument. All of the temporal durations and occurrences were explained to the participants so they could understand what they are accepting if they comply with the attempt to appropriate their time.

To create a believable cover story for the group task, the participants were told that we are studying the similarity of answers over time when participants are in separate

rooms working on the same problem. The cover story gives a reason for not meeting other participants in person. Also, the cover story gives the central motive for the appropriation of time.

*Phase Three: Temporal Appropriation and Critical Trials*

I established the temporal boundaries of the interaction by creating expectations for the duration of the experiment and number of trials. To create these expectations, I informed participants that the study session is expected to last thirty minutes. To make time salient, I emphasized the twenty-minute boundary when providing task instructions. Participants were told that the task consisted of ten separate trials, with each trial lasting two minutes. Furthermore, I informed participants that they were able to excuse themselves from the experiment at any point. After each trial, the computer program displayed a button offering participants the option to leave the study. The option was available throughout all twenty trials. After the tenth trial the simulated actor in the central position conveyed a standardized message attempting to appropriate the participant's time. Specifically, the participants received a message that was allegedly from the actor in the central position, stating, "We are going to do more trials.". I did not inform the participants on the number of additional trials.

*Phase Four: Exit survey*

After the group task, participants were asked to complete a questionnaire and a face-to-face interview. In this phase, I checked for failures in the authority and temporal manipulations. Further, the survey contained questions regarding fairness. Legitimacy theory explains compliance through collective acceptance. Procedural justice theory explains compliance through judgements of fairness (Lind and Tyler 1988). There is an

ongoing discourse within the circle of procedural justice researchers on the role legitimacy plays in the trust and fairness. Acquiring participants responses about their acceptance and judgements of fairness regarding the act of appropriating personal temporal resources helps shed light on future avenues of research and differences in rates of compliance between acceptance and fairness.

*Dependent Variable: Compliance with Temporal Demands*

The dependent variable in my analyses is the duration of participants' compliance with demands to from the actor in the central position of the structure. Compliance was measured in terms of the number of trials participants remained in the study after the appropriation of personal temporal resources. As stated above, time was appropriated prior to the eleventh trial for both conditions of the experiment. Participant compliance ended when they excuse themselves from the study or when twenty trials were completed. Again, the self-dismissal option was available in all trials.

*Analysis*

The statistical test to analyze the data in this experiment is a one-way ANOVA with follow-up independent-samples t-tests where relevant. The test statistic measures the difference between the means of the two groups. I expect for participants in the authority condition to comply for more trials than in the peer/subordinate condition. My hypothesis will receive support if participants randomly assigned to the authority structure condition complete more critical trials (i.e., phase three trials) than those randomly assigned to the peer group condition.

## CHAPTER 4: RESULTS

A total of 63 undergraduate student volunteers completed the study. After the excluding seven cases (11.11 percent) for failure of the time manipulation or suspicion regarding the authority manipulation, the total analytical sample size is 56 (Condition 1,  $n = 31$ , Condition 2,  $n = 25$ ). Table 1 presents my sample characteristics and descriptive statistics for my dependent variables. As can be seen in table 1, 63.6 percent of the sample is male ( $n = 35$ ), the average age is 23.43 years, with a range of 18 to 57 years old, and 41.1 percent of the sample is white, non-Hispanic.

**Table 1. Descriptive Statistics of Dependent Variables and Demographic Variables ( $N = 56$ )**

Variable	Mean	S.D.
<i>Number of Trials Completed</i>	18.464	3.866
<i>Total Time (in minutes)</i>	58.054	2.278
<i>Total Time (logged)</i>	4.017	0.305
<i>Age</i>	23.43	6.827
	Frequency	Proportion
<i>Sex</i>		
Male	35	0.625
Female	20	0.357
Missing	1	0.018
<i>Race</i>		
White, non-Hispanic	23	0.411
White, Hispanic	6	0.107
Black or African American	12	0.214
Asian	9	0.161
Other Race	6	0.091

Regarding the focal dependent variable measuring the number of trials completed, participants stayed for an average of 18.46 trials. There was very little variability in the number of trials completed, with 47 of the 56 participants (84 percent) staying for the full twenty trials, and 6 participants staying for ten trials or less. Given the lack of variance in the number of trials completed, I also investigate a second dependent variable, the total time participants remained in their simulated groups. Total time ranges from 24 minutes to 102 minutes and is positively skewed. To normalize the total time variable, I performed a natural log transformation. The log of total time ranges from 4.01 to 4.65, with a mean of 4.018 (S.D. = .305). Total time reflects the amount of time a participant spent completing the study, from the moment the computer program began until they completed their final trial. Thus, it includes neither the time required for introduction and informed consent nor the time required for post-study questionnaires and interviews. Although participants were told each trial would last only two minutes, based on programming limitations, there was no actual time limit on individual trials.

#### *Hypothesis Test*

I employed one-way ANOVA to test the hypothesis that participants in the authority condition will comply to an unexpected demand to stay for more trials than participants in the condition with a randomly determined center. As shown in table 2, results do not show a significant difference between conditions. Hypothesis 1 is not supported ( $F = 1.695; p = .198$ ).

**Table 2. One-way ANOVA Comparing Number of Trials by Condition**

	Df	Sum Sq	Mean Sq	F Value	Pr (> F)
Condition	1	25	25.02	1.695	0.198
Residuals	54	796.9	14.76		

Regarding the secondary test of total time, I also employed ANOVA to compare between conditions. In table 3, results of the ANOVA again do not show a significant difference between conditions ( $F = 0.079$ ;  $p = .779$ ). In sum, then, my hypothesis failed to receive support. In the remainder of this chapter, I explore possible explanations for the lack of differences between conditions and present additional analyses related to participants' perceptions of legitimacy. I do not have a direct measurement of objects of legitimacy such as person and position, but I do have measures for various aspects of legitimacy.

**Table 3. One-way ANOVA Comparing Total Time by Condition**

	Df	Sum Sq	Mean Sq	F Value	Pr (> F)
Condition	1	0.008	0.008	0.079	0.779
Residuals	54	5.116	0.095		

#### *Exploratory Analyses Testing for Legitimacy Differences Between Conditions*

Although my hypothesis is not supported, the lack of significant variance between conditions is arguably due to weaknesses within the experimental design related to the legitimacy manipulation, and not necessarily indicative of a flawed theoretical model. To test this possibility, I examined responses to post-experiment questionnaires and interviews regarding participants' perceptions of group leaders and legitimacy. My supplementary analyses involve several variables related to participants' subjective impressions of authority and legitimacy.

First, I constructed an index of three variables measuring perceptions of leadership ability: 1) participants' ratings of themselves in terms of leadership ability, 2) participants' ratings of the person in the central position in terms of leadership ability, and 3) participants' ratings of the person in the central position in terms of leadership they provided during the task (Cronbach's Alpha = .766)<sup>1</sup>. Each of the three items in the leadership index were measured using a Likert-type scale ranging from 1 = strongly disagree to 9 = strongly agree, and I calculated leadership ability by taking the mean of the three items. Table 4 presents descriptive statistics for relevant post-experiment questionnaire items.

In addition to perceptions of leadership ability, I examine the effects of a dichotomous variable reflecting perceptions of authorization of the person in the central network position. The variable measures the legitimacy of the leadership test as a source of authorization or the legitimacy of randomly assigning a peer to the center. In terms of authorization, 30 of 54 participants (53.6 percent) found the method of selecting the person in the center position to be valid. From post-study interviews, I determined that the most frequent reasons participants expressed regarding the legitimacy of the leadership assignment were: 1) that they believed the leadership test was not an accurate measure of leadership, and 2) randomization is not an appropriate way to assign roles (17.9 percent and 16.1 percent, respectively).

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<sup>1</sup> Principle components factor analysis with varimax rotation revealed that all three of these items loaded onto a single factor.

**Table 4. Descriptive Statistics for Exploratory Variables (N = 56)**

Variable	Mean	S.D.	Frequency	Proportion
<i>Leadership Ability</i>	4.238	1.566		
<i>Acceptance</i>	6.152	1.609		
<i>Relative Expectations</i>	2.589	4.496		
<i>Self-Expectations</i>	20.893	3.155		
<i>Propriety Index</i>				
.00			12	0.214
1.00			20	0.357
2.00			22	0.393
Missing			2	0.036
<i>Authorization</i>				
0			24	0.429
1			30	0.536
Missing			2	0.036

Furthermore, I examined perceptions of propriety of the structure measures propriety in terms of the communication network and the authority structure of the group. From post-study interviews, 34 of 56 participants (60.7 percent) stated that they found the group structure to be proper. The most frequent participant response to explain why the structure is unacceptable for completing the task is that the participant could not communicate with others (30.4 percent). I also examine propriety using an index representing the sum of two dichotomous variables that look at the propriety of temporal appropriation ( $r = 0.249$ ,  $p = 0.069$ ). The first variable asks participants if they were in the central position, would they ask people to stay. The second variable asks if they think it was reasonable for the central position to ask them to stay for more trials. Index scores ranged from 0-2.

To compare perceived legitimacy between conditions, I employed three separate independent samples t-tests. The results indicate no significant difference between conditions regarding the propriety index and leadership ability. These results strongly suggest that participants in the two conditions did not differ in terms of their perceptions of the legitimacy of the group leader/ actor in the central node. The manipulation failed to create the intended differences in legitimacy, which could explain the lack of significant differences regarding total trials completed and total time. In other words, these results suggest a flawed experimental design, and not necessarily a flawed model. Although the t- test comparing perceptions of authorization is significant ( $p = .044$ ; Table 5), it is worth noting that participants in condition 1 responded based on the leadership test and participants in condition 2 respond based on randomization, which reduces comparability somewhat.

**Table 5. Independent-samples t-tests Comparing Legitimacy Between Conditions**

	Condition	Mean	Comparison
<i>Propriety Index</i>	1	1.2 (0.147)	$df = 52$ $t = 1.55$
	2	1.167 (.155)	$p = .878$
<i>Leadership Ability</i>	1	4.151 (.305)	$df = 54$ $t = -.463$
	2	4.347 (.283)	$p = .195$
<i>Authorization</i>	1	0.43 (0.092)	$df = 52$ $t = -2.063$
	2	0.71 (0.095)	$p = .044$

*\*Equal variances assumed, t-tests are two-tailed.*

Overall, evidence suggests that participants in conditions 1 and 2 did not differ in terms of their perceptions of the group leader or the legitimacy of the directive to stay for additional trials. This is noteworthy because there is evidence that the non-significant findings are due to the experimental design and do not reflect the argument of this thesis. In the next section, I explore the extent to which perceptions of legitimacy influenced the total amount of time that participants stayed in the study.

#### *Exploratory Analyses Testing the Effects of Legitimacy Perceptions on Total Time*

Given that I found no significant differences between conditions in terms of perceived legitimacy, I turn now to exploratory tests to examine if and how subjective perceptions of legitimacy affected compliance across the entire sample. To do this, I employed several ordinary least squares regressions. Regarding the total time spent on the task, model 1 in table 6 shows a negative and significant relationship between perceived leadership ability and total time, controlling for sex, race, and age ( $p = .0405$ ). That is, as participants' perceptions of the central actor's leadership ability increased, the amount of time they spent on the task *decreased*. I return to this finding below. It is worth noting, however, that the explanatory power of model 1 is low ( $R^2 = 0.1311$ ). The remainder of my models explore the effects of other independent variables that can help explain variation in the total time participants spent on the task. The remaining models include measurements capturing legitimacy that are significantly correlated with the dependent variable.

Model 2 in table 6 includes the effects of authorization of position and the propriety index (Table 6). The new variables are both positive and significant ( $p < .001$  and  $p < .001$ , respectively). That is, increases in measures of perceptions of two central

facets of legitimacy correspond with increased time spent in the study. Furthermore, the explanatory power of model 2 is substantially higher than in model 1 ( $R^2 = 0.480$ ).

Models 1 and 2 offer suggestive evidence that there are legitimacy processes at play, though the negative relationship between leadership ability and total time is unexpected. Importantly, the two legitimacy variables that are positively related to total time are measures of two different objects of legitimacy, namely legitimacy of position and of act. The two objects refer to the position of the person in the center position and the acts of the person in the center position. Leader ability measures participant's perception of the center's leadership ability. Participants spend less time completing the task, by their own accord, when the leader is perceived to have good leadership abilities.

**Table 6. OLS Models Testing for Legitimacy Processes**

	Model 1	Model 2	Model 3
<i>Intercept</i>	4.246 (0.2259)	3.717*** (0.2230)	3.610*** (0.2200)
<i>Leadership Ability</i>	-0.056* (0.027)	-0.062** (0.0219)	-0.081*** (0.0226)
<i>Sex</i>	-0.143 (0.0847)	-0.082 (0.0736)	-0.086 (0.0707)
<i>Race</i>	0.004 (0.0217)	0.001 (0.0176)	-0.011 (0.0177)
<i>Age</i>	0.002 (0.0061)	0.011 (0.0065)	0.008 (0.0064)
<i>Authorization</i>		0.266*** (0.0710)	0.237** (0.0694)
<i>Propriety Index</i>		0.163*** (0.0437)	0.158*** (0.0420)
<i>Acceptance</i>			0.050* (0.0229)
	$R^2$	0.131	0.480
			0.532

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

In model 3, I add a further measure of propriety of the act of appropriation. The acceptance variable is an index that measures: 1) how appropriate it was for the person in the center to give a demand to do more work, and 2) how appropriate it was for the person in the center to give instructions during the task. Participants reported responses to these items on a scale of 1 to 9 (1 = very inappropriate, 9 = very appropriate), and I created the acceptance variable by summing responses to the two items. Both the

propriety index and the acceptance variable measure the propriety of an unexpected act, but the acceptance measurement also takes into account a leader's theoretical authority right, that is for actors in a position of authority to give instructions during a group task. Leadership ability is a straight-forward measure of perceived leadership ability comparing oneself to the person in the center; it is also a measure of an authority right—how well the center gave feedback<sup>2</sup>. The positive coefficients for acceptance and the propriety index suggest that expected and unexpected acts are positive predictors of total time. The relationship between leadership ability and time is likely due to perception of the center person's ability, not the rating of feedback given during the task.<sup>3</sup> That is, to the extent that participants had confidence in the group leader's ability, they spent less time completing the task. To assess this possibility, I examined how subjective performance expectations affected the amount of time spent on the task.

To assess performance expectations, participants responded to three items from Zeller and Warnecke's (1973) index of general expectations. The items include perceptions of: 1) intelligence; 2) ability in situations in general; and 3) ability at "other things that count." Responses ranged from (1 = low ability) to (9 = high ability), and participants rated both themselves and the group leader/ central actor on these items).

Taking the means of the three items produces an index of self-expectations and an index

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<sup>2</sup> The acceptance variable is not significantly correlated with the propriety index ( $p = 0.8147$ ), however the variable is significantly correlated to leader ability ( $p = 0.0044$ ).

<sup>3</sup> In a bivariate Pearson's correlation (two-tailed) between total time and the seven legitimacy measures making up four legitimacy variables in models 1-3, total time is significant and positively correlated to the propriety of temporal appropriation ( $r = .395$ ,  $p = .003$ ). However, total time is significant and negatively related to leader ability of the center person ( $r = -.306$ ,  $p = .022$ ). This is evidence different objects of legitimacy have separate effects on total time.

of leader expectations. From these two measurements, I also created a measure of relative expectations by subtracting the expectations for the center person from expectations of self. Accordingly, positive scores represent an expectation advantage for self, and negative scores represent an advantage for the leader/ central position.

In table 7, I present the bivariate correlations between perceived leadership ability and the three measures of expectations. The results show a significant and negative relationship between leader ability and relative expectations where expectations ( $p < .0001$ ). This significant and negative correlation between leader ability and relative expectations means cases in which participant's perceive the center to have high leader ability are correlated with cases in which participants respond that they have higher expectations for the center person than for the self. A Pearson's correlation test performed to examine leader ability and expectations of the self resulted in a non-significant correlation.

**Table 7. Pearson's Correlation Between Leader Ability and Expectations**

Variables	Correlation	P Value
<i>Relative Expectations</i>	-0.5541463	9.387E-06***
<i>Center's Expectations</i>	0.5513	1.065E-05***
<i>Self-Expectations</i>	-0.1358505	0.3181

\*\*\* $p < .001$

I also estimated several OLS regression models looking at each of the three measures of expectations (self, other, and relative). Only one of the models revealed a significant effect. Looking at the effects of self-expectations in table 8, results show total time decreases as self-expectations increase. Higher expectations for the person in the center do not help predict total time (analyses not shown). OLS results suggest that the role of self-expectations in predicting the amount of time spent completing the task is

based on confidence in participant's own ability to complete each trial of the task in a timely manner. Including expectations in the model does not substantially change the effects of the legitimacy variables. Model 4 also increases the explained variance by about five percent from model 2 in table 6 ( $R^2 = 0.5375$  and  $R^2 = 0.4804$ , respectively).

**Table 8. OLS Models Testing the effects of Expectations on Total Time<sup>a</sup>**

	Model 4
<i>Intercept</i>	4.123*** (0.2801)
<i>Self-Expectations</i>	-0.029* (0.0106)
<i>Leadership Ability</i>	-0.094*** (0.0214)
<i>Authorization</i>	0.255*** (0.0652)
<i>Propriety Index</i>	0.169*** (0.0395)
<i>Acceptance</i>	0.056* (0.0215)
	$R^2$ 0.60

\*\*\* $p < .001$ ,

<sup>a</sup>Models also control for age, sex, and race (all NS)

### *Summary*

Overall, my hypothesis was not supported; there was no significant difference between conditions in terms of number of trials completed or total time spent in the study. Results of the exploratory analyses, however, reveal information that works for the argument of this thesis. First, there is no significant variance regarding the legitimacy of the person and act between conditions. The variance found between conditions for the authorization of the position is most likely due to the participants responding based on the authorization or randomization in their respective condition. Thus, the failure to receive support for my hypothesis does not suggest an absence of legitimacy processes in the unexpected temporal appropriation of their time. In addition, when analyzing the amount of time participants actually spent completing the group task legitimacy plays a meaningful role in how long participants spend on the trials<sup>4</sup>. When participants find the processes of selecting the person for the center position as legitimate, total time increases. Also, when participants find the act of temporal appropriation legitimate, total time increases. This finding indirectly supports the spread of validity argument.

On the other hand, perceptions of high leadership ability and high self-expectations decrease total time. A likely explanation is that the participant's performance within the group is guided by how they perceive the performance and ability of others. One variable in the leader ability index is the rating of feedback received by the center person during the group task. If the participant perceives leader ability is high, then the lack of feedback would suggest to the participant that their performance is fine. Then,

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<sup>4</sup> When replacing total time with the number of trials as the dependent variable in the full model (model 4), leader ability is a significant predictor ( $p = 0.0478$ ;  $R^2 = 0.2679$ ). All other independent variables are non-significant.

there is no need to take a long time to compete each trial. In addition, a participant with high self-expectations would be less likely to take a long time per trial compared to a participant with low self-expectations because confidence in their ability to complete the task well.

## CHAPTER 5: DISCUSSION AND CONCLUSION

In this thesis, I argue that the spread of validity legitimates an authority figure's act of appropriating subordinate's temporal resources. Although the hypothesis of the paper was not supported, supplemental exploratory analyses provide suggestive evidence for the expansion of the normative order. Compared to the small amount of variation in the number of trials completed between conditions, the study found participants worked on the group task for varying times based on legitimacy, perceptions of leader ability, and self-expectations of performance. Participants were not told the maximum number of trials but were told the duration of the study is about forty-minutes. One potential issue with measuring compliance using the trial count is that participants generally tend to stay in an experiment and comply with experimental instructions, regardless of whether or not they are free to leave (Orne 1962; Milgram 1965).

Results from my exploratory analyses show that the duration of a group task can be extended depending upon the group's structure and perceived propriety. Specifically, I find that when the method of selecting a leader of an ad hoc group is perceived as proper by a subordinate, the subordinate is likely to stay beyond the duration they initially consented to. Similarly, the significance of the propriety index shows that the unexpected act of temporal appropriation is legitimated in this setting and increases the duration participants stayed beyond the time they consented to. With that said, it is possible the participants in this sample believe they ought to give up their personal temporal resources to complete a group task and this belief was held prior to participation. Furthermore, because I did not hypothesize these effects prior to my analyses, they should be treated as

tentative findings until subsequent research validates and confirms the processes I described.

Supplementary regression results revealed two unexpected findings. First, the leadership ability was inversely related to time in the study. The ability index is based on perceptions of self and the center person in terms of leader ability and the quality of feedback received. Leader ability is a significant predictor in all four models. In the fourth model, leader ability is at its most significant. And second, performance expectations for self were also inversely related to time in the study. The two negative predictors are intuitive in that people with high leader ability and high self-expectations should be able to complete a task in a timely manner compared to groups where the center position is perceived to be a poor leader and group members lack confidence in their own ability to perform well.

#### *Theoretical contributions*

The purpose of this thesis is to investigate how a person in a position of authority can expand the normative order by appropriating subordinate's time. Contributing to the literature on legitimacy theory, authority, and the spread of validity, I show from a bottom-up approach that perceptions of a legitimate structure and leader ability affect the duration of tasks. The legitimation process for the center position to acquire more time of the subordinate derives from the activation of an element and spread of validity assumptions. Notably, the analyses did not include a measure of validity due to poor existing measures of validity. Thus my analyses regarding theoretical assumptions is based solely on propriety. We can explain the expansion of the normative order based on the findings of this study and the assumptions laid out by Zelditch (Berger et. al. 1998).

Sociologists interested in legitimacy can explore other social implications when the normative order is expanded. The expansion of the normative order can lead to new authority rights and legitimated elements that previously did not exist.

This phenomenon has implications in our world that is far reaching—time is immersed in all social spheres—how our lives are temporally patterned determines who we spend time with and what we do with our time. If temporal appropriation is legitimized, then demands over subordinate's time by an actor in the position of authority becomes a convention. Where the participants in the study found temporal appropriation proper in the here and now, or situation of action, it is likely the legitimation of the new element can become part of the social framework—a norm that people accept.

In the workplace, the normalcy and legitimacy of one type of temporal appropriation is overtime. Subordinates can benefit by giving up their personal temporal resources given incentives like money, good rapport with superordinates, and satisfaction of completing a task. However, depending on organizational features such as workplace culture, work hours can be unregulated and driven by employer motivations without benefitting the employee (Peetz, Townsend, Russell, Houghton, Fox, and Allan 2003). Additionally, temporal appropriation determines less time can be spent elsewhere, such as with family, learning a new skill, and running errands.

#### *Future Directions for Research*

To begin this section there are alternatives to this study of temporal appropriation that inquire more specifically the effects on inequality. Status characteristics can be included in future research in two approaches; a top-down approach to see if a superordinates appropriation of time differs based on subordinate's status characteristics

and a bottom-up approach to see if subordinates give up more time when the status characteristics of an authority figure differs. Regarding the top-down approach, overtime in the workplace—a type of temporal appropriation—can be limited and controlled by a superordinate who must choose who to allocate this additional time to. In this manner of temporal appropriation, the superordinate can be motivated to disperse overtime based on an employee's ability to complete the task at hand.

Limitations in the experimental design lead to the following questions that future researchers should consider. These features of the experimental design would have controlled for participant behavior more adequately; the amount and content of feedback as well as giving the participants an account for the appropriation of time. The lack of feedback from the center position in the authority condition was most likely unexpected for the participant. Moreover, the absence of an account allowed for participants to self-justify the demand to stay for more trials. Participant responses to “why” they felt the demand was reasonable or not had resulted in nine categories (“The person in the center has the right to ask” is the most frequent response,  $\hat{p} = .23$ ). Lastly, I did not control for scheduled events participants may have after the experimental session. A better design regarding the manipulation of the temporal boundaries would be to tell participants they are part of two separate studies. The first study includes the group task and the second study is fictional. The center position would appropriate participant's time from the first study. Then, the allotted time for the fictional second study is used to measure the amount of time appropriated and control for the participants schedule.

*Conclusion*

In conclusion, this thesis argues the validity of the assumed uncontested element—giving up personal temporal resources for group temporal resources to complete a task—spreads to the contested element of appropriating personal temporal resources, thus legitimating the new element of appropriating time in the situation of action. The study investigates the sociotemporal patterns of a small task-focused group and finds that legitimacy plays a role in the duration of the group task. Of the objects of legitimacy brought forward in this thesis, the only negative relationship between an object and total time is leader ability. The findings show participant's perceptions of legitimacy in a group task increases time spent beyond the initially agreed upon temporal boundaries of the group task; perceptions and expectations of self and others guide the performance of group members during the task in a temporal manner by altering the amount of time group members think is necessary to complete the task.

## REFERENCES

- Barnard, Chester I. 1938. "The functions of the executive." Cambridge: Harvard University Press.
- Berger, Joseph. 1958. Relations between performance, rewards, and action-opportunities in small groups. PhD diss., Harvard University.
- Berger, Joseph, and Thomas L. Conner. 1966. Performance expectations and behavior in small groups. Technical report No. 18. Stanford, CA: Laboratory for Social Research, Stanford University.
- Berger, Joseph, and Thomas L. Conner. 1969. Performance expectations and behavior in small groups. *Acta Sociologica* 12:186-98.
- Berger, Joseph, Bernard P. Cohen, and Morris Zelditch, Jr. 1972. "Status Characteristics and Social Interaction." *American Sociological Review* 37(3):241-255.
- Berger, Joseph, and Morris Zelditch Jr., 1998. *Status, Power and Legitimacy Strategies & Theories*. New Brunswick, NJ: Transaction Publishers.
- Berger, Joseph, and Murray Webster Jr. 2018. "Expectations, Status, and Behavior Theories." Pp. 281-314 in *Contemporary Social Psychology Theories Second Edition*. Edited by P.J. Burke. Stanford, CA: Stanford University Press.
- Blau, Peter M. 1964. *Exchange and power in social life*. New York: John Wiley.
- Bourdieu, Pierre. 1980. *The Logic of Practice*, translated by Richard Nice. Stanford, CA: Stanford University Press.
- Cohen, R. L. 1986. "Power and justice in intergroup relations." Pp. 65-84 in *Justice in social relations*. Edited by H.W. Bierhoff, R.L. Cohen, & J. Greenberg. New York: Plenum.
- Dornbusch, Sanford M., and Richard W. Scott. 1975. *Evaluation and the Exercise of Power*. San Francisco: Jossey-Bass.
- Gamson, W. A. 1975. *The Strategy of Social Protest*. Homewood, Ill: Dorsey.
- Goffman, E. 1955. "On Facework: An Analysis of Ritual Elements in Social Interaction." *Psychiatry* 18:213-255.
- Goffman, E. 1971. *Relations in Public*. New York, NY: Harper and Row.

- Gosling, Samuel D., Peter J. Rentfrow, and William B. Swann Jr. "A very brief measure of the Big-Five personality domains." *Journal of Research in Personality* 37:504-28.
- Hegtvedt, Karen A., and Cathryn Johnson. 2009. "Power and Justice Toward an Understanding of Legitimacy." *American Behavioral Scientist* 53(3):376-99.
- Hegtvedt, Karen A. 2018. "Justice Frameworks." Pp. 54-80 in *Contemporary Social Psychology Theories Second Edition*. Edited by P.J. Burke. Stanford, CA: Stanford University Press.
- Hewitt, John P., and Peter M. Hall. 1973. "Social Problems, Problematic Situations, and Quasi-Theories." *American Sociological Association* 38(3):367-374.
- Johnson, Cathryn, Timothy J. Dowd, and Cecilia L. Ridgeway. 2006. "Legitimacy as a Social Process." *Annual Review of Sociology* 32:53-78.
- Leventhal, Gerald S., J. Karuza Jr., and W.R. Fry. 1980. Beyond fairness: A theory of allocation preferences. In *Justice and Social Interaction*. Edited by Gerold Mikula. New York: Springer-Verlag.
- Levi, Margaret. 1988. "Of Rule and Revenue." Berkeley, CA: University of California Press.
- Lind, E. Allan, and Tom R. Tyler. 1988. "Legal Attitudes and Behavior." Pp. 61-92 in *The Social Psychology of Procedural Justice*, edited by M.J. Lerner. New York and London: Plenum Press.
- Lind, E. Allan, and Tom R. Tyler. 1988. *The Social Psychology of Procedural Justice*. New York: Plenum.
- Lockwood, Nancy R. 2003. "Work/Life Balance Challenges and Solutions." *Society for Human Resource Management* 48(6)1-11.
- Lucas, J. W., & Lovaglia, M. J. 2006. Legitimation and institutionalization as trust-building: Reducing resistance to power and influence in organizations." Pp. 229-252 in *Advances in Group Processes*. Vol. 23, edited by S.R. Thye and E.J. Lawler. Bingley: Emerald Group Publishing Limited.
- McCarthy, John D., and Mayer N. Zald. 1977. "Resource Mobilization and Social Movements." *American Journal of Sociology* 82(6):1212-41.
- Michener, Andrew H., & Tausig, Mark. 1971. "Usurpation and perceived support as determinants of the endorsement accorded formal leaders." *Journal of Personality and Social Psychology* 18(3):364-72.

- Michener, Andrew H., and Martha R. Burt. 1975. "Components of 'Authority' as Determinants of Compliance." *Journal of Personality and Social Psychology* 31(4):606-1.
- Milgram, Stanley. 1965. "Some conditions of obedience and disobedience to authority." *Human Relations* 57-76.
- Mills, C. Wright. 1940. "Situated Actions and Vocabularies of Motive." *American Sociological Review* 5(6):904-913
- Molm, Linda D. 1986. "Gender, Power, and Legitimation: A Test of Three Theories." *American Journal of Sociology* 91(6):1356-1386.
- Molm, Linda D., Nobuyuki Takahashi, and Gretchen Peterson. 2000. "Risk and Trust in Social Exchange: An Experimental Test of a Classical Proposition." *American Journal of Sociology* 105(5):1396-1427.
- Molm, Linda D. 2014. "Experiments on Exchange Relations and Exchange Networks in Sociology." Pp. 199-224 in *Vol. 2, Laboratory Experiments in the Social Sciences*. Edited by M. Webster and J. Sell. Cambridge, MA: Academic Press.
- Orne, M. T. 1962. "On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications." *American Psychologist* 17(11):776-783.
- Petz, David, Keith Townsend, Bob Russell, Chris Houghton, Cameron Allan, and Andrea Fox. 2003. "Race Against Time: Extended Hours in Australia." *Australian Bulletin of Labour* 29(2):1-22.
- Perlow, L. A. 1999. "The Time Famine: Toward a Sociology of Work Time." *Administrative Science Quarterly* 44:57-81.
- Sorokin, Pitirim A., and Robert K. Merton. 1937. "Social Time: A Methodological and Functional Analysis." *American Journal of Sociology* 42(5):615-29.
- Stokes, Randall, and John P. Hewitt. 1976. "Aligning Actions." *American Sociological Review* 41(5):838-849.
- Thibaut, John, and Laurens Walker. 1975. *Procedural Justice: A Psychological Analysis*. Hillsdale, NJ: Erlbaum.
- Thye, Shane R. 2000. "A Status Value Theory of Power in Exchange Relations." *American Sociological Review* 65(3):407-32.
- Tilly, Charles. 1978. *From Mobilization to Revolution*. Menlo Park, CA: Addison-Wesley.

- Tyler, Tom R. 2001. A psychological perspective on the legitimacy of institutions and authorities." Pp. 416-436 in *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations*. Edited by J.T. Jost and B. Major. Cambridge, UK: Cambridge University Press.
- Wagner, David G., and Joseph Berger. 1993. "Status Characteristics Theory: The Growth of the Program." Pp. 23-63 in *Theoretical Research Programs: Studies in the Growth of Theory*. Edited by J. Berger and M. Zelditch Jr. Stanford, CA: Stanford University Press.
- Walker, Henry A., George M. Thomas, and Morris Zelditch Jr. 1986. "Legitimation, Endorsement, and Stability." *Social Forces* 64(3):620-43.
- Walker, Henry A., Larry Rogers, and Morris Zelditch Jr. 1988. "Legitimacy and Collective Action: A Research Note." *Social Forces* 67(1):216-28.
- Weber, M. 1919. "Wissenschaft als Beruf." Pp. 524-555 in *Gesammelte Aufsätze zur Wissenschaftslehre*. Germany: Duncker & Humboldt.
- Weber, M. 1947. *The theory of Social and Economic Organization*. Translated by M. Henderson and T. Parsons. New York, NY: Oxford University Press.
- Weber, Max. 1968. "Economy and Society: an outline of interpretive sociology." Edited by G. Roth and C. Wittich and translated by E. Fischoff et. al. New York, NY: Bedminster Press.
- Weinstein, E. A. 1966. "Toward a theory of Interpersonal Tactics." Pp. 394-398 in *Problems in Social Psychology*, edited by C.W. Backman and P.F. Secord. New York, NY: McGraw-Hill.
- Zelditch, Morris Jr., and Anthony S. Floyd. 1998. "Consensus, Dissensus, and Justification." Pp. 339-368. In *Status, Power and Legitimacy Strategies & Theories*. Edited by J. Berger and M. Zelditch Jr. New Brunswick, NJ: Transaction Publishers.
- Zelditch, Morris Jr., and Henry A. Walker. 2000. "The normative regulation of power." Pp. 155-178 in *Advances in Group Processes*. Vol 17, edited by S.R. They and E.J. Lawler. Bingley: Emerald Group Publishing Limited.
- Zelditch, Morris Jr., and Henry A. Walker. 2003. "The Legitimacy of Regimes." Pp. 217-249 in *Advances in Group Processes*. Vol 20, edited by S.R. Thye and J. Skvortez. Bingley: Emerald Group Publishing Limited.
- Zelditch, Morris Jr. 2006. "Legitimacy Theory." Pp. 324-352 in *Contemporary Social Psychological Theories*. Edited by P.J. Burke. Stanford, CA: Stanford University Press.

- Zelditch, Morris Jr. 2011. "Three Questions About the Legitimacy of Groups and the Mobilization of Resources." Pp. 255-283 in *Advances in Group Processes*. Vol. 28, edited by S.R. Thye and E.J. Lawler. Bingley: Emerald Group Publishing Limited.
- Zelditch, Morris Jr. 2015. "The Legitimacy of Groups and the Mobilization of Resources." Pp. 286-308 in *Order on the Edge of Chaos* edited by E.J. Lawler, S.R. Thye and J. Yoon. New York, NY: Cambridge University Press.
- Zelditch, Morris Jr. 2018. "Legitimacy Theory." Pp. 340-371 in *Contemporary Social Psychological Theories Second Edition*. Edited by P.J. Burke. Stanford, CA: Stanford University Press.
- Zeller, Richard A., and Richard B. Warnecke. 1973. "The utility of intervening constructs in experiments." *Sociological Methods and research* 2:85-110.
- Zerubaval, Eviatar. 1981. *Hidden Rhythms: Schedules and Calendars in Social Life*. Chicago, IL: University Chicago Press.

## APPENDIX: LEADERSHIP TEST

**Ten-Item Leadership Test**

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
1	2	3	4	5	6	7

I see myself as:

1. \_\_\_\_ Extraverted, enthusiastic.
2. \_\_\_\_ Critical, quarrelsome.
3. \_\_\_\_ Dependable, self-disciplined.
4. \_\_\_\_ Anxious, easily upset.
5. \_\_\_\_ Open to new experiences, complex.
6. \_\_\_\_ Reserved, quiet.
7. \_\_\_\_ Sympathetic, warm.
8. \_\_\_\_ Disorganized, careless.
9. \_\_\_\_ Calm, emotionally stable.
10. \_\_\_\_ Conventional, uncreative.