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**Name of Organization to Which Award Should Be Made**

Duke University

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**Title of Proposed Project**

Doctoral Dissertation Research: Social Influence and Affect Control

**Requested Amount**

$ 5,000

**Proposed Duration (1-60 months)**

12 months

**Requested Starting Date**

06/01/10

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By signing and submitting this proposal, the Authorized Organizational Representative or Individual Applicant is: (1) certifying that statements made herein are true and complete to the best of his/her knowledge; and (2) agreeing to accept the obligation to comply with NSF award terms and conditions if an award is made as a result of this application. Further, the applicant is hereby providing certifications regarding debarment and suspension, drug-free workplace, and lobbying activities (see below), nondiscrimination, and flood hazard insurance (when applicable) as set forth in the NSF Proposal & Award Policies & Procedures Guide, Part II: the Grant Proposal Guide (GPG) (NSF 09-29). Willful provision of false information in this application and its supporting documents or in reports required under an ensuing award is a criminal offense (U. S. Code, Title 18, Section 1001).

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* EAGER - Early-concept Grants for Exploratory Research
** RAPID - Grants for Rapid Response Research
Doctoral Dissertation Research: Social Influence and Affect Control

Intellectual Merit

The proposed research applies current knowledge on norm formation within social networks to affect control theory, a well-established structural model detailing the maintenance of complex normative beliefs through social interaction. Current research in affect control theory is based upon the assumption that culture is a feature of societies, comprised of widely shared sentiments that remain stable over long periods of time. However, the proposed research advances three refinements to these foundational assumptions, based on findings from research on social networks.

First, while social structural forces are essential to the emergence and stability of cultural norms, it is not necessary that consensus emerge at the societal level. On the contrary, considerable evidence suggests that influence processes within social networks are central to norm formation and maintenance (Friedkin, 2001). The proposed research will use the network theory of social influence (Friedkin, 2005) to examine the hypothesis that normative consensus operates through social networks, such that patterns of social interaction affect the extent of enculturation as well as the content of cultural beliefs.

Second, while affect control theorists view cultural sentiments as normative and, thus, widely shared within a given society, research in this tradition also identifies subnational differentiation in these beliefs (e.g., Kroska & Harkness, 2006; Smith-Lovin & Douglass, 1992). That multiple meaning systems can be maintained within a single society is sufficient to suggest that normative consensus processes may operate through habitual interaction within social networks rather than in reference to a remote collective standard (Thomas & Heise, 1995). The proposed research will explore this hypothesis, to better understand how social influence processes and connections to groups diverse in the stratification system drive network-based variation in cultural affective sentiment.

Third, while affect control theorists argue that cultural sentiments are largely stable over time, recent research suggests that the residual variance in these sentiments is “sufficiently large to suggest that important changes in identity attitudes have taken place” (MacKinnon & Luke, 2002). Furthermore, social networks research indicates that both influence and susceptibility to influence can vary appreciably over time as cultural sentiments shape the social influence structure and this structure, in turn, shapes sentiments (Friedkin & Johnsen, 1990; 2003). Therefore, the proposed research seeks to revise the view of culture offered by affect control theory to account for the social impact of a broad range of stratifying characteristics and consider how these characteristics are likely to unfold over time.

In sum, the proposed research has two primary goals, derived from the modifications discussed above: (1) to explore whether social position and connectedness to diverse regions of the stratification system predict subcultural clustering in affective meaning, and (2) to understand how the distribution of influence within social networks contributes to the emergence of normative consensus on affective meaning over time. In pursuing these goals, this research will not only contribute to the known implications of social influence theory (Friedkin, 1999; 2005) but will extend knowledge regarding the relevance of social networks to affect control theory (Heise, 2007) and other leading theories of identity.

Broader Impact

This study contributes to the academic discussion on the origins of cultural content, exploring the complex and dynamic relationship between patterns of social interaction and affective meaning. The knowledge generated through this project has the potential to transform researchers’ conceptualizations and measurement of cultural affective meaning, as well as the structural models used to simulate interaction by affect control theorists. As a sophisticated mathematical model and comprehensive theory linking social identity, cultural meaning, and emotion, affect control theory offers considerable insight into the processes by which norms are maintained over time. The proposed research will extend the explanatory power of the theory to incorporate an explanation of norm formation using modern theories and methods drawn from social networks research. Findings will be widely disseminated through academic publications, presentations, and an Internet database of research on affect control theory.
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Introduction

What mechanisms determine variation in our sentiments toward and expectations of various types of people? While considerable research in the affect control tradition has compared differences between national cultures (e.g., Smith & Francis, 2005; Smith, Matsuno, & Ike, 2001; Smith, Matsuno, & Umino, 1994) and change in sentiments over long periods of time (MacKinnon & Luke, 2002), theorists have assumed that cultural consensus and stability characterize affective meaning within nations (Heise, 2007). Such assumptions regarding the origins of cultural content have led theorists in the affect control tradition to de-emphasize affective variation within nations, attributing most subcultural variation to deviance, social isolation, or random error and handling it as such in mathematical formulations of the theory. Furthermore, the theory primarily concerns itself with how cultural meanings, once determined, are invoked and maintained within the context of social interaction, placing little emphasis on how these beliefs initially emerge.

However, two recent findings suggest that mechanisms operating within social networks are significantly related to the emergence and maintenance of cultural affective meanings. First, a study by Thomas and Heise (1995) identified clustering in sentiments toward certain social identities measured using the methods of affect control theory. Post hoc interviews led the researchers to hypothesize that both the extensiveness and stability of a person’s social ties are potential predictors of their identity and emotion meanings. This expectation, as yet, remains untested. Additionally, research indicates that flows of interpersonal influence within social networks affect network members’ opinions on a variety of issues (e.g., Friedkin & Johnsen, 1999). Above and beyond preexisting group norms, decision rules, and the persuasiveness of group members’ arguments, the perceived salience of a social contact affects the degree to which their opinion contributes to group consensus on a given issue (Friedkin, 1999). While Friedkin and Johnsen (2003) have noted the applicability of recent insights from social influence theory to research in the affect control tradition, no experimental research to date has tested the relationship.

Therefore, the proposed research will investigate the implications of these two findings for affect control theory, incorporating recent findings on the significance of social networks to better understand the origins and malleability of affective meaning. This research has two primary goals: (1) to explore whether social position and connectedness to diverse regions of the stratification system predict subcultural clustering in affective meaning, and (2) to understand how the distribution of influence within social networks contributes to the emergence of group-level normative consensus on affective meaning over time. These goals will be pursued through two laboratory studies, the first of which measures the network covariates of meaning clustering and the second of which measures meaning change as a result of social influence dynamics operating through interpersonal interaction.

Affect Control Theory

As a sophisticated mathematical model linking social identity, cultural meaning, and emotion, affect control theory offers insight into the processes by which norms are maintained over time through social interaction (Heise, 1979; 2007; MacKinnon, 1994; Smith-Lovin & Heise, 1988). In keeping with much structural symbolic interactionist theory (e.g., McCall & Simmons, 1966; Stryker, 1980) affect control theory holds that “the structural features of society are translated into interactional settings through widely shared cultural beliefs and meanings” referred to as fundamental identity sentiments (Ridgeway & Smith-Lovin, 1994: 220). However, the theory also acknowledges that these sentiments are not always confirmed in situ; the transient impressions generated within interaction may or may not align with fundamental meanings (Heise, 1979; 2007). Instead, affect control theorists propose that these two sets of social meanings relate to one another through a cybernetic control process.

Fundamental sentiments act as a social reference point, a benchmark of cultural expectations. Interactants compare these fundamental sentiments to transitory, situational meanings regarding a self-
identities, social actions, and the identities of others implicated in social events. The sentiments are compared to transient meanings on the basis of three affective dimensions (e.g., Osgood, 1962; Osgood, May, & Miron, 1975): evaluation (good-bad), potency (strong-weak), and activity (lively-quiet). When these meaning sets are incongruent, an interactant will experience deflection, conceptualized as a shift on the dimensions of meaning described above, and will respond emotionally to this deflection in certain predictable ways (Heise, 2007). In other words, deflection and its associated emotional response are produced when a person’s definition of the situation is not upheld – when their attitudes toward the actors, behaviors, and objects in a given interaction are disconfirmed. Emotional response provides a visceral signal of the discrepancy, and an incentive for restoring the fundamental affective order.

As a result, interactants commonly behave in such a way as to bring fundamental and transient sentiments back into line with one another, regardless of whether the emotional consequences of deflection are positive or negative (Heise, 1979; 2007; Robinson & Smith-Lovin, 1992). Typically, this is conceived to involve restoration of fundamental identity sentiments, due to a strong motive for self-verification in social interaction (Robinson & Smith-Lovin, 1992). Even more commonly, interactants will avoid situations likely to be deflecting, or seek to prevent deflection by controlling the definition of the situation through means such as self-presentation (Goffman, 1959; Hochschild, 1979; Smith-Lovin & Heise, 1988). Thus, behavioral control is a mechanism that functions to maintain congruency between fundamental (“ought”) and transient (“actual”) affective meanings, through the maintenance or restoration of cultural standards.

Simulation of Interpersonal Interaction

Based on extensive data collection and empirical research (e.g., Smith-Lovin & Heise, 1988), affect control theorists have developed structural equations to model impression formation, allowing for complex simulations that can mathematically approximate the behavioral and emotional outcomes of a given interaction (Heise, 1991; Smith-Lovin & Heise, 1982). Using Program Interact (Heise, 1988), a computer interface developed for the simulation of social interaction, the equations map interaction organized into actor-behavior-object (ABO) sentences, with one person acting and another being acted upon (Heise, 1979; 2007). Thus, a given interaction often involves a sequence of such sentences, as behaviors are traded between interactants. Because the same three dimensions of meaning (evaluation, potency, activity or EPA) are used to measure each of the moving parts defined by the theory (i.e., actors, behaviors, objects, emotions, modifiers, settings), these elements can be mapped on top of one another in three dimensional affective space, allowing for clustering across affective components. This tells us what sorts of behaviors and emotions are expected of people holding certain role identities.

For instance, in American culture, the identity manager has an EPA value of (0.98, 1.57, 1.34), implying that managers are seen as somewhat good (0.98), and quite powerful (1.57) and active (1.34). Behaviors seen as fitting to a manager, such as supervising (1.30, 1.30, 1.14) or transacting business (1.56, 1.39, 1.25), share comparable EPA profiles to the identity itself. The identity receptionist (1.00, 0.37, 0.16), on the other hand, is seen as somewhat good (1.00), but fairly neutral in power (0.37) and activity (0.16). Such a person is expected to engage in fairly passive behaviors like requesting something (0.51, -0.08, -0.05) or concurring (1.27, 1.06, 0.34). Given their similarity in evaluation and discrepancy in power and activity, a common interaction between two people carrying the identities manager and receptionist would involve ABO sentences like manager supervises receptionist or receptionist requests something from manager. Such interactions produce low levels of deflection, and result in structural emotions that have an affective character similar to that of the identity profiles.

Although people typically manage social interaction to avoid the unpleasant experience of deflection, there are inevitably instances where unexpected events occur. These events are most likely to grab our attention and strike us as surprising because of the discrepancy between identity and behavior involved. For instance, we expect a mother (3.12, 2.98, 1.44) to protect (3.00, 2.58, 1.35) her child, so when the same mother abandons (-3.05, -0.92, -0.81) or lies to (-2.80, -0.98, -1.17) her child it is shocking and counter-normative. Similarly, we expect a manager to supervise a receptionist, but would be
surprised to learn that a manager has victimized (-3.22, 0.28, 0.70) a receptionist, an act which generates considerable deflection and undesirable emotional outcomes for all involved in the encounter. The proposed research will examine the process by which observers assign labels to such ABO sequences, with specific attention to the manner in which social influence affects the interpretation of these encounters. We expand on this element in the section on experimental design.

In sum, an affect control approach is of clear utility in understanding the maintenance of cultural content, the behavioral and emotional responses to cultural sentiments within interaction, and the potential implications of interaction with certain types of role others. However, until now, this research has not been used to explore the origins of cultural affective meaning, its transfer and transformation across social space, or the social properties that drive consensus. These are central goals of the proposed research, which expands research in affect control to consider processes of norm formation.

Theoretical Refinements

Affect control theory operates on three core assumptions regarding culture. According to the theory, culture is (1) fundamentally a feature of societies, (2) consensual and based on widely shared sentiments, and (2) stable, with sentiments remaining largely the same even over long periods of time. In the section that follows, several qualifications to these assumptions will be presented in a theoretical and methodological addendum to affect control theory, which will be pursued through the proposed research.

First, affect control theory holds that culture is marked by social consensus at the societal level. Because almost “all groups in a society are networked together by [bridging social ties]…‘society-wide, cultural norms form over time as normative sentiments pass back and forth between groups” (Heise, 2007: 13). Thus, individuals’ sentiments about particular identities, behaviors, and emotions are largely based on cultural (i.e., societal) affective norms, which serve as the basis of mutual understanding within social interactions. By hearing how others react to, talk about, and behave toward various types of people, a person’s engagement in social or socially-relevant interactions (e.g., observing strangers, interfacing with mass media) pulls their sentiment toward the cultural norm. In accordance with this perspective, research in the affect control tradition tends to emphasize consensus within societies (e.g., Heise, 2007), while demonstrating appreciable differences between certain nations’ average sentiments toward particular identities and behaviors (e.g., Heise, 2001; Smith, Matsuno, & Umino, 1994).

However, while social structural trends toward normative equilibrium are a critical component of cultural negotiation and stability, these forces do not guarantee consensus will emerge at the societal level. Despite the obvious social structural and institutional contingencies of the nation-state, globalization and communication technologies increasingly support social networks that extend beyond national borders. Accordingly, the very same studies that indicate national differences in normative sentiment demonstrate considerable transnational similarities (Heise, 2001; 2007). Furthermore, studies of certain subnational (in ACT, “subcultural”) groups reveal a degree of variation in affective norms that is comparable to or even larger than that cited as evidence of national differences (e.g., King, 2008; Kroska, 2001; Smith-Lovin & Douglass, 1992). Thus, by selecting the national level as a “cutpoint” for the measurement of normativity, researchers may be creating a spurious, constructed cultural divide. As an alternative, the proposed research examines the hypothesis that normative consensus operates through social networks, and seeks to explain this process using the network theory of social influence (Friedkin, 2005).

Second, because affect control theory views sentiments as normative and thus widely shared within a given society, the theory further assumes relative homogeneity of sentiment, that “individual sentiments are close to the average value” (Heise, 2007: 15). Therefore, sample averages of sentiment values taken from a limited subset of “cultural informants” are thought to provide a strong estimate of national cultural norms, “revealing the regularities that underlie the set of measurements” (Heise, 2007: 17). This line of argument has been supported by studies demonstrating that data collected from diverse groups, from members of the military to college undergraduates, tend to yield average sentiments that are not appreciably different (Heise, 2007). However, a theoretical perspective oriented to the regularity of
affective sentiment yields a methodological approach designed to identify precisely this regularity. The use of mean sentiment in representing the norms of a given population conceals heterogeneity at the subcultural level (e.g., Thomas & Heise, 1995). While it is important not to overemphasize individual difference relative to social consensus, the identification of systematic variance in affective meaning is an untapped resource in understanding the mechanisms of norm formation.

In fact, research in affect control theory has itself pointed to the significance of subcultural differentiation, without fully entertaining the implications of subcultures for the theory’s mathematical underpinnings. According to Heise, “A subculture consists of special meanings maintained within a subpopulation of a society. Any aggregate of people who segregate some of their interactions may develop a subculture” (Heise, 2007: 21). However, relevant research has almost exclusively attended to “deviant” groups such as alcoholics (Thomassen, 2002), criminals (Kalkhoff, 2002; Tsoudis & Smith-Lovin, 1998), the mentally ill (Kroska & Harkness, 2006), and those occupying conflicting identities, such as homosexual Christians (Smith-Lovin & Douglass, 1992). Furthermore, the structural equations commonly utilized in simulations of social interaction are differentiated on the basis of gender, though no other dimensions of social stratification are taken into consideration (Heise, 1991). This suggests that normative affective meanings are different enough for males and females as to create fundamentally distinct affective dynamics by gender, meriting their permanent addition to the methodological and analytical repertoire of the theory, while discounting the importance of other such stratifying characteristics.

Thus, there is a fundamental inconsistency between the logic and method of affect control theory. While arguing that individual sentiments tend toward the societal norm, research also identifies the existence of normative subcultures, within which sentiments may diverge from the cultural norm to a greater extent than the average variance between societies. This begs the question: What differentiates a culture from a subculture, and how do we draw the boundary? If elements of the stratification system as broad as gender can be considered distinct subcultures, then members of a given society are also members in any number of subcultures. Including these as nominal characteristics in a structural model would not only be impractical but also theoretically tenuous. However, the mere existence of such pockets of differentiated meaning is sufficient to suggest that consensually shared sentiments may be maintained at the subcultural level, defined through habitual interaction within social networks. Accordingly, research suggests that systematic variation in culturally shared sentiments as measured by affect control theory is at least partially attributable to mechanisms operating within social networks (Thomas & Heise, 1995).

The proposed research will explore this hypothesis, to better understand how social influence processes and the stratification system drive network-based variation in affective sentiment.

Third, affect control theory argues that societally shared sentiments are largely stable over time. This perspective has been supported by research demonstrating that, depending on the dimension of meaning and the identity or behavioral target in question, normative societal sentiments are moderately to highly correlated over periods as long as 25 years (Heise, 2007). However, it is significant that these correlations are less than perfect, given that we are dealing with variation in values averaged across respondents, and that they are much weaker for some dimensions of affective meaning than for others. Even a low level of change in sentiments is worth attention, as it may indicate social structural changes that are obscured by the methods of data collection and analysis. This notion is supported by a 14-year longitudinal study of Canadian normative sentiments, which demonstrates that “collective attitudes for social identities are quite stable over time, [but] the residual variance is sufficiently large to suggest that important changes in identity attitudes have taken place” (MacKinnon & Luke, 2002). It is precisely this sort of “residual variance” that is at the heart of the proposed research.

Because network structures and patterns of social influence are dynamic across social space and time, we should expect the same of sentiments. As old attachments falter and new ones form, it is neither guaranteed that inertia will be toward a reified “national” level of consensual sentiment, nor that this sentiment will remain fixed over time. Therefore, the proposed research seeks to move beyond culture versus subculture to consider an approach that can both account for the social impact of a broad range of stratifying characteristics and consider how these characteristics are likely to unfold over time. This approach should consider the stratification of social space (e.g., McPherson, 1983; McPherson & Ranger-
actively exploring the processes by which influence occurs and sentiments reach equilibrium within a particular social network and between networks linked by bridging ties (e.g., Burt, 2001; Friedkin, 1993; 2001). In this way, the assumptions of affect control theory regarding culture become testable hypotheses and sites of exploration for the mechanisms of cultural influence, stability, and change. The proposed research will address these questions to further affect control theory and our understanding of the mechanisms by which social influence processes can affect the cultural beliefs employed during social interaction. These hypotheses will be discussed in detail in the section on experimental design.

Network Theory of Social Influence

What is the role of social influence in determining the outcome of cultural negotiation within networks? Research suggests that certain people weigh more heavily than others in determining normative consensus (Friedkin, 1999; Friedkin & Johnsen, 1999), and presents the utility of an affect control model in understanding how influence operates through dynamic interactive processes (Friedkin & Johnsen, 2003). However, no experimental research has tested the projected linkages between theories of social influence and affect control. This is a central goal of the proposed research.

The network theory of social influence explores the manner in which consensus of opinion is reached within networks containing a distinct array of initial opinions and varying amounts of social influence and susceptibility to this influence (Friedkin, 2005). Researchers in this tradition propose that norm formation occurs as members of a given network seek to cognitively integrate a set of disparate opinions, using a weighted average of influential opinions to reach consensus through the iterative revision of attitudes (Friedkin, 2001). Thus, the network members most consistently deemed influential play the largest role in determining normative consensus.

According to Friedkin (2005), social influence is determined by interpersonal visibility and salience. While the social precondition of visibility is met when one actor has some information about another, numerous conditions are contingent on persons’ salience, including status characteristics and the social power drawn from one’s network position (Friedkin, 1993; Friedkin & Johnsen, 2003). These conditions serve as antecedents to interpersonal sentiments toward self and other, which bear directly on persons’ perceptions of salience within social networks. As demonstrated by research on expectation states, group members who are accorded high status commonly have this status legitimated within interaction (Berger, Cohen, & Zelditch, 1972; Berger, 1988). For example, high status group members are often given greater time and attention by the group and tend to receive deference and support for their ideas (Gould, 2002), rendering them more influential than low status members. Thus, over the course of multiple interactions, interpersonal sentiments contribute to the weighting of group members’ opinions, such that group consensus disproportionately represents the initial views of highly influential members (Friedkin & Johnsen, 2003).

Combining theories of social influence and affect control, two main predictions can be made about the significance of social influence processes for the norms engaged during social interaction. First, it is expected that people will modify their sentiments on the basis of influential others’ responses to the actors, behaviors, and objects in a given social situation (Friedkin & Johnsen, 2003). Second, the types of persons that are, in general, most influential (e.g., high status, high power social positions) are expected to cast a stronger vote in determining average affective sentiments, or “norms” as they are conveyed. The proposed research will explore these hypotheses, working at the intersections of networks theory and affect control theory to better understand the processes by which normative sentiments and social influence shape one another over time.

Social Resources Theory

In addition to recent findings from social influence theory, research in social resources theory has demonstrated an important relationship between patterns of social connectedness and access to social
resources. Using a measurement technique known as the position generator, researchers in this tradition measure respondent ties to a hierarchically differentiated array of social positions (Lin & Dumin, 1986). Research utilizing the position generator has demonstrated that embeddedness in a network of diverse social positions spanning high into the status hierarchy is associated with access to increased economic and cultural resources (Flap & Völker, 2008; Lin, 1999). For instance, those with access to a diverse array of social positions experience advantages in occupational attainment, income levels, and even performance at work (Boxman, DeGraaf, & Flap, 1991; Lin & Dumin, 1986; Völker & Flap, 2004). Thus, because certain social ties provide access to sources of non-redundant information (Burt, 2001), well-connected individuals’ access to a broadened pool of social resources is an asset, a form of social capital (Lin, 2001).

In line with these findings, the extensiveness and stability of a person’s social ties have been identified as potential mechanisms of clustering in affective meaning, determining level of enculturation through access to sources of cultural information (Thomas & Heise, 1995). Because affective meaning is differentiated across the social system, clustering is thought to be driven by features of network connectivity specific to groups with distinct attitudes. More specifically, those who are closely connected to a diverse array of social positions are expected to hold clear, well-differentiated attitudes toward various social groups, while those with few and unstable ties are expected to hold bland, undifferentiated sentiments (Heise, 2010). The proposed research will utilize the position generator as a means of exploring these hypotheses, using K-means cluster analysis to explore the relationship between patterns of social connectivity and systematic variation in affective meaning.

**Study Design**

As mentioned above, the proposed research will apply two methodological approaches developed by social networks theorists, the position generator (Lin & Dumin, 1986) and the social influence network (Friedkin, 2005), to affect control theory. This research has two primary goals: (1) to explore whether social position and connectedness to diverse regions of the stratification system predict subcultural clustering in affective meaning, and (2) to understand how the distribution of influence within social networks contributes to the emergence of normative consensus on affective meaning over time. In pursuing these goals, the proposed studies extend research on affect control theory to examine the synthesis and elasticity of cultural beliefs.

**Study 1.** With the purpose of testing the enculturation and stratification hypotheses described above, 120 undergraduates will complete a series of questionnaires measuring (1) their affective meanings for various identity groups, (2) their social ties to diverse and stratified groups, both on and off campus, and (3) their personal socio-demographic position. The projected sample size is a function of the diversity of the campus population, and the many demographic characteristics on which this population varies (e.g., age, gender, race/ethnicity, parents’ annual income). Since data analysis will differentiate clustering in affective meaning, there is no conditional manipulation in this study; all respondents will complete the same set of questionnaires.

The first questionnaire respondents will complete measures affective meaning (Appendix A). Based on the measurement techniques of affect control theory, respondents will assess 63 different social groups using semantic differential scales for each of the three dimensions of meaning discussed above (evaluation, potency, and activity). More specifically, respondents will be asked to answer three questions for each type of person rated: (1) How good is this type of person? (2) How powerful is this type of person? and (3) How active is this type of person? Appraisals will be gathered for the same set of social groups studied by Thomas and Heise (1995), who demonstrated systematic variation in affective meaning, and hypothesized that this clustering was predicted by respondents’ patterns of social connectedness. This stimulus set represents a diverse collection of arrangements on the three dimensions of meaning, as indicated by past research in the tradition (e.g., Smith-Lovin & Heise, 2006).
Next, respondents will complete the position generator, which maps social ties to diverse groups, both within and outside of the college campus (Appendix B). Developed as a measure of access to social and cultural resources (e.g., Lin & Dumin, 1986), the position generator is informative about respondents’ embeddedness in a structurally differentiated social network. However, the measure included in the proposed research is distinct from traditional versions in several ways, intended to maximize its discriminatory power. First, respondents will be asked to indicate not only whether they are connected to a particular type of person, but (1) how many people of this type they are connected to, and (2) whether or not these ties are close. These two modifications will help distinguish whether the connection itself is sufficient to provide access to cultural resources, or whether the benefits of this connection are dependent on the nature of the social tie. Second, respondents will not only be asked about their connections to people holding particular occupations, but will also be asked about their connections to stratified social groups on the college campus. Taken from Bryant et al. (2007), this modification brings a relevance to respondents’ daily experience, and helps to distinguish the relative impact of ties within and outside of the close institutional environment.

Finally, respondents will answer several questions about their socio-demographic position. Specifically, they will be asked to report their age, gender, race, ethnicity, year in school, membership in specific on-campus organizations, and parents’ combined annual income, as these are considered important dimensions of social variation among college age respondents (Bryant, and Spanner, & Martin, 2006). Additionally, respondents will be asked about the characteristics of their college friends, including race, class year, and academic major, to assess homophily (McPherson, Smith-Lovin, & Cook, 2001). These questions are designed to examine respondents’ position in the stratification system, both in general and within the campus environment. It is expected that respondents who are connected to a larger number of social positions and who are more closely related to these ties will hold affective meanings closer to the cultural norm. Conversely, we expect those who are more poorly connected, both in number and in strength of ties, to hold bland meanings falling closer to zero on evaluation, potency, and activity than their better-connected counterparts.

Study 1 is designed to last approximately 30 minutes. Those students who opt to participate in the study will receive 10 dollars compensation. No other inducements are provided and participants will receive full compensation even if they decide to stop participating before the session is completed. The study involves no deception, potential for a breach of confidentiality, or distress caused from the research topic. Informed consent will be obtained at the start of the session, and respondents will be fully debriefed regarding the nature and purpose of the study upon its completion. Respondents’ participation is completely voluntary and confidential, and personal information is in no way linked to questionnaire responses. The Duke University Internal Review Board has already issued approval for this study.

Study 2. To examine hypotheses relating to social influence, 200 undergraduates will participate in an experiment measuring the effects of a group deliberation on respondents’ affective meanings. This study is modeled on the research of Friedkin and colleagues (e.g., Friedkin, 1999; Friedkin & Johnsen, 1999), which examines choice shift on issues likely to produce a group dilemma. However, the proposed research is modified in two main ways from other studies in this tradition. First, the initial role of the respondent is assigned rather than organic. This modification is intended to simulate the sort of social cues we commonly receive during interactions to signal the latent status structure of a group, indicating the manner in which social influence should be allocated (Berger, Cohen, & Zelditch, 1972; Berger & Zelditch, 1985). Secondly, we explore both the direct and indirect effects of social influence processes in interaction, examining not only group consensus on the discussion issue, but also change in affective meanings toward a set of identities relevant to the group interaction. This modification allows us to examine the role of influence not only in group deliberation, but also in response to the identities invoked in the context of a given social interaction.

Study 2 will examine social influence as a predictor of change in respondent attitudes through group deliberation. Therefore, respondents will begin by completing an attitudes survey, reporting their affective meanings for a set of identity groups prior to any group interaction (Appendix C). As with Study
1, they will report their perceptions of each of the identity groups listed by completing semantic
differential scales for the three dimensions of meaning in affect control theory (evaluation, potency, and
activity). Afterward, respondents will receive instruction about the group deliberation task, in which the
goal is to reach consensus on a workplace issue. The issue up for discussion is presented to them in a
short vignette, which describes the circumstances surrounding a sexual harassment claim (Appendix D).
Respondents will read the vignette, respond to a few questions regarding their perception of the described
incident, then proceed to participate in group deliberation.

The assignment of roles for the deliberation task will offer a social cue to the relative status of
group members. Respondents will be led to believe that they could be assigned as either a leader or one of
two assistants in a task-oriented, three-member group of undergraduate students. In reality, all
respondents will be assigned to the role of assistant, and the other two roles will be performed by a
confederate, interacting with the respondent through computer-mediated communication. The assigned
roles of assistant (1.50, 0.51, 0.45) and leader (2.17, 3.01, 2.16) offer consistently distinct EPA profiles
based on past research on affect control, facilitating the clear differentiation of roles on all three
dimensions of meaning. While both identities are adequately positive to avoid conflict with respondents’
orientation toward a collective outcome, they are sufficiently distinct from one another to signal a
potential status difference in the context of the coming interaction. Largely independent of actual task
capability, those taking on the role of group leader are likely to be seen by others as task-competent, and
to receive more action opportunities than non-leaders (e.g., Gould, 2002; Shelly, 1993).

The deception in this portion of the design is necessary for two reasons. First, it is important to
the quality of the data that respondents believe they could have been assigned to either role, but the
greater likelihood of being assigned as an assistant minimizes the potential for suspicion. Second, the
consistent assignment of respondents to the assistant role allows for maximum researcher control in
varying the behavior of the group leader to test study hypotheses. Virtual communication between
respondent and confederate not only makes these design elements possible, but also contributes to
experimental control, by eliminating the intrusion of such biasing features of face-to-face interaction as
status characteristics (e.g., Berger, Cohen, & Zelditch, 1972).

All three manipulations in the study design will occur during the group deliberation task. First,
the confederate acting as group leader will express positive or negative sentiments toward the identity
group and behavior relevant to the decision being made, depending on the condition. The behaviors and
expressed sentiments of the confederate are derived from Program Interact, and have been selected for
both relevance to the vignette and contrast in affective valence. For example, the confederate will either
refer to the employee who reported the harassment with positive descriptors like hardworking colleague
(1.88, 1.57, 1.30) and the manager accused of harassment with negative ones like cocky womanizer
(-1.51, 0.16, 0.77) or will take the opposite stance, referring to the receptionist with phrases like careless
tease (-1.34, -0.30, -0.21) and the manager with positive ones like responsible colleague (1.80, 1.41,
0.38). This manipulation is designed to test whether the effects of social influence on affective meaning
depend upon the valence of the expressed attitude.

Second, during the discussion task, the confederate’s behavior will correspond to the attributes
generated by Program Interact (Heise, 1988) for either a leader (hardworking, passionate, imaginative,
ambitious) or a lackey (apprehensive, inhibited, submissive, dependent). Behaving like a leader will
involve (1) taking the initiative and displaying competence and organization in discussing the issue, and
(2) being thorough in explaining opinions and rationale, as well as introducing the third group member’s
opinions. Behaving like a lackey will involve (1) relying on the participant to take initiative in directing
the discussion, and (2) being submissive, irresolute, and vague in explaining opinions. By manipulating
the confederate’s behavior in such a way, we can learn how the behavioral characteristics of a leader
affect whether or not the leader is influential in shaping the attitudes of others through social interaction.

Third, the respondent will learn from the group leader that the third group member, also fictitious,
has an opinion that either supports or is in opposition to that of the group leader. This manipulation is
designed to test whether the agreement or disagreement of the third group member with the group leader
affects the likelihood of change in affective meaning due to social influence processes. Thus, the design is
a 2 (leader sentiment: pro-receptionist, pro-manager) x 2 (leader influence: high, low) x 2 (member sentiment: support, oppose). We expect that influential leaders will be more likely to cause a shift in respondents’ initial attitudes toward those expressed during this discussion, regardless of attitude valence, and that this will be most dramatic with the other respondent agrees with the leader’s opinion.

Following the interaction, we will measure the likelihood that leaders’ sentiments are adopted in the group’s final consensus and in the participants’ personal beliefs about the situation (Appendix D). Respondents will also report the modifiers that best described each group member, and their attitudes regarding self as employee, partner as leader, and several identity groups from the group deliberation task (Appendix C). Finally, they will complete a measure of social influence (Appendix E), modified from Friedkin (1999). In this task, respondents will be asked to divide a pile of 20 chips into several piles representing the relative influence of self, group leader, and the other group member on the outcome of the group discussion task.

Study 2 is designed to last 30 to 40 minutes. Those who opt to participate will receive 10 dollars of compensation. No other inducements are provided and participants will receive payment even if they decide to stop participating before their session is completed. As the study involves some deception, protections have been established to ensure that these design elements pose no risk to the well-being of participants. Informed consent will be obtained at the start of the study session, and respondents will receive a two-stage debriefing upon its completion. In the first stage, funnel debriefing, we will probe for suspicions and try to lead the participants to the conclusion that they were deceived during their participation. Participant realization of deception is generally believed to minimize any potential negative effects of the deception. In the second stage, participants will read a debriefing statement informing them of the nature of the study and all deception therein. We additionally encourage participants to discuss any remaining questions or concerns with the experimenter following the study session. Respondents’ participation is completely voluntary and confidential, and personal information is in no way linked to data collected during the experiment. The Duke University Internal Review Board has already issued approval for this study.

**Analysis Plan**

**Study 1.** K-means cluster analysis will be used to detect natural patterns of clustering in the data on affective meaning collected during Study 1. This analysis method seeks the configuration of subgroups in the data that maximizes between-group variation and minimizes the variation within groups. In this manner, we can identify subgroups with distinct patterns of affective meaning, which may then be compared on the basis of their other attributes using multinomial logistic regression. We will compare clusters on the basis of both social position and social ties, to explore these sets of variables as potential covariates of meaning clustering. Two main hypotheses will be tested:

**Enculturation:** Respondents who have stable and close relationships with occupants of numerous, diverse social positions are more likely to hold affective meanings that are culturally normative and clearly differentiated. Those with fewer and more unstable social ties are more likely to hold meanings that are bland and poorly defined.

To examine this set of hypotheses and test them against potential competing hypotheses, analyses will compare clusters on four main dimensions: (1) number of social ties, (2) closeness of these ties, (3) upper reach of ties in social status, and (4) whether the ties are primarily to on- or off-campus entities.

**Stratification:** Position in the stratification system predicts the clustering of affective meanings into distinct subgroups such that meanings for members of groups high in social status and power are distinct from those for members of groups low in social status and power.
To examine this set of hypotheses, analyses will compare clusters on each of the socio-demographic variables included in the study: age, gender, race, ethnicity, year in school, membership in on-campus organizations, and parents’ combined annual income. Analyses will additionally examine whether clusters differ in degree of homophily with college friends on race, class year, and academic major.

If supported, findings will indicate that the use of mean EPA ratings is overly simplistic in representing the cultural sentiments of a given population. Such a finding would indicate the significance of greater attention to subcultural variation in both the mathematical formulations of research on affect control and its theoretical handling of culture.

**Study 2.** As discussed in Friedkin (1999), there are several possible ways to analyze choice shifts, for example comparing the mean of individual sentiments to the mean of group decisions, or the mean of individual sentiments before and after group deliberation. The first of these approaches is less than ideal given the potential for greater variation at the individual level than at the group level. The second has been an undesirable option in past research on social influence, as Friedkin and colleagues have used organic group discussion to test the adequacy of the theory’s mathematical predictions; thus, any analysis comparing individual cases would have violated the statistical assumption of independence. Accordingly, such analyses have typically used a paired samples *t*-test, comparing the absolute values of the difference between final and initial opinion at the group level.

However, the design of the proposed study offers greater analytic flexibility than previous research, having used a confederate in place of the other group members during deliberation. Thus, we will compare respondents on individual sentiment change using two sets of multiple regression analyses. The first set of analyses will measure the effects of leader influence and the sentiment expressed by the simulated leader and the third group member on respondent difference scores (i.e., |final – initial|) for preferred resolution of the vignette. The second set will compare the effects of these same independent variables on respondent difference scores for affective sentiment toward identity groups, both explicit (i.e., expressly discussed during group task) and implicit (i.e., related to identities invoked during group task). Two sets of hypotheses will be tested:

**Social Influence:** Respondents’ affective meanings will be transformed during the course of social interaction to look more like those held by influential network members (i.e., group leaders). This transformation will occur regardless of whether the affective meanings held by the influential party toward a particular social entity are positive or negative. Trends will be reinforced by the support of the third group member, but the effects of influence will not be eliminated by this member’s opposition.

**Implicit Meaning Change:** Opinion change will be observed not only for respondent attitudes regarding the preferred resolution of the vignette case, but also for the identity meanings associated with this case, whether explicitly discussed (i.e., manager, receptionist) or implicitly invoked during the group task (i.e., leader, subordinate).

If supported, findings will suggest that social influence processes play a significant role in determining the outcome of cultural negotiation. This evidence would contribute to the refinement of affect control theory, suggesting an important social mechanism of normative consensus, and indicating it is not necessary that cultural meaning be broadly consensual and static to be in a state of equilibrium.
Appendix A: Attitudes Questionnaire

Please indicate your personal feelings about each type of person listed by answering three questions:

(1) How good is this type of person?

Bad
Awful

infinitely extremely quite slightly neutral slightly quite extremely infinitely

Good
Nice

(2) How powerful is this type of person?

Powerless
Little

infinitely extremely quite slightly neutral slightly quite extremely infinitely

Powerful
Big

(3) How active is this type of person?

Slow
Quiet
Inactive

infinitely extremely quite slightly neutral slightly quite extremely infinitely

Fast
Noisy
Active

For each item that follows, your responses to these three questions can range from bad/awful to good/nice, powerless/little to powerful/big, and slow/quiet/inactive to fast/loud/active. Please mark the box on each scale that best represents your personal feelings about the type of person listed.

These questions will be asked for each of the 63 stimulus words below:

Assailant Grandparent Principal
Bill Collector Granny Professor
Bouncer Gunman Prostitute
Braggart Hero Prude
Buddy Hobo Schoolgirl
Bully Housemaid Scrooge
Bum Janitor Servant
Champion Judge Shoplifter
Chaperone Junkie Shyster
Child Landlord Slob
Coward Loafer Spouse
Delinquent Minister Sweetheart
Desperado Mobster Teammate
Disciplinarian Niece Tenant
Drudge Old Maid Tightwad
Drug Addict Old Timer Undergraduate
Employer Pal Warden
Freshman Parent Widow
Gangster Peeping Tom Winner
Girl Scout Physician Wino
Grandchild Pimp Youngster
Appendix B: Position Generator

Instructions: We would like to ask you some questions about your social ties to different members of the community. For each of the following questions, please indicate how many of this type of person you are acquainted with. You can consider yourself acquainted with someone if the person knows you well enough to remember your name and either of you could strike up a conversation if you ran into each other. (Include acquaintances, friends, relatives, and co-workers). Afterward, you will be asked indicate how many of this type of person you are close with. This includes your good friends, people you discuss important matters with or trust for advice. Some of these questions may seem unusual but they are an important way to help us understand more about students’ social relationships. Please answer the questions as best you can.

For each of the groups listed below, two questions will be asked:

1. How many people are you acquainted with that are…? ______________
2. Of these people, how many are you close with? ______________

On-campus:
- The president, the provost, or a dean
- A student support professional
- Medical Center faculty or staff
- Some other staff member
- A residential advisor other than your own
- Graduate/professional student
- An upper-class student (Junior / Senior)
- A student from Central Campus
- A student from East Campus
- A student from West Campus
- A student from off-campus
- A student from Trent Residence Hall
- Other university administrator or professional staff
- An assistant or associate dean, program director, or department chair
- Other than your class instructors, a faculty member in:
  - The humanities
  - The social sciences
  - The natural sciences/mathematics
  - Engineering
- An athletics coach, assistant coach, or athletic official
- A student in the following quads:
  - Edens
  - Craven
  - WEL
  - Few
  - Clocktower
  - Trent
  - Kilgo
  - Crowell
  - Wannamaker

Off-campus:
- A person from the Durham community
- A nurse
- A writer
- A farmer
- A lawyer
- A middle school teacher
- A full-time babysitter
- A janitor
- An administrative assistant in a large company
- A computer programmer
- A person who is very liberal
- A person who is very conservative
- A person who is currently unemployed
- A person who owns a second home
- A person who is currently in state/federal prison
- A person who is Asian or Asian-American
- A person who is Black or African-American
- An unmarried women living with a man in a romantic relationship
- A hotel bellboy
- A person who is currently serving in the armed forces
- A person who rarely or never attends religious services
- A person who attends religious services on a regular basis
Appendix C: Attitudes Questionnaire, Study 2

Please indicate your personal feelings about each type of person listed by answering three questions:

(1) How good is this type of person?

Bad Awful | | | | | | | | Good Nice

infinitely extremely quite slightly neutral slightly quite extremely infinitely

(2) How powerful is this type of person?

Powerless Little | | | | | | | | Powerful Big

infinitely extremely quite slightly neutral slightly quite extremely infinitely

(3) How active is this type of person?

Slow Quiet Inactive | | | | | | | | Fast Noisy Active

infinitely extremely quite slightly neutral slightly quite extremely infinitely

For each item that follows, your responses to these three questions can range from bad/awful to good/nice, powerless/little to powerful/big, and slow/quiet/inactive to fast/loud/active. Please mark the box on each scale that best represents your personal feelings about the type of person listed.

These questions will be asked for each of the stimulus words below:

Pre-Interaction:
Friend Loser Sexist Myself as I really am
Hero Outcast Victim Myself as others see me
Doctor Reject Receptionist Myself as I would like to be
Athlete Flirt Manager Myself as others would like me to be
Leader Subordinate Employee

Post-Interaction:
Flirt Receptionist Myself as an employee
Sexist Manager My partner as a leader
Appendix D: Deliberation Vignette & Questionnaire

A female employee of the company where you work is alleging that she has been sexually harassed by her departmental manager. As a result of the alleged harassment, she has threatened to file a lawsuit against the company. The discussion group that you will join momentarily has been called by the company to evaluate the merit of her claim and decide what action should be taken to deal with this issue: settling the claim out of court or fighting the charges in court.

The employee alleging harassment has worked for the company for just under 2 years as a receptionist, and has generally been a conscientious, hard worker. However, she has a reputation for being somewhat flirtatious and prone to gossip. While her performance on job tasks has never been called into question, she has been reprimanded on 2 prior occasions for the manner in which she interacts with her coworkers. Nonetheless, the evaluations in her file indicate that she has been dependable and competent as an employee, recommending her for promotion when she reaches her two-year anniversary with the company.

The manager she has accused of harassment has been with the company for 5 years. He has worked his way up through the ranks from an hourly employee to a shift supervisor and, just this year, has been promoted to departmental manager. While he is known around the office as somewhat arrogant and bossy, he is extremely hardworking and committed to his job, and has proved himself to be a capable and earnest worker. Employees have occasionally complained that he is too strict or his policies are unfair but, prior to the current incident, the evaluations in his file indicate that upper management has found him to be responsible and appropriate.

Pre-Interaction:

1. What is your opinion about the honesty of the receptionist’s claim?
   - The claim was truthful
   - The claim was NOT truthful

2. What is your opinion on what action the company should take in responding to this claim?
   - Settle the claim out of court
   - Fight the charges in court

Post-Interaction:

1. What was your GROUP’S final decision about the honesty of the receptionist’s claim?
   - The claim was truthful
   - The claim was NOT truthful

2. What was YOUR PERSONAL BELIEF about the honesty of the receptionist’s claim?
   - The claim was truthful
   - The claim was NOT truthful

3. What was your GROUP’S final decision on how the company should respond to this claim?
   - Settle the claim out of court
   - Fight the charges in court

4. What was YOUR PERSONAL BELIEF on how the company should respond to this claim?
   - Settle the claim out of court
   - Fight the charges in court

5. Did your discussion with the Group Leader change your opinion about either of these issues?
   - Yes
   - No

6. How would you describe the Group Leader’s behavior during the discussion? (Select ALL that apply).
   - Hardworking
   - Passionate
   - Submissive
   - Ambitious
   - Apprehensive
   - Inhibited
   - Imaginative
   - Dependent
   - Conscientious
   - Cooperative

7. How would you describe your own behavior as a Group Member? (Select ALL that apply).
   - Hardworking
   - Passionate
   - Submissive
   - Ambitious
   - Apprehensive
   - Inhibited
   - Imaginative
   - Dependent
   - Conscientious
   - Cooperative
Appendix E: Social Influence Measure

Instructions: On the back of the table in your study room, you will find a small bag. If you open the bag, you’ll find that you have been given a total of 20 chips, each of which represents influence upon your final opinion at the end of the deliberation group. Divide the chips into two piles, Pile A and Pile B. Pile A will represent the extent to which your interactions with the group influenced your opinion. Pile B will represent the extent to which your interactions with the group *did not* influence your opinion.

Once you have finished this task, please record the number of chips you have assigned to each pile. Remember, since you only have 20 chips to work with, the numbers you write for these two answers must add up to 20.

1. To what extent did your interactions with the group influence your opinion? Write the number of chips (out of 20) that you sorted into Pile A.

2. To what extent did your interactions with the group NOT influence your opinion? Write the number of chips (out of 20) that you sorted into Pile B.

Instructions: Now consider the extent to which you feel each member of the group influenced your final opinion. Divide the chips from Pile A (those representing the amount that interactions with the group influenced your opinion), into piles for the Group Leader and the other Group Member according to how much each influenced your opinion. Remember, the numbers you write for these two answers must add up to the number of chips in Pile A.

1. To what extent did the Group Leader influence your opinion? Write the number of chips from Pile A that you sorted into this pile.

2. To what extent did the other Group Member influence your opinion? Write the number of chips from Pile A that you sorted into this pile.
References


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Editorial Board, Annual Review of Sociology, 2003-2006
Editorial Board, Social Forces, 2002-2007
Editorial Board, Sociological Theory, 2000-2003
Associate Editor, Self and Identity, 2000-2002
Co-editor, Social Psychology Quarterly, 1997-2000
Chair, ASA Section on Social Psychology, 1999-2000
President, Southern Sociological Society, 1998-9
Chair, ASA Section on the Sociology of Emotions, 1994-5
Deputy Editor, American Sociological Review, 1993-96
General Social Survey Board of Overseers, 1994-2001
Member, Executive Council, Southern Sociological Society, 1994-2002
Chair, Cooley-Mead Award Committee, 1990-1, 1997-8

LIST OF COLLABORATORS (Last 2 Years)
Noah Mark, UNCC; Cecilia Ridgeway, Stanford University; James Cook, Duke University; Dawn T. Robinson, University of Georgia; Miller McPherson, Duke University; Jody Clay-Warner, University of Georgia

DOCTORAL ADVISORS
David R. Heise, Indiana University; James A. Wiggins, University of North Carolina; John D. Kasarda, University of North Carolina; Chester Insko, University of North Carolina

DOCTORAL STUDENTS
Dawn T. Robinson, University of Georgia; Olga Tsoudis, Wayne State University;
SYNERGISTIC ACTIVITIES

1. A data set of task group interaction, collected at the University of South Carolina in the early 1980s and made available to the scholarly public, has been used in over 30 publications by other scholars (including over 15 by former graduate students)
2. Developed undergraduate curriculum innovations using simulation programs INTERACT and GASP.

FIVE RELATED PUBLICATIONS:


FIVE OTHER PUBLICATIONS:


Biographical Sketch
Kimberly B. Rogers

Address and Telephone
Department of Sociology, Box 90088
Duke University • Durham, NC 27708
Telephone: 919-660-5633 (office)
Email: krogers@duke.edu

Professional Preparation

Randolph-Macon Woman’s College  B.A., Psychology    2003
Wake Forest University  M.A., Psychology (Core Areas: Cultural/Social)  2005
Duke University  M.A., Sociology (Core Area: Social Psychology)  2007
Duke University  Candidate for Ph.D.  2011

- Successfully completed written comprehensive examinations in Social Psychology, Economic Sociology

Academic Work History

Research Assistant: Social Interaction Lab (Lynn Smith-Lovin)  2006-2009
- Interpreting and responding to events in Arabic cultures: Affective dynamics
- Culture, identity, and emotional responses to justice and injustice

Research Lab Coordinator: Social Cognition Research Lab (Tanya Chartrand)  2005-2006
- The effects of non-verbal mimicry on emotion, cognition, and social behavior

Research Assistant: Hispanic Achievers Project (Christy Buchanan)  2004-2005
- Mentoring and the development of Hispanic youth

Research Assistant: Culture and Emotion (Batja Mesquita)  2003-2004
- Mechanisms of emotion perception and recognition

Related Publications


Other Publications


Synergistic Activities

Nominations Committee Member - American Sociological Association, Section on Social Psychology  2009-2010
Community Interest Coordinator - Graduate Student Forum, Department of Sociology, Duke University  2009-2010
Presentations


Awards Received

Duke Pre-Dissertation Research Fellowship  Summer 2009
- University-wide competition

Foreign Language & Area Studies Fellowship (Japanese)  2008-2009
- University-wide competition

Tiryakian Award for Mentored Research  2007-2008

Dissertation Committee

Chair: Lynn Smith-Lovin
Members: Linda George, Mark Leary, Ken Spenner, Miller McPherson

Other Collaborators

Dawn Robinson, University of Georgia  Batja Mesquita, University of Leuven
Tobias Schröder, Humboldt University  Takahiko Masuda, University of Alberta
Shuuichiro Ike, Teikyo University  Gary Gereffi, Duke University
## SUMMARY PROPOSAL BUDGET

### YEAR 1

#### FOR NSF USE ONLY

| ORGANIZATION | PROPOSAL NO. | DURATION (months) | proposer | Given Grant
|--------------|--------------|-------------------|----------|-------------
| Duke University | Proposed | | | |

#### PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR

**Lynn Smith-Lovin**

<table>
<thead>
<tr>
<th>A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Lynn Smith-Lovin</strong> - none</td>
</tr>
<tr>
<td>2. <strong>Kimberly B Rogers</strong> - none</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
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</tbody>
</table>

#### B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)

| 1. | POST DOCTORAL SCHOLARS | 0.00 | 0.00 | 0.00 | 0 |
| 2. | OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.) | 0.00 | 0.00 | 0.00 | 0 |
| 3. | GRADUATE STUDENTS | 0 |
| 4. | UNDERGRADUATE STUDENTS | 900 |
| 5. | SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY) | 0 |
| 6. | OTHER | 0 |
| TOTAL SALARIES AND WAGES (A + B) | 900 |

#### C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)

| TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C) | 970 |

#### D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)

| TOTAL EQUIPMENT | 0 |

#### E. TRAVEL

| 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSESSIONS) | 0 |
| 2. FOREIGN | 0 |

#### F. PARTICIPANT SUPPORT COSTS

| 1. STIPENDS | $0 |
| 2. TRAVEL | 0 |
| 3. SUBSISTENCE | 0 |
| 4. OTHER | 0 |
| TOTAL NUMBER OF PARTICIPANTS | (0) |
| TOTAL PARTICIPANT COSTS | 0 |

#### G. OTHER DIRECT COSTS

| 1. MATERIALS AND SUPPLIES | 230 |
| 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION | 0 |
| 3. CONSULTANT SERVICES | 0 |
| 4. COMPUTER SERVICES | 0 |
| 5. SUBAWARDS | 0 |
| 6. OTHER | 3,800 |
| TOTAL OTHER DIRECT COSTS | 4,030 |

#### H. TOTAL DIRECT COSTS (A THROUGH G)

| 5,000 |

#### I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)

| (Rate: , Base: ) |

| TOTAL INDIRECT COSTS (F&A) | 0 |
| J. TOTAL DIRECT AND INDIRECT COSTS (H + I) | 5,000 |

#### J. RESIDUAL FUNDS

| 0 |

#### L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)

| $5,000 |

#### M. COST SHARING PROPOSED LEVEL $0 AGREED LEVEL IF DIFFERENT $

### PI/PD NAME

**Lynn Smith-Lovin**

### INDIRECT COST RATE VERIFICATION

<table>
<thead>
<tr>
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<tbody>
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<td><strong>ORG. REP. NAME</strong></td>
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<tr>
<td>Date Checked</td>
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</tbody>
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1. "ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET"
### SUMMARY PROPOSAL BUDGET

#### ORGANIZATION
- Duke University

#### PROPOSAL NO.

<table>
<thead>
<tr>
<th>PROPOSAL NO.</th>
<th>DURATION (months)</th>
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<tr>
<td>Proposed</td>
<td>Granted</td>
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#### PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR
- **Lynn Smith-Lovin**

#### A. SENIOR PERSONNEL: PI/PD, Co-PI’s, Faculty and Other Senior Associates
(List each separately with title, A.7. show number in brackets)

<table>
<thead>
<tr>
<th></th>
<th>CAL</th>
<th>ACAD</th>
<th>SUMR</th>
<th>Funds Requested by proposer</th>
<th>Funds granted by NSF</th>
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<tbody>
<tr>
<td>1. Lynn Smith-Lovin - none</td>
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<td>$ 0</td>
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<tr>
<td>2. Kimberly B Rogers - none</td>
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<td>0.00</td>
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#### B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)

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<tr>
<th></th>
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<th>Funds granted by NSF</th>
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<tr>
<td>1. (0) POST DOCTORAL SCHOLARS</td>
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<td>2. (0) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)</td>
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<td>3. (0) GRADUATE STUDENTS</td>
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<td>4. (1) UNDERGRADUATE STUDENTS</td>
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<td>5. (0) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)</td>
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<td>0.00</td>
<td>0.00</td>
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<td>6. (0) OTHER</td>
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<td>0.00</td>
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#### C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)

<table>
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<tr>
<th></th>
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<th>SUMR</th>
<th>Funds Requested by proposer</th>
<th>Funds granted by NSF</th>
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</thead>
<tbody>
<tr>
<td>TOTAL SALARIES AND WAGES (A + B)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

#### D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)

<table>
<thead>
<tr>
<th></th>
<th>CAL</th>
<th>ACAD</th>
<th>SUMR</th>
<th>Funds Requested by proposer</th>
<th>Funds granted by NSF</th>
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#### E. TRAVEL

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<thead>
<tr>
<th></th>
<th>CAL</th>
<th>ACAD</th>
<th>SUMR</th>
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<th>Funds granted by NSF</th>
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</thead>
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<tr>
<td>1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSESSIONS)</td>
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<tr>
<td>2. FOREIGN</td>
<td>0.00</td>
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#### F. PARTICIPANT SUPPORT COSTS

<table>
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<tr>
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<th>SUMR</th>
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<th>Funds granted by NSF</th>
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<tbody>
<tr>
<td>1. STIPENDS</td>
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<td>0.00</td>
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<tr>
<td>2. TRAVEL</td>
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<td></td>
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<tr>
<td>3. SUBSISTENCE</td>
<td>0.00</td>
<td>0.00</td>
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<td></td>
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<td>0.00</td>
<td>0</td>
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#### G. OTHER DIRECT COSTS

<table>
<thead>
<tr>
<th></th>
<th>CAL</th>
<th>ACAD</th>
<th>SUMR</th>
<th>Funds Requested by proposer</th>
<th>Funds granted by NSF</th>
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</thead>
<tbody>
<tr>
<td>1. MATERIALS AND SUPPLIES</td>
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<td>0.00</td>
<td>0</td>
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<tr>
<td>2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3. CONSULTANT SERVICES</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4. COMPUTER SERVICES</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>5. SUBAWARDS</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>6. OTHER</td>
<td>3,800</td>
<td>0.00</td>
<td>0.00</td>
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</tr>
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</table>

#### H. TOTAL DIRECT COSTS (A THROUGH G)

<table>
<thead>
<tr>
<th></th>
<th>CAL</th>
<th>ACAD</th>
<th>SUMR</th>
<th>Funds Requested by proposer</th>
<th>Funds granted by NSF</th>
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</thead>
<tbody>
<tr>
<td>TOTAL OTHER DIRECT COSTS</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>TOTAL DIRECT COSTS</td>
<td>4,030</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>H. TOTAL DIRECT COSTS (A THROUGH G)</td>
<td>5,000</td>
<td>0.00</td>
<td>0.00</td>
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</table>

#### I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)

<table>
<thead>
<tr>
<th></th>
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<th>ACAD</th>
<th>SUMR</th>
<th>Funds Requested by proposer</th>
<th>Funds granted by NSF</th>
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</thead>
<tbody>
<tr>
<td>TOTAL INDIRECT COSTS (F&amp;A)</td>
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<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>J. TOTAL DIRECT AND INDIRECT COSTS (H + I)</td>
<td>5,000</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>K. RESIDUAL FUNDS</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td></td>
</tr>
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</table>

#### L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)

<table>
<thead>
<tr>
<th></th>
<th>CAL</th>
<th>ACAD</th>
<th>SUMR</th>
<th>Funds Requested by proposer</th>
<th>Funds granted by NSF</th>
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<tbody>
<tr>
<td>L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)</td>
<td>$ 5,000</td>
<td>0.00</td>
<td>0.00</td>
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#### M. COST SHARING PROPOSED LEVEL

<table>
<thead>
<tr>
<th></th>
<th>CAL</th>
<th>ACAD</th>
<th>SUMR</th>
<th>Funds Requested by proposer</th>
<th>Funds granted by NSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>M. COST SHARING PROPOSED LEVEL</td>
<td>$ 0</td>
<td>0.00</td>
<td>0.00</td>
<td>AGREED LEVEL IF DIFFERENT</td>
<td></td>
</tr>
</tbody>
</table>

#### PI/PD NAME
- **Lynn Smith-Lovin**

#### FOR NSF USE ONLY

<table>
<thead>
<tr>
<th></th>
<th>CAL</th>
<th>ACAD</th>
<th>SUMR</th>
<th>Funds Requested by proposer</th>
<th>Funds granted by NSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI/PD NAME</td>
<td>Lynn Smith-Lovin</td>
<td>INDIRECT COST RATE VERIFICATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORG. REP. NAME*</td>
<td>Date Checked</td>
<td>Date Of Rate Sheet</td>
<td>Initials - ORG</td>
<td></td>
<td></td>
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</tbody>
</table>

*ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET
Budget Justification

B.4 - Other Personnel

A single undergraduate student employee will be necessary to assist in moderating study sessions, recruiting and scheduling potential respondents, and data transcription. This employee will be responsible for leading approximately 50 hours of sessions for Study 1, which lasts 30 minutes per session. An additional 40 hours of funding will be required for employee assistance with participant scheduling and data transcription for both Study 1 and Study 2. Funding is requested at the standard university pay rate of 10 dollars per hour for undergraduate research assistance. Because of its relative design complexity, all sessions of Study 2 will be moderated by Kimberly Rogers. No compensation is requested for this effort.

<table>
<thead>
<tr>
<th>Hours x Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of Study Sessions</td>
<td>50 x $10</td>
</tr>
<tr>
<td>Scheduling &amp; Data Transcription</td>
<td>40 x $10</td>
</tr>
</tbody>
</table>

Total Employee Compensation: $900

C. Fringe Benefits

Fringe benefits are charged at the rate of 7.7%.

G.1 - Materials and Supplies

A limited amount of materials and supplies will be needed for use during study sessions (e.g., printed material, poker chips for social influence measure), circulating advertisements to recruit participants, and data storage. The majority of materials costs will be attenuated by the presentation of stimuli through a computer interface on machines loaned by the Social Science Research Institute at Duke University. The advance programming work necessary to make this possible will be completed by Kimberly Rogers. No compensation is requested for this effort.

G.6 - Other Direct Costs

The primary expense associated with this proposal is respondent compensation. Two experimental studies will be completed at Duke University during the proposal term. The first study will require 150 respondents and the second will require 200 respondents, each of which will be compensated at the rate of 10 dollars per hour. The costs are commensurate with Duke University guidelines for participant compensation, and the typical inducement necessary for undergraduate students to voluntarily agree to be involved in a 30- to 40-minute study. Without the funding to compensate respondents, this research cannot be conducted. We additionally request funds to pretest the measures associated with each study, thereby ensuring the quality of our experimental design. Pretesting will require 15 respondents per study, compensated at the standard university rate of 10 dollars each.

<table>
<thead>
<tr>
<th>Respondents x Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1 Pretest</td>
<td>15 x $10</td>
</tr>
<tr>
<td>Study 1 Full Study</td>
<td>150 x $10</td>
</tr>
<tr>
<td>Study 2 Pretest</td>
<td>15 x $10</td>
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<tr>
<td>Study 2 Full Study</td>
<td>200 x $10</td>
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Total Respondent Compensation: $3,800
## Current and Pending Support

(See GPG Section II.C.2.h for guidance on information to include on this form.)

<table>
<thead>
<tr>
<th>Investigator: Lynn Smith-Lovin</th>
<th>Other agencies (including NSF) to which this proposal has been/will be submitted.</th>
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<tbody>
<tr>
<td><strong>Support:</strong> Current</td>
<td>Pending</td>
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<tr>
<td><strong>Project/Proposal Title:</strong> Interpreting Events in Arabic: Affective Dynamics</td>
<td></td>
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<tr>
<td><strong>Source of Support:</strong> Office of Naval Research</td>
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<td><strong>Total Award Amount:</strong> $581,677</td>
<td><strong>Total Award Period Covered:</strong> 01/31/09 - 09/30/10</td>
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<tr>
<td><strong>Person-Months Per Year Committed to the Project:</strong> Cal:0.00</td>
<td>Acad:0.00</td>
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<tr>
<td><strong>Support:</strong> Current</td>
<td>Pending</td>
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<tr>
<td><strong>Project/Proposal Title:</strong> Collaborative Research: Examining Emotional Reactions to Favorable Violations of Equity and Referential Standards of Justice</td>
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<tr>
<td><strong>Source of Support:</strong> National Science Foundation</td>
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<td><strong>Total Award Amount:</strong> $155,087</td>
<td><strong>Total Award Period Covered:</strong> 07/01/10 - 06/30/12</td>
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<td><strong>Support:</strong> Current</td>
<td>Pending</td>
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<tr>
<td><strong>Project/Proposal Title:</strong> Doctoral Dissertation Research: Social Influence and Affect Control</td>
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<tr>
<td><strong>Source of Support:</strong> National Science Foundation</td>
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<td><strong>Total Award Amount:</strong> $5,000</td>
<td><strong>Total Award Period Covered:</strong> 06/01/10 - 05/31/11</td>
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<tr>
<td><strong>Person-Months Per Year Committed to the Project:</strong> Cal:0.00</td>
<td>Acad:0.00</td>
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</table>

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.*
<table>
<thead>
<tr>
<th>Investigator: Kimberly Rogers</th>
<th>Other agencies (including NSF) to which this proposal has been/will be submitted.</th>
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</thead>
<tbody>
<tr>
<td>Support: □ Current □ Pending □ Submission Planned in Near Future □ *Transfer of Support</td>
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</tr>
<tr>
<td>Project/Proposal Title: Doctoral Dissertation Research: Social Influence and Affect Control</td>
<td></td>
</tr>
<tr>
<td>Source of Support: National Science Foundation</td>
<td></td>
</tr>
<tr>
<td>Total Award Amount: $ 5,000 Total Award Period Covered: 06/01/10 - 05/31/11</td>
<td></td>
</tr>
<tr>
<td>Location of Project: Duke University</td>
<td></td>
</tr>
<tr>
<td>Person-Months Per Year Committed to the Project. Cal: 0.00 Acad: 9.00 Sumr: 3.00</td>
<td></td>
</tr>
</tbody>
</table>

Support: □ Current □ Pending □ Submission Planned in Near Future □ *Transfer of Support
Project/Proposal Title:

Source of Support:
Total Award Amount: $
Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

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Total Award Amount: $
Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.*
FACILITIES, EQUIPMENT & OTHER RESOURCES

FACILITIES: Identify the facilities to be used at each performance site listed and, as appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Use "Other" to describe the facilities at any other performance sites listed and at sites for field studies. USE additional pages as necessary.

Laboratory: The Duke Interdisciplinary Initiative in Social Psychology Laboratory, located on the Duke University campus in proximity to undergraduate student residences, will serve as the primary research site. This facility offers both a large computer lab for group testing.

Clinical:

Animal:

Computer: The computers available at the Duke Interdisciplinary Initiative in Social Psychology Laboratory will be the primary means of data collection and analysis.

Office: Duke University will provide the major facilities necessary for conducting the research. This includes not only the laboratory space described above, but also private offices for both the PI and Co-PI. These offices are furnished with computer systems equipped to handle the programming.

Other:

MAJOR EQUIPMENT: List the most important items available for this project and, as appropriate identifying the location and pertinent capabilities of each.

OTHER RESOURCES: Provide any information describing the other resources available for the project. Identify support services such as consultant, secretarial, machine shop, and electronics shop, and the extent to which they will be available for the project. Include an explanation of any consortium/contractual arrangements with other organizations.

Accounting and other administrative and technical support will be provided by the Department of Sociology, Duke University.
LABORATORY FACILITIES (continued):
and smaller isolation rooms with computer terminals for individual sessions. It also offers a statistical computing lab, for use during data analysis.

OFFICE FACILITIES (continued):
necessary for study design as well as data analysis.
Institutional Review Board for the Protection of Human Subjects
FWA No. 00000265
Notice of Protocol Approval

Investigator(s): Kimberly Rogers, Deborah Lynn Smith-Lovin
Advisor: 
Protocol Title: Affect Control and Social Influence
Protocol Number: 2881
Approval Date: Tuesday, September 01, 2009
Expiration Date: Wednesday, September 01, 2010
Sponsor: None

Please note: Approval is contingent upon maintaining certification to conduct research with human subjects.
In conducting research under this protocol, the researcher agrees:

-- to seek written approval from the IRB before any changes are made to the protocol, including, but not limited to amendments to procedures, recruitment strategies, subject population, instruments, and the informed consent process. The form, Request to Amend an Approved Protocol, is available at <http://ors.duke.edu/forms/request-amend-approved-protocol>

-- to report immediately to the IRB Administrator any problems, including unanticipated risks to the subjects

-- to retain signed consent forms and other research records in accordance with Duke’s Data Retention Policy (5 years) <http://ors.duke.edu/orsmanual/research-records-sharing-retention-and-ownership>

**Renewing the Protocol**

Unless otherwise informed by the IRB, the renewal process must be completed within twelve months. A schedule of IRB meetings is available at <http://ors.duke.edu/researcher/irb-meeting-schedule>.

Reminder notices will be provided as the end of the approval period approaches. If a renewal deadline is missed, there's no approval in place until the renewal request has been acted upon. Without an approval in place, all activities associated with the research must be suspended.

The form, Request to Renew an Approved Protocol, is available at <http://ors.duke.edu/forms/request-renew-a-protocol>
Investigator(s): Kimberly Rogers, Deborah Lynn Smith-Lovin
Protocol Title: Affect Control and Social Networks
Protocol Number: 2931
Approval Date: Tuesday, September 29, 2009
Expiration Date: Wednesday, September 29, 2010
Sponsor: Department/School

Please note: Approval is contingent upon maintaining certification to conduct research with human subjects.
In conducting research under this protocol, the researcher agrees:

-- to seek written approval from the IRB before any changes are made to the protocol, including, but not limited to amendments to procedures, recruitment strategies, subject population, instruments, and the informed consent process. The form, Request to Amend an Approved Protocol, is available at <http://ors.duke.edu/forms/request-amend-approved-protocol>

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