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Interpersonal Influence on Political Behavior: Friendship and Peer Interaction

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DEDICATION

This dissertation is dedicated to my beloved twin sister, Caren Hilliard Lehmer, without whose emotional support during the long years, this dissertation would not have been possible, and to the memory of my late parents, Dr. Everett Leslie Hilliard and Ethel Marie Hilliard, who I wish were here to share the day.

ABSTRACT OF THE DISSERTATION

Interpersonal Influence on Political Behavior: Friendship and Peer Interaction

by

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Context and social interaction appear to affect people's political attitudes and behavior, but many of these effects and underlying mechanisms remain poorly understood. I investigate the role played by friendship in social interaction and political influence, with particular attention to the potential moderating influence of gesture and other body language.

My research shows that the study of contextual effects, linked with an analysis of affective intimacy and gestures, provides a more complete understanding of the role of each in political learning and subsequent political behavior. My research suggests that affective intimacy and certain kinds of gestures and other body language serves as important modifiers of other non-affective contextual effects. I find that political discussants who are not affective intimates will measurably influence the political attitudes of each other as well as facilitate political learning to an extent not found in discussants who are also friends. This is especially evident when I analyze gestures and other body language used between friends and non-friends and compare these gestures

with the kind of language used within each group. The language used and gestures

employed are different between friends and non-friends. Although the statistical results

are inconclusive, my examination of the descriptive statistics along with my qualitative

analysis of my 60 dyadic interactions suggests an inverse relationship between affective

intimacy and the frequency of certain gestures and body language and the degree of

political learning. Thus, the degree of friendship matters in political learning. Political

learning is much more than just a function of cognitive considerations alone. My analyses

in the following chapters strongly suggest that important links do exist among political

learning, friendship, and gestures. In a dyadic political communicative exchange, I

would posit that we could expect to find that political learning is higher among non-

friends than friends. I would argue that although this suggestion is not clearly supported

by this research, this is more a function of the low statistical power of my experiment

rather than an indication of a lack of any relationship. I would also posit that the use of

gestures in political discussion is more deliberate and formal among non- friends than

friends and that non-friends are more "attentive" to each other than are friends and that it

is precisely this deliberation in the use of gestures coupled with the greater attention paid

by non-friends to each other that is, in part, causal of the greater learning between non-

friends than with friends.

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CHAPTER 1: INTRODUCTION

Classic experimental research on political communication fails to address the mediating effects of intimacy on peer influence, and has yet to address the role of gestures as well, in the transmission and reception of political messages, potentially distorting findings about peer influence on political learning. My research builds the concept of intimacy into an experimental design as well as allowing for a detailed quantitative and qualitative analysis of gestures and other body language believed to be inextricably linked with oral communicative discourse. I posit that the study of the role of contextual effects in political behavior is enhanced when the affective and gesture components are included.

I first look at the research to date on the role of peer effects on political behavior, including affective intimacy, and how affective intimacy serves to influence political learning and behavior. It was my expectation that the presence of affective intimacy serves to influence peer effects in ways that are significant and measurable. I have constructed a research design whereby the influence of affective intimacy on peer influence can be measured and tested and where certain gestures and other body language can be analyzed and whose effect on political learning can be measured. I expected that the presence of affective intimacy by peers influences political learning and subsequent political behavior. By understanding this phenomenon, I hope to be to expand the research on the role of peer effects and affective intimacy in political behavior since the research to date has tended to ignore the influence of affective intimacy directly on peer influence. By incorporating an understanding of the affective component of political

behavior within any theory of peer influence, both areas of research are enhanced since political behavior is a consequence of both the affective and the cognitive.

I am positing that a study of contextual effects linked with an analysis of affective intimacy and certain specific gestures provides a more complete understanding of the role of each in political learning and subsequent political behavior. I am suggesting that affective intimacy as well as gestures serve as important modifiers of other non-affective contextual effects. I specifically expected that peers who are political discussants and affective intimates will measurably influence the political attitudes and vote choice of each other as well as facilitate political learning to an extent not found in peers who are not affective intimates. I also look to see what the effects of certain specific gestures and their frequency have on political learning between "friends" and "non-friends." It was my expectation that affective intimacy and gestures can be shown to affect political learning more than just cognitive considerations alone and to act as an impetus to political activity where such has been absent.

The goal of this study is twofold: 1. To investigate political learning and how exposure to political information imparted by peers who are also affective intimates influences it, and 2. To determine the relationship between gestures and political learning within dyads as mediated by affective intimacy. I am specifically interested in determining the effect of affective intimacy on the political learning and how the use of gestures by the "instructors" within my two randomized groups of "friends" and "non-friends" influences the political learning of my "listeners" in both groups. Because of the low statistical power of this experiment, I am using an analysis of the descriptive

statistics as well as an analysis of audio/video files of dyadic interaction to come to some tentative conclusions about these relationships. My assumption here is that my two treatment groups of "friends" and "non-friends" are truly random and that these experimental results have "ecological validity."

In Chapter 2, I discuss at length the previous research on friendship effects and learning and establish a foundation for my hypothesis that a study of these effects are enhanced when it includes the additional variable of affective intimacy in a research design. As it is, the extant research on friendship effects implicitly suggests a dynamic relationship between political learning and friendship. My findings, however, are somewhat at variance with the literature in that the recent research implies a positive, direct relationship rather than an inverse relationship between affective intimacy and political learning. My research suggests the more intriguing phenomenon that political learning/influence may be greater between non-friends than between friends. This is, in part, congruent with the social psychology literature, which posits that intimacy between dyads can result in a selective lack of attention for other than the most salient issues (citation needed). In a dyadic exchange with non-friends, I have found that greater attention is paid by the "listeners" to the information being transmitted to them by the "instructors" than is the case with dyads of friends. The descriptive statistics discussed in Chapter 6 suggest this as well as my analysis of the audio/video files in Chapter 8. Presumably, without the mediating and mitigating effects of friendship and the social information that it brings to bear on a relationship, members within non-friend dyads

attribute a saliency to the material being discussed until such time that a "social" connection is established (Baron and Byrne 2003).

I also show in this chapter the problematic nature of research drawn from survey data alone. I re-visit the 2006 National Election Pilot Study, Social Network Battery and show the limitations that such studies have. Specifically, I illustrate that these studies have a built-in endogeneity problem in that they are not able to control for self-selection bias. Also, missing data codes alone can skew results, thus giving an impression that friends within a network have greater political influence on each other than actually may be the case. Only in a controlled laboratory setting can the endogeneity problems be addressed through the randomization of control and treatment groups. And, more importantly, the nuances of interpersonal interaction between and among friends do not lend themselves to statistical modeling, and are best examined through direct and repeated observation of video files where these interactions can be carefully studied and linked with specific gestures and other body language.

In Chapter 3, I discuss the current research on gestures and other body language, which establishes its inextricable interlinkage with oral discourse. This "collaborative" analysis of gestures within dyads shows the dynamic nature of gestures insofar as there appears to be a linkage between the gestures of "instructors" and that of "learners" in that the gestures of "instructors" seems to be mediated and moderated by the gestural response of the "listener" (Kendon 2004).

What is notable about the extant research is its omission of the pedagogic ramifications of gestures in information transmission. The ubiquity of gestures in oral

discourse is well established. What has not been addressed is the effect of gestures on learning, political or otherwise. Specifically, the research does not show whether or not certain topics of conversation elicit certain types of gestures and body language with a frequency unique to that topic, or how political learning is moderated by gestures and body language once the degree of friendship is controlled for.

This chapter thus lays the groundwork for my theory and hypotheses that are discussed at length in Chapter 4. Specifically, I am positing that gestures are not just a concomitant to oral discourse, but rather have a role to play in how effectively information is transmitted and, more importantly, "learned" by the listener. The results that I have obtained, although tentative, suggest a role for gestures in the effective transmission of political information. These pedagogic implications as well as how gestures are affected by degrees of affective intimacy will be fully discussed in Chapters 8 and 9.

In Chapter 4, I discuss my three main theories and the testable hypotheses that I have derived therefrom. Specifically, I am hypothesizing a difference in civic engagement within dyads who are in a "friends" group and dyads who are in a "non-friends" group. Secondly, I am positing a difference in political learning within dyads between friends and non-friends. Third and finally, I suggest that the use of gestures within a dyadic communicative discourse is linked with both political learning and the degree of affective intimacy within dyads. I present my research paradigm in order to specifically test the following: 1. The mediating and moderating effects of affective intimacy within dyads on the degree of civic engagement, 2. The mediating and

moderating effects of affective intimacy within dyads on political learning, and 3. The

linkages among gestures and other body language with affective intimacy and political

learning.

In order to test these hypotheses, I administered three survey questionnaires: The

first questionnaire measured prior political knowledge, the second questionnaire

measured degree of affective intimacy, and the third questionnaire measured degree of

political learning, all between dyads within the "friend" and "non-friend groups". All of

the subjects were first randomly assigned to either a "friend" or "non-friend" group and

then were paired with a another subject within each groups to form a total of 30 dyads

within each randomly assigned group. All subjects were then asked to complete a

political knowledge questionnaire. Following the completion of this questionnaire, all

participants were then administered the McGill Friendship Survey. One half of each

dyad group completed the survey in a room separate from the other member of the dyad.

After the completion of this second questionnaire, one member of each dyad set from

each group watched a nine-minute pre-recorded video containing a political expert's

reporting on five major aspects of the political platform of the probable Democratic and

probable Republican Gubernatorial candidates for California. The other members of each

dyad were involved in a non-coded activity during this time.

In Chapter 5, I present and discuss the statistical results of a series of T-Tests that

I conducted on the "friends" and "non-friends" group on the relationship between

political learning and friendship and the degree of civic engagement and friendship

within dyads. I administered three survey questionnaires. I use inferential statistics to

draw conclusions from the sample population tested. I used The Statistical Package for the Social Sciences (SPSS) to code and tabulate scores collected from the surveys and from the recorded video files and provide summarized values where applicable including the median, mean, central tendency, variance, and standard deviation. Finally, I ran a series of Independent-Samples T-Tests to test differences between the variables of interest.

The results I obtained are inconclusive and may reflect low statistical power more than an absence of a significant relationship between civic engagement, affective intimacy, and political learning; and between political learning and affective intimacy. Since I used randomization, it is possible that differences found between the two groups for "Civic Engagement" and "Total Personal Involvement" might be nothing more than statistical anomalies. When one looks at the descriptive statistics, however, the results are more tantalizing and suggest than an experimental paradigm with greater statistical power might yield results of a more definitive nature.

In Chapter 6, I engage in a detailed qualitative analysis of the gestures and body language of the 120 subjects that I used for this study. By examining the audio/video files of 60 dyadic exchanges, I will present a more holistic picture of the role of gestures and other body language during political discourse, within dyadic exchanges between friends and non-friends, than can be gained through quantitative analysis alone. I will be discussing these results within the overarching framework of a discussion of gestures in general and will posit that the study of gestures and other body language has a value-

added effect on the study of political discourse in general. Specifically, I submit that any study of political discourse within dyads is impoverished when the gestural/body language component is removed from the analysis.

In Chapter 7, I present and discuss the results of a series of Independent Samples T-Tests that I ran to determine the relationship among affective intimacy, gestures and other body language, and political learning. My initial expectation in this study was that I would find a positive correlation among political learning, the degree of affective intimacy, and the use of gestures within dyads. What I have found instead is more nuanced and intriguing.

In the "non-friends" treatment group, the political learning of instructors is higher than in the "friends" group.   For "listeners" in the "friends" group, even though political learning is higher, it is not coincident with a greater frequency of Duchenne smiles, deictic gestures, iconic gestures, metaphoric gestures, or beat gestures. The higher political learning for "instructors" in the "non-friend" group, however, is coincident with a greater frequency of Duchenne smiles, deictic gestures, iconic gestures, and beat gestures.   Because the literature suggests that gestures act as an aid in learning by speakers and listeners, it is difficult to disaggregate these effects from other causal mechanisms for learning. If the political learning results that I obtained for the "listeners" in the "friends" group are anomalous, then I could tentatively suggest that the phenomenon of "selective attention" is the primary causal mechanism for the differences in political learning and gestures between "friends" and "non-friends."

In Chapter 8, I propose a "new" theoretical research paradigm for political science researchers that calls for the employment of both quantitative and qualitative tools in the examination of political opinion formation and political behavior between individuals and within groups of people who are discussing politics in an informal setting. I suggest in this chapter that the adoption of the research methodologies proposed by Harold Lasswell, coupled with the naturalistic experiments of Walsh (2003), the quasi-experimental research of Gamson (1992), and my own laboratory experiments detailed below, can (and should) be used together by political researchers in the examination of dyads or groups discussing politics, in order to come to more complete understanding of the effects of interpersonal communication on political opinion formation. I argue that this more "holistic" approach is essential in any examination of political opinion formation in order to more fully understand the nuances of the dynamics at work in informal "face-to-face" political discussions, whether between or among individuals.

Finally, in Chapter 9, I address the implications of my results as well at the limitations of my research paradigm. I look at the pedagogic implications of employing the study of gestures and other body language in the study of political learning, and posit that a conscious attention to gestures and body language in the teaching of political science could have a salutary effect on the level of political information successfully imparted to students. I suggest further research that will help to clarify my results, and address other implications that my research suggests for the study, discussion, and teaching of politics in both formal and informal settings.

CHAPTER 2: FRIENDSHIP EFFECTS AND LEARNING

Why Interpersonal Influence Is Important

Interpersonal influence on political learning is important and might possibly constitute the one factor in political behavior that is more amenable to change and modification than other influences such as party identification, SES, etc (Kenny 1994). This research is doubly important inasmuch as it will further suggest a causal link between peers, affective intimacy, and civic engagement and suggests, as Klofstad (2005) does, that peer interaction between affective intimates can serve as a critical agent of political socialization. Theories of political participation that do not take into account the role of social networks are, at best, underspecified (McClurg 2003). Informal social interaction, especially dyadic interaction where politics are discussed, informs the preponderance of political behavior, whether at the local, state, or national levels. The challenge, of course, is to extrapolate from social interaction to actual political learning and civic engagement and to show the causal connection between this interaction and behavior.

Social interaction has a "value-added effect" on political behavior. Recent research shows that " . . .informal social interaction has a strong substantive impact on participation . . ." (McClurg 2003, 459). Even within the context of a defined social organization, such as a church, with a specified set of moral and ethical codes and political predilections, it is the interpersonal influences rather than organizational mandates that appear to measurably affect political behavior (Wald, Owen, and Hill 1988). Thus, although organizations as a whole influence the behavior of individual members, this effect is modified by the interpersonal interactions of its members and social influence due to affective attachments (Weatherford 1992). It is at the dyadic level

of political discourse that the genesis of political preference formation and consequent political behavior is found (Brehm and Rahn 1997).

The above suggests that context effects at both the micro and macro-levels affects political behavior and that emotions might have measurable effects on behavior and can contribute to political learning. As a corollary to this, I posit that basic dyadic exchanges form the basis of social capital and manifest themselves, ultimately, in active political engagement. I suggest that simple dyadic political exchanges over time, where affective intimacy exists, can result in greater political acumen and more active involvement in the political realm (Brehm and Rahn 1997).

This dissertation outlines a strategy for measuring the role that affective intimacy has on the politically socializing effects of peer interaction. I will examine my research on peer effects followed by a discussion of my research on empathy and intimacy. I will then follow with a research question that suggests the role of affective intimacy on these peer effects. I will then propose a set of hypotheses and a research method with which to test them. I expected to find that peers who share an affective intimacy will have a greater, measurable influence on the civic engagement and political learning of each other than will peers alone and that political influence/learning is greater between peers with affective intimacy than without.

The Role of Affect on Peer Influence

The role that affect plays in social influence is also a fruitful area of study. Kenny (1994) builds upon the work of Huckfeldt and Sprague (1991) and comes to the conclusion that " . . .intimacy and respect are more important determinants of social influence than previously given credit" (Kenny 1994, 715). Thus, I suggest that "affective intimacy" will have a greater influence on dyads who are "structural" peers (those who share similar SES, are co-workers or who are at the same educational

institution, etc.) than will empathy alone. For the purposes of this dissertation, I go beyond measuring simple empathy and will, instead, examine and measure "affective intimacy" between dyads and show the relationship between intimacy and political influence between dyads who are "structural" peers. By "structural" I mean simply those who share the same "social role" within the same environmental context. Thus, I can define the undergraduate student population of UCR as structural peers since they share the same role as "student" and are interacting within the same educational institution over time.

We need to stress the importance of affective intimacy beyond that of empathy because it underlies and has an influencing affect on interpersonal communication and any subsequent political learning and behavior (Nickerson 2005; Johnson, Cheek & Smither 1983; Grief and Hogan 1973; Kerr and Speroff 1954). I define "empathy" using the standard psychological definition as "a complex affective and cognitive response to another person's emotional distress. Empathy includes being able to feel the other person's emotional state, feeling sympathetic and attempting to solve the problem, and taking the perspective of the other person" (Baron and Byrne 2003, 570). When I use the term "affective intimates," I am specifically referring to those who are "social" intimates. Thus, affective intimates are those who are in frequent contact and engage in many extracurricular activities regularly over time. They are, in short, friends who enjoy the company of each other. Thus, although my definition of affective intimates can include empathetic elements, it is also true that peers can be empathetic who are not necessarily social intimates. I am concerned in this study with peers who are affective intimates as well as those who are not. Research suggests that context effects on political behavior can be subtle and that face-to-face interaction can, in certain circumstances, result in

statistically significant influence in which affective intimacy plays a prominent role (Klofstad 2005; Davis 1983; Dymond 1949; Crano and Prislin 2006).

Affective intimacy can serve to make some people view political issues as personally relevant. If an issue becomes personally salient to an individual, the individual will cease to view the political process as a remote activity with little relevance to his everyday life and is more likely to engage in the political process with political behavior that would otherwise not obtain (Brader 2005; Kenny 1998; Joslyn 1997). In addition, research suggests that certain types of people and particular social groups are more predisposed to see a link between the self and broader societal issues and, consequently, are more likely to be more politically active (Rosati 2000; Losco 1986; Lanning 2005; Lodge, Steenbergen, & Brau 1995). The research to date shows that context appears to matter. Huckfeldt et al. (1998) suggest that people within communities and networks hold similar beliefs and behave in similar fashions. Children generally share the political beliefs of their parents (Barnett, Howard, King & Dino 1980). There is some research suggesting that the interpersonal effects of peer-to-peer conversations about matters political can result in individuals becoming more politically active (Koch 1993, Kuklinski, Luskin, & Bolland 1991; Lau and Redlawsk 2001).

Although it can be argued that peer influence is a byproduct of the social capital theory of Putnam (2001) and others, some researchers suggest that it is this influence that creates and sustains social capital (Nadeau, Niemi, & Amato 1995). Thus, peers are an important "agent of socialization" (Sacerdote 2001, 681). Again, the proximal influence of peers is, in part, a function of exposure since exposure can translate into influence (Klofstad 2005). Peer influence, to be sure, is mitigated by SES factors as well as existing political sophistication. Even when one controls for these factors, however, peer influence appears to be significant.

I will first look at the research to date on the role of peer effects on political behavior, including affective intimacy, and how affective intimacy serves to influence political learning and behavior. The presence of affective intimacy serves to influence peer effects in ways that are significant and measurable. I will propose a research design whereby the influence of affective intimacy on peer influence can be measured and tested. I propose that the presence of affective intimacy by peers influences political learning and subsequent political behavior. By understanding this phenomenon we will be able to expand the research on the role of peer effects and affective intimacy in political behavior since the research to date has tended to ignore the influence of affective intimacy directly on peer influence. When we incorporate an understanding of the affective component of political behavior within any theory of peer influence, both areas of research are enhanced since political behavior is a consequence of both the affective and the cognitive (Brader 2005).

Previous Research on Political Behavior

Explanations of much political behavior is driven by the sociological assumptions that " . . .social reality constitutes a domain which exists between and beyond individuals and is, therefore, distinct from individuals themselves" (Rosenberg 1985, 716). Thus, it is the collective that is primary and not the individual (Giles and Dantico 1982; Eisenberg, Fabes, & Losoya 1997). Political behavior thus occurs in an "intersubjective and extraindividual reality . . ." (Rosenberg 716). This "structural" argument severely limits any analysis of political behavior since a sort of "structural determinism" becomes the explanatory *sine qua non* of any individual decision-making calculus. Structural elements do play a role in behavior. But this macro analysis of behavior surprisingly eschews the psychological component of political learning and behavior (Cobb and Kuklinski 1997); Conover (1988).

Limits of Social-Constructivism

Rosenberg (1985) suggests that the "social-constructivism approach" that has informed much of the research on political behavior makes the unwarranted assumption " . . .that people learn through cultural means and that different forms of social organization and behavior emerge as a result of group relationships. From this perspective, ideas are unimportant unless they are socially shared" (Lepgold and Lamborn 2001, 7). This assumption incorrectly eschews the individual psychological components of learning in dyadic exchanges and fails to account for the learning that I observed between non-friends who may indeed not share political ideas. Affect serves as a lens through which preferences and possibilities are considered. Memory in particular is shown to be directly influenced by affect. The implications from this for policy formulation can be profound (Lepgold and Lamborn 2001).

Peer influence on political behavior exists at many levels. Huckfeldt and Sprague (1991) in particular posit that social influence is linked with political discussion to such an extent that matters political are seen to be embedded within the societal ethos at large. Going beyond the simple dyadic model of person-to-person political discussion exchange, these researchers suggest that a much more nuanced effect is at work with the degree of political influence a function of structural, SES, and other factors.

What is most important for the purposes of my research is that these researchers make explicit that individual political behavior is measurably influenced by the entire social context in which it occurs. Voting behavior is thus an interdependent behavior that can be best explicated within the larger environment (Huckfeldt and Sprague 1991). This research is the logical extension of the research of Berelson, Lazarsfeld, and McPhee (1954) since the focus is on discussant effects and, in particular, the role that they play in political learning and voting behavior. As Huckfeldt's analysis suggests, " . . . political

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communication within networks of social relations serves to enhance the individual and collective capacities of citizens to play meaningful roles in democratic politics" (Huckfeldt 2001, 436).

Affect and Political Mobilization

Specific research by Marcus and MacKuen (1993) on the role of affect in voting behavior shows a correlation between positive affect and political "mobilization." Conversely, a negative affect has been shown, in the long-term, to result in political disaffection. The research of McGraw, Fischle, Stenner, and Lodge (1996) as well support this research and " . . .illustrates the potential associated with integrating cognitive, affective, and motivational factors in the service of understanding political judgment and choice" (McGraw, Fischle, Stenner, and Lodge 1996, 282).

McGraw, Lodge, and Jones (2002) support this as well in their examination of the specific role that suspicion plays in political preference and voting behavior. In their research, suspicion can have either energizing or enervating effects. In their words, "because suspicion triggers a more active and thoughtful processing of information, it may minimize a number of cognitive biases . . . Suspicion, however, promotes uncertainty that can undermine the citizen's ability to make reasonable choices" (McGraw, Lodge, and Jones 2002, 381). Thus, whether for ill or for good, the affective component is linked with political learning and political behavior (McGraw, Fischle, Stenner, & Lodge 1996; McGraw, Lodge, & Stoh 1990).

Although the research above deals with a type of affect that is different from the friendship effects that I am studying, the research is important in that it makes clear that affect has a role to play in political discourse and in the forming of political preferences. My research adds to this by adding specifically the component of friendship to further show the importance of affect when studying political decision-making and political

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learning. Looking at political learning as a function only of cognitive considerations absent any affective component gives an incomplete picture of the dynamics involved in political learning.

Zajonc (2003) suggests the primacy of affect over cognition with his research that demonstrates that " . . .affective reactions are primary in that they precede other reactions to stimuli, are inescapable, tend to be irrevocable, are difficult to verbalize, and indeed, often rely on non-verbal means of communication and may, therefore, become separated from content" (Zajonc 2003, 169). In their research on the processes of candidate evaluation, Lodge, McGraw, and Stoh (1989) suggest the primacy of affect over cognition as well with their "on-line" "impression-driven" model of candidate evaluation. Here, recourse to the affective component appears to precede recourse to long-term memory for specifics that support the initial "impression" of the candidate (Mendelsohn 1996; Sharp and Lodge 1985; Searing 1995).

Affect and Bias

In Redlawsk's (2002) studies on the effects of motivated reasoning, he finds " . . . significant evidence that during routine information processing both search and candidate evaluation are biased toward existing preferences and these biases lead to suboptimal decision making" (Redlawsk 2002, 1022). There is thus an interaction between affect and cognition with affect seemingly serving to maintain existing biases even where new information suggests that the existing affect is "incorrect." This is a critical finding since " . . . the biases generated by affect appear to have real consequences . . . and it is easy to see how failing to adjust affect in accord with new incongruent information could lead to lower quality decisions as the value of the new information is discounted" (Redlawsk, 2002, p. 1040). What is central to this proposal can also be found in Redlawsk where he suggests that "affect counts. We can no more process political information without being

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aware of how it makes us feel than we can make reasoned candidate choices with no information at all" (Redlawsk 2002, 1041). Thus, social influence with an affective component can serve to militate against the cognitive element in motivated reasoning to such an extent that "objective" reasoning is supplanted by the emotional demands of the moment.

Greene (2002) extends the notion of affect to the phenomenon of partisanship and suggests that partisanship itself may be better understood, not primarily as an example of group identity, but rather as a reflection of a strong individual bias. Kuklinski, et. al. (1991) as well suggests that the social explanations for the development of partisanship given by Campbell et al., (1960) may need to be reevaluated in light of more recent work on affect and cognition (Granberg and Brown 1989). It is worth noting here that political communication occurs within a whole host of microenvironments at the dyadic as well as larger levels. What is key is the idea that "environmental supply and individual control affect the probabilities of exposure to alternative political viewpoints. . ." (Huckfeldt, Beck, Dalton, Levine, and Morgan 1998, 998). This research suggests the complex interplay between ideational and preference formation and the contextual cues that mediate and moderate their formation.

Prior information is called upon to compare with new information when such is confronted. This, of course, begs the question of the origin of this prior information. Research suggests that information, from both the macro and microenvironment, can be called up in processing new information. The influence of the microenvironment, such as in a dyadic exchange, is shown to be a prime influencer in ideational formation, especially when the discussants are seen as being in general agreement and when discussants are able to "communicate their preferences quite forcefully and effectively" (Huckfeldt et al., 1998, 1025).

Importance of the Macro and Micro-Environments

There is thus a biasing effect from both the macro and micro-environment. As Huckfeldt et al (1998) posits, "exposure occurs at the intersection of individual preference and environmental supply" (Huckfeldt et al. 1998, 1008). Thus, an understanding of the influence contextual effects have requires a nuanced understanding of the relative strength of the effects in the macro and micro-environments. It can thus be reasonably suggested that contextual effects, at all levels, have an affect on the formation of ideology and its practical expression in political behavior. Also, the evidence suggests that it is the microenvironment, especially if it is composed of a relatively socially cohesive group, that is, in a sense, used as the lens with which to filter the political messages coming from the macro-environment. In fact, later research by Beck, Dalton, Greene, and Huckfeldt (2002) suggests the primacy of discussant networks over the influence of the media.

The Interplay of Cognition and Affect

Mondak (1995) looks at discussant effects and social influence and finds that social influence on political learning and on subsequent political behavior to be broad, complex, and subtle. The question that should be asked is not whether discussant effects or media influence is primary but rather, what are the relative strengths of each influence in the decision-making calculus of the individual. Social networks are also examined by Weatherford (1982) in earlier research who finds similar subtle effects and interplay among the micro and macro contexts. What is most surprising about this research, however, is the finding that "intimacy and duration of friendships and frequency of contact—do not contribute to network politicization and overall have relatively small direct effects on the properties of local networks" (Mondak 1982, 129).

Subsequent research by Druckman and Nelson (2003), however, finds little support for the findings of Mondak (1982) and, instead, suggests that the affective component serves to influence discussant effects and can, in certain instances, serve to mitigate elite framing and influence. This is a crucial finding indeed in that it was believed that, heretofore "framing effects constitute one of the primary means by which elites influence citizens' opinions." (Druckman and Nelson 2003, 730). The ability of the social context to serve as a mitigator of these framing effects has profound implications for political discourse in general in that even in the most informal of social setting, interpersonal discussion can serve as a check on the importuning of media and other elites. Thus, it would be premature to conclude that media and political elites constitute a monolith of opinion to which the average citizen can have no effective response (Burbank 1997).

The importance of peer effects on the decision-making calculus of individuals has also proven to be a fruitful area of study. In his study of peer effects using Dartmouth roommates, Sacerdote (2001) has come up with some intriguing preliminary results. Although it can be "difficult to distinguish empirically between peer effects that are driven by individuals' backgrounds (contextual effects) and peer effects that are driven by individuals' behavior (endogenous effects)" (Sacerdote 2001, 682), it does appear that peer influence does operate at the social level and does appear to enhance academic performance as well. Whether and how this translates into larger social groupings is, of course, an empirical question that deserves further research.

Klolfstad (2006) in a more comprehensive study finds that peer effects do indeed permeate society and have influence as a function of the civic expertise, social intimacy, and homogeneity of the social group. He finds, in fact, a robust positive correlation between high levels of these three qualities and the quantity and quality of political

interest and discourse. Unlike other research, however, Klofstad (2006) takes a more nuanced approach by examining how peer influence changes under changing conditions. One surprising preliminary result is his finding that " . . . the personal characteristics of our peers matter more than their political knowledge or preferences" (Klofstad 2006, 20).

What his findings suggest is that peer influence tends to encourage political activity. What is less clear, however, are the effects of peer disagreements on political engagement. Nickerson (2005) echoes this point as well when he states, "people are situated in dense social networks that, at the very least, shape the way a person interacts with the world" (Nickerson 2005, 3). Green (1996) as well makes clear that emotions are influencers on behavior, political or otherwise, with his examination of both affective and non-affective mediators of motivation.

The Moderating Role of Affective Intimacy

McClurg (2003), while recognizing as well the importance of empathy within dyadic political encounters, is generally interested in discussant effects in, and the moderating effects of, the media upon them. His research suggests that social influence proves to markedly reduce media influence and, hence, serves to mitigate the notion of an overwhelming media influence. Although the effects of social influence on ideational formation vary as circumstances do, the one stable point seems to be what he terms "cultural issues."

Jerit, Barabas, and Bolsen (2004) also find social influence at work and that the political information provided by the environment " . . . does not have a uniform effect. It works selectively, increasing the advantages that accrue to certain segments of the population and leveling differences that exist between others" (1). In short, what political information is obtained is a function of the information richness of the environment moderated by discussant and other effects (Searing 1995). What is key is the notion that

an information rich environment alone is a necessary but not sufficient condition for political knowledge (Thornton and Thornton 1995).

The ability to process the information is a function of both the cognitive and the affective (Nickerson 2005). Brehm and Rahn (1997) suggests that high political activity is directly correlated with the context of the local environment and that it is a socially contingent phenomenon. He posits that it is precisely by studying contextual effects at the local, sub-national level that we can best understand the influences individual political behavior. The proximal nature of local versus national cues is one reason given for the extra saliency of context cues at this level (Sharp and Lodge 1985). The distal effects from larger political units seem to loom not as large or as imperative as local cues, even if the local cues deal with large sub-national, national, or international issues. Thus, as I am suggesting throughout this literature review, cognitive and affective components form an essential dyad where political learning and behavior are concerned. I further suggest that the two are inextricably linked in that political behavior is never simply a cognitive activity alone.

Context Effects With Affective Components

The importance of context effects coupled with a strong affective component on a dyadic level is that it forms the foundation of community-wide civic participation. The importance of local context and, ultimately, of interpersonal exchange on political behavior is most in evidence in the research of Hiskey and Bowler (2005). Although this examination is specifically concerned with emergent democracies, their findings dovetail nicely with other research on established democracies that suggest a profound linkage between micro-level political exchanges and political behavior (Petterson and Rose 1996).

Bowler, Donovan, and Hanneman's (2003) research on group membership and political engagement in Europe also supports the theory that membership in certain specific groups, a micro-level phenomenon, can affect civic engagement. This research, along with that of Eulau and Rothenbert (1986) suggests the interpersonal nature of political effects. Thus, contextual effects are more fruitfully studied as an interpersonal rather than as a structural phenomenon. The research also shows that interpersonal influence is a function of many factors, among them, the level of "connectedness" or "affective intimacy" between discussants. Affective intimacy which has previously been defined and which is more inclusive than simple friendship, thus serves as an influencer in political discussions. The one thing that is clear from the above is that there is a high correlation between political opinions of members of social networks. These similarities, however, can have many causes: " . . . interpersonal influence, similar pre-existing dispositions, similar structural incentives, exposure to identical exogenous factors, or a selection process that weeds out dissimilar individuals" (Nickerson 2005, 60). There are several problems that present themselves, however, in separating peer effects from existing shared political dispositions (Norpoth and Lodge 1985; Granberg and Brown 1989). Additionally, the question of what constitutes "influence" must be addressed as well. Is it only a dyadic process, or can it operate in environments that are not explicitly dyadic (Oakes 2002; Green 1996; Greenstein 1992).

Part of this research will thus be to separate peer effects from other context effects and examine them in isolation from other effects, as well as to develop a useful criterion for what constitutes "influence." The Bennington College study (Newcomb 1943; Newcomb et al. 1967; Alwin et al. 1991) shows the political socialization effects of college. The political socialization that occurred and persisted for 50 years after

graduation suggests that peers and context shape political attitudes and that college is a politically transformative experience.

This being the case, the examination of the difference in learning about new political issues between college students at UCR who are affective intimate peers and between those who do not display affective intimacy is a promising venue in which to explore both peer and affective intimacy effects. It is well established that social networks of any stripe are inherently personal, idiosyncratic, and responsive to exogenous influences (Nickerson 2005). The preceding discussion suggests that a fruitful area of further study would be to examine the moderating role that affective intimacy plays in peer interaction where matters political are concerned (Mehrabian 1996; Mehrabian and Epstein 1972; Mehrabian, Young, & Sato 1988).

Why is there is a need to revisit the role of friendship effects in political learning?

These studies and others strongly suggest that friendship and social networks are causal mechanisms for political influence and learning. What is missing from these observational studies that rely on survey data alone, are any controls for self-selection bias. Without adequate controls for this, one cannot claim that friendship and network agreement are alone causal of political influence and learning. Missing data codes alone can skew the obtained results suggesting relationships between network agreement and political influence that do not exist. These deficiencies can be addressed in an experimental setting where self-selection bias is controlled for through randomization in

the generation of a friends and non-friends group. This is indeed what I have done in my experimental design.

   When one looks at the 2006 National Election Pilot Study, to cite just one example, questions from the Social Network Battery would suggest that network agreement in friendships is causal of political learning and political influence. The following tables show the problem with relying on survey data alone. In Table 2.1, I show the frequency of interpersonal contact among friends in a network as given in the NES study. In Table 2.2, I show the results that will obtain when "Don't Know" and "Refused" responses are deleted and recoded to "Missing":

Table 2.1

2006 NES Pilot Study, Social Network Battery

How close does R feel to Network Person 1	Mean	Std. Dev.	Frequency of Contact (No. of Days)
Extremely	127.51	69.39	242
Very Close	80.36	69.58	132
Moderately Close	65.36	67.03	68
Slightly Close	57.63	59.57	22
Not Close	27.41	45.01	12

How close does R feel to Network Person 2	Mean	Std. Dev.	Frequency (No. of Days)
Extremely	113.75	69.27	185
Very Close	68.08	60.30	123
Moderately Close	47.07	54.69	79
Slightly Close	42.41	50.68	24
Not Close	42.38	56.56	13

How close does R feel to Network Person 3	Mean	Std. Dev.	Frequency (No. of Days)
Extremely	106.77	71.53	128

Very Close	61.52	54.67	96
Moderately Close	44.544304	45.06	79
Slightly Close	33.548387	49.35	31
Not Close	57.444444	65.050194	9

What the table above suggests is a positive relationship between frequency of contact and the degree of affective intimacy among people in a network. Taken at face value, these numbers suggest that people talk more with people to whom they feel close than to people to whom they don't, thus directly implying a significant social influence between and among those who perceive themselves as friends. These traditional survey instruments do not provide an adequate test of friendship in that they do not control for the endogeneity problems of self-selection. This problem can be exacerbated by missing data codes and large numbers of "Don't Know" and "Refused" responses which can skew the results. Lastly, and perhaps most critically, the data in the table above, as well as traditional survey instruments in general, cannot capture the nuances and "micro-processes" (such as gestures and body language in general) that occur in political discourse within dyads or groups of people in informal settings and which, in themselves, have an influencing effect on discussants.

As an example of this problematic nature of traditional surveys in general, table 2.2 below shows the results that obtain when I simply recode the "Don't Know" and "Refused" responses to "missing."

Table 2.2

2006 NES Pilot Study, Social Network Battery (MODIFIED)

*(Data that have changed from Table 2.1 above are in **bold below**)*

How close does R feel to Network Person 1	Mean	Std. Dev.	Frequency of Contact (No. of Days)
Extremely	127.51	69.39	242
Very Close	**80.91**	**69.56**	**131**
Moderately Close	**66.22**	**67.16**	**67**
Slightly Close	**60.00**	**60.00**	**21**
Not Close	27.41	45.01	12

How close does R feel to Network Person 2	Mean	Std. Dev.	Frequency (No. of Days)
Extremely	113.75135	69.274366	185
Very Close	**68.57**	**60.30**	**122**
Moderately Close	**48.61**	**55.21**	**76**
Slightly Close	**43.91**	**51.27**	**23**
Not Close	42.38	56.56	13

How close does R feel to Network Person 3	Mean	Std. Dev.	Frequency (No. of Days)
Extremely	**108.34**	**70.99**	**126**
Very Close	**63.85**	**54.67**	92
Moderately Close	**45.01**	**45.16**	78
Slightly Close	**37.33**	**51.91**	27
Not Close	57.44	65.05	9

By simply re-coding the "Don't Know" and "Refused" responses to "Missing," I have changed the means and frequencies in a majority of instances. This shows the "skewing" effect that the use of certain data codes have on survey results which can give the researcher a false sense of the effects of friendships within social networks. I suggest

that a clear anodyne to this problem is through the conducting of experimental research in a controlled laboratory setting such as I have done.

These deficiencies show the limitations of relying primarily on traditional observational studies, a deficiency that I am addressing in my research. Only in a controlled laboratory setting where self-selection bias is addressed through randomization and where dyadic interaction between friends and non-friends is recorded and then subsequently analyzed, can the dynamics of communicative exchanges and the mediating and moderating role of friendship, be observed and studied.

Thus, traditional research tools used by political scientists looking at friendship effects in political learning can be improved upon through the incorporation of experimental research and qualitative analysis of recorded dyadic exchanges. My research is designed to fill in the missing gaps in traditional observational research by a more thorough analysis of the communicative exchanges between friends and non-friends using both experimental and qualitative analysis. What my research is designed to do is augment, rather than supplant, the traditional "tools" used by political scientists when examining the role of friendship between and among people who discussing politics in an informal setting. As I discuss in more detail in Chapter 8, this approach gives the researcher a greater suite of tools with which to examine the dynamics of political discussions.

CHAPTER 3: GESTURES AND COMMUNICATION

Why study gestures in the first place?

The research to date makes a persuasive case for the centrality of gestures in human cognition as well as in oral discourse in general (Kendon 2004). What the research does not show, however, is whether or not certain topics of conversation elicit certain types of gestures and body language with a frequency unique to that topic, or how political learning is moderated by gestures and body language once the degree of friendship is controlled for. This dearth of research provides a fruitful area for study and has served as an impetus for my research. Although an analysis of gestures used between different academic disciplines is beyond the scope of my research, the moderating and mediating effects of affective intimacy on gestures used by political discussants is a major focus of this paper.

Gestures are a phenomenon closely associated with speaking and, rarely, with listening (Kendon 2004). For the purposes of my research, I am classifying as gestures only those bodily movements involving the hands and forearm, and am using the taxonomy of gestures developed by Kendon (1988) and McNeill (1996). All gestures involve hand movements, but not all hand movements are gestures. I am making a distinction between gestures and other hand movements (such as the touching of the face, the smoothing of the hair, etc.). Three main characteristics distinguish gestures from other hand movements (Kendon, 2004, 1988; McNeill 1996): 1. Gestures begin from a position of rest, move away from this position, and then return to rest. 2. Gestures have

what is know as a *peak* structure, also known as a *stroke*, which is a momentary accented movement which "denotes the function of meaning of a movement" (Roth 2001, p. 369). This *stroke* phase is preceded by a preparation phase and followed by a recovery phase (the phase at which the hands go back to a "rest" position). 3. Gestures are often (though not always) symmetrical.

As I discuss in more detail later on, my study employs the classification of gestures developed by Kendon (2004) and McNeil (1996), which are based upon each gesture's particular function. They have determined that there are four basic types of gestures: deictic (pointing, either concrete or abstract), iconic (representational, movements that bear a perceptual relation with concrete entities and events), metaphoric (used when talking about abstractions such as ideas, concepts, etc.), and beat (repetitive, such as the thrumming or tapping of fingers). Although gesture use is pervasive by speakers, not all gestures are used with equal frequency in all communication events. There is some evidence suggesting that during the narration of a story, to cite one example, iconic gestures more often appear as references to story events, while deictic, metaphoric, and beat gestures are more common when references are being made to story structure (Roth 2001).

There is evidence that gestures play an important role in the teaching and learning within the natural and physical sciences (This is, in fact, one of my motivations for studying gestures. There is little research studying their use within the social sciences or humanities). Within the natural and physical sciences, there is evidence that

". . . deictic gestures allow scientists to orient each other to particular entities salient to one but not to others or to coordinate talk about highly abstract concepts, on the one hand, and visual displays, on the other. Furthermore, because iconic and metaphorical gestures are of a topological nature, they are used by scientists to depict phenomena and concepts that are miuch more difficult to describe in words, which are of typological nature" (Roth 2001, p. 375).

When studied in a naturalistic setting, science students' and scientists' use of deictic, iconic, and metaphorical gestures is much in evidence (Roth 2001). The pedagogic implications of gesture use in the classroom is that students may develop modes of discourse more rapidly when the classroom context supports the use of gestures than when the context does not so support them (Roth 2001). It stands to reason, then, that teachers in other than science classrooms use gestures to help elucidate concepts and, thus, understanding the role and function of gestures in the relationship between teachers and students should be a high priority. A cursory examination of a typical college classroom will reveal that the talk of instructors is replete with gestures, allowing speakers to make salient specific aspects of texts, diagrams on the chalkboard, power-point slides, etc. The study of gestures in thus doubly important in that gestures serve a significant function in the underscoring of conceptual distinctions (Roth and Lawless 2002).

The social psychology literature suggests that gestures aid speakers in retrieving information from their long-term into short-term ("working") memory and with speech production as well, especially when one is imparting abstruse concepts to another. This phenomenon appears to be especially common when one is trying to describe spatial representations that are in working memory (Morsella and Krauss 2004). The notion that gestures aid in cognition and speech production in spontaneous communicative exchanges is reinforced by the studies that show the dearth of gestures by those who are giving a rehearsed speech (Wesp, Hesse, Keutmann, & Wheaton 2001). Thus, in a dyadic communicative exchange where the topic is complex and involves descriptions of objects or ideas within a defined space, such as one would expect in mathematics or other scientific discourses, the use of gestures as a concomitant to oral discourse is critical for lexical retrieval and to the efficacy of the dyadic exchange in general (Wesp, Hesse, & Keutmann 2001).

The possibility that gestures serve to prime speech and, hence, precede the lexical component of any dyadic communicative exchange further serves to suggest the importance of gestures in oral discourse and shows the need for greater qualitative analysis of dyadic communication in order to capture the subtleties of language/gesture interaction. Additionally, it is established that gesture restrictions within a controlled laboratory setting have a deleterious effect on speech production. Specifically, speakers who are prevented from gesturing have more halting and slower speech, as well as greater difficulty in lexical retrieval, than speakers who are not so restricted in their gesturing. Although I do not explicitly look at this, this finding supports the theory that

gestures are, at the very least, a necessary part of oral discourse. My qualitative analysis of 60 dyadic exchanges is, in part, designed to uncover whether or not gestures, as a rule, precede oral discourse or serve primarily as a concomitant to speech.

The pedagogic implications of gestures in teaching and learning have been neglected by scholars as well (Roth 2001). Although scanty, the extant studies on communication and gesture in learning suggest that listeners attend to the gestures of speakers in certain circumstances (Roth 2001). Indeed, my research suggests that this is the case, especially in the case where dyads are not affective intimates. Also, there is some intriguing evidence that the use of deictic, metaphoric, and iconic gestures are predominate in scientific and mathematics discussions within dyads. Although there are currently no comparable studies for other topics of discourse, this finding raises the possibility that the frequency and use of gestures in dyadic interactions might be context and content driven (Goldin-Meadow 2005). If it can be shown that gestures impart information in dyadic communicative exchanges above and beyond that provided by speech alone, than an understanding of what gestures work best in certain contexts could lead to the creation of teaching methodologies where the use of gestures are tailored to specific topics in order to effect an optimum degree of learning. Indeed, some researchers posit that "optimal instruction is likely to occur when it draws on the existing capacities of mind and body to enhance the learning of students" (Roth and Lawless 2002 p. 354).

Although gestures are concomitant with speech, they are important alone in that in the case of a breakdown in lexical retrieval, they serve to "fill-in" the missing information (Frick-Horbury 2002). Thus, gestures serve a multiplicity of functions: They have a cognitive consolidating function on the part of the speakers, they transmit information beyond the oral component, and they can substitute for speech in the case of a failure in lexical retrieval. Additionally, although gestures are especially useful in helping to describe the pictorial elements of the world, they are equally used in describing abstract and arcane concepts that are not visual in their nature (Frick-Horbury 2002). The social sciences, especially the discipline of political science, are replete with concepts that are, if nothing else, abstract and non-visual. The inextricable linkage between language and gesture is reinforced by research, which suggests that certain words automatically trigger a gestural response. Likewise, certain gestures help in the lexical retrieval of the associated word (Frick-Horbury 2002).

Gestures can either overlap speech, or provide additional information that is not easily conveyed orally. They are also as effective, if not more so, than words in conveying both thoughts and feelings. This has significant implications for classroom teaching in that important information is being provided, via gestures, by both instructor and learner to each other (Goldin-Meadow 2004). An understanding of this effect by instructors can help them develop more efficacious teaching strategies than if they concentrated on the verbal component alone. The limited experimental research to date suggests a positive correlation between certain gestures and learning. Additionally, the research also suggests that if gestures are consciously attended to by teachers, they will

obtain more information from their students and will be able to respond more completely than would otherwise be the case in the absence of this attention (Goldin-Meadow 2004).

Recent research shows that gestures as well as other aspects of body language (smiles, eye contact, speech rate, etc.) are an integral part of oral communication in general (McNeill 2007). What the research does not show, however, is whether or not certain topics of conversation elicit certain types of gestures and body language with a frequency unique to that topic, or how political learning is moderated by gestures and body language once the degree of friendship is controlled for. The specific gestures that I will analyze are those that the research has identified as most common to most oral communication in North America (see Kendon 2004): 1. Deictic (pointing gestures), 2. Iconic (using the hands to describe a specific object), 3. Metaphoric (using the hands to describe size of objects, indicate distance, etc.), and 4. Beat gestures (e.g., the repetitive thrumming of fingers on a desktop).

Other types of body language are also shown to influence dyadic oral communication such as the frequency of: 1. Duchene smiles (smiles that are involuntary and considered to indicate genuine happiness), and 2. Pan-Am Smiles (social smiles that are voluntary and not indicative of genuine happiness. 3. Frequency of eye contact, 4. The frequency of the arms being crossed across the chest (Ekman and Rosenberg 2005), and 5. The rate of speech, are also thought to influence oral communication between dyads as well (McNeill 2005, Kendon 2004) and are analyzed in this chapter. The gestures that I am studying, however, serve as a point of departure only for the detailed

study of the dynamic exchange within my dyads. I fully expect, and indeed have found, that the type and use of gestures within dyads during political discussions is much more subtle, nuanced, and different between friends and non-friends than the categories of gestures above alone might suggest.

Current Research

Gestures are inextricably linked with oral communication and bring information to bear in dyadic discourse that speech alone cannot convey (McNeill 1990). Gestures and other forms of body language help to reinforce and elucidate abstruse concepts that speech alone may be unable to provide (McNeill 2000, Kendon 2004). Gestures and other body language, however, are not forms of communication separate and distinct from spoken discourse, but rather are complements to it (McNeill 2007). Whereas spoken language provides a linear and segmented quality to discourse, gestures give it a multidimensional and "global" quality precisely because gestures, unlike words, are not restricted to a specific meaning and are context-specific (McNeill 1996). Among other things, gestures bring specific "imagery" to dyadic discourse that speech alone is unable to provide (McNeill 2007). Thus, gestures are not only inextricably linked to speech, they provide a "value-added" component to utterances, without which dyadic communication would be impoverished (Kendon 1981).

Research further shows that gestures almost never occur in the absence of speech. Thus, there is a distinct temporal relationship between oral discourse and gesture that serves to reinforce the complementary nature of both (McNeill 1997). Also, gestures

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occur within dyadic discourse even when both members are not visible to each other, such as occurs when communication is via the telephone (Kendon 2004). This phenomenon further supports the linkage between spoken discourse and gesture and is also suggestive that gestures may serve to clarify communication for both "instructor" and "listener" within a dyadic exchange (Kendon 1981). This "collaborative" analysis of gestures within dyads shows the dynamic nature of gestures insofar as there appears to be a linkage between the gestures of "instructors" and that of "learners" in that the gestures of "instructors" seems to be mediated and moderated by the gestural response of the "listener" (Kendon 2004).

Research suggests that the use of representational gestures (iconic, metaphoric, deictic) helps enable the "instructor" within dyads to organize his/her "spatio-motoric" thinking and consequent speech production in such a way as to "enrich" the communicative exchange within dyads (Kendon 2004). In fact, fluent speech production is inhibited when gestures are suppressed between dyads in a controlled laboratory setting (McNeil 1997). Other research directly suggests that gestures serve other important functions as well in dyadic communication. Specifically, gestures convey interpersonal attitudes and emotion and serve to create or sustain social relationships (McNeil 2000). Thus, one would expect to find differences in the kind and frequency of gestures within dyads who are peers and affective intimates, and within dyads whose members are peers alone (Golden-Meadow 2004).

The analysis of facial expressions in communicative analysis has grown concomitantly along with gestural research (Ekman and Rosenberg 2005). Specifically, an analysis of "smiles" and of "eye contact" within dyadic communication serves as important adjuncts in gestural analysis in that smiles and eye contact have shown to be important modifiers in both the transmission and reception of information. Analytical paradigms, most notably the FACS (Facial Action Coding System) have been especially helpful in analyzing the differences between the Duchenne smile (an involuntary, genuine smile of happiness) and what is called the Pan Am smile (a deliberate, constructed, voluntary social smile) (Ekman and Rosenberg 2005). Gestural research is enhanced when smiles and eye contact are included insofar as they are important signifiers of affect in any dyadic communicative exchange. The frequency of eye contact, in particular appears to be more positively correlated with Duchenne smiles than with Pan Am smiles in dyadic communicative exchanges (Ekman and Rosenberg 2005).

In general, a higher incidence of Duchenne smiles within dyadic communication should reveal a greater degree of positive affect between members of this dyad. And, according to research in the Social Psychology realm, positive affect translates into a pleasant emotional state, which in turn, could translate into a more successful communicative exchange insofar as receptivity to new information can be higher than would be expected from communication occurring in an unpleasant emotional state (Ekman and Rosenberg 2005). Conversely, the employment of the Pan Am smile is often used to mask an unpleasant affect state and, hence, could suggest a reduced receptivity to new information and a consequent reduction in learning (Ekman and Rosenberg 2005).

Additionally, research suggests that Duchenne and Pan Am smiles can be successfully analyzed cross-culturally, thus increasing their "ecological validity" (Ekman and Rosenberg 2005).

Within the specific realm of political discourse, the theory of "microanalysis" has been developed as a way to analyze both the speech and gestures of politicos (Bull 2002). Drawing on the work of Kendon (2004) and McNeill (1996, 2007), this theory gives concrete expression to the notion that oral discourse and hand gestures are inextricably linked. Microanalysis applied to political discourse shows a distinct relationship between hand gestures and the degree of vocal stress exhibited by the "listener" and that gestures are specifically used to structure the linguistic aspect of political discourse between dyads and as a cue for the audience to applaud in the case of a formal speech. In this sense then, microanalysis is a pragmatic test of the linkage and natural coordination of speech production and gesture (Bull 2001).

CHAPTER 4: THEORY AND HYPOTHESES AND EXPERIMENTAL DESIGN

Why Study Dyadic Interaction?

As I addressed in Chapter 2, interpersonal influence on political learning is important and amenable to change. The research also suggests a causal link between peers, affective intimacy, and civic engagement and suggests that peer interaction between affective intimates can serve as a critical agent of political socialization. Most importantly, informal social interaction, especially dyadic interaction where politics are discussed, informs the preponderance of political behavior, whether at the local, state, or national levels.

Social interaction also has a "value-added effect" on political behavior. Even within the context of a defined social organization, such as a church, with a specified set of moral and ethical codes and political predilections, it is the interpersonal influences rather than organizational mandates that appear to measurably affect political behavior. Thus, although organizations as a whole influence the behavior of individual members, this effect is modified by the interpersonal interactions of its members and social influence due to affective attachments. Most importantly, it is at the dyadic level of political discourse that the genesis of political preference formation and consequent political behavior is found.

I take from this that context effects at both the micro and macro-levels affects political behavior and that emotions might have measurable effects on behavior and can contribute to political learning. As a corollary to this, I posit that basic dyadic exchanges form the basis of social capital and manifest themselves, ultimately, in active political engagement. I suggest that simple dyadic political exchanges over time, where affective intimacy exists, can result in greater political acumen and more active involvement in the political realm.

Research suggests that context effects on political behavior can be subtle and that face-to-face interaction can, in certain circumstances, result in statistically significant influence in which affective intimacy plays a prominent role. Affective intimacy can serve to make some people view political issues as personally relevant. If an issue becomes personally salient to an individual, the individual will cease to view the political process as a remote activity with little relevance to his everyday life and is more likely to engage in the political process with political behavior that would otherwise not obtain. In addition, research suggests that certain types of people and particular social groups are more predisposed to see a link between the self and broader societal issues and, consequently, are more likely to be more politically active. There is some research suggesting that the interpersonal effects of peer-to-peer conversations about matters political can result in individuals becoming more politically active.

Why Study Gestures?

As I discussed in Chapter 3, gestures are inextricably linked with oral communication and bring information to bear in dyadic discourse that speech alone cannot convey. Gestures and other forms of body language help to reinforce and elucidate abstruse concepts that speech alone may be unable to provide. Gestures and other body language, however, are not forms of communication separate and distinct from spoken discourse, but rather are complements to it. Whereas spoken language provides a linear and segmented quality to discourse, gestures give it a multidimensional and "global" quality precisely because gestures, unlike words, are not restricted to a specific meaning and are context-specific. Among other things, gestures bring specific

"imagery" to dyadic discourse that speech alone is unable to provide. Thus, gestures are not only inextricably linked to speech; they provide a "value-added" component to utterances, without which dyadic communication would be impoverished.

Gestures are central in human cognition as well as in oral discourse. Gestures serve to prime speech and, hence, precede the lexical component of any dyadic communicative exchange further serves to suggest the importance of gestures in oral discourse and shows the need for greater qualitative analysis of dyadic communication in order to capture the subtleties of language/gesture interaction. Gestures are, at the very least, a necessary part of oral discourse. Thus, gestures serve a multiplicity of functions: They have a cognitive consolidating function on the part of the speakers, they transmit information beyond the oral component, and they can substitute for speech in the case of a failure in lexical retrieval. Additionally, although gestures are especially useful in helping to describe the pictorial elements of the world, they are equally used in describing abstract and arcane concepts that are not visual in their nature.

The above being the case, the examination of the difference in learning about new political issues between college students at UCR who are affective intimate peers and between those who do not display affective intimacy is a promising venue in which to explore both peer and affective intimacy effects in an experimental setting. This is especially true inasmuch as the research to date is composed primarily of observational studies that cannot control for self-selection effects. The study of gestures in an experiment setting as they occur within dyads during political discourse is also a fruitful

area of study, especially since the research does not show whether or not certain topics of conversation elicit certain types of gestures and body language with a frequency unique to that topic, or how political learning is moderated by gestures and body language once the degree of friendship is controlled for. This dearth of research provides a fruitful area for study and has served as an impetus for my research. Although an analysis of gestures used between different academic disciplines is beyond the scope of my research, the moderating and mediating effects of affective intimacy on gestures used by political discussants is a major focus of this research.

I can thus argue that the above discussion suggests the following three hypotheses:

Hypotheses

H1: Political learning between dyads when these dyads are peers and friends will be greater than if they are peers alone.

H2: Peers who are friends will have a greater, measurable influence on the civic engagement of each other than will peers alone.

H3: The kind and frequency of gestures and other body language employed by instructors in dyadic exchanges of political information will be different from those used in dyadic exchanges when the discussants are peers and non-friends.

EXPERIMENTAL DESIGN

In order to test my three major hypotheses that the degree of civic engagement and the degree of political learning are positively correlated with levels of affective intimacy, and that the degree and kind of gestures used between dyads is correlated with the degree of political learning and mediated/moderated by the levels of affective intimacy within dyads, I first recruited participants from two undergraduate, upper-division political science courses normally offered throughout the year. I specifically visited these two political science courses, gave a brief presentation, and asked for participants. Students in these courses were invited to participate in the experiment as an option for extra-credit. They were instructed to sign-up for the experiment via computer using an on-line scheduler. The students were asked to bring along a friend and, or, an acquaintance to participate. No subjects were coerced to participate: This was accomplished by making available an alternative task of reading current events magazines and political science journals (e.g., Time, Newsweek, The Economist, American Political Science Review) relevant to the course.

The students arrived in groups of two to the experiment facility, signed-in, and were asked to be seated. All of the subjects in each experiment group were first randomly assigned to either a "friend" or "non-friend" group (via a coin flip) and then were paired with a another subject within each group to form a total of three to four dyads. The total subject pool was composed of 120 individuals who were then paired to form 60 dyads total. Of these dyads, 30 were in the randomly assigned "friend" group and 30 dyads

were in the randomly assigned "non-friend" goup. I administered three survey questionnaires: The first questionnaire measured prior political knowledge, the second questionnaire measured degree of affective intimacy, and the third questionnaire measured degree of political learning, all between dyads within the "friend" and "non-friend groups".

The dyads were were divided with one half of each dyad group completing the surveys in a room separate from the other member of the dyad. All subjects were first asked to complete a standard political knowledge questionnaire consisting of eleven multiple-choice questions and four "fill-in-the-blank" questions (see appendix). The second part of this questionnaire consisted of seventeen "yes" or "no" questions designed to measure, in part, degree of civic engagement, degree of peer influence on political engagement, and the degree of general parental political involvement (see appendix). Upon the completion of the first questionnaire, all participants were then administered the McGill Friendship Survey (see appendix) designed to measure the degree of affective intimacy between subjects within each dyad. One half of each dyad group completed the surveys in a room separate from the other member of the dyad.

After the completion of this second questionnaire, one member of each dyad set from each group was randomly assigned (via a coin flip) to watch an approximately nine-minute pre-recorded video containing a "political expert's" reporting on five major aspects of the political platform of the probable Democratic and probable Republican Gubernatorial candidates for California (see appendix). The video, recorded on a Flip

Mino digital camera and then transferred to a digital video disc, is composed of one narrator, presented as a "political expert" to each viewer by me, who proceeded to read from a prepared script (see appendix) the political platforms of one probable Republican candidate and one probable Democratic candidate for the 2010 California gubernatorial election. The factual information presented was taken from the official campaign web sites of each probable candidate. The time devoted to each candidate is approximately equal. This presentation was designed to mimic the reporting style of a news broadcast or a lecturer in a college classroom. The "presenter" was wearing a coat and tie and was seated at a desk, bereft of any objects or signs that could betray any political bias. Additionally, only factual information was presented from a prepared script that the "presenter" read from. The other members of each dyad were involved in a non-coded activity during this time.

The viewers of this video were then re-paired with the other member of their respective dyads and were placed in a room separate from all other dyads and, in a period of five-minutes, imparted as much of the information they received from the video to their partner who did not view the video. This approximately five-minute interaction between dyads was filmed, using a Flip Mino digital camera, for later gestural and aural analysis. The members of each dyad who did not watch the video and who received their information about the video from their partner I am calling "Listeners". The members of each dyad who directly viewed the video I am calling "Instructors". Each dyad was then separated, with each member put in a separate room, and administered a forty-question Political Learning Questionnaire (see appendix). After this five-minute period, all dyads

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assembled and were administered a questionnaire testing their recall of the information imparted to them. The degree of learning that took place was measured and correlated with the results of the affective intimacy surveys that were administered. This questionnaire was equally divided with twenty "yes" or "nor" questions devoted to John Garamendi and twenty "yes" or "no" questions devoted to Steven Poizner. These questions were directly based on the information contained within the nine-minute video presentation and were designed to test the degree of recall of specific information rather than calling for an inferential response.

Total Civic Engagement Scores serve as the dependent variable for H2 and are based on a subset of questions contained within the Political Knowledge Survey (see appendix). Political Learning total scores serve as the dependent variable for H1 and H3. These scores are based on the forty questions that comprise the Political Learning Survey.

Participants

All of the participants are undergraduate students at the University of California, Riverside, between the ages of 18 and 25. 120 subjects were recruited of which 52 were male and 68 female. These subjects were paired to form a total of 60 dyads. Thirty of these dyads (60 subjects) were randomly assigned to a "Non-Friendship" group. The remaining thirty dyads (60 subjects) were randomly assigned to a "Friendship" group. The subjects are culturally diverse reflecting the cultural heterogeneity of the university undergraduate population as a whole. Although I did not formally gather information on ethnicity, an informal analysis of the subject pool roughly shows the following ethnic

composition, listed from highest to lowest concentration: 1. Pacific Rim (Southeast Asian), 2. Hispanic, 3. White, non-Hispanic, 4. Southwest Asian, and 5. African-American. All subjects showed a proficiency in Standard American English.

Data Analysis Procedure

I use inferential statistics to draw conclusions from the sample population tested. I used The Statistical Package for the Social Sciences (SPSS) to code and tabulate scores collected from the surveys and provide summarized values where applicable including the median, mean, central tendency, variance, and standard deviation. In addition, demographic data is processed using frequency statistics. Finally, an Independent-Samples T-Test is used to test differences between the variables of interest.

Prior to analyzing the hypotheses, I performed data hygiene and data screening to ensure the variables of interest meet appropriate statistical assumptions. Thus, the following analyses follow a specific analytic strategy in that the dependent variables are first evaluated for data irregularities, outliers, normality, linearity, and homogeneity of variance. Subsequently, I ran a series of Independent Samples T-Tests to determine if a significant difference exists among affective intimacy, peer interaction, political learning, and the frequency and kind of gestures employed between members of each of the 60 dyads tested.

Variables

The dependent variable is the degree of new political learning between peers who are affective intimates and between peers alone, and the mediating effects of gestures and other body language on this learning. The independent variables are the "friends" and "non-friends" randomized groups and a series of gestures and other body language.

Expected Results

- If the observation studies to date are correct in suggesting that networks of friends are more politically influential than non-friends, I would expect that the political learning scores between dyads when these dyads are peers and friends will be greater than if they are peers alone.

- Along these same lines, I would expect friends to have a greater, measurable influence on the civic engagement of each other than non-friends.

- Since gestures are a central component of oral discourse and have been shown to have pedagogic implications, I would expect that the kind and frequency of gestures and other body language employed by instructors in dyadic exchanges of political information in my friends groups group will be different from those used in dyadic exchanges when the discussants are peers and non-friends.

CHAPTER 5: RESULTS OF FRIENDSHIP EFFECTS

Introduction

The study of the role of contextual effects in political behavior is enhanced when the affective component is included. My research suggests that a study of contextual effects linked with an analysis of affective intimacy provides a more complete understanding of the role of each in political learning and subsequent political behavior. I am suggesting that affective intimacy serves as an important modifier of other non-affective contextual effects. I specifically expected that peers who are political discussants and affective intimates will measurably influence the political attitudes and vote choice of each other as well as facilitate political learning to an extent not found in peers who are not affective intimates. It is my expectation that affective intimacy can be shown to affect political learning more than just cognitive considerations alone and to act as an impetus to political activity where such has been absent.

Extant research shows that the level of affective intimacy between individuals can influence political behavior, ranging from the level of civic engagement to decisions made at the voting both. Much of the research on the relationship between levels of affect and political behavior, however, has been nested within research paradigms that are primarily concerned with the influence of peer and other context effects on political behavior rather than with the influence of affect on political behavior directly.

The research presented here is more narrowly focused and is specifically concerned with the relationship between affective intimacy (friendship) and degree of

civic engagement, as well as the degree of political learning between dyads, which is measured and evaluated as a function of the degree of affective intimacy. These hypotheses are evaluated within a controlled laboratory setting using two randomized groups of subjects: 1. A "friend" group and, 2. A "non-friend" group.

Current Research

Interpersonal influence on political learning is important and might possibly constitute the one factor in political behavior that is more amenable to change and modification than other influences such as party identification, SES, etc (Kenny 1994). This research is doubly important as it further suggests a causal link between peers, affective intimacy, and civic engagement and suggests, as Klofstad (2005) does, that peer interaction between affective intimates can serve as a critical agent of political socialization. Theories of political participation that do not take into account the role of social networks are, at best, underspecified (McClurg 2003). Informal social interaction, especially dyadic interaction where politics are discussed, informs the preponderance of political behavior, whether at the local, state, or national levels. The challenge, of course, is to extrapolate from social interaction to actual political learning and civic engagement and to show the causal connection between this interaction and behavior.

Social interaction has a "value-added effect" on political behavior. Recent research shows that ". . .informal social interaction has a strong substantive impact on participation. . ." (McClurg 2003, 459). Even within the context of a defined social organization, such as a church, with a specified set of moral and ethical codes and political predilections, it is the interpersonal influences rather than organizational

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mandates that appear to measurably affect political behavior (Wald, Owen, and Hill 1988). Thus, although organizations as a whole influence the behavior of individual members, this effect is modified by the interpersonal interactions of its members and social influence due to affective attachments (Weatherford 1992). It is at the dyadic level of political discourse that the genesis of political preference formation and consequent political behavior is found (Brehm and Rahn 1997).

The above suggests that context effects at both the micro and macro levels affects political behavior and that emotions might have measurable effects on behavior and can contribute to political learning. As a corollary to this, I posit that basic dyadic exchanges form the basis of social capital and manifest themselves, ultimately, in active political engagement. I suggest that simple dyadic political exchanges over time, where affective intimacy exists, can result in greater political acumen and more active involvement in the political realm (Brehm and Rahn 1997).

Measures

In order to test my two major hypotheses that the degree of civic engagement and the degree of political learning are positively correlated with levels of affective intimacy, I administered three survey questionnaires: The first questionnaire measured prior political knowledge, the second questionnaire measured degree of affective intimacy, and the third questionnaire measured degree of political learning, all between dyads within the "friend" and "non-friend groups". All of the subjects were first randomly assigned to either a "friend" or "non-friend" group and then were paired with a another subject within each groups to form a total of 30 dyads within each randomly assigned group. All

subjects were then asked to complete a political knowledge questionnaire. Following the

completion of this questionnaire, all participants were then administered the McGill

Friendship Survey. One half of each dyad group completed the survey in a room separate

from the other member of the dyad. After the completion of this second questionnaire,

one member of each dyad set from each group watched a nine-minute pre-recorded video

containing a political expert's reporting on five major aspects of the political platform of

the probable Democratic and probable Republican Gubernatorial candidates for

California. The other members of each dyad were involved in a non-coded activity

during this time.

Upon the completion of the video, all dyads regrouped with each dyad going to a

"break-out" room where the member of the dyad exposed to the video related as much of

the information, during a five-minute period, that he/she remembered to the other

member of the dyad not exposed to the political message. These sessions were recorded,

both visually and aurally, for later gestural and semantic analysis. After this five-minute

period, all dyads assembled and were administered a survey testing their recall of the

information imparted to them. The degree of learning that took place was measured and

correlated with the results of the affective intimacy surveys that were administered.

Demographics

All of the participants are undergraduate students at the University of California,

Riverside, between the ages of 18 and 25. 120 subjects were recruited of which 52 were

male and 68 female. These subjects were paired to form a total of 60 dyads. Thirty of

these dyads (60 subjects) were randomly assigned to a "Non-Friendship" group. The remaining thirty dyads (60 subjects) were randomly assigned to a "Friendship" group. The subjects are culturally diverse reflecting the cultural heterogeneity of the university undergraduate population as a whole. Although I did not formally gather information on ethnicity, an informal analysis of the subject pool roughly shows the following ethnic composition, listed from highest to lowest concentration: 1. Pacific Rim (Southeast Asian), 2. Hispanic, 3. White, non-Hispanic, 4. Southwest Asian, and 5. African-American. All subjects showed a proficiency in Standard American English.

Data Analysis Procedure

I use inferential statistics to draw conclusions from the sample population tested. I used The Statistical Package for the Social Sciences (SPSS) to code and tabulate scores collected from the surveys and provide summarized values where applicable including the median, mean, central tendency, variance, and standard deviation. In addition, demographic data is processed using frequency statistics. Finally, an Independent-Samples T-Test is used to test differences between the variables of interest.

Prior to analyzing the hypotheses, I performed data hygiene and data screening to ensure the variables of interest meet appropriate statistical assumptions. Thus, the following analyses follow a specific analytic strategy in that the dependent variables are first evaluated for data irregularities, outliers, normality, linearity, and homogeneity of variance. Subsequently, I ran a series of Independent Samples T-Tests to determine if a

significant difference exists between affective intimacy, peer interaction, and political learning between members of each of the 60 dyads tested.

One member of each dyad (60 subjects) was randomly assigned as an "Instructor" and was exposed to a nine-minute Audio-Visual political message. The other member of each dyad (60 subjects) was randomly assigned as a "Listener" and was not exposed to the video. Instead, each "Listener" learned about the information contained in the video directly from his/her "Instructor" partner during a five-minute period that was recorded and subsequently analyzed. Thus, the Political Learning of the "Listener" group (60 subjects, 30 of whom are in the "Friend" experimental group and 30 who are in the "Non-Friend" experimental group) is the primary group of interest in this study. I analyze T-Tests and then compare and analyze the results between these two groups

Reliability analyses of Political Learning Video Survey

I used forty questions to capture information learned from an approximately nine-minute political movie. To partially determine if this assumption is valid, I ran a Cronbach alpha reliability analysis. Reliability analysis allows one to study the properties of measurement scales and the items that compose the scales (Gatewood & Feild, 2001). Cronbach's alpha reliability analysis procedure calculates a reliability coefficient that ranges between 0 and 1. The reliability coefficient is based on the average inter-item correlation. Scale reliability is assumed if the coefficient is $> = .70$. Accordingly, for the Political Learning survey, I calculated Cronbach's alpha at .799 for the forty items tested. In general, since Cronbach alpha values are sensitive to the number of items in a scale,

scales with fewer than ten items can yield problematic values (Gatewood & Feild, 2001).

Since I am dealing with a scale of forty items, I am assuming that the Cronbach alpha

value is valid. Thus, I am assuming the reliability of the Political Learning Video

Survey.

Reliability analyses of McGill Friendship Survey

I used thirty questions to capture information about peer friendship. To partially

determine if the survey is internally reliable, I performed a Cronbach alpha reliability

analysis. Accordingly, for the Friendship survey, I calculated a Cronbach's alpha of .976

for the 30 items tested. Given the results, I am assuming reliability of the McGill

Friendship Survey.

Within each randomized group of "friends" and "non-friends" as a check on my

randomization, I generated a composite score of 5 from the McGill Friendship Survey to

indicate the lowest degree of friendship while a composite score of 8 indicates the

highest. This directly corresponds to the Likert scale used in the McGill friendship

survey (See Appendix). Thus, I am assuming that those scoring below 5 are not friends

and those scoring at 5 and above are friends, with a higher number indicating a stronger

relationship. I am using this self-reporting measure as a check on the results obtained

from the "friend" and "non-friend" groups tested. As I expected, there is a higher

number of self-reported friends within the "friends" randomized group than in the "non-

friends" randomized group. Likewise, the number of self-reported non-friends is higher

in the "non-friends" randomized group than in the "friends" randomized group.

Total Civic Engagement Scores serve as the dependent variable for H1 and are based on a subset of questions contained within the Political Knowledge Survey (See Appendix). Political Learning total scores serve as the dependent variable for H2. These scores are based on the forty questions that comprise the Political Learning Survey (See Appendix) administered to each member of the 60 dyads tested based upon material presented in a nine-minute video. The video, recorded on a Flip Mino digital camera and then transferred to a digital video disc, is composed of one narrator, presented as a "political expert" to each viewer by the researcher or an assistant, who proceeded to read from a prepared script (See Appendix) the political platforms of one probable Republican candidate and one probable Democratic candidate for the 2010 California gubernatorial election . The factual information presented was taken from the official web sites of each candidate. The time devoted to each candidate is approximately equal. One member from each of the 60 dyads was randomly chosen, via a coin flip, to view this approximately nine-minute video. The viewers of this video were then re-paired with the other member of their respective dyads and, in a period of five-minutes, imparted as much of the information they received from the video to their partner who did not view the video. This approximately five-minute interaction between dyads was filmed for later gestural, and other, analysis. The members of each dyad who did not watch the video and who received their information about the video from their partner I am calling "Listeners". The members of each dyad who directly viewed the video I am calling "Instructors". Each dyad was then separated and administered the forty-question Political

Learning Questionnaire.   A total score is derived by summing scores across responses. Response parameters are measured on a Yes/No scale where Yes = 1 and No = 0.

Before analyzing H1, H2, and H3, I assessed basic parametric assumptions. That is, for the dependent variables, data irregularities, outliers, assumptions of normality, and homogeneity of variance were evaluated. That said, I produced two graphical devices (standardized frequency histogram and Q-Q Plot) for the dependent variable to enable me to visually evaluate the aforementioned assumptions. Specifically, I generated a standardized frequency histogram for the dependent variables to provide visual evidence that outliers are not present and the distribution is normal (see Appendix). I also generated the expected normal probability plot to provide further validation of normality. However, before I assessed the normality of the distribution, I tested for outliers to detect cases that may not belong in the sample population.

Univariate Outliers and Assumption of Normality

The Political Learning Survey normalized histogram shows no outliers and slight negative skewness. Outliers are detected by determining if any normalized score exceeded ± 3.29. A score greater than ± 3.29 suggests that the overall response to the learning survey may not be part of the normal distribution. No scores produced a z score that exceeded the critical value.

Civic Engagement total scores serve as the dependent variable for H1. These scores are based on the seven questions (#21, #22, #24, #26, #27, #28, and #29) from the Political Knowledge survey concerning the participant's political interest. The parameters

are measured on a Yes or No scale. The Independent variable for the question is the Total Political Learning score based upon the Political Learning Survey (See Appendix).

Reliability analyses of the Political Knowledge Questionnaire

Seven questions are used to capture information on the civic engagement of each dyad. To partially determine if this assumption is valid, I ran a Cronbach alpha reliability analysis. Accordingly, for the Political Knowledge questionnaire, I calculated a Cronbach's alpha of .537 for the seven items tested. However, since I scaled the response options as categorical, it is difficult to assess reliability. In addition, I tested the Cronbach Alpha of .537 against the critical value of .70 and found it to be significant. Thus, I am unable to assume that the Civic engagement Survey is reliable.

Summary of Analyses

Table 5.1 below shows a statistically significant difference ($p = .045$) in civic engagement scores and Total Personal Involvement scores ($p = .018$) between the friends and non-friends group of the Listeners. As I expected, there is a statistically significant difference ($p = .000$) in the total friendship scores, as determined by the McGill Friendship Survey, between the Listeners in the friends and non-friends group.   I found no other statistically significant differences between the two groups for the Listeners.

Table 5.2 below shows, again as I expected, a statistically significant difference ($p = .000$) in the total friendship scores for the Instructors between the friends and non-friends group. I found no other statistically significant differences for the Instructors between the friends and non-friends groups.

Table 5.1

Differences Between Listeners in the Friend and Non-Friend Groups

Variable	Mean	Std. Deviation	Sig.
Political Learning			
(Non-Friend)	27.3000	9.97981	.395
(Friend)	29.0667	5.21228	
Total Civic Engagement			
(Non-Friend)	11.0667	1.77984	.046
(Friend)	10.1667	1.64177	
Prior Political Knowledge			.303
(Non-Friend)	10.3000	2.96124	
(Friend)	9.5667	2.48698	
Total Peer Influence			
(Non-Friend)	8.4333	1.38174	.921
(Friend)	8.4000	1.19193	
Total Family Influence			
(Non-Friend)	5.8333	1.20583	.172
(Friend)	5.4000	1.22051	
Sex			
(Non-Friend)	1.5000	.50855	.800
(Friend)	1.5333	.50742	
Total Friendship			
(Non-Friend)	65.9000	73.00324	.000

(Friend)	151.1667	27.62443
Total Personal Involvement		
(Non-Friend)	8.3667	1.27261 .018
(Friend)	7.5667	1.27802

Model Type: Independent Samples T-Test

 IV: Friend/Non-Friend Group

p <= 0.05

N = 30

In table 5.1 above, I ran a series of T-Tests between my two randomized groups, in part, as a check on the efficacy of my randomization. In order to ensure that political learning scores were not the result of differences in prior political knowledge, I compared the means between the listeners in my friends and non-friends group and found the differences to be insignificant. Likewise, the influence of peers on the listeners in my two groups was insignificant as well. I found that the number of men and women in my listener group were fairly equal as well in both randomized groups. As expected, the total friendship scores were statistically significant and were higher in the friends group than the non-friends group. The difference in total personal involvement scores is significant, however, and higher for the listeners in the non-friend group than in the friend group. I do not know how to account for this other than suggest that it may be a statistical anomaly resulting from the low statistical power of my experiment. My total civic engagement scores were significant as well and, again, higher for the non-friend listeners than the friend listeners. A finding that, again, was counter to my expectations as

are the political learning scores of the listeners between my friends and non-friends group, the differences of which are not significantly significant.

Because these results are not statistically conclusive, I follow this chapter with a qualitative analysis of the filmed dyadic interactions to help me examine more closely the dynamics at work in interpersonal discourse within dyads during the discussion of politics.

Table 5.2

Differences Between Instructors in the Friend and Non-Friend Groups

Variable	Mean	Std. Deviation	Sig.
Political Learning			
(Non-Friend)	33.4667	4.46236	.205
(Friend)	32.1000	3.77240	
Total Civic Engagement			
(Non-Friend)	10.7667	1.50134	.242
(Friend)	11.2593	1.63125	

Prior Political Knowledge			
(Non-Friend)	10.1667	2.84160	.475
(Friend)	9.7000	2.13590	
Total Peer Influence			
(Non-Friend)	8.5333	1.38174	.181
(Friend)	8.8276	1.19193	
Total Family Influence			
(Non-Friend)	6.0333	1.18855	.109
(Friend)	5.5357	1.13797	
Sex			
(Non-Friend)	1.5000	.50855	.065
(Friend)	1.7333	.44978	
Total Friendship			
(Non-Friend)	76.2667	69.74235	.000
(Friend)	140.3571	36.15626	
Total Personal Involvement			
(Non-Friend)	7.9667	.96431	.528
(Friend)	8.1481	1.16697	

Model Type: Independent Samples T-Test

IV: Friend/Non-Friend Group

$p <= 0.05$

$N = 30$

In table 5.2 above, I ran a series of T-Tests on instructor responses between my two randomized groups, in part, as a check on the efficacy of my randomization. In order to ensure that political learning scores were not the result of differences in prior political

knowledge, I compared the means between the instructors in my friends and non-friends group and found the differences to be insignificant as is the case for the listeners group. Likewise, the influence of peers on the listeners in my two groups was insignificant as well. Unlike the case for the listeners, however, I found that the number of men and women in my instructor group were unequal in both randomized groups with my friend group having a slightly greater number of women than men. In Chapter 6, I will be discussing at length the differences that I noted between men and women in how they discuss politics. As I will show, there are significant differences in the way that men and women interact during a dyadic exchange. As expected, the total friendship scores were statistically significant and were higher in the friends group than the non-friends group. The difference in total personal involvement scores is also insignificant. My total civic engagement scores were insignificant as well. As is true of the listeners, the political learning scores of the instructors between my friends and non-friends group are not significantly significant. Although the focus of my research is on the political learning of the "listeners" in my dyadic exchanges, I wanted to ensure the efficacy of my randomization for my "instructors" as well. By doing this, I can be reasonably certain that I am not conflating the gestures, other body language used, and language used by them in their interaction with the "listeners," in both my "friends" and "non-friends" groups, with significant differences in prior political knowledge, influence, or experience.

Because these results are not statistically conclusive, I follow this chapter with a qualitative analysis of the filmed dyadic interactions to help me examine more closely the dynamics at work in interpersonal discourse within dyads during the discussion of

politics. I will show that the results of this examination belie the significance results

obtained by my T-Tests in tables 5.1 and 5.2 above. I will show that my descriptive

statistics are a more useful guide to understanding what is actually taking place within a

dyadic exchange where politics is being discussed.

Discussion

The results obtained are inconclusive and may reflect low statistical power more

than an absence of a significant relationship between civic engagement, affective

intimacy, and political learning; and between political learning and affective intimacy.

Since randomization was used, it is possible that differences found between the two

groups for "Civic Engagement" and "Total Personal Involvement" might be nothing

more than statistical anomalies. When one looks at the descriptive statistics, however,

the results are more tantalizing and suggest than an experimental paradigm with greater

statistical power might yield results of a more definitive nature.

The descriptive statistics in Table 5.1 show that although the mean for political

learning is higher for the "listeners" in the "friends" group ($M = 29.1$, $SD = 5.2$) than in

the "non-friend" group ($M = 27.3$, $SD = 10.0$), this could mask an entirely different

relationship in that the differences in the standard deviation and standard error between

the groups is large. In Table 5.2, however, the mean for political learning is higher for

the "instructors" in the "non-friends group ($M = 33.5$, $SD = 4.5$) than in the "friend"

group ($M = 32.1$, $SD = 3.8$). On the other hand, since the degree of political learning

between the "friends" and "non-friends" group is statistically insignificant at the .05

level, ($p = .395$) for the "listeners and insignificant at the .05 level, ($p = .202$) for the "instructors", I am unable to reject the null hypothesis and conclude that the differences in "civic engagement" scores for "listeners" and "instructors" between the "friends" and "non-friends" group is related to "political learning" scores. In the next chapter, I will discuss the dynamics of interpersonal communication in the discussion of politics, which will help to clarify the relationships that I have found among political learning, friendship, and gestures. Also, as I will discuss in the concluding chapter, I will suggest alternate research paradigms that could more firmly establish the relationship between friendship and political learning within dyadic discourse. I will also be discussing the utility of further research for the field in general.

CHAPTER 6: GESTURES IN ACTION IN POLITICAL DISCOURSE

Why study gestures in the first place?

In light of the statistical results obtained above, it behooves me to lay a

foundation for the necessity of studying gestures as a concomitant to a strictly verbal

analysis of political discussions within dyads. The research to date makes a persuasive

case for the centrality of gestures in human cognition as well as in oral discourse in

general (see Kendon 2004). What the research does not show, however, is whether or not

certain topics of conversation elicit certain types of gestures and body language with a

frequency unique to that topic, or how political learning is moderated by gestures and

body language once the degree of friendship is controlled for. This dearth of research

provides a fruitful area for study and has served as an impetus for my research. Although

an analysis of gestures used between different academic disciplines is beyond the scope

of my research, the moderating and mediating effects of affective intimacy on gestures

used by political discussants is a major focus of this dissertation.

As I have discussed previously, the social psychology literature suggests that

gestures aid information retrieval by speakers from long-term into short-term ("working")

memory and with speech production as well, especially when one is imparting abstruse

concepts to another. This phenomenon appears to be especially common when one is

trying to describe spatial representations that are in working memory. The notion that

gestures aid in cognition and speech production in spontaneous communicative

exchanges is reinforced by the studies that show the dearth of gestures by those who are giving a rehearsed speech.   Thus, in a dyadic communicative exchange where the topic is complex and involves descriptions of objects or ideas within a defined space, such as one would expect in mathematics or other scientific discourses, the use of gestures as a concomitant to oral discourse is critical for lexical retrieval and to the efficacy of the dyadic exchange in general.

The possibility that gestures serve to prime speech and, hence, precede the lexical component of any dyadic communicative exchange further serves to suggest the importance of gestures in oral discourse and shows the need for greater qualitative analysis of dyadic communication in order to capture the subtleties of language/gesture interaction. Additionally, it is established that gesture restrictions within a controlled laboratory setting have a deleterious effect on speech production. Specifically, speakers who are prevented from gesturing have more halting and slower speech, as well as greater difficulty in lexical retrieval, than speakers who are not so restricted in their gesturing. Although I do not explicitly look at this, this finding supports the theory that gestures are, at the very least, a necessary part of oral discourse. My qualitative analysis of the audio/video files of 60 dyadic exchanges is, in part, designed to uncover whether or not gestures, as a rule, precede oral discourse or serve primarily as a concomitant to speech.

Gestures can either overlap speech, or provide additional information that is not easily conveyed orally. They are also as effective, if not more so, than words in

conveying both thoughts and feelings. This has significant implications for classroom

teaching in that important information is being provided, via gestures, by both instructor

and learner to each other.

What gestures and body language reveal

The following is a qualitative examination of the gestures and other body

language employed by discussants in my 60 dyads (120 subjects total) who served as the

subjects for my research. The need for this qualitative examination as a concomitant to

my quantitative analysis cannot be overstated. Because of the low statistical power of my

experiment, my statistical results are prone to both type 1 and type 2 errors. Additionally,

quantitative analysis alone does not allow one to easily notice the subtleties and

continuous variations in both gesture and speech inherent in dyadic communicative

exchanges. In order to help compensate for this and to give a much more nuanced picture

of the role of gestures and other body language used within political discourse, I engage

in a careful examination of the video files.   My purpose in doing this is to supplement

my quantitative analysis with the hope that I can arrive at a more complete picture of the

role that gestures play in the transmission of political information while taking into

account the mediating and moderating effects of affective intimacy. It is my expectation

that this analysis will not only serve to reinforce my statistical results, but will yield

additional information that will serve as an impetus for further research.

Gestures

The specific gestures that I examine are those that the research has identified as most common to most oral communication in North America (see Kendon 2004): 1. Deictic (pointing gestures), 2. Iconic (using the hands to describe a specific object), 3. Metaphoric (using the hands to describe size of objects, indicate distance, etc.), and 4. Beat gestures (e.g., the repetitive thrumming of fingers on a desktop). I will be examining the use of these gestures between my two randomized groups of "friends" and "non-friends" to check for differences in the kind and frequency of gestures between these two groups in order to determine what relationship exist, if any, among gestures, political learning, and affective intimacy. It is the gestures and other body language used by the "instructors" and their relationship to the political learning of my "listeners" that I will be focusing on. As I have mentioned earlier, gestures are associated with speech and, as such, are not prevalent within my "listener" groups. Non-gestural body language, however, is used by both "instructors" and "listeners" and will serve as a focus of my research. The examination of these specific gestures and other body language is designed to serve as a point of departure for additional analyses of body language.

Deictic Gestures

Deictic gestures are simple pointing gestures, usually with the index finger of either hand. Although deictic gestures are most commonly used to point to a specific physical object, they can be used to describe classes of objects or non-spatial phenomena and can supply information in the case of lexical failure (McNeil 2007). They are

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inextricably linked, and are concomitant with, oral discourse and can serve to direct the attention of both speaker and listener to a common referent (McNeil 2000). Thus, my analysis of the frequency of deictic gestures by my "instructors" within dyads in order to determine a relationship between the frequency of their use and the political learning of my "listeners" is appropriate.

Although the overall frequency of deictic gestures within both of my randomized groups is lower than the frequency of the other gestures that I am studying, there is a higher frequency of deictic gestures by the "instructors" in the dyads within the "non-friends" group than in the "friends" group. The use of deictic gestures appears to be unequal between the men and women who were acting as "instructors" in both randomized groups. I noticed a greater frequency of deictic gestures by female "instructors" in the female/female dyads than in the female/male dyads. Since gestures are strongly associated with oral communication, very few gestures, in general, are used by the "listeners" in each of my dyads. Also, I did not notice any visual convergence by both "instructors" and "listeners" when deictic gestures were used. This is not unexpected since there were no physical objects in the room that were related to the subject being discussed. I was able to discern a pattern between the use of deictic gestures and a relationship between these gestures and a verbal emphasis, indicated either by an increase in speech volume or by a speech pause. In other words, the use of deictic gestures appears to be strongly coincident with the recall of information after a period of unsuccessful recall. The sudden recall of information was usually accompanied by a

brief duchenne smile, a increase in both speech volume and rate of speech by the "instructor," and, in many cases, a reciprocal duchenne smile by the "listener."

Deictic Gestures in Action

Based on the above, in a dyadic interchange where politics is being discussed, I saw more deictic gestures by women "instructors" than men "instructors" in the non-friends group than in the friends group. I also saw more deictic gestures in female/female dyads than female/male dyads. This finding is interesting inasmuch as it does not conform to my initial hypothesis that gestures, in general, would be more frequent between friends than non-friends. I also noted that in the non-friends group, greater attention was paid by the listeners to the deictic gestures than was the case in the friends group. There was also greater eye contact in the friends group concomitant with deictic gesturing, more especially within female/female dyads. This suggests that a greater degree of attention is being paid to the discussion by non-friends than friends. As I address later on, the dyadic interactions between non-friends are attended to by both instructor and listener with a degree of "formality" and attention that is not as much in evidence in the exchanges between friends. The differences in the frequency of deictic gestures between female/female dyads and female/male dyads is suggestive that women may be less inhibited in their gesturing with another woman, even a stranger, than they are with men. The following exchanges will help to clarify the differences that I saw in the use of these gestures between the "friends" and "non-friends" dyads.

All of the following exchanges within dyads were conducted in a laboratory setting. Each dyad was composed of one "instructor" and one "listener." The "instructors" were those members of each dyad who watched the nine-minute video detailing the political platforms of two probable candidates (one Democratic and one Republican) for the 2010 California gubernatorial election. The "listener" is the member of the dyad who did not view this video message. Each dyad was placed in a room with two chairs slightly facing each other. On a table directly opposite the chairs was the small video camera that I used to record all of these exchanges. Each dyad was given 5-minutes for the "instructor" to relay as much information as he/she could remember from the video to his/her dyad partner (the "listener").

In the following exchange, the "instructor" and the "listener" are both female and were randomly assigned to my "non-friend" group. The exchange that occurs is typical of the exchanges that I observed within female/female dyads where deictic (pointing) gestures are employed within my "non-friends" group. As I have stated previously, gestures occur in the presence of speech and, rarely, in its absence. Therefore, the description that follows will, by necessity, deal primarily with the "instructor." I will, however, be describing other body-language used by both "instructor" and "listener." Although my transcription will be as faithful to the filmed interaction as possible, for the sake of clarity, I have either condensed or edited out lengthy digressions.

> Instructor: The video is about the, ah, upcoming California election for governor. The Democratic one was, starts with a "G" was, that's right, Garamendi (*At the point where she remembers his name, she uses a brief deictic gesture by pointing*

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directly to the listener. This is also accompanied by a brief Duchenne (genuine) smile, which I will discuss later).

During this initial exchange, the "listener" is sitting upright in her chair with her legs crossed, directly looking at the "instructor" with her hands folded on her lap. Both members are displaying consistent non-Duchenne (otherwise known as Pan-Am or "social" smiles) throughout most of the 5-minute filmed interaction. The instructor as well is sitting upright in her chair with her legs touching the ground and, when she is not gesturing, her hands are folded loosely on her lap. This is what I will refer to as her "default" position.

> Instructor (cont.): He (Garamendi) has four platforms, the first one is education, the second one is, ah, the environment, the third was one, I forgot (*at this point, the instructor looks directly at the "listener" and displays a very brief duchenne smile*), the fourth one was, wait!, I think that was the third one. The first one was about education and how the budget cuts are affecting the teachers, how they are losing benefits and not getting pay increases and how students have to go to community colleges instead of to a university because of the economy.

During the above exchange, the "instructor's" gaze is usually directed either towards the ceiling or towards the ground while she is trying to recall information from the video. This is consistent with the psychology literature, which suggests that information retrieval from memory is a cognitively intensive task and, as such, is associated with a non-directed gaze designed to reduce the amount of visual sensory information while information recall is in progress (citation needed). Once she has successfully retrieved the information, the "instructor" re-establishes eye contact with the "listener."

> Instructor (cont.): . . . and then there was the environment and how we can prevent our environment from declining and how we should promote more

environment friendly policies or something. We need to have more employment so that. . .Oh!, the third one was health care (*At this juncture where the instructor remembers the third point of John Garamendi's platform, she displays a brief duchenne smile and makes a pronounced deictic gesture to the "listener" who responds in kind with a duchenne smile of her own, accompanied with a slight backward tilting of her head*).

Instructor (cont.) . . . so we can provide more people with, health care. The other guy's platform, whose name I can't remember because he (the narrator) did not mention it all that much, the Republican one, his platforms were the economy, changing the government structure because it's causing all these problems, I really did not get that part, the health care one, no, not that one, the education one, he focused on people getting higher education and degrees in engineering and, what else?, um, on the economy, he wants people to have their businesses in California and be a competitive, um, state, he wants it to be part of a national policy.

At this juncture, the "instructor" is unable to recall any more information from the video. She restore full eye contact with the "listener" and asks her whether or not she has any questions.

Listener: So, the first guy was Gary Mendi?

Instructor: No! Garamendi, it's his last name.

Listener (cont.) . . . and his platforms are education, the environment, and the economy?

Instructor: Uh huh.

Listener: . . . and then the other guy was all about, basically reform, improving the economy. Did he mention education?

Instructor: Yeah, and the first guy also mentioned public transportation (*at this juncture, she displays another brief deictic gesture directed towards the listener*) because he thought that the traffic and congestion were wasting a lot of our time. So, he wants to promote public railways and more public transit stuff. He was also one of the first people to promote, um, green stuff, he promoted a policy for going green. Yeah, more information was given on the first guy (Garamendi).

At this juncture, the exchange between the members of this dyad ends. What is interesting to note here is that the "instructor" believes that more information about the

Democratic candidate (John Garamendi) was imparted by the video than the "other guy" (Steven Poizner). In point of fact, the time devoted to both candidates was identical. Also, each candidate's name was mentioned the same number of times, and with the same emphasis, as the other (see appendix). This could be indicative of a Democratic "bias" on the part of the "instructor," which would not be at all inconsistent with the political psychology literature, which suggests that we selectively attend to those messages that conform most closely to our political preferences. The relative formality of this exchange is worthy of comment as well. In the majority of the dyadic interactions, I noticed a greater "formality" in posture and attention within my non-friends group than in my friends group. As I have mentioned previously, this finding is not inconsistent with findings within social psychology, which posit that strangers (the "unknown") can be more salient to us than friends (the "known"). Hence, the seemingly greater attention that non-friends dyads pay to each other is a logical, though not expected, result. Also, the eliciting of feedback from the listener by the instructor is a phenomenon that I observed more frequently within non-friends dyads than the friends dyads. The use of deictic gestures is uncommon, but striking because of this very paucity. More than any other gesture that I observed, deictic gestures elicited the most noticeable response (in the form of body movement) from listeners. Its use appears to be directly related to the sudden recall of information after a period of unsuccessful information retrieval, and is accompanied by a Duchenne (genuine and involuntary) smile and direct eye contact with the listener.

The following dyadic exchange will show the differences in the use of deictic gestures between "friends" and "non-friends." In this exchange, I will show a typical dyadic interchange between subjects in my "friends" grouping. In the case, it is a female/male pairing with the female assuming the role of "instructor."

> Instructor: There are these two guys who, ah, have some propositions. The first propositions said that we needed to pay more attention to schools and education and paying more to teachers because they are getting laid off. The second proposition was health care and the third one was, huh, the economy. I'm having trouble remembering because it was a really long video. The fourth one, the last one, oh man, I don't remember. I have completely forgot. Oh,! I remember, the third one was health insurance (at this juncture, the instructor makes a quick deictic gesture directly at the listener accompanied by a brief duchenne (genuine, involuntary) smile.

It is interesting to note the marked differences in overall body language evinced by the members of this (friends) dyad. Unlike the first exchange between "non-friends" above, which showed a degree of "formality" between discussants, this dyadic exchange is considerably less "formal." Unlike the first exchange, the participants in this exchange are sitting as close together as their chairs will allow. The male (listener) is sitting in a "slouched" position in his chair with his legs crossed. The female (instructor) is maintaining a high-degree of eye contact with the listener throughout the exchange and only breaks off her gaze and looks into the distance when she is trying to remember something. The listener, as well, maintains direct eye contact with the instructor almost through the entire exchange.

> Instructor (cont.): . . .everyone need an affordable, high-quality insurance because everyone is paying too much and have to fill out all of these claim forms, and people, um, who really need full coverage are really not getting it. And the economy, California's economy is different from all the other states.

At this point, the instructor is having difficulty remembering anything more and elicits questions from the listener.

Listener: So, um, education, the environment and health insurance?

Instructor: Yeah

Listener: These policies were part of a package deal and it was all about Sacramento?

Instructor: Yes, it was just the state. I can't remember much of the second part.

During the entire exchange, the "listener" assumed, what can be best described, as a non-wavering, "relaxed" position in his chair. He maintained near-constant eye contact with the "instructor," kept his legs crossed, and kept his hands in his pockets during the entire exchange. The "instructor" employed few gestures (primarily metaphoric, which will be discussed below) either than the occasional deictic gesture that was coincident with her recall of information from the video. What is most remarkable about this exchange is the instructor's relatively little recall of the second half of the video dealing with the political platform of the Republican candidate Steven Poizner. This might suggest that, either she was not paying close attention to the video stimulus in the first place, or else the message of the Republican candidate was not salient to her and, hence, she attended to it less than the information imparted about the Democratic candidate. Also, the degree of informality in this dyad, as evinced by a more relaxed posture, especially by the listener, and a pronounced "lackadaisical" approach by the "instructor" in her imparting of information to the "listener," is in marked contradistinction to the first exchange above taken from a dyad in my "non-friends" group. It is also interesting to note that the "political learning" scores for both "instructor" and "listener" in this dyad

were lower than the scores of the members of the first dyadic exchange that I discussed above.

Iconic Gestures

Iconic gestures are illustrative gestures used, in general, to describe physical, concrete objects (citation needed). Because the political discussion within my dyads dealt with more abstract ideas and the proposed plans and policies of two politicos, the frequency of these gestures overall is low, although they are much more in evidence than are the deictic gestures. They are, however, more in evidence in the "non-friend" than in the "friend" group and appear to be employed more by females than males, especially in female/female dyads. Unlike what I found with the employment of the deictic gestures, I was not able to determine a pattern between the actual oral discourse and concomitant iconic gesture in either the "friend" or "non-friend" group. What is interesting about the use of iconic gestures is the sex differences in their use and in the use of gestures more generally. Women, on the whole, tend to gesture more than men and were, in general, more animated than men.

Iconic Gestures in Oral Discourse

As is true of deictic gestures, I see a greater use of Iconic gestures by women, especially in female/female dyads, in the non-friends group than in the friends group. As I observed, women tended, overall, to employ gestures more frequently than men, especially in the non-friends group. In a prototypical exchange within female/female dyads in my non-friends group, the instructor would begin the discussion by using

gestures to indicate that she had watched a video on the video monitor in the room and then would then employ iconic gestures to describe the narrator and the "set" that he was speaking from. The women were especially cognizant of the facial features and dress of the narrator of the video. They would use their hands to describe a circle, thereby indicating that the narrator had a roundish face. They would then proceed to use this gesture again to indicate that the narrator appeared to have a redder than normal face (this was more an artifact of the color control of the video monitor than anything else). They would then use a gesture that indicated that the narrator was speaking from a sitting position in front of a desk. In describing his attire (an open neck shirt with a sport coat designed to suggest that the narrator was a college professor lecturing from a seated position) women would use gestures that would describe a necktie (in this case to indicate the absence thereof) and gestures that described the narrator as wearing a sport coat and would raise their elbow to indicate that the coat was replete with leather elbow patches.

They would then typically move on to the message of the video itself and begin by indicating, with their index and third finger, that they will be discussing the political platform of two probable California gubernatorial candidates. They would again use their hands to indicate a specific number when they went on to impart the number of specific items that each candidate was concerned with. They would, in general, indicate that they were talking about a specific point by using their index finger to indicate that they were indeed talking about a specific point of each candidate's political platform.

In men/women and men/men dyads, I noticed the same general use of iconic gestures, although with less frequency with one notable exception: The men, in general, did not use iconic gestures to describe either the face or the general appearance of the narrator, though they would sometimes make a comment about them without an accompanying gesture. This could indicate that, in the main, appearance and attire might be less salient to men than to women. Although the use of iconic gestures by men was less than that of women, they were, as was true of the women, more formal and attentive in the non-friends group than in the friends group as evidenced by their posture and eye contact. As I have noted previously, I have found that there are differences between sexes in overall level of expressiveness. The psychological literature shows that women are more facially expressive than men are, that women smile more than men do, and that women are more bodily expressive in terms of hand, head, and body movement and touch others more than men do. What is interesting to note is that women's expressiveness appears to be relatively more "meaningful" to a discussion partner. In other words, I have observed that women and men receive different feedback from their discussant partners, in essence receiving differential "rewards" for their non-verbal behavior. My analysis also shows that men display, in general, more body restlessness and "relaxed" behavior, and are less precise in their use of speech than I have found with my female subjects in both my "friends" and "non-friends" group.

To illustrate how iconic gestures were used in my dyads, I will examine the interaction of a dyad from my "non-friend" group. In this exchange, the "instructor" is a male and the "listener" is a female. As is true of the above, I have chosen this dyad as a

prototypical example of the use of iconic gestures in a male/female dyad within my "non-

friend" group.

> Instructor: Basically, the video was on the 2010 elections. It talked about two candidates, John Garamendi and, oh gosh, a guy whose name starts with a "P." I can't remember, but it was some Republican (*at this point, the "instructor" makes an iconic gesture by holding up the first two fingers of his right hand to represent the number "2"*).

> Instructor (cont.): . . . Garamendi is a Democrat. His platform is based on four things: economy, he said we and the school budgets, and he talks about health, he said that he will reform the health care system in California because six million people are without insurance. And, gosh, the other guy, the "P" somebody, the republican guy, he basically said that the economy and education is important and also that we need to restructure and reform the California government because it is outdated. He says that education needs to be given back to local control because the state does not know the direct desires or needs of the local school districts. He said that 25% of Californians are in private schools because the public schools are not doing a good job and that California used to have the best public school system in the country. He also talked about public transportation trains and busses (*at the point, the "instructor" makes another iconic gesture by spreading both hand to represent a long train and train tracks*). I think this is what the first person said. There was a lot of information in this video, it was really packed.

At this point, the "instructor" elicited comments from the "listener" by asking her

to go over the main points in the video. As he went over each point, the listener would

briefly nod her head and reinforce what the "instructor" said by repeating a word or two.

> Instructor (cont.): . . . he wanted to restructure state government and get rid of duplication of effort, reorganize the bureaucracy, and the economy, and become competitive on a global scale (*at this point, the "instructor" makes an iconic gesture by describing a circle using both hands and forearms to physically represent the globe*). We need a highly educated market force.

> Listener: Does he think that going in the direction of private schools will meet the higher needs of the global economy and global competition?

> Instructor: He didn't talk so much about that. He just mentioned private schools as a statistic.

There are several aspects of this interaction that are worthy of comment. First of all, and as is true, in general, of the gesturing of my "non-friend" groups, the overall level of "formality" is higher than is the case in my "friends" group. The chairs are farther apart and slightly angled toward each other. Each member of the dyad is sitting fairly erect with both feet firmly planted on the floor. Except when she was speaking, the "listener" did not gesture but kept her hands loosely folded in her lap. Although she did not smile much throughout the exchange, what smiles she did employ were primarily of the non-duchenne variety (Pan-Am, social, voluntary smile). The instructor was fairly animated during the exchange and, when not employing iconic gestures, employed a number of subdued metaphoric gestures (discussed below). He tended to be more deliberate in speaking as well and more careful to determine understanding by the "listener" by eliciting input from her to ensure that she clearly understood what he was saying.

Although the "instructor" was able to recall more of the information from the video than was the case with some other dyads, he was able to remember more of the information pertaining to the Democratic candidate than for the Republican one. It could be that John Garamendi, then Lt. Governor, was simply better known to my participants than Steven Poizner, who was then California State Insurance Commissioner. Or, as I have suggested previously, the Democratic candidate, regardless of his current status in the state government, was simply more salient to my participants by virtue of his party affiliation, than was the Republican candidate. At any rate, this exchange serves to

illustrate the differences in the communicative exchanges between "friends" and "non-friends." This trend continues, as I will show below.

The exchange that follows is within a dyad from my "friends" group and will help illustrate the differences that I have noticed in the interpersonal communications where political information is being imparted. In this exchange from my "friends" group, the "instructor" and "listener" are both females. They start out with their chairs closer together than I have found to be the case with non-friends, and they immediately affect a more "relaxed" posture in their chairs which I have also found typical of "friends."

> Instructor: Um, the first was named, I think, Garamendi, he had five points (*here, she employs an iconic gesture using a display of fingers to indicate the number of of general, and expansive, metaphoric gestures where she uses both arms to describe the large category of ideas that each candidate has*).

> Instructor (cont.): . . .I'm thinking of Obama, one of them was education, one was energy and the environment, the third one was healthcare, the fourth one was the economy and, um, I don't remember the fourth one. And the other guy, he was, he had three points: education, oh, the economy, and California government reform (*There are many interjections of laughter by both participants throughout the exchange*). Um, the second guy said, um, that people are not involved and that more people are going to private schools because the public schools aren't good and that the California public school system was once the model for the nation and now it's not. And then he talked about the economy. He wanted to build more infrastructure (*During her recall of information, the "instructor's" gaze was directed upward as she attempted to recall information. She only resumed eye contact with the "listener" once she had successfully retrieved information. At the same time, the "listener" maintained steady eye contact with the "instructor." Both members displayed duchenne smile more or less consistently throughout the exchange*).

> Listener: They must have done a lot of talking!

> Instructor: No, it was just one guy reading. And, OK, the first guy wanted to fund more education and make it possible for more students to go to public education. Remember how Obama wanted to do wind energy? That's what he (Garamendi) wanted to do as well. Let's see. What else did I say?

Listener: You said that he said something about the economy.

Instructor: Ok, the economy . . . he mentioned how bad it is. Sorry, I can't remember much more. It was hard to remember, he was talking so much.

Although the use of iconic gestures is only slightly move in evidence than the use of deictic gestures, this exchange helps to illustrate the patterns and differences in discourse that I have observed between my "friends" and "non-friends." Again, degree of "formality" and "attention" are distinctly different between the two groups, and in a direction that I did not originally expect. The "friends" dyads appear more "relaxed" and are more "casual" in their exchange than are the "non-friends." In contrast, the "non-friends" are more "formal" in their posture and body language and more deliberate in their rate of speech and in the construction of their sentences. The instructors in this group also have a greater propensity to want to ensure that they are being understood correctly by eliciting comments from the listeners in order to ensure that they understood what the was just imparted to them. I noticed this phenomenon rarely in the "friends" groups. A common element, however, is the ability to recall more information about the Democratic candidate (John Garamendi) than about the Republican candidate (Steven Poizner). Although the amount of information imparted about each was essentially identical with identical emphasis given to each, the inability to recall as easily, or correctly, the information about the Republican candidate's platform is a question that I will be addressing at length in a subsequent chapter.

Metaphoric Gesture

The most prevalent gesture in evidence used by my dyads is the metaphoric gesture, which is primarily used to describe concepts, ideas, abstractions, etc. Given the nature of the discussion within my dyads, I expected this. The variety of gestures that fall under the metaphoric category is large, and are, in general, of a non-specific nature that can be anything from simple rotations of the wrist, to holding the hands far apart to indicate size, distance, etc. In other words, metaphoric gestures are the most common gesture found in North American and the most non-specific. I could not discern any significant difference in the frequency of metaphoric gestures between my "friends" and "non-friends" group. In both groups, women tended to gesture more than men, whether they were "instructors" or "listeners." I did notice, however, that "expansiveness" of the gestures were different between men and women in that women tended to use "bigger" gestures than men. I find this true for deictic and iconic gestures as well. Thus, the gestures between men and women differ not in kind, but in their degree.

Metaphoric Gestures in Action

In a typical exchange that I observed in both my friends and non-friends group, metaphoric gestures were very common and were punctuated by the lesser number of Iconic gestures. Thus, the metaphoric gestures that I observed "filled-in" the gaps between the Iconic gestures that were employed. In the main, women tended to use both hands when employing Metaphoric gestures while it was more common for the men to use one hand when gesturing, especially in the friends group.

In a female/female dyad, women tended to gesture more than in a female/male dyad which again is suggestive that women were more "comfortable" when talking with another women than when talking with a man. In the non-friends group, I again noticed a degree of attention and formality that was less in evidence in the friends group. I discerned this by observing a more erect posture by both members of the dyad, greater eye contact, and a greater degree of slight nodding head movements by listeners in response to specific points made by the instructors.

In a typical exchange where the dyad is female/female, the metaphoric gestures used involve both hands which were, in general, relatively far apart and used to indicate the general size of the issue that one candidate or the other was addressing. I also observed that it was common for the speakers to then finish this gesture by rotating their hands so that the palms of both hands were facing up when they were imparting the solution to the problem that the candidate was addressing.

In male/male or male/female dyads, the same gestures are in evidence, although notably only one hand is generally used. I noticed the same rotation of the hand to an open palm position when finishing discussing the candidate's solution to a stated problem. In the non-friends group, however, I did notice a greater number of two-handed metaphoric gestures in these dyads than in the friends group. This is concomitant with the greater attention and formality that I observe in general within the dyads in the non-friends group.

The following two exchanges will help to illustrate the above. In this first exchange, the dyad is composed of a male "instructor" and a male "listener" from my "friends" group. Again, my aim here is to show an interaction that is emblematic of the kind of interactions I have found between two males in my "friends" group.

Instructor: The movie is about Garamendi, I think that's his name. He is attempting to run for governor in 2010. He states that one of the important areas that we need to focus on in California is education and how students should become involved in governmental issues (*during this time, the instructor is almost exclusively using his right hand and arm to make a series of repetitive metaphoric gestures, consisting of raising and lowering his right forearm to a vertical position as he rests his elbow on his knee*).

Instructor (cont.) . . . He states that the infrastructure in California is bad right now, especially it's healthcare system. He talked about how students need to be prepared for a constantly changing market system.

Listener: Can you tell me what the market system is?

Instructor: Like, he said that there is too much pollution in California affecting agriculture and the general economy. We are not producing efficiently sufficient goods to match up with the level of the global market. Since California is essentially its own nation state with one of the largest economies in the world we need to start focusing in on the pollution (*at this point in responding to the listener's question, the instructor briefly raises both forearms, with the palms of both hands perpendicular to the ground, and moves them toward the listener as to emphasize the point that he is making. After this brief use of both arms, the instructor resumes his usual gesturing of using primarily his right arm to gesture.*)

Instructor (cont.) . . . I don't know the other people he was talking about. What they wanted, was pretty much the same thing, they talked about the pollution problem, a global market, reforming education in California and, mainly, it was just about the education, that's what Garamendi was emphasizing.

Listener: What did he want to do with education, what plans did he have?

Instructor: I don't know.

Listener: So he was basically talking about, um, the market and the equilibrium of California, that's what he is talking about? (*here, the listener, as was true of the*

instructor, uses one hand and forearm to gesture. In this case, he is using his left arm to display a series of metaphoric gesture similar to those made by the instructor.)

Instructor: The one neat thing was that he wanted college students of all majors getting more involved in the political process and wants more students getting involved in business as well and more bio-science majors to help combat pollution problems and to be able to compete globally and become more scientifically and economically advanced. I think his plans for the education system are designed to make it more affordable. Make it more affordable, let it be more efficient, and, oh yeah, he wants to create a system where all students who want to, will be able to go and afford the state universities.

In this exchange, the use of metaphoric gestures by instructor is fairly consistent, both in frequency and in kind. The "relaxed" or "slouched" postures of both participants give the interchange an informal character that I have come to expect from interactions within my "non-friends" group. And again, the instructor was able to impart information about the first candidate mentioned in the video stimulus (John Garamendi), but was unable to remember much about the second candidate discussed (Steven Poizner). In this next exchange, I will show a typical interaction within a dyad from my "friends" group. Here, the "instructor" is a female and the "listener" is a male. This dyad is from my "non-friends group." As the exchange begins, the participants have arranged the chairs consistent with what I have come to expect from my "non-friends" dyads. The chairs are placed farther apart and more at an angle than is the case with most of my "friends" dyads. Both participants are sitting erect in their chairs with both feet firmly planted on the floor. Additionally, the male "listener" immediately affects a "crossed arms" posture (his arms are folded across his chest) which, in the psychology literature, generally indicates a lack of engagement with whatever is happening in the immediate environment. As I discuss later on, the "arms-crossed" position is coincident with lower

scores on the political learning questionnaire that I administered after these dyadic

exchanges.

> Instructor: So, the first guy is running for governor in 2010 and he had four key points. The other guy he talked about was a Republican who had key points too. The first guy's points were energy, education, health care, and something about industry. For education, he wants to restore budget cuts, um, cutting education is not helping California (*During her deliberate recounting of Garamendi' points, she is using the index finger of her left hand to touch each digit of her right hand as she counts off each specific point of Garamendi's platform. She does this again when she addresses Steven Poizner's political platform*).

> Instructor (cont.) . . . California's health system is broken, we have six million people in this state without health insurance and, um, it's not good and he wants to do something about it. The last point I didn't get but it was about how it's important to have factories, or something like that (*at this point, the "instructor" displays a series of "localized metaphoric gestures, using both hands, such as displaying both palms, lifting both hands off her lap slightly and then letting them fall back down. During this time, both she and the "listener" are consistently displaying non-duchenne smiles (otherwise known as Pan-Am or social, voluntary smiles)*).

> Instructor (cont.) . . . not having local control of education is bad because you can't have northern California people telling Southern California people what to do. They don't know what we're struggling through (*At this point, the instructor has both hands elevated, palms facing each other, and is varying the distance between them during her recounting of the need for local control of public education*).

> Instructor (cont.): . . . money should be distributed locally to schools because each district know its own needs best (*here, the instructor is gesturing with her left hand as if she is using it to grab money she is holding in her right hand and then, distributing it to someone*). I can' remember what he said about energy or the rest.

> Listener: Did the two guys have different points, did they agree on them?

> Instructor: They did not agree or disagree, they just had different points. They had a different viewpoint.

> Listener: So, it's education, energy, healthcare, and industry and how one guy doesn't want cuts.

Instructor: Yeah, there shouldn't be. They're bad because children are our future, he's a Democrat.

Listener: Oh yeah, and alternative energy, improvements in health care, and improvements in factories and manufacturing, basically?

Instructor: It's important, but I've forgotten what he says.

Listener: And the Republican guy wanted the re-allocation of funds for education. Ok, that's fine.

What is most salient about this interaction between "non-friends" is the general "formality" of the exchange as evinced by the more erect posture of the two participants, relatively deliberate rate of speech and the care the instructor took in the articulation of her recollections. Again, as is the case with most of my dyads, information about Steven Poizner was seemingly more difficult to recall than the information about John Garamendi. What this could be a function of is a topic for further study.

Beat Gestures

Beat gestures are, as the name directly suggests, usually categorized as a regular, repetitive thrumming of the fingers and, or, the hand(s) (McNeil 2007). These gestures are much more in evidence in my "non-friend" than in my "friend" group and are almost exclusively evinced by males who are the "listeners" in my dyads. As the social psychology literature shows, in a dyadic exchange there is a direct correlation between the frequency of beat gestures and lack of engagement with either the other person in general, or with the material being discussed (Kendon 2004). Indeed, in almost all of my video files where beat gestures are evident, the individual employing these gestures appears to be either distracted or bored. In most cases, I found additional evidence for this in that the beat gesture is accompanied by a pronounced slouching posture, minimal

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or complete lack of eye contact with the other member of the dyad, or a significant amount of "crossed-arms" which, in and of itself, indicates a lack of receptivity to material being presented (McNeil 1997). Indeed, the political learning scores for those employing beat gestures, whether they be in the "friend" or "non-friend" group or "instructors" or "listeners", is lower than the scores of those not employing beat gestures. The employment of beat gestures was lower than all other gestures other than deictic gestures. This is what I expected insofar as all of my participants were volunteers who were receiving extra course credit for participating.

Duchenne and Non-Duchenne Smiles

Duchenne smiles are recognized cross-culturally as indicating enjoyment and pleasure and being a reliable indicator of one's emotional state (Ekman and Rosenberg 2005). Specifically, they are an indicator of positive affect and are not associated with a neutral or negative affective state. They are contradistinct from the non-Duchenne smile (otherwise known as the "Pan Am" smile) in that they are generally of shorter duration and involve the activation of the facial muscles orbiting the eyes along with the muscles that pull the lip corners up. More specifically, Duchenne smiles involve the activation of the zygomatic major muscle which raises the corners of the mouth, and the orbicularis oculi muscle which raises the cheeks causing the skin around the eyes to wrinkle (Ekman and Rosenberg 2005). It is an involuntary smile that is generally not possible to produce voluntarily. The non-Duchenne smile, on the other hand, involves the activation of only the zygomatic major muscle (Ekman and Rosenberg 2005). The non-Duchenne (Pan

Am) smile is recognized as a "social smile" or a "politeness" smile that is voluntarily produced in response to prevailing social demands, and can be sustained for a much longer time than the Duchenne smile. Although it can indicate positive affect, the Pan Am smile is primarily associated with neutral or negative affect (Baron and Byrne 2003). It is especially common in social environments where the individuals present may not be known to each other, and can occur in response to other stressful situations. There is also evidence that it is employed more by women than by men in certain circumstances, especially in dyadic communication with unknown males (Baron and Byrne 2003).

These smiles can be readily distinguished from each other by a careful analysis of video files of discussants. My initial expectation was that the frequency of Duchenne smiles would be higher by discussants within dyads in the "friends" randomized group than in the "non-friends" randomized group. I was also expecting that there would be a positive correlation between the frequency of Duchenne smiles and political learning within the "friends" group and, conversely, a lower frequency, and lesser correlation of these smiles with political learning in the "non-friends" group. As my statistical results show, however, just the opposite appears to be the case. By closely examining these dyadic exchanges as they unfold moment by moment, I hope to uncover additional information that will help to elucidate the dynamics of political discussion within dyads.

My visual examination of Duchenne and non-Duchenne smiles is designed primarily to see what differences exist in their frequency between the "friends" and "non-friends" dyads. All dyads were filmed for approximately five minutes. They were seated

in chairs approximately a foot from each other, angled slightly toward the camera. The camera was placed approximately five feet from each dyad. The proximity of the camera to each dyad, coupled with its high-resolution, rendered highly detailed video files which allows me to engage in this qualitative assessment of the dyadic interactions.

In both groups, the overall frequency of Duchenne smiles is significantly less than the frequency of non-Duchenne smiles, especially by males. Where Duchenne smiles are present, they are more frequent among females than males, especially where both members of the dyad are female. In both groups where the dyads are male/female, the presence of a Duchenne smile usually elicits a return Duchenne smile, although I have noted that a Duchenne smile can elicit a Pan Am smile as well, although with less frequency than a Duchenne smile. In both groups with male/female dyads where the members have self-reported a high degree of affective intimacy (based on their results on the McGill Friendship Survey), a Duchenne smile by a female would sometimes be coincident with, or immediately followed by, the female playfully touching the male. I also observed this within female/female dyads as well. I did not observe any male initiating this kind of activity.

Although, statistically, the frequency of non-Duchenne smiles, unlike the frequency of Duchenne smiles, is higher in the "friends" than the "non-friends" group, this could be a statistical anomaly resulting from relatively low statistical power. If low statistical power is not causal of my results, it could be that the dyads in the "friends" group were more conscious of being filmed and, hence, were less spontaneous with each

other and more focused on the task at hand than were the dyads in the "non-friends" group, which could suggest a problem with my randomization. My observations again do show that non-Duchenne smiles are more frequently used by females than males, especially in female/female dyads. Males, in general, tended to show a flatter affect (less emotion) than females. This could be an artifact of the different kinds of socialization that males and females undergo in North American societies, or it could indicate less engagement in the dyadic interchange by males than females.

Speech Rate, Eye Contact, and Crossed Arms

I decided to look at the rate of speech with the thinking that there might be some congruence between speech rate and political learning. Indeed, I found a statistically significant relationship between speech rate and political learning in the "non-friend group. Specifically, a higher than normal rate of speech is associated with higher political learning in this group. The video files show that, as a rule, females tended to speak at a slightly faster rate than males. The gestures employed appeared to keep pace with the speech, thus accounting for the perception of a greater animation among the women than the men. I also find that the rate of speech increases in proportion to the degree of eye contact among participants, especially within female/female dyads. Conversely, when participants, both men and women, in the "instructor" category are attempting to recollect information, there is a noticeable decrease in speech rate that is coincident with the speaker breaking off eye contact and directing his/her eyes to a non-specific location, usually either up in space or down on the floor.

This phenomenon is robust and appears to be directly linked with the difficulty in recalling information. In this case, "instructors" are retrieving the information that they received via the recorded video stimulus and are imparting that information to the "listener" in their dyad. The social psychology literature suggests that as the difficulty of information and lexical retrieval increases, the need to reduce external distractions increases as well (Feldman and Rime 1991). There was no visible decrease in gesture. Once the "instructor" recalled the information he/she was seeking, he/she tended to resume eye contact with the "listener" and the speech rate increased to its previous "baseline" level. In a majority of the cases, I noticed that eye contacted tended to be reciprocated, more often in the case of female/female dyads than in female/male dyads, except during what appeared to be difficult information/lexical retrieval.

The research show that the incidence of the speaker or listener having his/her arms folded across his/her chest is indicative of a lack of receptivity to either the material being presented or to the individual imparting the information (Kendon 2004). The few cases I observed supports the literature. "Arms crossed" behavior was more in evidence among the men than the women. This was usually accompanied by a lack of eye contact, more of a slouched posture than I noticed from others, and the employment of Beat gestures. Although there may have been as many women as men who were not engaged with the whole experiment, it is possible that differences in socialization and acculturation between men and women make it less acceptable for women than men to overtly show boredom or a general lack of interest in whatever social milieu within which they find themselves. It could also be that the women were more self-conscious than the

men of being filmed during these dyadic exchanges and hence, felt compelled to feign an interest that they otherwise would not have shown. Although there is an inverse relationship between political learning and the frequency of "crossed arms" by either member of each dyad in the "non-friends" group, there is slight, positive correlation between the frequency of "crossed arms" and political learning in the "friends" group. Why this is so I am at a loss to explain. This could be a statistical anomaly resulting from relatively low statistical power, or it could be that affective intimacy within certain dyads had a mitigating effect on the disengagement of those evincing "crossed arms behavior." In any case, this finding is contrary to my expectations and is worthy of further exploration.

Additional Observations

Overall, I was surprised at the general level of "seriousness" with which my experiment participants approached their political discussion with their partner. I was expecting a higher degree of "horseplay" and other "off-task" behavior than proved to be the case. In the main, the majority of participants proceeded immediately to the task of imparting the contents of the filmed political message to their partner in the five-minutes allotted to them, and were still engaged in this process when I, or my research assistant, came in to signal that the discussion time had ended. In only a few instances did the participants finish before time was called. Although it is possible that the realization that they were being filmed was serving to circumscribe their behavior, I did not observe any overtly self-conscious behavior after the first thirty seconds or so. Quite to the contrary,

the attention of the vast majority of the members of each dyad was focused away from the camera for the majority of the discussion time. There was little, if any, indication that they were even conscious of its presence. The fact that the camera was small and inconspicuous probably contributed to its lack of salience to the participants.

What was also surprising, if not dismaying, was that the political information being imparted from the "instructor" to the "listener" appeared, almost without exception, to be completely new to each member of each dyad, in both the "friends" and "non-friends" groups. This was especially evident in the case of the names of the two probable gubernatorial candidates being discussed. This occurred in spite of the fact that the names of both candidates were carefully and slowly enunciated several times by the narrator of my video throughout its nine-minute length. In almost all cases, the names of either candidate could not be recalled correctly, if at all. It was also not clear whether or not the respective party affiliation of each candidate was especially salient to my participants. In concert with the literature about the salience of political party affiliation (citation needed), I was expecting that, at the very least, the information concerning the Democratic candidate would be attended to and recalled with greater alacrity and frequency than the information associated with the Republican candidate. This did turn out to be the case. This has pedagogic implications that I will be discussing in my concluding section. Research, as well as voter turnout, directly suggests that national-level politics is more salient to the average voter than state or local politics (Campbell, et al., 1960). Thus, since the political stimulus to which my "instructors" in each dyad were

exposed dealt with state politics, it should not be surprising that the information was "new" to my participants.

It is also possible, however, that this lack of salience of state political issues to my participants makes my results all the more significant insofar as I can clam that the political learning evinced by my participants is uncontaminated by prior knowledge and the stronger preferences that are more attendant upon national than state political matters. If this is the case, I can have higher confidence that my political learning results are, in the main, based primarily on the information presented in the nine-minute political message.

There are notable differences between my "friends" and "non-friends" randomized groups that are worth noting. In the "friends" group, there is a greater degree of "relaxed behavior" than I noticed in the "non-friends" group. This was evinced by a less erect posture in the chair, and more pronounced "slouching," especially by the males. Females seemed more inclined to doff their foot apparel and tuck their feet under them on the seating area of the chair itself. Members in this group also seemed more inclined to angle their chairs slightly more toward the camera and away from each other. This, however, did not appear to affect the degree of eye contact or the use of gestures that I have discussed above. The overall impression that I gained from examining these files is that the participants appeared more relaxed, comfortable, and did not evince the "sense of urgency" in imparting their information to their partner that is evident in the "non-friend" group.

In the "non-friends" group, however, the overall impression that I gained from examining the video files is that the dyads were comparatively more "formal" than the dyads in the "friends" group. This is evinced by the dyads effecting a more erect posture and in the angle of their chairs, which were positioned slightly closer toward each other than was the case in the "friends" group. Also, there was a palpable sense that the participants were more aware of the time constraints that they were under in that less time was devoted to incidentals and more time directly devoted to a discussion of the material presented to the "instructors." In the case of female/male dyads, this formality and attention to the information task is more in evidence than in female/female dyads.

CHAPTER 7: RESULTS OF GESTURE AND AFFECTIVE INTIMACY EFFECTS
UPON POLITICAL LEARNING

Recent research shows that gestures as well as other aspects of body language

(smiles, eye contact, speech rate, etc.) are an integral part of oral communication in

general (McNeill 2007). What the research does not show, however, is whether or not

certain topics of conversation elicit certain types of gestures and body language with a

frequency unique to that topic, or how political learning is moderated by gestures and

body language once the degree of friendship is controlled for. The specific gestures that I

will analyze are those that the research has identified as most common to most oral

communication in North America: 1. Deictic (pointing gestures), 2. Iconic (using the

hands to describe a specific object), 3. Metaphoric (using the hands to describe size of

objects, indicate distance, etc.), and 4. Beat gestures (e.g., the repetitive thrumming of

fingers on a desktop) (Kendon 2004).

Other types of body language are also shown to influence dyadic oral

communication such as the frequency of: 1. Duchene smiles (smiles that are involuntary

and considered to indicate genuine happiness), and 2. Pan-Am Smiles (social smiles that

are voluntary and not indicative of genuine happiness. 3. Frequency of eye contact, 4.

The frequency of the arms being crossed across the chest (Ekman and Rosenberg 2005),

and 5. The rate of speech are also thought to influence oral communication between

dyads as well (McNeill 2005, Kendon 2004) and are analyzed in this chapter.

Current Research

Gestures are inextricably linked with oral communication and bring information to bear in dyadic discourse that speech alone cannot convey (McNeill 1997). Gestures and other forms of body language help to reinforce and elucidate abstruse concepts that speech alone may be unable to provide (McNeill 1997, Kendon 2004). Gestures and other body language, however, are not forms of communication separate and distinct from spoken discourse, but rather are complements to it (McNeill 2007). Whereas spoken language provides a linear and segmented quality to discourse, gestures give it a multidimensional and "global" quality precisely because gestures, unlike words, are not restricted to a specific meaning and are context-specific (McNeill 1997). Among other things, gestures bring specific "imagery" to dyadic discourse that speech alone is unable to provide (McNeill 2007). Thus, gestures are not only inextricably linked to speech, they provide a "value-added" component to utterances, without which dyadic communication would be impoverished (Kendon 2004).

Research further shows that gestures almost never occur in the absence of speech. Thus, there is a distinct temporal relationship between oral discourse and gesture that serves to reinforce the complementary nature of both (McNeill 1997). Also, gestures occur within dyadic discourse even when both members are not visible to each other, such as occurs when communication is via the telephone (Kendon 2004). This phenomenon further supports the linkage between spoken discourse and gesture and is also suggestive that gestures may serve to clarify communication for both "instructor"

and "listener" within a dyadic exchange (Goldin-Meadow 2005). This "collaborative" analysis of gestures within dyads shows the dynamic nature of gestures insofar as there appears to be a linkage between the gestures of "instructors" and that of "learners" in that the gestures of "instructors" seems to be mediated and moderated by the gestural response of the "listener" (Kendon 2004).

Researchers posit that the use of representational gestures (iconic, metaphoric, deictic), helps enable the "instructor" within dyads to organize his/her "spatio-motoric" thinking and consequent speech production in such a way as to "enrich" the communicative exchange within dyads (McNeil 2000). In fact, fluent speech production is inhibited when gestures are suppressed between dyads in a controlled laboratory setting (McNeil 1997). Other research directly suggests that gestures serve other important functions as well in dyadic communication. Specifically, gestures convey interpersonal attitudes and emotion and serve to create or sustain social relationships (Golden-Meadow 2004). Thus, one would expect to find differences in the kind and frequency of gestures within dyads who are peers and affective intimates, and within dyads whose members are peers alone (Kendon 2004).

The analysis of facial expressions in communicative analysis has grown concomitantly along with gestural research (Ekman and Rosenberg 2005). Specifically, an analysis of "smiles" and of "eye contact" within dyadic communication serves as important adjuncts in gestural analysis in that smiles and eye contact have shown to be important modifiers in both the transmission and reception of information. Analytical

paradigms, most notably the FACS (Facial Action Coding System) have been especially helpful in analyzing the differences between the Duchenne smile (an involuntary, genuine smile of happiness) and what is called the Pan Am smile (a deliberate, constructed, voluntary social smile) (Ekman and Rosenberg 2005). Gestural research is enhanced when smiles and eye contact are included insofar as they are important signifiers of affect in any dyadic communicative exchange. The frequency of eye contact, in particular appears to be more positively correlated with Duchenne smiles than with Pan Am smiles in dyadic communicative exchanges (Ekman and Rosenberg 2005).

In general, a higher incidence of Duchenne smiles within dyadic communication should reveal a greater degree of positive affect between members of this dyad. And, according to research in the Social Psychology realm, positive affect translates into a pleasant emotional state, which in turn, could translate into a more successful communicative exchange insofar as receptivity to new information can be higher than would be expected from communication occurring in an unpleasant emotional state (Ekman and Rosenberg 2005). Conversely, the employment of the Pan Am smile is often used to mask an unpleasant affect state and, hence, could suggest a reduced receptivity to new information and a consequent reduction in learning (Ekman and Rosenberg 2005). Additionally, research suggests that Duchenne and Pan Am smiles can be successfully analyzed cross-culturally, thus increasing their "ecological validity" (Ekman and Rosenberg 2005).

Within the specific realm of political discourse, the theory of "microanalysis" has been developed as a way to analyze both the speech and gestures of politicos (Bull 2002). Drawing on the work of Kendon (2004) and McNeill (1997, 2007), this theory gives concrete expression to the notion that oral discourse and hand gestures are inextricably linked. Microanalysis applied to political discourse shows a distinct relationship between hand gestures and the degree of vocal stress exhibited by the "listener" and that gestures are specifically used to structure the linguistic aspect of political discourse between dyads and as a cue for the audience to applaud in the case of a formal speech. In this sense then, microanalysis is a pragmatic test of the linkage and natural coordination of speech production and gesture (Bull 2001).

Measures

In order to test my hypotheses that the degree and kind of gestures used between dyads is correlated with the degree of political learning and mediated/moderated by the levels of affective intimacy within dyads, I administered three survey questionnaires: The first questionnaire measured prior political knowledge, the second questionnaire measured degree of affective intimacy, and the third questionnaire measured degree of political learning, all between dyads within the "friend" and "non-friend groups". All of the subjects were first randomly assigned to either a "friend" or "non-friend" group and then were paired with a another subject within each groups to form a total of 30 dyads (60 subjects) within each randomly assigned group. All subjects were then asked to complete a political knowledge questionnaire. Following the completion of this questionnaire, all participants were then administered the McGill Friendship Survey.

One half of each dyad group completed the survey in a room separate from the other member of the dyad. After the completion of this second questionnaire, one member of each dyad set from each group watched a nine-minute pre-recorded video containing a political expert's reporting on five major aspects of the political platform of the probable Democratic and probable Republican Gubernatorial candidates for California. The other members of each dyad were involved in a non-coded activity during this time.

Upon the completion of the video, all dyads regrouped with each dyad going to a "break-out" room where the member of the dyad exposed to the video related as much of the information, during a five-minute period, that he/she remembered to the other member of the dyad not exposed to the political message. These sessions were recorded, both visually and aurally, for later gestural and semantic analysis. After this five-minute period, all dyads assembled and were administered a survey testing their recall of the information imparted to them. The degree of learning that took place was measured and correlated with the results of the affective intimacy surveys that were administered and the degree and frequency of gestures and other body language that were determined via a careful analysis of the audio/visual files that were then coded and subsequently subjected to statistical analysis.

Demographics

All of the participants are undergraduate students at the University of California, Riverside, between the ages of 18 and 25. 120 subjects were recruited of which 52 were male and 68 female. These subjects were paired to form a total of 60 dyads. Thirty of

these dyads (60 subjects) were randomly assigned to a "Non-Friendship" group. The

remaining thirty dyads (60 subjects) were randomly assigned to a "Friendship" group.

The subjects are culturally diverse reflecting the cultural heterogeneity of the university

undergraduate population as a whole. Although I did not formally gather information on

ethnicity, an informal analysis of the subject pool roughly shows the following ethnic

composition, listed from highest to lowest concentration: 1. Pacific Rim (Southeast

Asian), 2. Hispanic, 3. White, non-Hispanic, 4. Southwest Asian, and 5. African-

American. All subjects showed a proficiency in Standard American English.

Data Analysis Procedure

I use inferential statistics to draw conclusions from the sample population tested. I

used The Statistical Package for the Social Sciences (SPSS) to code and tabulate scores

collected from the surveys and from the recorded video files and provide summarized

values where applicable including the median, mean, central tendency, variance, and

standard deviation. In addition, demographic data is processed using frequency statistics.

Finally, I use an Independent-Samples T-Test to test differences between the variables of

interest.

Prior to analyzing the hypotheses, I performed data hygiene and data screening to

ensure the variables of interest meet appropriate statistical assumptions. Thus, the

following analyses follow a specific analytic strategy in that the dependent variables are

first evaluated for data irregularities, outliers, normality, linearity, and homogeneity of

variance. Subsequently, I ran a series of Independent Samples T-Tests to determine if a

significant difference exists between affective intimacy, gestures, and political learning between members of each of the 60 dyads tested.

One member of each dyad (60 subjects) was randomly assigned as an "Instructor" and was exposed to a nine-minute Audio-Visual political message. The other member of each dyad (60 subjects) was randomly assigned as a "Listener" and was not exposed to the video. Instead, each "Listener" learned about the information contained in the video directly from his/her "Instructor" partner during a five-minute period that was recorded and subsequently analyzed. Thus, the relationship between gestures and political learning of both the "Listener" and "Instructor" group (120 subjects, 60 of whom are in the "Friend" experimental group and 60 who are in the "Non-Friend" experimental group) are the groups of interest in this study. I analyze T-Tests and then compare and analyze the results between these two groups

Summary of Analyses

Although Tables 7.1 and 7.2 fail to show a statistically signification differences, at the $p = .05$ level, in the gestures and subsequent political learning between "instructors" and "listeners" in either the "friends" or "non-friends" group, an examination of the descriptive statistics suggests that measurable differences do indeed exist and that the lack of statistical significance is a consequence of relatively low statistical power rather than a reflection of the absence of any true difference. What the tables do not show however, are the subtleties and nuances that occur in face-to-face

discussions that do not easily lend themselves to statistical modeling, and whose presence can only be adequately analyzed through a close examination of the filmed interaction.

The statistics alone suggest no essential differences in political learning between my "friends" and "non-friends" group, and do not suggest a relationship between the kind and degree of gestures used, and political learning. When one examines the video files of such interactions, however, definite differences do present themselves between "friends" and "non-friends" as well as differences between men and women in each group. In many cases, the differences are striking and worthy of further study. The fact that my statistical support for such differences is low should not be construed to mean that such differences do not exist or that they have no implications for the discussion, study, teaching, or understanding of matters political. As I address in my final chapter, my research design may not have been optimal. When you couple this with low statistical power, the results that I obtained could very well lead to type II errors. This being the case, I posit that it would be premature to come to any conclusions based upon my statistical results alone.

The results of Table 7.1 below, are unable to convey the essential differences in the interactions that I observed between my "friends" and "non-friends." A very striking difference is in the level of attention that the discussants pay to each other. As the exchange below shows, "non-friends" are more careful and deliberate in their interactions than are "friends." In the following exchange from my "non-friends" group, the "instructor" is male and the "listener" is female. Again, I have chosen this example

because of its typicality. Even though the level of "formality" within my "non-friends"

dyads is higher when it is a mixed-sex one, the overall level of "formality" and the degree

of attention are, in general, higher among the "non-friends" than the "friends" group

regardless of the sex of the participants.

In the following exchange, my two discussants assume an erect posture in their

chairs and have them angled toward each other, and at a slightly farther distance, than is

typical of the dyads in my "friends" group. They consistently maintain eye contact

throughout their exchange.

> Instructor: OK, the first candidates name is John Garamendi, he is the Democrat candidate for the 2010 gubernatorial elections in California, and Poizner is the Republican. (*The instructor is displaying an iconic gesture here by carefully using his left hand to point to the fingers of his right hand to indicate each candidate and continues using these gestures as he specifically mentions the individual campaign points of each candidate*).

> Instructor (cont.):   . . . his platforms are education, economy, health care, and, um, and energy, ok? (*At this juncture, the instructor is careful to ensure that the listener is understanding what he is saying. After stating each point of Garamendi's platform, the instructor is careful to move his eyes from his hands to the listener and resume eye contact with her. In response to this, the listener responds with a slight nodding of the head to indicate that she is listing and understands the point just stated. She also responds with a simple "yes" or "ok" coincident with her nods to indicate that she understands. During the entire exchange, she keeps her legs crossed at the knees, with both hands loosely folded over her right knee*).

> Instructor (cont.): . . . they are energy, education, the economy, and health care (*the instructor is careful here to repeat the points of Garamendi's platform. It is evident here that he is taking his role as "instructor" seriously by consistently eliciting feedback from the listener after imparting specific information to her*).

> Instructor (cont.): . . . Poizner has three points, he has education, and the economy, and government structure (*Here, as is true of both groups, while recollecting specific information, the instructor briefly breaks eye contact with the*

listener and then resumes eye contact when he has successfully recalled the information).

Instructor (cont.). . . so, two of them overlap, and Garamendi has four points and Poizner has three points. Um, so, Garamendi says basically that education is very important, he states that the condition of our schools is deteriorating and all students should have an equally opportunity to attend our colleges, like the UC system (*at this juncture, the instructor ceases displaying the iconic gesture that he has been using and lets both hands drop loosely at his sides. From this position, he then makes a serious of non-specific, metaphoric gestures composed of raising both arms and rotating both wrists briefly so that the palms of both hands face slightly upwards*).

Instructor (cont.). . . and they should be assisted based on their financial condition and academic standing. His second point was energy and he said that we need to find more efficient energy such as solar power. He did not mention fossil fuels or anything like that. I remember solar power, and he mentioned some other things. His next point was health care and he mentioned that six million Californians alone do not have any health care insurance, this is pretty crazy and this statistic got to me (*at this point, the instructor raised his right hand and made a general metaphoric gesture to emphasize this health care statistic. In response to this gesture, the listener displayed a more pronounced nodding of the head accompanied by a "yes," seemingly to indicate her agreement with the instructor's reaction to this statistic*).

Instructor (cont.): . . . um, so, we need health care reform in California. And, um, about the economy, he said that it would cost, I don't remember if it was Garamendi or Poizner, one of them basically said that it costs 30% more to own and operate a business in California than in any of the other western states, and, um, Poizner's three points, education, he basically make more sense to me even though I'm a Democrat, he basically said that control of our education system has gone from the local to the state level, which is not good because, teachers and departments have little or no control over what books they are allowed to teach in their classrooms, it's all state controlled. In Poly Sci 173, I think that it was Prop. 13, it was passed many years ago, I learned that it gave most local control to the state level, because more money was going to the state than locally, that's why it is very standardized. Plus, we are hiring more teachers who are not very experienced, so, you know, there is no local control and most decisions are made by the state, and that's why schools are so bad because all the schools get a certain amount of money, whether or not they need it at all (*at this point, the instructor stops displaying his metaphoric gestures and resumes his iconic gestures which characterized his gestures during the initial exchange period. During this time, the listener was becoming relatively more "involved" in the exchange as evidences by the greater frequency, and vigor, of her head nodding. She also is making more verbal interjections by saying "yes" more frequently*).

Instructor (cont.): . . . on the economy, Poizner said that we are the eighth largest economy in the world, yeah, the world, and so we are like a nation state by ourselves (*here, the instructor displays a metaphoric gesture and moves his hand far apart to indicate the general size of California's economy. The listener reacts to this with a pronounced head nod and a verbal "yes"*) because we have such a large economy.

This exchange thus gives us significantly more information, than can be gleaned from statistical results alone, about interpersonal communication when politics is being discussed. To begin with, there is a definite difference in the degree of selective attention between "friends" and "non-friends." This is difficult to model statistically because it just takes subtle differences in eye contact, expansiveness of gesture, speech rate, and body posture (such as having a slightly more erect posture, having the feet closer rather than farther apart, etc.) to give the exchange a more "informal" or "formal" look and "feel." These subtle differences are difficult to code meaningfully and only truly reveal themselves when one carefully studies the filmed dyadic interaction of a political discussion within a controlled laboratory setting. In other words, subtle differences in gestures and other body language can, and do, have a disproportionate effect on the character of the exchange itself. This, of course, begs the question of whether observed differences in the political discussions between "friends" and "non-friends" is coincident with differences in political learning or influence, and whether or not there is a causal relationship between political learning and influence, and the degree of affective intimacy between discussants.

As I have discussed earlier, the previous research on friendship networks suggests that friends are more influential in the shaping of the political opinions of each other than

are non-friends. I have pointed out the limitations of such research in that it cannot control for self-selection bias and does not provide for an adequate test of friendships. I have, in part, been able to overcome this problem through my experimental research that controls for friendship effects through random assignment of subjects into a "friends" and "non-friends" group. By filming the exchange between dyads in each group, I have the ability to observe directly the subtleties and nuances of interpersonal interaction. I have thus, another research tool at my disposal with which to examine the dynamics of the interpersonal interaction in political discussions.

I would argue that, even though the effect sizes that I have achieved are small, it is too soon to conclude that there is no relationship between political learning and the degree of friendship. As I have mentioned above and in the concluding chapter, a more optimal research design might indeed give statistical results that indicate a greater relationship between political influence and the degree of affective intimacy between political discussants; specifically, that there may, in fact, be an inverse relationship between friendship and political influence/learning, something which a close examination of my video files hints at.

In contradistinction to the exchange discussed above, this next exchange is from a male/male dyad in my "friends" group. I use this exchange again, to help illustrate the marked differences in the interpersonal communication that I have observed between "friends" and "non-friends." As the exchange begins, the participants assume a posture in their chairs that is best characterized as "relaxed" and "slouched" with their legs

splayed far apart. This is in marked contrast to the exchange between my "non-friends"

discussed above, whose chair placement and posture were more "formal" and designed to

make eye contact easier with each other. In this exchange, eye contact is very rare

between the participants.

> Instructor: To be honest, I don't remember much. I know that the Lt. Governor is running for governor in 2010.

> At this point, both participants are displaying non-duchenne smiles (otherwise

known as politeness or social smiles). The "instructor "is displaying an iconic gesture by

using his right hand to point at specific fingers of his left hand every time he is making a

specific point about something in the video. The "listener" is displaying many face-

touching gestures as well as a fairly consistent "leg-bobbing" of his left leg, resulting

from the rapid raising and lowering of the heel of his left foot from and to the floor.

> Listener: What is the Lt. Governor?

> Instructor: He's below the Governor.

> Listener: Really! I've never heard of the Lt. Governor.

> Instructor: Garamendi had four main points and Poizner had three main points. And, um. Garamendi talked about education and, number 2, he talked about the environment, infrastructure. For education, he was worried about all of the cutbacks, all of the libraries being closed and he wanted opportunities for all people to enter college. Ah, the environment, and the first person said he wanted alternative power, infrastructure.

> What is immediately apparent about this exchange is the lack of a coherent and

systematic recalling of information by the instructor. The "instructor" haphazardly tries

to recall information from both candidates and does not try to organize his thoughts in a

way that would make it most useful to the "listener." The political learning score of the

"listener" is, in fact, lower than the average for the listeners in the "friends" group.

> Instructor (cont.) . . . and he is talking about transportation, he said. Yeah, we need to invest in rapid transit as well as highways because transportation levels in terms of time is at 1910 levels.

> Listener: Oh, wow! How do you gauge that?

> Instructor: And, I still can't remember his third one, the Republican Poizner, he said education. . .

> Listener: He's the current Governer?

> Instructor: No. I forgot what he is. He is a Republican and the first thing he said was about education. I do remember that he wanted college to be available, and the government to get involved to ensure that people can get to college. He also talked about the economy. He said we are losing jobs and are falling behind.

> Listener: In terms of technology?

> Instructor: No, he said our state is being run the same way since after the cold war. And, oh, I remember his third one, his third one was government structure. He said that the state government structure was the same since the Civil War when the population of the state was, I think he said, 90,000. He said that we are wasting money on duplicate committees. I wish that I could remember the third thing that the Lt. Governor was talking about.

The term "casual" is the one that comes to mind when analyzing this video. The

"relaxed" body postures of both discussants, coupled with a lack of attention that they

displayed to each other, suggests a less than engaged pair of political discussants who are

not "connecting" in the meaningful way that I have observed the discussants in my "non-

friends" dyads do. Although the sense of "connection" is somewhat ineffable, it is,

nonetheless, palpable in the exchanges in the majority of my "non-friends" dyads upon

close examination of the video files. Also, as is true of the majority of my other

interactions, the information contained in the video about the potential Republican

candidate, Steven Poizner, is much less easily, or accurately, recalled than is the information about the potential Democratic candidate, John Garamendi. I will suggest reasons for this in the following chapters.

Again, the significance of this exchange is that it shows significant differences in organization, language, and attention that participants display from one group to the other and gives me information that table 7.1, which directly follows, does not. This is not to suggest that the T-tests that I ran comparing the means of the scores of my listeners in both my "friends" and "non-friends" group is completely inefficacious. Quite the contrary, the information contained in this table helps to support the efficacy of my randomization. And, because the difference between the means is small, it lends support to my contention that a supplementary, qualitative examination of the filmed interactions is a useful adjunct to statistical analysis alone.

Table 7.1

Gesture Differences Between Listeners in the Friend and Non-Friend Groups

Variable	Mean	Std. Deviation	Sig.
Political Learning			
(Non-Friend)	27.3000	9.97981	.395
(Friend)	29.0667	5.21228	
Deictic Gestures			
(Non-Friend)	.3667	.28155	.515
(Friend)	.1667	.11826	
Iconic Gestures			
(Non-Friend)	14.7667	2.56980	.821
(Friend)	14.0667	1.70391	
Metaphoric Gestures			.931
(Non-Friend)	52.5333	17.78751	
(Friend)	52.1333	17.70979	
Beat Gestures			
(Non-Friend)	1.6667	9.12871	.505
(Friend)	.5000	2.73861	
PanAm Smile			
(Non-Friend)	52.7333	21.56455	.743
(Friend)	54.6000	22.38780	
Duchenne Smile			
(Non-Friend)	16.6333	13.95432	.855
(Friend)	15.9333	15.56728	
Speech Rate			.812

(Non-Friend)	1.6667	.54667	
(Friend)	1.7000	.53498	
Eye Contact			.564
(Non-Friend)	45.4000	22.86633	
(Friend)	48.8667	23.40606	
Frequency of "Arms Crossed"			
(Non-Friend)	2.4667	9.90205	.746
(Friend)	1.6667	9.12871	

Model Type: Independent Samples T-Test

 IV: Friend/Non-Friend Group

$p <= 0.05$

$N = 30$

In Table 7.1 above, I ran a series of T-Tests between my two randomized groups to check for any differences in gesturing among my "listeners." I compared the means between the listeners in my friends and non-friends group and found the differences to be statistically insignificant. When I look at the descriptive statistics, however, in combination with the qualitative analysis that I have conducted above, I can indeed see significant differences in the use of gestures and other body language within dyads between my two randomized groups.

Even though I am more interested in the relationship between the gesturing of "instructors" and the political learning of my "listeners" in part, because gesturing is far

more common among my "instructors" than among my "listeners," I believe that a more complete picture of the interpersonal political communication can be gained if I look at the gesturing of both "instructors" and "listeners." As I have discussed in Chapter 6, women tend to gesture more, and more expansively than men. The frequency of Deictic, Iconic, and Beat gestures is also higher in the non-friend than in the friends group. Also, the use of gestures appears to be more formal and "deliberate" within the non-friends group than in the friends group. These are precisely the nuances and "micro-mechanisms" of interpersonal political discourse that a laboratory experiment, with a qualitative examination of video files, is ideally suited for. Precisely because these results are not statistically conclusive, I preceded this chapter with a qualitative analysis of the filmed dyadic interactions to help me examine more closely the dynamics at work in interpersonal discourse within dyads during the discussion of politics.

In Table 7.2 below, I ran a series of T-tests comparing the gesture means of "instructors in both my "friends" and "non-friends" groups. It is here that I was expecting to see a large difference between the groups, although originally not in the direction that I have subsequently found in my examination of my video files. As I indicate below, the difference in the use of gestures between my two groups is not statistically significant. It is only in the examination of the descriptive statistics that one finds a small, but tantalizing, difference in the use of gestures between my groups, and it is only when I carefully examine the video files that I find a significant differences in the interpersonal communication between "friends" and "non-friends."

My check on the political learning scores of the instructors was done simply to test my assumption that my "instructors" in both groups scored higher on the political learning questionnaire than my "listeners," which indeed turned out to be the case. I was expecting this insofar as my "instructors" were the beneficiaries of my video stimulus (they were the members of the dyad who directly watched the nine-minute video) and the "listeners" were not. For all of the other measurements, I was initially expecting that the means of all gestures would be higher for "instructors" in the "friends" group than in the "non-friends" group. This was designed, in part, as a test of one of my hypotheses that "friends" would tend to gesture more with other friends and, as a corollary, that the political learning scores of "friends" would be higher than that of "non-friends." As the results below show, and as is evident from a close examination of my video files, this is not the case.

As I have discussed previously, it is in the "non-friends" group where I find a greater degree of "formality" (in the form of a more erect posture, the placement of both feet on the floor and close together, etc.) and "attention" exhibited by both "instructors" and "listeners" towards each other (in the form of eye-contact, greater tendency of "instructors" to elicit feedback from the "listeners," and greater frequency of feedback by the "listener" to the "instructor" in the form of head nods and brief utterances of "ok" and "yes"). Although the difference in the political learning scores of my "listeners" in my "friends" and "non-friends" group is statistically insignificant," a close examination of my video files suggest that my statistical results could be the result of low statistical

power coupled with a less than optimal research design. In any event, the results in Table 7.2 are as useful for what they indicate as for what they do not.

Again, as I discuss more thoroughly in Chapter 8, a research design that combines experimental research, statistical modelling, and a robust qualitative examination of filmed interpersonal political discussions, will give political researchers a more robust suite of research tools to use in the analysis of interpersonal political discussions than the tools that political scientists have traditionally relied upon (observational survey studies of social networks, etc).   This is indeed what has prompted my research, the results of which cast some doubt as to the efficacy of previous research on interpersonal political discussions between and among friends. At the very least, my research results suggest that a greater attention on the political influence of "non-friends" is called for.

Table 7.2

Gesture Differences Between Instructors in the Friend and Non-Friend Groups

Variable	Mean	Std. Deviation	Sig.
Political Learning			
(Non-Friend)	33.4667	4.46236	.205
(Friend)	32.1000	3.77240	

Deictic Gestures			
(Non-Friend)	.3667	1.54213	.515
(Friend)	.1667	.64772	
Iconic Gestures			
(Non-Friend)	14.7667	14.07537	.766
(Friend)	13.8333	1.70391	
Metaphoric Gestures			
(Non-Friend)	52.5333	17.78751	.953
(Friend)	52.8000	16.72372	
Beat Gestures			
(Non-Friend)	1.6667	9.12871	.505
(Friend)	.5000	2.73861	
PanAm Smile			
(Non-Friend)	52.7333	21.56455	.780
(Friend)	54.3333	22.51794	
Duchenne Smile			
(Non-Friend)	16.6333	13.95432	.938
(Friend)	16.3333	15.71587	
Speech Rate			
(Non-Friend)	1.6667	.54667	.812
(Friend)	1.7000	.53498	
Eye Contact			.728
(Non-Friend)	45.4000	22.86633	
(Friend)	47.5000	23.65375	
Frequency of "Arms			.958

Crossed"	2.4667	9.90205
(Non-Friend)	2.3333	9.71431
(Friend)		

Model Type: Independent Samples T-Test

 IV: Friend/Non-Friend Group

$p <= 0.05$

$N = 30$

In Table 7.2 above, I ran a series of T-Tests between my two randomized groups to check for any differences in gesturing between instructors. I compared the means between the instructors in my friends and non-friends group and found the differences to be statistically insignificant as is the case with the listeners. When I look at the descriptive statistics, however, in combination with the qualitative analysis that I conducted in Chapter 6, I can indeed see significant differences in the use of gestures within dyads between my two randomized groups. As I have discussed in Chapter 6, women tend to gesture more and more expansively than men. The frequency of Deictic, Iconic, and Beat gestures is also higher in the non-friend than in the friends group. Political learning is also higher for the non-friend than the friend group. Also, the use of gestures appears to be more formal and "deliberate" within the non-friends group than in the friends group. Precisely because these results are not statistically conclusive, I preceded this chapter with a qualitative analysis of the filmed dyadic interactions to help me examine more closely the dynamics at work in interpersonal discourse within dyads during the discussion of politics.

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Discussion

My primary goal in this part of my study is to determine the relationship between gestures and political learning within dyads as mediated by affective intimacy. I am specifically interested in determining the effect of affective intimacy on the political learning and the use of gestures of both "listeners" and "instructors" within my two randomized groups of "friends" and "non-friends." Because of the low statistical power of this experiment, I am using an analysis of the descriptive statistics, and the video files of my dyads, to come to some very tentative conclusions about these relationships. My assumption here is that my two treatment groups of "friends" and "non-friends" are truly random and that these experimental results have "ecological validity."

As my results show, the political learning of the "instructor" group in both treatment conditions (Friend: M = 32.1, Non-Friend: M = 33.5, p = .205) is higher than that of the "listener" group (Friend: M = 29.1, Non-Friend: M = 27.3, p = .395). What was not expected is the higher Mean in the "non-friend" condition for the "instructors."

In my gestural analysis, since gestures are primarily used by the "instructors" and rarely by "listeners," I am focusing on the frequency of gestures of "instructors" in both treatment groups and their relationship to the political learning of both "instructors" and "listeners." The frequency of deictic (pointing) gestures is higher in the "non-friend" treatment group (M = .37) than in the "friend" treatment group (M = .17). The frequency of iconic gestures (using the hands to describe a specific object) is also higher as well in the "non-friend" treatment group (M = 14.7) than in the "friend" group (M = 13.8). The

employment of metaphoric gestures (using the hands to describe size of objects, indicate distance, etc.), however, is slightly greater in the "friend" group (M = 52.8) than in the "non-friend" group (M = 52.5). The frequency of beat gestures (e.g., the repetitive thrumming of fingers on a desktop) is greater in the "non-friend" group (M = 1.7) than in the "friend" group (M = .5).

Contrary to my expectations, the frequency of Duchenne smiles (genuine, involuntary smile) is higher for both "listeners" and "instructors" in the "non-friend" than in the "friend" group whereas Pan Am smiles (voluntary, social smile), Eye Contact, and the Rate of Speech are higher for both "listeners" and "instructors" in the "friend" than in the "non-friend" treatment group. This is not unexpected insofar as Speech Rate, Eye Contact, and PanAm smiles are associated with positive affect, although Pan Am smiles can be associated with flat or negative affect as well (Ekman and Rosenberg 2005 and Rosenberg 2005). Finally, the frequency of "Arms Crossed" around the chest is higher for both "listeners" and "instructors" in the "non-friend" than in the "friend" group. This is also not expected insofar as the "Arms Crossed" gesture is associated with flat or negative affect (Kendon 2004).

Summary

Gestures and other body language analysis devoted to oral discourse in general within dyads is much in evidence. Gestural and other body language analysis devoted to specific topics of dyadic oral discourse has, heretofore, been unavailable. The analysis presented in this chapter is a preliminary attempt to fill this lacuna by looking at the

moderating effects of specific gestures and other body language, and affective intimacy on political learning during the transmission of political information within dyads in a controlled laboratory setting.

My initial expectation in this study was that I would find a positive correlation among political learning, the degree of affective intimacy, and the use of gestures within dyads. What I have found instead is more nuanced and intriguing. In the "non-friends" treatment group, the political learning of instructors is higher than in the "friends" group. For "listeners" in the "friends" group, even though political learning is higher, it is not coincident with a greater frequency of duchenne smiles, deictic gestures, iconic gestures, metaphoric gestures, or beat gestures. The higher political learning for "instructors" in the "non-friend" group, however, is coincident with a greater frequency of Duchenne smiles, deictic gestures, iconic gestures, and beat gestures. Because the literature suggests that gestures act as an aid in learning by speakers, it is difficult to disaggregate these effects from other causal mechanisms for learning.

What is the Relationship Among Political Learning, Friendship, and Gestures

The above analyses strongly suggests that important links do exist among political learning, friendship, and gestures. In a dyadic political communicative exchange, I would posit that we could expect to find that political learning is higher among non-friends than friends. I would argue that although this suggestion is not clearly supported by this research, this is more a function of the low statistical power of my experiment rather than an indication of a lack of any relationship. I would also posit that the use of

gestures is more deliberate and formal among non- friends than friends and that non-friends are more "attentive" to each other than are friends and that it is precisely this deliberation in the use of gestures coupled with the greater attention paid by non-friends to each other that is, in part, causal of the greater learning between non-friends than with friends.

If the political learning results that I obtained for the "listeners" in the "friends" group are anomalous, then I could tentatively suggest that the phenomenon of "selective attention" is the primary causal mechanism for the differences in political learning and gestures between "friends" and "non-friends." As I have mentioned above, some research does suggest an inverse relationship between "attention" within dyads and the degree of affective intimacy (Baron and Byrne 2003). What is required, of course, is a more robust experimental paradigm to further study these phenomena. The following chapters will suggest several such follow-on research paradigms.

In the next and penultimate chapter, I propose a "new" research paradigm within political science, which incorporates the examination strategies that I have used in this study along with other qualitative measures, the employment of which will serve to give a more nuanced and complete understanding of the processes involved in the communicative exchanges between and among people who discuss politics. To this end, I will be drawing heavily on the theoretical research paradigms proposed decades ago by Harold Laswell which deserve to be seriously reconsidered and, when coupled with gestural and other body language analysis, will give political scientists a more complete

suite of tools to use in examining the effects of political discourse, between and among

ordinary people, on political beliefs and behavior. I will also be touching upon the works

of Gamson (1992), and Walsh (2004) whose qualitative observation and analysis of

ordinary people discussing politics shows mechanisms of influence and persuasion at

work that are not easily revealed in quantitative analyses alone. The point here is to show

that the tools of analysis that have traditionally been used by political scientists to

examine political discussion, influence, and learning are alone not sufficient to give the

fullest accounting of the nuances and dynamics that occur within informal political

discussions. Based upon my research, a more comprehensive research methodology is

called for. I am not suggesting that the tools used by researchers to examine political

behavior need to be supplanted by the qualitative measures that I am proposing. Rather, I

suggest that other research tools be brought to bear on examining political discussion,

especially when statistical effect sizes are small.

CHAPTER 8: A "NEW" RESEARCH PARDIGM

I posit that the study of gestures and other body language is useful in helping to explicate the inter-personal dynamics within political discourse. Although gestures and body language in general are primarily studied as part of social psychology, I posit that the employment of research tools from other disciplines has a value-added effect on political analysis. To this end, I believe that it would be useful for political scientists to revisit their roots and re-examine carefully older research paradigms that do indeed incorporate a wider array of research tools. Harold Lasswell's writings on political psychology and policy science, for instance, can serve as a useful point of departure for this examination.

Lasswell's political psychology and policy science are not derived from different epistemologies, but are inextricably linked and represent a complete theoretical paradigm. His policy science theory cannot be truly understood, and is incomplete without, an understanding of his political psychology. In fact, his policy science can best be understood as a mature expression of his political psychology. The positivist trend in both psychology and political psychology has had an unfortunate devaluing affect on Lasswell's psychodynamic theories which, in turn, renders his policy science less robust

as an explanatory paradigm for behavior than would otherwise be the case. I suggest that the essential links between Lasswell's political psychology and his policy science creates a paradigm for understanding political behavior that is more explanatory of the dynamics and nuances of political behavior and discussion than are more positivist approaches. Lasswell's psychodynamic approach stresses the "normative-affective considerations" that the researcher must take into account when examining political discussions. That is, the individual brings to bear in the arena of political discussion a whole host of affects and predispositions that informs his/her political preferences. This is not unlike the "bottom-up" processing, suggested by both Gameson (1992) and Walsh (2003), that political discussants employ in informal settings. Lasswell's research support the conclusions of more recent research that shows that the understanding of political behavior requires more than just an examination of the symbol manipulation of political and media elites. Thus, his policy science and his understanding of policy process and behavior are mediated by psychological and character constructs that must be understood before political preferences can be understood. In the absence of this understanding, it is difficult for other theoretical paradigms to adequately account for these preferences.

A reexamination of Harold Lasswell's approach to the formation of political attitudes, with its inextricable linkage with political psychology, is perhaps more apropos than ever, at least since the publication of Monroe's *Perestroika* (2005). It can be argued that Lasswell was the first to recognize the essential integrative nature of the social sciences and that an understanding of political behavior can best be attained through a melding of both qualitative and quantitative approaches. The failure of the social sciences, especially political science, to fully embrace this approach and the move by political psychologists, as well as by academic psychologists, toward a more positivist paradigm has resulted in what Ricci (1984) would consider a significant factor

contributing to the "Tragedy of Political Science." Ricci suggests that the current drive toward "descriptive empiricism" fails to embrace the many intangible factors that affect the decision-making calculus of both elites and polity but which nevertheless resist explication by more positivist approaches, such as that of rational choice theory. The positivist approach has the net effect of excluding from serious consideration an extraordinary corpus of political writings going back at least to Aristotle (Gunnell, 1986). Dryzek (*Perestroika*, 2005) suggests that the move of behavioralism, which forms an important part of Lasswell's policy science, to a more positivist position was "a matter of replacing legalistic, formalistic, and impressionistic work with a systematic search for reliable knowledge based on study of the actual behavior of political actors" (2005, 514). Ricci and others have suggested that ". . .the U.S. university system has always demanded the trappings of science, which has proved inconsistent with any more practical emphasis on political problems or the great conversation of democratic development" (Ricci, 308).

This positivist "bias" has been supported by content analysis conducted by Pion-Berlin, Cleary, et al., (*Perestroika*, 2005) which shows a near-absence of qualitative research in the political science flagship publication *APSR*. Instead this publication, and other top-tier journals, has opted to deal with research that is amenable to statistical analysis and essentially eschew the "intangible" that Ricci (1984) maintains is a fundamental component of political activity and perception. Shapiro (2005) as well suggests that "methodological blinders" and the eschewing from study of observable phenomena that do not lend themselves to statistical modeling have permeated the social sciences. Although not mentioned by Shapiro, implicit in his argument is support for Lasswell's policy science approach, which takes into account political behavior that falls outside the domain of positivist analysis. This essential "disengagement" of political

science from political practice has arguably divorced the "method" of research from the "problem" that serves as the researcher's focus. A rediscovery of Lasswell's policy science could arguably serve as the essential "mediator" between the qualitative and quantitative realms insofar as its integrative nature gives the researcher the appropriate tools with which to deal with the "intangibles" of political attitudes, behavior, and perception. Thus, it is puzzling why Lasswell has seemingly drifted into relative obscurity so soon after his death and why his policy science has yet to be rediscovered and embraced by Shapiro, Ricci, et al. whose promulgations on the current state of the discipline would seem to be a clarion call for a Lasswellian renaissance within the social sciences in general.

To best understand Lasswell's approach, it is necessary to understand his formative intellectual experiences which served as the genesis for what became his policy science with its concomitant psychological underpinnings. It is no accident that Lasswell's policy science developed as it did. At the University of Chicago during his undergraduate and graduate studies, he was subjected to what is popularly know as the "avant garde" in the social sciences in general and was heavily influenced by the behavioral psychologists there such as Dollard, Kluckorn, Mead, and Sapir. Since many theorists were Freudian in outlook, it is no surprise that Lasswell embraced the Freudian analytical approach as well. He was also heavily influenced by the sociology department there and adopted the "functional" rather than a "conventional" approach to social science analysis. For Lasswell, the "functional" approach, as it name suggests, maintains that all aspects of culture and the societal ethos fulfills a need whether it be physical, spiritual, or psychic. Political science for Lasswell thus became a "mechanism" that served to fill both psychic and non-psychic needs (Ascher and Ascher, 2005).

Because of the extraordinary nature of the social sciences at the University of Chicago at this time, Lasswell's natural holistic tendencies were encouraged and he embraced early on the interdisciplinary approach that was to be the hallmark of his subsequent research and, especially, his policy science with its emphasis on the psychological "intangibles" for which positivist researchers are at a loss to create statistical models. As a committed "functionalist" Lasswell focused on real-world issues which required the very interdisciplinary approach to which he was predisposed. Thus, we find and intellectual "feed-back loop" with Lasswell where natural holistic proclivities are in concert with his "problem orientation" approach to research. He was encouraged early on by Merriman at the University of Chicago to study psychoanalytic theory in Europe that further inspired him to apply psychoanalytic theory to political behavior and problems. In Lasswell's calculus, one could not reasonably separate matters political from values and the psychological dynamics within the individual. Thus, political "distortions" were revealing and symptomatic of psychological phenomena such as the displacement of "private motives onto public objects." Thus, the identification and expectations of both politicos and polity were part and parcel of policy promulgation and political perception. Thus, psychological drives are causal for the formation of political perspectives of politicos and polity alike (Rogow, 1969).

Lasswell's inclusion of psychoanalytical principles very early on can be seen as a parsimonious explanation of these seemingly aberrant outcomes. By rejecting the more positivist approach and embracing the Freudian model, Lasswell creates a psychodynamic theory that helps to account for less than optimal policy outcomes. The decision-making calculus of individuals is shaped to no small extent by their objectives, perspectives, and impulses which are formed within a particular context of place and time and which are influenced by affect, symbol manipulation, and the displacement of

emotions by the individual from an object to a particular policy or politico. These influences and manipulations result in the formation of individual schemas of the world through which reality is filtered and understood. Policy promulgation is thus a product of politicos whose world-view may or may not be in conformance with the understanding of "objective reality" by other elites or by the polity as a whole (Wyer and Otati 1993).

In Lasswell's policy science, his approach is integrative and assumes the presence of differing individual schemas among the elite and the polity. His eight "value categories" (power, wealth, well-being, skill, enlightenment, affection, respect, rectitude) represent a non-hierarchical continuum of interests that are mediated by this schema and which results in a variety of policy objectives. By understanding the lack of primacy of any single value over any other, the resort to a positivist approach in understanding policy formation will fail to account for decisions that appear to fall outside of the "maximization" principle. A more subjective approach is thus called for which takes into account the admittedly less tangible elements of predispositions and expectations. Behavior can thus be seen as a central component within Lasswell's policy science paradigm and arguably results in a more complete understanding of policy outcomes that seemingly do not redound to the benefit of elites or polity. This "pragmatic" approach is at odds with current academic psychology and political psychology which, because of their focus on cognitive processes which can be measured within a laboratory setting, has eschewed the behaviorist/psychoanalytical approach which does not lend itself to quantification and statistical analysis. Lasswell's "pragmatism" relies upon theory as instrumental rather than intrinsic and views its efficacy as how well it "contributes to effective practice" (Ascher and Ascher, 2005, 12).

Current political psychology with its emphasis on political cognition is unable to satisfactorily account for predispositions and the schema formation of individuals.

Lasswell's psychodynamic theory recognizes the interplay between and among predispositions and the changing external political environment (Lasswell 1930). The manipulation of symbols by elites, the displacement of private motives onto public objects, the promulgations of media elites, and the variable nature of individual reaction to stimuli over time militates against a simple "cause and effect" theory of political behavior. The problems inherent in analyzing political behavior from a static rather than dynamic standpoint is exemplified by policy promulgation and implementation as well as political behavior during conditions of perceived threat such as was the case during the cold war. It is here that the efficacy of Lasswell's policy science/political psychology in explicating political behavior is most in evidence (Lasswell, Symbols, 1952).

It can be argued that Lasswell would agree with the proposition that perceptions of threat to the body politic, whether empirically driven or not, drive domestic and foreign policy decision making. Consequently, a psychodynamic approach to the study of domestic and foreign policy decision-making is a legitimate line of inquiry. It can be posited that many of the "failures" of diplomacy that have occurred since the end of World War II have been due, in part, to a failure of national decision makers to take into account and integrate fully into their decision making the particular schemas that the various actors on the international stage use to filter their perceptions of the world. Given the radically different political ideologies and worldview of those actors who evince great antipathy toward Western political and religious philosophies, a failure to fully recognize this by the national leadership has arguably led to sub-optimal outcomes in the realm of foreign policy (Lasswell, The Garrison State, 1941).

Although a Lasswellian analysis of a real-world political problem is beyond the scope of this chapter, it is nonetheless apropos to mention that Lasswell's policy science, with its emphasis on drives and motives, is uniquely suited to an analysis of the political

climate of a state in periods where perceptions of threat are high, and is arguably more suited to this task than other theoretical paradigms. It can be argued that rational choice theory and other paradigms are insufficient to explain the motives of states or of individuals whose actions are based on a non-empirical ideology with a strongly emotional component. Suicide bombers and the like do not lend themselves to any kind of statistical modeling or cost-benefits analysis. The current state of threat that is perceived by the West from Muslim states requires as well the psychodynamic approach that Lasswell's policy science affords. To understand the response to a threat, Lasswell would posit that a type of psychological conditioning based, in part, upon symbol manipulation, occurs in order to make the case, for example, for the need for the mobilization of the Armed Forces. This conditioning is markedly affected by the manipulation of what Lasswell refers to as political symbols which aids in the schema formation that is desired by both political and media elites (Lasswell, Symbols, 1952). This conditioning, however, will last long after the threat has dissipated and will not keep pace with the changing dynamics in the domestic and international arena. This conditioning is heavily influenced by mass media elites who, through simple repetition of the need for a particular policy decision, sway mass public opinion even in the absence of any qualitative or quantitative change in the external threat environment. The results are arguably policy decisions that are out of conformance with objective reality and which lack empirical support (Rogow, 1969).

I argue that Lasswell's policy science/political psychology approach to understanding the current decision-making by the national leadership can help to explain, in large part, dysfunctions in policy promulgation and implementation that are occurring. Hence, a psychodynamic analysis and understanding of basic psychological principles during the decision-making process can help to guide decision-makers during policy

formulation. It is the contention of this paper that any examination of political behavior,

especially in times of crisis, requires the policy science approach of Lasswell in order to

adequately address the "intangible" elements that either elude or are dismissed by more

positivist researchers. In Lasswell's *The Garrison State*, he maintains that it is incumbent

upon the analyst to recognize that all of the psychosocial influences upon mass public

opinion, coupled with inherent predispositions within the individual, can conspire to

create a marked dichotomy between actual and perceived external threats and can result

in the changing mass perception of these threats even in the presence of qualitatively and

quantitatively static external threats.   It will be further posited that Lasswell's

integrative approach to decision making by the national leadership which takes into

account the psychodynamic nature of policy promulgation has the capability of resulting

in policy decision that are more efficacious for the body politic and more in conformance

with "objective reality."

I suggest that Lasswell's seminal works on the need to combine a psychodynamic

approach with policy science should have laid the groundwork for subsequent study on

the importance of psychological constructs in the formation and promulgation of public

ideas about the appropriate nature and scope of public policy (Lasswell, 1930). The

dynamic political psychology that Lasswell argued for, however, gave way to the more

static cognitive perspective which placed a premium on quantification and statistical

analysis. Lasswell was one of the first to suggest that pre-existing schemas and

predilections are used as filters for how we perceive the world and that information that is

perceived that is not in conformance with these schemas tends to be discounted, if not

ignored completely (Lasswell, Analysis of Political Behavior, 1948). This, as I have

mentioned above, in most in conformance with the "bottom-up" processing theories of

both Gameson (1992) and Walsh (2004). Conservatives will selectively attend to those

media messages that are from generally recognizable conservative sources and eschew those messages from media outlets and elites who are generally recognized as liberal, and vice versa. This selective attention, and lack thereof, can occur regardless of the message content itself. These schemas, though resistant to change, are subject to modification based upon a preponderance of countervailing information over the long-term by political and media elites and, especially, by the manipulation of political symbols by these very elites. As Lasswell and others have suggested, the results of survey methods to determine what the burning issue of the day is are greatly in conformance with the front-page headlines of major newspapers during the preceding several days. This directly suggests the malleability of mass opinion and militates against a more stable, normative view that is suggested by current psychology and political psychology with their cognitive emphasis (Wyer & Ottati, 1993).

Lasswell would suggest that one cannot overestimate the mitigating role that psychological constructs of the individual play in the formation of political opinions or its affect on the prevailing societal ethos. In the field of international relations (IR), perceptions of external threat coupled with the particular schematic processing of national decision makers drive the allocation of scarce resources from fungible to non-fungible ends. Lasswell has suggested that marked dichotomies often exist between public policy proclamations and actual policy formulation and other behaviors. He might suggest that this seeming "disconnect" can be best be understood only when a psychodynamic analysis of the beliefs and predispositions of political elites is effected. Thus, psychological principles work in concert with his eight "value categories" to produce policy (Lasswell, 1956).

It is a generally established psychological principal that mass behavior can also evince qualities that are separate and distinct from individual behaviors (Lasswell, 1968).

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Cicero equated the "mob" with a wild animal, incapable of reason. Others, such as Niebuhr, equated certain collective action with an immorality that would be unthinkable if undertaken by the individual (Niebuhr 1960). Thus, it is necessary to understand the dynamics underlying mass opinion and behavior along with individual schematic processing to fully appreciate the discrepancies between actual and perceived threat and the subsequent individual and public response thereto. Lasswell implies that states themselves as well as supra-national organizations develop a corporate schema that is not unlike the schemas of individuals. The institutional ethos thus created, as is true of individual schemas, becomes resistant to change. Consequently, foreign policy directions can achieve a certain momentum, which becomes difficult to overcome even in the face of changing political realities. The resulting confluence of factors can result in public policy which is dysfunctional. Perhaps the most powerful component of the individual or corporate schema is ideology. This ideology is, in part, formed by media and political elites over time through the manipulation of political symbols and is perhaps key to understanding how public policy can remain static even when external conditions change (Lasswell & Kaplan, 1950).

At this juncture, it would be useful to address the obvious questions of just why Lasswell's policy science has largely been supplanted by other theoretical paradigms. It has been posited by some that Lasswell's policy science has been dismissed based upon faulty interpretations of his approach. Others have suggested that that the conflict between pragmatist and positivist paradigms and the resulting triumph of the positivist outlook has been most responsible for the relegation of Lasswell's policy science to a position of relative obscurity (Gunnell, 1986). Others, such as Dryzek, have suggested that Lasswell was a victim of his own intellectual acumen and interdisciplinary facility. It has been suggested that his policy science was not practical to implement insofar as it

required too great an understanding of the social sciences in general, an understanding possessed by too few researchers. That it is the trend toward positivism that is most responsible for Lasswell's obscurity is the position taken by Ricci, Ascher, Monroe, and members of the "Perestroika" movement who, in the main, would suggest that the positivist paradigm has effectively supplanted qualitative political research (*Perestroika*, 2005). Still others have suggested that Lasswell's psychological locus was "reductionist" and "antirationalist." This suggests a misreading of Lasswell inasmuch as his major focus was a holistic and integrative one designed to combat the increasing fragmentation of the social sciences, which he felt was reductionist itself. Far from being reductionist, Lasswell's approach called for an embracing of a political analysis that took into account both the conscious and the unconscious. He was not positing any primacy of unconscious motivations. Rather, his attempt was simply to create a more robust explanatory mechanism for political behavior and perception. Because of his close association with Freudian analytic theory, it has been assumed by researchers dismissive of Lasswell that he embraced all Freudian precepts uncritically including Freud's belief that the unconscious was the ultimate source of all behavior and attitudes (Durning, 2001). This betrays a fundamental misreading of Lasswell inasmuch as he was using the unconscious, not in the primal way that Freud was, but rather to account for political attitudes formed later in life that resist explication by rational choice and other theoretical paradigms (Ascher and Ascher, 2005). That is to say, Lasswell was resorting to the unconscious to account for attitudes and actions that were seemingly out of conformance with the prevailing political and societal ethos. What many critics of Lasswell have seemingly missed, is his pointed modifications of Freudian thought which he felt were themselves too reductionist. Thus, the criticism that Lasswell was a slavish Freudian disciple simply does not hold up under scrutiny. Lasswell's displacement hypothesis, for

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instance, although inspired by Freudian psychoanalytic theory, is Lasswell's own and serves as a useful tool to account for political behavior and beliefs that, on the surface, appear irrational or out of conformance with objective "reality." Lasswell's policy science is thus enriched by the addition of a consideration of the unconscious or the "intangible" as Ricci would put it, and hardly the reductionist paradigm that a superficial reading of Lasswell might suggest (Ricci, 1984).

Lasswell's understanding of symbols and their manipulation by political and media elites as a means of generating or altering political behavior is another component of Lasswell's policy science that is notably absent from more positivist paradigms. Again, Lasswell uses Freudian precepts simply as a point of departure for his own theoretical approach. Only through Lasswell's psychodynamic lens can one truly recognize symbol manipulation in the first place, and then understand the nuances of the manipulation for purposes of propaganda. It is fairly self-evident that the appeals of politicos, especially in the form of propaganda, rest on the conscious "invocation of misleading associations" (Ascher and Ascher, 2005, 8). This itself is, in part, a function of the character of politicos and polity alike. Thus the psychological link between the promulgators and policy is an inextricable one. As Ascher and Ascher state, "Broadly-held psychological predispositions, among elites, the public, or both, can encourage particular forms of governance and undermine other forms" (2005, 9). There is thus an inextricable interlinkage between the appeal of leaders and the appeal of their policies which Lasswell's displacement hypothesis helps to clarify.

For Lasswell, the unconscious is an important part of the schema formation of individuals, which serves as the lens through which politicos and policy are seen and evaluated. Lasswell's positivist critics, however, have argued for caution in adopting the schematic processing approach. Their primary objection is that it tends toward the

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theoretical and abstract and can serve best as a general psychological construct for the understanding of political decision making by elites. They further posit that the use of schema theory results in a "post hoc" description of the world rather than an explanation for elite decision-making. What is required, in their view, is a comprehensive test of the internal validity of the schematic processing construct. Lasswell's response to these critics has been to emphasize that his schema has to be more broadly defined as including the emotional and affective component as well (Lasswell, The Study and Practice of Propaganda, 1935). Asymmetries in information can also serve to affect the particular schema that ordinary citizens and decision makers have. It is clear that schemas based upon incomplete or outdated information cannot but help to affect the clarity of decision-making. It is a well-known psychological observation that initial impressions, regardless of how incomplete or erroneous the information is, are resistant to modification by later, more correct information. The reason given for this phenomenon is that the individual needs to make sense of his world as quickly as possible with whatever information is available at hand. Lasswell emphasizes the need to combine his policy science with the affective when attempting to understand the policy process. Through his writings, Lasswell address the phenomenon that emotions play in the public perception of policy and elite efficacy. He emphatically maintain that the traditional view that the individual is a "rational" processor of sensory information from the world is, at best, a problematic view of decision-making insofar as it fails to take into account the emotional component of the individual, which can markedly affect his schema of the world and, subsequently, his response to it (Lasswell, 1930).

Adding to the difficulty of understanding decision and policymaking is the notion of heuristics, which is employed by novice and expert alike. Lasswell's psychodynamic process is thus a confluence of the particular schema that the individual actor brings to

the decision-making process, the emotions that are part and parcel of this schema, and the rules-of-thumb that he uses when faced with ambiguous or contradictory information. Lasswell posits that this triad of information processing is needed, in part, as a response to a public that is, in the main, demonstrably ignorant of matters political (Lasswell, 1932). In the absence of explicit information, heuristics are used as a default. The problem with this strategy, however, is that this vacuum of knowledge is often filled up by the importuning of political and media elites who have an agenda that itself may be at odds with what objective reality would dictate. A case in point, of course, is the current "war" on terrorism. With the concurrence of media elites, this tactic of political symbol manipulation has been successful in the establishment of a defense and intelligence infrastructure that has not been seen since the height of the cold war. This attention given to the "war on terrorism" by political, media, and technical elites coupled with a general fear of a repeat of "9/11" which has arguably formed as a result of information asymmetries between the public and these elites, has resulted in political behavior and perceptions that have a psychological base that current theoretical paradigms would have difficulty explicating. When one takes into account the psychological constructs of displacement and symbol manipulation, however, the distortions that are evident in both political perception and policy formulation become explicable. It is here that Lasswell's policy science with its integrative approach would appear to be the theoretical paradigm of choice with which to deconstruct the prevailing political and societal ethos.

This conditioning has resulted in the development of a societal schema that views the U.S. as now the only actor in the international arena capable of checking what can be described as the "terrorism threat." Perception of "threat" is, of course, a psychological phenomenon that, again, does not lend itself to quantification or to statistical modeling. The genesis of the problems that he encountered with public perception of international

affairs was in the lack of sophistication and a general indifference to domestic and foreign affairs evinced by the U.S. public which was exacerbated by what he termed "displacement" of deep-seated and unconscious needs onto policy elites thus essentially ceding their democratic responsibilities to policymakers. Lasswell found this hardly surprising insofar as mass opinion is, in the main, a function of where media elite attention is focused at the moment. He early posited that what is most salient to the public is also what most commands their attention. Policy and media elites manage to make issues salient to the U.S. public through symbol manipulation which requires a fundamental tapping into unconscious drives, fears, and motives. Fear, especially, has a concentrating affect on the collective mind of the body politic. This fear, which is generated in part by symbol manipulation and which serves to modify existing schemas, can arguably be best understood within the more integrative policy science of Lasswell. (Lasswell & Lerner, 1965).

At best, Lasswell implies, the public makes political judgments based on the most abstract and general knowledge. Again, what specific knowledge they possess generally comes from political and technical elites by way of media elites through their manipulation of potent political symbols. Lasswell's study of symbol manipulation by policy and media elites lends support to the thesis that media elites play an instrumental role in the formation and continuation of political schemas. Through the constant and pervasive broadcast of the policy preferences of elites, effective conditioning of the public, insofar as their mass opinion is concerned, is effected (Lasswell, *Democracy Through Public Opinion*, 1941). As is true of earlier studies, through the use of survey instruments, researchers were able to chart a significant positive correlation between media reporting, and what the public thought were the most significant issues within the political arena.

Given the nature of the public to develop a fairly simple and, thus, apprehendable model of both politicos and policy, it behooves one to specifically address the dynamic shifts in the public perception of both in the face of what is arguably a relatively stable political environment. Thus, the manipulation of political symbols by policy and media elites can be seen to play a causal role in both perception and policy change. Lasswell's policy science/political psychology is arguably most efficacious as an explanatory mechanism for how and why changes in public perception occur insofar as changes in perception do not easily lend themselves to quantitative analysis. The complexities of cognitive processing are such that it is difficult to develop an overarching theory of how public opinions are formed or how foreign policy elites truly make decisions. Thus, Lasswell makes clear that what we have are psychodynamic, cognitive, and structural issues that inform the debate. His policy science, which is an integrative approach, incorporates the psychological aspects of decision-making coupled with these structural considerations (Rogow, 1969). What is clear, however, is that the ultimate driving force behind policy implementation can be posited to be the perception of need held by politicos and polity alike. In the political arena, one finds a multitude of need perceptions of the various actors that have developed as a direct response to their respective schemas of the world. Lasswell would contend that this adds an additional layer of complexity to an already labyrinthine arena of competing perceptions over what constitutes vital national interests. As a result of faulty or incorrect cognitions coupled with the manipulation of political symbols by both policy and media elites, it can be posited that many policy promulgations are incoherent and are, in the main, indefensible from a normative standpoint insofar as there are marked discrepancies between the actions of political elites and their putative goals (Lasswell & Stanley, 1997). Since symbol manipulation is central to the promulgation of policy, it seems reasonable to argue that a

deconstruction of this manipulation would serve to reveal inherent flaws and biases. Lasswell implies that just such a deconstruction is required to avoid a slavish adherence to particular schemas which gives policy elites an incomplete or incorrect view of the needs of the polity (Lasswell & Lerner, 1965).

Lasswell was one of the first to suggest that policy makers as well as the polity make decisions that are more theory rather than data-driven. Thus, the integrative nature of his policy science/political psychology is an appropriate lens with which to examine this behavior. In spite of attempts to quantify the decision-making calculus of both politicos and polity, the more qualitative approach of Lasswell has yielded better insights insofar as the resort to prior beliefs by policy elites is a pervasive phenomenon that is most resistant to change. What is fascinating about recent correlational studies is that foreign policy behavior closely conformed to pre-existing predilections and was not significantly affected by new and contradictory information whose provenance could be shown. This directly suggests the problem in assessing the current intentions of actors especially when their new behavior contrasts significantly with their previous behavior.

As has been touched upon earlier, ideology serves a mediating role in the decision-making of foreign policy elites (Feldman & Zaller, 1992). Ideology can be seen as perhaps the most stable component of an individual's schemata of the world. Ideology, however, can be resistant to cogent articulation, even by policy elites. Even in the presence of "response instability" that Zaller (1992) found in traditional survey instruments, when open-ended questions were used, individual ideological orientations appeared remarkably stable. The problem, however, is that translating this ideology to concrete policy proposals resulted in contradictory and, at times, incoherent responses. Thus, the practical expression of ideology in the form of defined foreign policy initiatives remains problematic, even for policy elites. It appears that what drives public perception

is that which is most salient to them. What is most salient to them is very often a function of what political and medial elites are proposing is important. Thus, we have further support for the need to adopt a more "catholic" Lasswellian approach in explicating policy promulgation by elites and the political predispositions of the polity.

To add further complexity to the problems inherent in schematic-based processing of information leading to foreign policy decision-making is provided by Sylvan, Ostrom, and Gannon (1994). They have looked into the cognitive processes involved in policy formulation and have concluded that the various cognitive constructs used by individuals to filter information and make decisions are often in conflict with one another. In order to facilitate the study of these cognitive constructs, they have developed their own taxonomy of reasoning styles: case-based reasoning, explanation-based reasoning, and model-based reasoning. These three categories are useful in analyzing cognitive styles of reasoning insofar that they have cognates in other areas. Case-based reasoning, for example is not unlike the use of stare-decisis in the legal realm. Explanation-based reasoning is more empirical in nature and shares much with the scientific method. Model-based reasoning makes use of analogy in describing the pros and cons of any particular decision-making matrix. These researchers contend that this taxonomy was chosen in that it closely parallels the information processing theory metaphor of cognition and that of traditional academic discourse. They used this model in their laboratory studies to determine which category predominated in the realm of policy decision-making. What is perhaps most surprising about their results is the lack of a significant difference in reasoning strategies employed by political experts verses those employed by

novices. What is also interesting to note is that all three categories of reasoning were employed with approximately the same frequency by both novices and experts. What is clear from these studies is that the resort to cognitive processes as explanatory mechanisms for political behavior, especially in the realm of foreign policy decision-making, is useful but defies attempts to develop an overarching cognitive construct in the understanding decision-making processes. Thus, although the cognitive factor is a "necessary" condition, it is not "sufficient" unto itself as an explanatory construct for policy formulation and political behavior but requires an integrative/qualitative component as well, such as is provided by Lasswell's policy science.

I contend that Lasswell's policy science approach, with its integrative nature and its concern with both conscious and unconscious drives, is the one approach among the many extant theoretical paradigms that is best able to explicate political behavior and perception, especially when combined with an explicit examination of gestures and other body language. It would be useful at this juncture to make clear how his political psychology and his policy science are inextricably linked and are not, as a cursory reading of Lasswell might suggest, separate and discrete theoretical constructs. The eight value categories that are fundamental to his policy science serves as a useful heuristic device which aids in the development of the schema of both politicos and polity. Since the primacy of any particular value is particular to each individual and is based upon its association with other values, motives, drives, and symbols, an understanding of policy promulgation and the perception of such policy by the polity can only be effected through an understanding at this psychological level.

Another fundamental aspect of Lasswell's policy science is what he terms "the intellectual tasks of the problem orientation. Here again, the emphasis is on the "intellectual tasks" of identifying goals, determining alternatives, extrapolating trends, etc. Ricci's "intangibles" (1984) come into play here insofar as the identification of trends and their particular trajectories are heavily influenced by the fears, motives, and particular preoccupations of the policy elites. These are decidedly subjective elements which require a psychological approach to properly understand policy promulgation and implementation. Political psychology is required to fully account for the identification of goals and trends as well as for the response of both politicos and polity to conditions of threat and crises, symbol manipulation, and propaganda in general. To remove the psychological component from these intellectual task would result in, at best, an incomplete analysis.

In his "phases of the policy process," (intelligence, promotion, prescription, invocation, application, termination, and appraisal) we see Lasswell artfully melding, and making eminently compatible, psychoanalysis and pragmatism. As Robinson notes, "the pragmatic stance is neither consistent nor at odds with, for example, behaviorist, psychoanalytic, cognitive psychology. Lasswell proposed innumerable hypotheses about psychological dynamics of political character, attitudes, and action, but not as general laws that rise or fall in their applicability to every situation" (1993, 641). Many of Lasswell's critics who took umbrage at his embracing of psychoanalytic theory failed to realize that he took Freud to task for his doctrinaire approach and for concentrating solely on psychological variables. As Ascher notes, "Lasswell took Freud's insights, as well as

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those of other psychoanalytic theorists, eliminated the doctrinaire insistence that any one

particular model would hold in every case regardless of context, and provided a rich

repertoire of understanding that could be applied to each contextualized policy situation"

(2005, 6).

This is in contradistinction to the current state of political and academic

psychology which, as was mentioned earlier in *Perestroika*, has become predominantly

positivist in orientation by focusing on problems that are easily quantifiable and which

lend themselves to statistical modeling. This has arguably resulted in an impoverished

analysis. According to Wyer and Ottati:

> Although there have been many advances in our understanding of the cognitive
> aspects of political judgment, certain important considerations have been
> neglected. In particular, social judgments and decisions are often greatly
> influenced by affective reactions that are elicited by the people or objects being
> judged or by the information presented about them. The importance of taking
> these reactions into account is supported by evidence indicating that cognitive and
> affective process mechanisms are interrelated, with one often influencing the
> other. . .However, the role of these affective mechanisms in political decision-
> making has rarely been investigated. . .(1993, 296).

Finally, central to Lasswell's policy science theory is the "pragmatist" approach

that he took in its development where the legitimacy of a theory is evaluated based upon

its efficacy and contribution to "effective practice" rather than on a slavish adherence to

the "scientific method." As Rorty posits, ". . .we ought to subject hypotheses to empirical

exploration, to hone our capacity to know how they can be applied, but remain highly

skeptical of the universalist claims of positivist science, rejecting the possibility of a

decontextualized, certain science, Instead, theory consists of a repertoire of insights, each

of which will prove to have greater or lesser relevance for any given context" (1982,

237). The term "context" is critical insofar as ". . .the relevance of any theory can only

be determined as the specific context is explored, not in any a priori way that settles on

certain propositions abstracted from specific contexts" (Rorty, 1982, 238).

It is my general premise that current extant theories of political opinion formation

and political learning are incomplete, at best, and have helped to create the very

"alienation of political theory" that Gunnell (1986) and others have decried. The resort to

more positivist paradigms, coupled with the unfortunate divorcing of Lasswell's policy

science from his political psychology, has resulted in the situation that *Perestroika* (2005)

and other works have had to address. I suggest that this "dis-integration" of policy

science from the psychodynamic is part of the genesis of the current "crisis," as some

have suggested, within the social sciences in general. I suggest that the study of political

behavior requires a renewed emphasis on the need for an "analytical comprehensiveness"

that only an integrated approach can offer. The very narrowness of much current

political analysis was addressed by Lasswell (1930) over eighty years ago. Lasswell's

policy science/psychodynamic paradigm addressed this very problem with the rejection

of the then-common notion that "logical" thinking was the norm (think, "rational choice"

theory) and, instead, incorporated within its framework the central tenet that it was

crucial to get beyond "conscious awareness" in order to better understand policy

formulation and implementation. Lasswell himself said it best by positing that "whatever

is relevant to significant change is relevant to the configurative analysis of politics. . ."

(*World Politics*, 1935, 13). What, in the main, is currently missing from political analysis

is the very inter-disciplinary approach that Lasswell presented as an anodyne to the then-

current practice of political analysis in 1930. That the fragmentation of the social sciences continued to occur, however, is suggestive that Lasswell was ahead of his time. It has, unfortunately, taken several decades of an increasingly positivist approach within the social sciences to show researchers just how inadequate such a narrow approach to political analysis can be. Relatively recent works by Gunnell, Shapiro, and Monroe are emblematic of the slowly growing feeling within the academy that a more integrative and comprehensive approach is absolutely required in order to increase the practical utility as well as relevance of the social sciences to real-world social and political phenomena. What remains puzzling, however, is the continued "eclipse" of Lasswell and the consequent lack of any understanding that a "rediscovery" of Lasswell's policy science/psychodynamic theory would serve well as a useful template for the reinvigoration and efficacy of political analysis. What is required is a re-analysis of Lasswell's seminal works without the prejudices and blinders of the past interfering. Previous analyses of Lasswell's psychodynamic theories are of limited value in understanding his psychodynamic approach insofar as they, in the main, evince a fundamental misreading and, hence, misunderstanding of Lasswell's policy science/psychodynamic theory as well as an essential, and arguably arbitrary, rejection of Freudian psychoanalytic precepts. This misreading, especially the misunderstanding of Lasswell's approach to Freudian psychoanalytical theory, has all but relegated Lasswell to a position of relative obscurity. With the move of the fields of both academic and political psychology toward a more positivist perspective, the more qualitative behaviorist approach, especially that of Freud, has been devalued. Unfortunately,

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because Lasswell's political psychology was, incorrectly as it turns out, thought to be inextricably linked with Freudian psychoanalytic theory, Lasswell's fortunes ebbed along with that of Freud's.

Thus, a new concerted effort to integrate the social sciences that was attempted at the University of Chicago in the first few decades of the 20th Century is called for. The "new" approach called for in this chapter, which is not "new" so much as forgotten, can only be effected if the assumptions underlying the current positivist bias in research methodologies are reexamined and their efficacy reevaluated throughout the social sciences. In the field of academic psychology, it would behoove researchers to revisit Freudian psychoanalytic theory with the thought that the "qualitative" aspects of his theory are no less valid for not being amenable to statistical modeling. Political psychologists as well would benefit from a reexamination of the utility of what has become an undue emphasis on the strictly cognitive aspects of political behavior at the expense of the very intangibles that Lasswell (1930), Gamson (1992), Walsh (2004) et al., recognize as being at the core of much attitude formation and political behavior. Thus, this chapter is designed, in part, to serve as a call for the "resurrection" of Lasswell's "tools" for the analysis of political opinion formation between and among ordinary people discussing politics, and for the adoption of other "tools," specifically gesture and other body language analysis, that will serve to give political scientists a more comprehensive suite of tools to use when examining the formation of political opinions and behavior between and among people when discussing politics in an informal setting.

I argue in this chapter that that the actions of policy elites and public perception of politicos and policy can best be understood with the framework of Lasswell's policy science/political psychology. The schemas that are developed by policy makers, media elites, and the polity in general are resistant to modification and enable the individual to make sense of his world, albeit, it can be argued, in a simplistic way. These schemas are heavily influenced by the promulgations and the political symbol manipulation of policy and media elites and can exist and change significantly, especially in the case of threat perception, even where external threats are relatively static. Ideologies of both state and individual actors also come into play and, although more stable than ideas concerning specific policy proposals, they nonetheless are subject to modification by exposure to the proclamations of media and political elites. Using the current "war on terrorism" as an exemplum of the dichotomies between perceived and actual threats, I can suggest that actual threats can be relatively static while the perception of these threats can markedly shift depending upon the particular emphasis given them by foreign policy and media elites. This is possible, in part, as a result of the vast asymmetries of information between policy elites and the general public coupled with various psychological constructs. Lasswell's policy science is a good tool to use to make sense of this, insofar as it makes explicable the consequence of policy decision-making that is not empirically driven but, rather, is a consequence of predispositions and schema formation influenced by the psychoanalytic construct of displacement.

I suggest that all of the above can be better understood and analyzed, in part, through Lasswell's policy science paradigm. Although his initial political psychology

and psychoanalytic theories of the behavior of political elites predates the cognitive

revolution in both academic psychology and political psychology, Lasswell's later works

suggest that a melding of the "behavioral" with the "cognitive" would not be

inappropriate, insofar as Lasswell's policy science is inherently integrative which links

together political predispositions and actions, individual predispositions, and individual

and collective identifications. In short, Lasswell's basic policy science approach is

informed by the underlying assumption that psychodynamic factors are, in a broad sense,

causal of political behavior, whether in policy promulgation and implementation, or as a

response by the polity thereto. Because affect and the unconscious influence opinions

and behavior, it follows that a strictly positivist approach to the analysis and explication

of political behavior will be found wanting and will produce results of limited utility to

the political researcher. The more qualitative and integrative approach of Lasswell,

perhaps unwittingly and unconsciously, has been found by some researchers to be a

necessary complement to a purely positivist examination of political perception and

behavior (Durning, 2001).

Lasswell's policy science gives researchers an extraordinarily robust tool for

analyzing behavior and perception of policy elites and polity alike to an extent that other

theoretical paradigms are at a loss to satisfactorily explicate. Ascher and Ascher

encapsulate the efficacy of Lasswell's approach best when they posit that:

> Lasswell's political psychology fleshes out the dynamics that divert people from
> serving their own broad interests or from allowing others to serve theirs. This
> includes the policy process as well as the partisan political process through which
> political leaders arise. Lasswell's political psychology is, in one sense, a
> catalogue of the mechanisms by which the pursuit of values is distorted—through
> personality distortions that cripple the balanced pursuit of the broad range of

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values, through displacements that focus attention and emotion in ineffective or even destructive directions, through inappropriate affects shaped by symbol manipulation (inadvertently or by propaganda), and through counterproductive reactions to crisis and other stresses (2005, 163).

Before Lasswell promulgated his policy science approach, political science approached policy formulation and implementation as a remarkably straight-forward affair where ". . .interest-group representatives, unless their personal interests interfere, pursue the presumed true interests of their constituencies. The possibility that people were not prepared to understand or advocate their interests was beyond the prevailing conception" (Ascher and Ascher, 2005, 8). Rational-choice theory grew out of this conception and eschewed the possibility that unconscious motives and drives could interfere with the stability and predictability that it assumed. Lasswell's policy science directly implies that obvious motives along with this assumed stability and predictability cannot serve as any kind of reliable presupposition for the researcher. Sub-optimal outcomes of policy decisions coupled with the phenomenon of policy elites promulgating policy seemingly going against their best interests are not satisfactorily explained by competing theoretical paradigms (Durning, 2001). For Lasswell,

> ". . .the obviousness of objectives cannot be taken for granted. They are deeply rooted in specific life histories (whether idiosyncratic or widespread due to common experiences), susceptible to change in crisis, and often heavily influenced by symbol associations. The premise is precisely the opposite of the defining assumption of the rational choice approach. By introducing psychodynamic explanations as part of the repertoire of explanations of policy behavior, Lasswell identified lack of insight as a critical factor. Rather than assuming that individuals have straightforward objective functions known to themselves as well as to the analyst, the Lasswellian political psychologist leaves open the possibility that policy actors go against their own interests (Ascher and Ascher, 2005, 5).

This is also of critical importance in that the underlying psychological constructs shape the behavior and world-view of politicos and polity alike. Most importantly, they shape the "character" of policy elites which, in Lasswell's calculus, is directly causal of whether policymaking is democratic or not. For Lasswell, "democratic character is necessary for democratic policymaking and misguided policy behavior can undermine democratic practice in several ways" (Ascher and Ascher, 2005, 9).

It can thus be argued that a resurrection of Lasswell's policy science would be an appropriate anodyne to the dominance of positivism within both political science and academic psychology, a dominance which places a premium on quantification and on the study of political issues that lend themselves to intricate statistical modeling. The *Perestroika* debate, as I mentioned earlier, would appear to lend support to the thesis that a return to an understanding of psychological needs and the psychodynamic mechanisms that are at play within each individual is absolutely critical in order for the researcher to explicate political opinion formation and behavior in all of its forms. Without applying psychodynamic theories to political opinion formation and political behavior, any understanding of political behavior, whether policy promulgation and implementation or perception, is destined to be incomplete. Political opinion formation and political behavior are complex phenomena that cannot be "decontextualized" and examined *a priori* (Torgerson, 1993). Lasswell's integrative and configurative approach, coupled with the use of gesture and other body language analysis, will serve the modern researcher well in that it will provide him/her with the appropriate tools, seemingly currently "misplaced", with which to address and explicate political opinion formation

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and the political behavior of ordinary citizens within the context of informal political discussions.

Thus, what has clearly been missing in the study of interpersonal relations during the discussion of politics is any understanding and consideration of the role that gestures and body language play within these interactions. I posit that an incorporation of this analysis within any research paradigm on interpersonal communication is called for and, in fact, fits very neatly within Lasswell's integrative policy science approach and would be something that he would have embraced had he lived to see its development in the decades following his death. The key word here is "integrative." What I am proposing is simply an extension of the research paradigm that Lasswell called for. He believed that a fuller understanding of political behavior can result from the employment of a wider suite of tools by political scientists. Hence, his call for researchers to use a variety of tools from other disciplines to analyze politics mirrors my own belief in the efficacy of an "integrative" approach to the study of political communication and learning between and among ordinary people discussing politics.

CHAPTER 9: CONCLUDING OBSERVATIONS

Implications

The results that I have obtained, although inconclusive, suggest certain trends that might reveal themselves more clearly in a more robust research paradigm. As it is, my research hints at differences between friends and non-friends in their degree of political learning and in the use and frequency of certain gestures and other body language, as mediated and moderated by affective intimacy. Although my statistically significant results are few at the $p = .05$ level, my descriptive statistics and qualitative assessment of the video files of 60 dyadic interactions suggest a greater difference between my two randomized groups of "friends" and "non-friends than the significance levels alone reveal.

Although my descriptive statistics show that the mean for political learning is higher for the "listeners" in the "friends" group than in the "non-friend" group, this could mask an entirely different relationship in that the differences in the standard deviation

and standard error between the groups is large. The mean, however, for political learning is higher for the "instructors" in the "non-friends group than in the "friend" group. On the other hand, since the degree of political learning between the "friends" and "non-friends" group is statistically insignificant at the .05 level, for both "listeners and "instructors", I am unable to reject the null hypothesis and conclude that the differences in "civic engagement" scores for "listeners" and "instructors" between the "friends" and "non-friends" group is related to "political learning" scores.

In my gestural analysis there are more indications, both quantitatively and qualitatively, of a probable relationship between gestures, political learning, and friendship. Since gestures are primarily used by the "instructors" and rarely by "listeners" (citation needed), I am focusing on the frequency of gestures of "instructors" in both treatment groups and their relationship to the political learning of both "instructors" and "listeners." The frequency of deictic (pointing) gestures is higher in the "non-friend" treatment group than in the "friend" treatment group. The frequency of iconic gestures (using the hands to describe a specific object) is also higher as well in the "non-friend" treatment group than in the "friend" group. The employment of metaphoric gestures (using the hands to describe size of objects, indicate distance, etc.), however, is slightly greater in the "friend" group than in the "non-friend" group. The frequency of beat gestures (e.g., the repetitive thrumming of fingers on a desktop) is greater in the "non-friend" group than in the "friend" group. These results are tantalizing, especially when coupled with my qualitative analysis of the video files.

The relatively stronger relationship among gestures, learning, and affective intimacy than I found between political learning and affective intimacy, directly suggests an important mediating and moderating role for gestures in political learning. Specifically, my analysis suggests that dyadic exchanges between "non-friends" are more "focused" and employ a greater frequency of gestures than similar exchanges between "friends." This finding directly suggests that "selective attention" is proximally causal of gesture usage and, perhaps ultimately, of political learning, in dyadic oral communication. If "selective attention" is an inverse function of affective intimacy, then it could be that the relationship between affective intimacy and political learning is an inverse one and more directly linear than the curvilinear one that some research posits (Huckfeldt 2001). Indeed, my qualitative analysis of the video files of the dyadic exchanges shows that the attention of dyads to each other in the "non-friends" group (as measured by use of gestures, posture, and other body language in general) is greater and more "formal" than I find in the "friends" group.

My initial expectation in this study was that I would find a positive correlation among political learning, the degree of affective intimacy, and the use of gestures within dyads. What I have found instead is that in the "non-friends" treatment group, the political learning of instructors is higher than in the "friends" group. For "listeners" in the "friends" group, even though political learning is higher, it is not coincident with a greater frequency of Duchenne smiles, deictic gestures, iconic gestures, metaphoric gestures, or beat gestures. The higher political learning for "instructors" in the "non-friend" group, however, is coincident with a greater frequency of Duchenne smiles,

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deictic gestures, iconic gestures, and beat gestures.   Because the literature suggests that gestures act as an aid in learning by speakers, it is difficult to disaggregate these effects from other causal mechanisms for learning.

My qualitative analysis supports the research that gestures are concomitant with speech and that they are important alone in supplying missing information in the case of a breakdown in lexical retrieval (Feverisen and de Lannoy 1991). My visual examination of my dyadic exchanges also supports the research that has gestures serving a number of functions in oral discourse. The gestures that I observed did appear to have a cognitive consolidating function on the part of the speakers. They appeared to play an important role as well in the transmission of information beyond the oral component. I also observed the prominence of gesture use when "instructors" were struggling for the "right" word or where they were having trouble remembering a specific fact from the video stimulus.

Pedagogic Implications

The pedagogic implications of my research are significant. I observed that certain gestures and other body language were more common in the "non-friends" than my "friends" group. In both groups, however, gestures overlapped speech, or provided additional information that was difficult to communicate orally. Since gestures appear to be transmitting information above that provided by the oral component, this has significant implications for classroom teaching. If further research can establish a relationship between the use and frequency of certain gestures and other body language

with a high degree of learning within the field of political science, then an understanding of this effect by instructors can help them develop more efficacious teaching strategies than if they concentrated on the verbal component alone.

My research hints at a positive correlation between certain gestures and learning within the "non-friends" group. If further research can more firmly establish this, then one can posit that if gestures are consciously attended to by teachers, they will be able to successfully impart more information to their students, as well as obtain more useful feedback from them, and will be able to respond more completely than would otherwise be the case in the absence of this attention. Thus, a complete understanding of what gestures work best in the imparting of information within the social sciences in general, or in political science specifically, might serve to increase the level of political knowledge of both secondary and post-secondary students.

My research supports the literature, which shows a relatively low-level of political literacy among the American public at large. The implications of this are, of course, troubling within a democratic state. Although some research suggests that "political illiteracy" follows from low saliency and is, thus, more a consequence of "rational ignorance" (Lowi, Ginsberg, Shepsle, and Ansolabehere 2010) than any real "defect" in the way that political science is taught at either the secondary or post-secondary level, there is no specific extant research that I know of that has looked at the gestural component of teaching when analyzing the most efficacious way of imparting political information to students. The extant research that has identified the kind and frequency of

gestures that are used efficaciously within the sciences and in mathematics, suggests the possibility that optimal gesture use is content and context driven. Additional empirical research would help to lend solid support to the current body of anecdotal evidence, which hints at the content-driven nature of gesture usage.

Limitation of Study

Although my quantitative analysis of the interlinkages among affective intimacy, political learning, and gesture use are inconclusive in that they do not, with a few exceptions, show statistically significant relationships at the .05 level, when I combine this analysis with a qualitative one, I can suggest a stronger relationship than the one suggested by a statistical analysis alone. Specifically, I can suggest that the relationship between political learning and affective intimacy is an inverse, linear relationship rather than a curvilinear one as suggested by some current research. I also posit that gesture usage plays a role in political learning as well. Specifically, I posit that there is a difference in both gesture use and political learning, as moderated by affective intimacy, between "friends" and "non-friends. My results, however, only allow me to tentatively make a case for this.

The relatively small number of subjects that I was able to recruit for this study translates into low statistical power. Thus, a significant increase in the number of dyads studied (increased by a factor of at least 2 or 3) could very well have yielded more definitive statistical results which, when combined with a qualitative analysis of a larger number of dyads, would allow me to make a stronger claim for the relationship among

affective intimacy, political learning, and gesture usage. The issue of "ecological validity" also arises when conducting experiments in a controlled laboratory setting. The issue here would be the demographic group that I recruited for the experiment (exclusively UCR undergraduate students) and whether my results are generalizable to the population at large. It could be argued that the addition of participants taken from the surrounding Riverside community might have yielded different, and perhaps more telling, results. It could be argued, however, that in matters of cognition, the fundamental process at work in information learning and retrieval are not significantly different between adult college students and the public at large (Baron and Byrne 2003).

It is also possible that my results have been affected by the cognizance of my participants of the presence of a video camera during their dyadic communicative exchanges. Because of technical limitations, the configuration of the laboratory facilities, and resource limitations, it was not possible for me to position the cameras far enough away from the participants, or to disguise them, so that their presence was not readily evident. Although the cameras I used were small and did not otherwise draw attention to themselves, they were nonetheless in plain sight and might have caused the participants to act and react differently from how they would have behaved had the cameras been completely out of sight.

Also, the design of my survey instruments may not have been optimal. Although I checked for both validity and reliability of the three questionnaires that I employed, the majority of the questions on my questionnaires (with the exceptions of the McGill

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Friendship Survey which uses a Likert scale) asked for a dichotomous "yes" or "no" response. This limited my use of multiple-regression, which works optimally with continuous rather than dichotomous variables. It is possible that redesigned survey instruments using a continuous measure, such as a Likert scale, coupled with a greater number of experiment participants, might yield more robust statistical results in that I could employ a greater variety of statistical tests, which could help in the cross-checking of results and in comparison with the qualitative examination of the video files of dyadic communicative exchanges.

In the coding of the gestures of my experiment participants, my resource limitations were such that I was the only one engaged in this activity. Optimally, to ensure that the coding was as accurate as possible, two or more research assistants should have coded the gestures independently as well. This would have allowed me to check for inter-coder reliability and would have increased my overall level of confidence in the accuracy of my gesture coding. Although I attempted to compensate for this, in part, by a careful, multiple-review of all of my video files, inter-coder verification would have contributed to a more robust research paradigm in general.

Finally, an initial "dry run" of my experiment using a small subset of a larger experimental pool would have been advantageous in that the logistics of the experiment could have been worked out in advance, and preliminary results examined, to see whether or not changes in my research methodology were called for in order to obtain more precise and valid results.

Future Directions

This research serves to lay the groundwork for further research on the interplay among affective intimacy, political learning, and gestures. The results that I have obtained are suggestive of the relationships that I have explored previously. To determine with greater reliability the role of affective intimacy in political learning, a much larger subject pool would be desirable in order to avoid Type 1 or Type 2 errors. Specifically, the greater statistical power that can be achieved, the more telling will be the quantitative results obtained. Also, a larger subject pool will yield a greater amount of data that can be subject to qualitative analysis. As I have discussed above, a quantitative and qualitative analysis combined helps to uncover information that may not be readily apparent from the statistical results alone.

To further explore the role of gesture in dyadic communicative exchanges, a research paradigm which tests for the presence and frequency of certain gestures and other body language within discussions of specific topics, will help to clarify the role of gestures in specific content areas. In other words, would we expect to find the kind and frequency of gestures and body language used in political science classes or in political discussions to be different from those employed in a humanities course or the natural sciences, etc? The extant research has looked at the gestures used in mathematics and physics. The results of this research differ enough from mine in that it suggests that gestures may, in fact, be content and context driven. Thus, a research design which allows one to compare the use of gestures across a wide range of disciplines, and their

role in learning, as mediated and moderated by affective intimacy, will help to establish the role of gestures in dyadic communicative exchanges in general.

To test for the efficacy of some gestures over others in the transmission of political information, a laboratory experiment, where the use of gestures is controlled for, could very well establish the primacy of some gesture over others in the successful imparting of political information to listeners. If this indeed turns out to be the case, then the incorporation of this into political science teaching paradigms could have a salutary effect on the level of political learning in secondary and post-secondary education. Given the low-level of political literacy of the average American, a phenomenon that has been noted at least for the past 60 years (Berelson et al. 1954), a rectification of this could serve to be the impetus for greater political engagement by the American electorate.

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APPENDIX A: Video Narration

Recorded Narration for 5-minute video.
(Narrator will read the following script verbatim which will be recorded and shown to
one member of each dyad in both treatment groups)

John Garamendi, who is currently Lt. Governor of California, is one of several

Democrats who will be running for California Governor in 2010. His political platform

emphasizes a few key points. One such point is that of education. Garamendi states that

students must be our top priority. We cannot flourish as a society if we fail to provide the

next generation with hope for their future and the tools to succeed. It is only by investing

in our children and their education that we ensure that every child has possibility of

achieving the American dream. Schools cannot ensure a high-quality learning

environment when budget cuts force school and community libraries to close, eliminate

instructional assistants and school nurses, and reduce vital school and community support

programs. Recent reductions in education funding have caused teachers to receive layoff

notices, go without salary increases and see their health benefits cut. He supports higher

education opportunities for all students; they should be able to attend a Community

College, State University or the University of California, based on individual needs and

academic preparation. California is revered for having the best higher-education system

in the world. Putting money into higher education is one of the soundest infrastructure

investments that California can make.

A second key element of Garamendi's platform is specifically concerned with energy and environmental issues. Garamendi says that we must maintain the environmental quality of our Golden State. He states that he is motivated by the central challenge of our time—reversing global warming and climate change. To that end, he pledges to continue to propose policies and incentives to reduce green house gasses and to address the inevitable environmental changes already underway. He pledges to seek the implementation of policies and incentives to encourage business and individuals to implement sound environmental practices. He authored California's first toxic clean up laws, giving communities the resources they need to return polluted land to productive use and authored California's first solar, wind and energy conservation tax credit laws, rewarding the commitment and creativity of energy pioneers throughout the state.

A third key element of Garamendi's platform is his stand on health care. He has stated that our current health care system is in a death spiral and it is headed for a complete breakdown. Instead of bringing health care services to more people, we are pricing more people out. The health care system and the current health insurance system is inefficient and in many ways ineffective. All of us are one job, one illness away from not having health care insurance. California is home to six million people without health insurance and residents are more likely to be denied coverage for pre-existing conditions and denied coverage at work than most states in the nation. High quality affordable healthcare is the right of every Californian. During his first term as California's Insurance Commissioner, he developed a plan for universal healthcare delivered in a system of managed competition. His plan relied on the government serving as a "single-collector,"

and preserved a patient's choice of doctor and hospital. The plan was adopted by the California Legislature, but did not become law. Newspapers across the nation heralded the plan and it served as a basis for national healthcare reform efforts during the first Clinton Administration.

A fourth key element in Garamendi's platform concerns California's economy. He has stated that we must value manufacturing. It is in the manufacturing of the new innovations that flow from research that high value is added, jobs created and economic growth achieved. Our manufacturing must be nourished, and supported with high skilled employees. Tax policy, government regulations, education and research policy must be aligned to create an environment in which businesses thrive and produce the wealth necessary to support the private and public investments necessary to sustain economic growth and social justice. He also maintains that we must build critical infrastructure. The movement of people, goods, and information is critical to our economic and environmental future. We must invest in public transportation systems as much as we invest in highways. High speed rail, light rail buses, metro systems and highways are essential. Congestion is slowing the economy. In our cities, the speed of travel is declining to 1910 levels. Infrastructure is more than transportation - it is water and sanitation systems, education and research facilities, communication facilities, the flood levees, and the renewable energy systems that we must come to rely upon.

On the Republican side, Stephen Poizner is one of several Republicans who will be running for California Governor in 2010. As far as his stand on education is concerned, he states that parents, business leaders and educators have lost faith in our

public schools. For example, 25 percent of the teachers in the Los Angeles Unified School District send their children to private schools. There is no more telling statistic than this. Ironically, California's public schools were once the standard by which other state systems were measured. California's future is dependent on a highly-educated and trained workforce. To provide this we must once again have the best public school system in the nation – it's that simple. As someone who spent a year teaching in the public school system, Poizner has a first-hand understanding of the problems that our schools face. He states that over the past 20 years the control of public schools has shifted from the local level to Sacramento. Teachers and administrators today have almost zero control over the facilities, the classroom and the budget. This must change. The control of our public schools must be returned to the local level. Parents, teachers and locally-elected school boards have a far greater understanding of the unique needs of their schools than do politicians in Sacramento.   Returning control to the local level will improve accountability, better ensure that students achieve grade-level proficiency in core subjects, and see that school facilities are adequately constructed and maintained. Our colleges and universities are also an important part of this picture. Given the increasing complexity of modern technology and modern society, it is imperative that our higher education system produces more undergraduates with engineering and business degrees every year. But our universities must play a role that goes beyond education. We must partner with them – and this includes providing the necessary resources – to make sure that we are well-positioned to lead the world on cutting-edge industries of tomorrow such as bioengineering, information technology, clean energy and nano-

technology. Our economic future requires a massive investment in education and scientific research. Failing to make this investment is not an option.

A second key element for Poizner is California's economy. He states that California is a nation state – home to the eighth largest economy in the world. If we are to remain a global leader, our success will largely be determined by our ability to recognize and respond to the changes taking place around us. Our competitors in the global economy are fierce, nimble and motivated. This is evidenced by the continuing decline of California's status in the world economy. Today, many of the governments of our newest competitors – China, India and many of the countries in Southeast Asia – have a singular focus on growing their economies and gaining competitive advantages. Contrast this with California, where in a recent survey of more than 1,000 business leaders, only 1 percent expressed the belief that our state government recognizes and is responsive to the needs of business. The Washington, D.C.-based Tax Foundation reports that California has the third worst business climate in the nation. The cost of doing business in California is, on the average, 30 percent higher than in other Western states. More alarming are California's regulatory costs, which are 105 percent higher than other Western states. If California is to remain an economic power in the 21st century, we must increase our ability to compete in a rapidly changing global marketplace. This will require a complete overhaul of our current tax structure and regulatory policies. We cannot compete globally when we are saddled with a system that was largely created during the Cold War and before the Internet. Our competitors have modernized; we must too. We must also create an economic climate that allows us to

compete for every job. It is not enough to just try to keep jobs here; our economic

policies must actively attract capital and encourage businesses to locate and grow in

California. High-quality and high-paying jobs stimulate the economy and provide a solid

tax base to finance necessary government services such as education, transportation and

public safety. By removing barriers to business growth and encouraging Californians to

continue to invent and produce, we can put our state on the right track to remain a

competitive force in the world economy.

The third key element in Poizner's platform is government reform in California.

He states that the system in Sacramento does not work. One reason why California's

government is so dysfunctional is because its structure is outdated and no longer reflects

the realities of a state with a population that exceeds 36 million. The organizational chart

we use today was created before the Civil War, when California had a population of

92,000.   He maintains that over the past 150 years we cobbled together a governmental

structure that supposedly addressed needs as they arose. State government today has

more than 300 boards and commissions, 11 agencies and 79 departments – many of

which have overlapping, duplicative and conflicting assignments. It's not an

organization – it's a maze. As much as possible, government should establish clear

ground rules and objectives – including environmental safeguards – and provide an

economic environment that will attract investment and promote job creation.

Government should be a strategic partner – not a competitor or hindrance. Rather than

have the government get involved in everything, our leaders should establish a clear

vision of where we want to go and let the market's creative energy and resources take us

there. We should not be looking to "fix" the government system that exists today. The true solution is to ask what government should look like in the 21st century and build it that way. We can meet this challenge by pulling together the best organizational minds from both the public and private sectors and tasking them to figure out how to reduce the state's bloated bureaucracy, eliminate outdated and unnecessary programs, and identify how to deliver necessary government services as efficiently and effectively as possible. Our future success requires bold, creative thinking – not just efforts to tinker around the edges.

APPENDIX B: McGill Friendship Survey

FRIENDSHIP_1 through FRIENDHIP_31

Participant # _____

Political Information Learning Experiment. Part 1A.

Please indicate how much you agree or disagree with the following statements. Rate each on a scale ranging from 1 to 6, with 1 indicating you strongly agree with the statement and 6 indicating you strongly disagree with the statement. Please circle the number above your answer. Please only answer "N/A" if the person you are paired with is someone you do not know.

1. I am confident that the person I am paired with wants to spend time with me.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

2. I am confident that this person is always sincere when he/she tells me something.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

3. I can always trust this person to be there when I need him/her.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

4. I have faith in my ability to work out any problems with this person.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

5. I have confidence that this person and I still will be friends in three years.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

6. I believe that I can always be honest with this person.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

7. I am happy with my friendship with him/her.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

8. I care about him/her.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

9. I like him/her a lot.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

10. I feel my friendship with him/her is a great one.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

11. I am satisfied with my friendship with him/her.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

12. I feel my friendship with him/her is good.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

13. I want to stay friends with him/her for a long time.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

14. I prefer him/her over most people I know.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

15. I feel close to him/her.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

16. I think my friendship with him/her is strong.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

17. I am pleased with my friendship with him/her.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

18. I am glad that he/she is my friend.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

19. I hope he/she and I will stay friends.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

---

20. I would miss him/her if he/she left.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

---

21. I am content with my friendship with him/her.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

---

22. I enjoy having him/her as a friend.

1	2	3	4	5	6	7
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree	N/A

23. Have you ever been romantically involved with the person with whom you have paired?

1	2
YES	NO

---

24. Are you currently romantically involved with the person with whom you have been paired?

1	2
YES	NO

---

25. The individual that I have been paired with is very knowledgeable about politics and current events.

1	2	3
YES	NO	N/A

(THIS HAS BEEN DELETED!)

---

26. The individual that I have been paired with has been influential in changing my opinion about at least one political matter.

1	2	3
YES	NO	N/A

---

27. I engage in more than three social activities a week with the person I have been paired with.

1	2	3
YES	NO	N/A

28. I talk with the individual I have been paired with about politics on a regular basis.

1	2	3
YES	NO	N/A

29. I enjoy talking about politics with the individual I have been paired with.

1	2	3
YES	NO	N/A

30. The individual that I have been paired with is very knowledgeable about politics and current events.

1	2	3
YES	NO	N/A

31. The individual that I have been paired with has been influential in changing my opinion about at least one political matter.

1	2	3
YES	NO	N/A

Thank you. Please return this questionnaire to the experimenter and we will begin the next phase of the experiment.

APPENDIX C: Political Knowledge Survey

PK_1 through PK_32

Participant # _____

Political Information Learning Experiment. Part 1.

Please indicate your answer to the following questions by circling the number directly above your choice. You are not expected to know the answers to all of the questions so it is alright if you do not know the answers.

1. Who has the final responsibility to decide if a law is Constitutional or not?

1	2	3
Is it the president?	The Congress?	The Supreme Court?

2. Whose responsibility is it to nominate judges to the Federal Courts?

1	2	3
Is it the president?	The Congress?	The Supreme Court?

3. Which party currently has the most members in the House of Representatives in Washington?

1	2
Is it the Republican Party?	Is it the Democratic Party?

4. Which party currently has the most members in the U.S. Senate?

1	2
Is it the Republican Party?	Is it the Democratic Party?

---

5. Which one of the parties is more conservative than the other at the national level?

1	2
Is it the Republican Party?	Is it the Democratic Party?

---

6. How much of a majority is required for the U.S. Senate and House to override a presidential veto?

1	2	3
A bare majority (50% plus one)?	A two-thirds majority?	A three-fourths majority?

---

7. Suppose that a liberal senator and a conservative senator must vote on a bill that would close down a federal regulatory agency. Which senator is more likely to vote to close down the agency?

1	2	3
The liberal senator?	The conservative senator?	Or would you say that both senators are equally likely to vote to close the agency?

---

8. Which of the following does the U.S. government do to limit criticism of the government in newspapers?

1	2	3
Does the government require newspapers to be licensed?	Does the government prohibit stories that are too critical of the government from being published?	Or would you say that the U.S. government has no regulations that limit political criticism in newspapers?

9. Which of the following is the main duty of Congress?

1	2	3
To write legislation?	To make sure that the president's policies are carried out properly?	Or to watch over the states' governments?

10. How does the political system in the United States try to make sure that political leaders are accountable to citizens?

1	2	3
By having elections?	By limiting the president to two terms in office?	Or by having separate state courts and federal courts?

11. In some countries, voters elect leaders who serve in a parliament. How would you characterize a parliamentary government?

1	2	3
Is a parliamentary government authoritarian?	Is it autocratic?	Or is it democratic?

Please indicate your answer to the following four questions by writing out what you believe to be the job title or political office of the individual in the space provided directly below each question.

12. What job or political office is currently held by Joseph Biden?

_____

13. What job or political office is currently held by Nancy Patricia D'Alesandro Pelosi?

_____

14. What job or political office is currently held by Harry Reid?

_____

15. What job or political office is currently held by John G. Roberts, Jr.?

`

_____

For the following questions, we are defining a "peer" not only as someone who is a student here at UCR like you, but also someone with whom you are a friend and/or, someone you would be comfortable associating with outside of school activities as well as on campus. Please circle either 1 or 2 for questions 16 through 32.

16. My peers are politically knowledgeable

1	2
YES	NO

17. My peers and I share similar political beliefs

1	2
YES	NO

18. I actively participate in civic organizations both on and off campus

1	2
YES	NO

19. I often talk with friends about politics and current events.

1	2
YES	NO

20. My peers have influenced my political outlook.

1	2
YES	NO

21. I have a strong political identity and political preferences.

1	2
YES	NO

22. My peers have influenced me to become active in political campaigns.

1	2
YES	NO

23. I spend more than half my time watching and listening to programs with political content.

1	2
YES	NO

24. I am very interested in politics and current events.

1	2
YES	NO

25. I believe that it is very important for me to vote regularly.

1	2
YES	NO

26. Active political involvement is very important.

1	2
YES	NO

27. My parents are actively involved and interested in politics.

1	2
YES	NO

28. I discuss politics often when I am at home.

1	2
YES	NO

29. Either one parent or both parents graduated from college.

1	2
YES	NO

30. My parents and friends emphasized the importance of political involvement while I was growing up.

1	2
YES	NO

31. The person that I have been paired with in this study is a friend.

1	2
YES	NO

32. I consider the person that I have been paired with in this study to be a peer.

1	2
YES	NO

This concludes the first questionnaire. Please wait for the researcher to come and collect it.

APPENDIX D: Political Learning Survey

Participant # _____

PL_1 through PL_40

Political Information Learning Experiment. Part 2.

Please indicate your answer to the following questions by circling either number 1 for "YES" or number 2 for "NO".

Please base your responses on what you remember from the discussion with the person with whom you have been paired or from what you remember from the video.

1. John Garamendi's political platform contains four key elements

1	2
YES	NO

2. Garamendi's political platform addresses the issue of state funding of education.

1	2
YES	NO

3. Garamendi believes that public education should be well-funded by the state.

1	2
YES	NO

4. Garamendi says that all California students should be able to attend an institution of higher learning.

1	2
YES	NO

---

5. Garamendi states that state funding of education is one of the soundest investments that the state can make.

1	2
YES	NO

Please indicate your answer to the following questions by circling either number 1 for "YES" or number 2 for "NO".

Please base your responses on what you remember from the discussion with the person with whom you have been paired or from what you remember from the video.

6. Garamendi's political platform considers environmental and energy issues to be key issues.

1	2
YES	NO

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7. Garamendi states that global warming is one of the central challenges of our time.

1	2
YES	NO

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8. Garamendi believes that the state should give money to local communities to combat pollution.

1	2
YES	NO

9. Garamendi supports legislation at the state level to encourage individuals and businesses to implement sound environmental practices.

1	2
YES	NO

10. Garamendi authored California's first solar, wind and energy conservation tax credit laws, rewarding the commitment and creativity of energy pioneers throughout the state.

1	2
YES	NO

11. Garamendi has stated that Californians are more likely to be denied health coverage for pre-existing conditions than residents of other states.

1	2
YES	NO

Please indicate your answer to the following questions by circling either number 1 for "YES" or number 2 for "NO".

Please base your responses on what you remember from the discussion with the person with whom you have been paired or from what you remember from the video.

12. Garamendi stated that affordable healthcare is the right of all Californians.

1	2
YES	NO

13. Garamendi specifically stated that six million Californians are currently without health insurance.

1	2
YES	NO

14. Garamendi stated that we must value manufacturing jobs in California.

1	2
YES	NO

15. Garamendi states that we must invest in California's transportation infrastructure.

1	2
YES	NO

16. Garamendi says that we must invest in public transportation at the same level that we invest in highways.

1	2
YES	NO

17. Garamendi maintains that traffic congestion in California is slowing down the economy.

1	2
YES	NO

18. Garamendi says that the movement of people, goods, and information is critical to our economic and environmental future.

1	2
YES	NO

Please indicate your answer to the following questions by circling either number 1

for "YES" or number 2 for "NO".

Please base your responses on what you remember from the discussion with the

person with whom you have been paired or from what you remember from the video.
19. Garamendi said that in our cities, the speed of travel is declining to 1910 levels.

1	2
YES	NO

20. Garamendi says that infrastructure is more than transportation - it is water and sanitation systems, education and research facilities, communication facilities, the flood levees, and the renewable energy systems that we must come to rely upon.

1	2
YES	NO

21. Steve Poizner's political platform consists of three key elements.

1	2
YES	NO

22. Poizner's political platform addresses the issue of education in California.

1	2
YES	NO

23. Poizner believes that control of public education should be returned to the local level.

1	2
YES	NO

24. Poizner stated that 25% of teachers in the Los Angeles Unified School District send their children to private schools.

1	2
YES	NO

Please indicate your answer to the following questions by circling either number 1 for "YES" or number 2 for "NO".

Please base your responses on what you remember from the discussion with the person with whom you have been paired or from what you remember from the video.

25. Poizner states that California's economic future requires a massive investment in education and scientific research.

1	2
YES	NO

26. Poizner said that California's public schools were once the standard by which other state systems were measured.

1	2
YES	NO

27. Poizner maintains that the cost of doing business in California is, on the average, 30 percent higher than in other Western states.

1	2
YES	NO

28. Poizner says that California's regulatory costs are 105 percent higher than other Western states.

1	2
YES	NO

29. Poizner states that California must actively attract capital and encourage businesses to locate and grow in California.

1	2
YES	NO

30. Poizner supports a complete overhaul of California's current tax structure and regulatory policies.

1	2
YES	NO

Please indicate your answer to the following questions by circling either number 1 for "YES" or number 2 for "NO".

Please base your responses on what you remember from the discussion with the person with whom you have been paired or from what you remember from the video.

31. Poizner states that California has the 8th largest economy in the world.

1	2
YES	NO

32. Poizner believes that the state government of California is currently dysfunctional.

1	2
YES	NO

33. Poizner stated that California state government today has more than 300 boards and commissions, 11 agencies and 79 departments – many of which have overlapping, duplicative and conflicting assignments.

1	2
YES	NO

34. Poizner says that the organizational chart that California state government uses today was created before the Civil War, when California had a population of 92,000.

1	2
YES	NO

35. Poizner addresses health-care reform in his platform.

1	2
YES	NO

36. Poizner states that California is entitled to more money from the Federal Government.

1	2
YES	NO

Please indicate your answer to the following questions by circling either number 1 for "YES" or number 2 for "NO".

Please base your responses on what you remember from the discussion with the person with whom you have been paired or from what you remember from the video.

37. Poizner addressed the issue of the privatization of Social Security.

1	2
YES	NO

38. Poizner addressed the issue of troop withdrawal from Iraq.

1	2
YES	NO

39. Poizner is a member of the Democratic party.

1	2
YES	NO

40. Garamendi is a member of the Republican party.

1	2
YES	NO

This concludes this questionnaire. Please wait for the researcher to collect it from you.