DISCORDANTLY MEANINGFUL:

EXAMINING COGNITIVE MECHANISMS OF CULTURE AND ACTION

by

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(Under the Direction of Dawn T. Robinson)

ABSTRACT

Affect Control Theory's (ACT) predictions are predicated on the mechanism of deflection reduction, with the presumption that social institutions impose cognitive constraints on this process. The newly-developed ACT of Institutions (ACT-I) has codified the mechanism of social institutions, making it now possible and imperative to reconcile the relative weight and operational order of the two mechanisms' effects on event prediction and likelihood ratings. Evidence from a 3-condition experiment shows that in contrast to ACT equation predictions, but consistent with ACT-I predictions, respondents reported that high deflecting, institutionally concordant events were more plausible and more likely than low deflecting, institutionally discordant events. Meaning disruptions elicited by institutionally out-of-place behaviors or identities are as or more impactful than affective meaning disruptions captured by ACT's impression change equations. While both mechanisms significantly determine estimations of event likelihood, institutional concordance is essential to event processing and must be incorporated into ACT's formalized equations.

INDEX WORDS: Cognitive Mechanisms, Social Institutions, Computation, Culture, Affect Control Theory, Experiment

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Imagine standing on the sidewalk in an average town, idly observing the people around you. A short distance down the sidewalk, a young woman is chatting animatedly with a store keeper. She has a baby carriage behind her, but does not currently have her attention focused on it. You observe another person who walks up to the carriage and, glancing towards the woman, leans down and scoops up the baby. As the observer, what is your opinion of the stranger who picked up the baby, and how do you react to witnessing that action?

Your answer to this query likely relies on how you interpreted the scene, and what qualities and social roles you ascribed to the woman and to the other person. If, when seeing this occur, you assumed that the woman was the mother of the baby, and that the person who walked up to the carriage and picked up the baby was the baby's father (or the woman's mother, other relative, or friend), then you likely smiled at the sweet tranquility of the scene, feeling at ease. However, if you thought that the person who walked up to the carriage and picked up the baby was not the baby's father but a kidnapper who you were witnessing take advantage of a mother's distraction in order to steal her child, your reaction probably differed drastically. Instead of complacency and tranquility, your emotions would have been ones of alarm and horror.

Reactions in each of these instances, though vastly different from one another, are predictable: given the initial definition of the actors and scenario as presented above, one

can expect that any member of our culture would react similarly and without deliberation. In both interpretations, the characters are clearly defined, and they interact with the characters with whom we would expect them to interact in the manner in which we would expect them to do it. Such a clear definition is not a given for every theoretically possible event.

Given the compartmentalized nature of our social worlds, most of us will never face a situation like the following, but we can all imagine the scenario: suppose that you walk into your office at work to find that before you, demanding your attention, stand both your mother and your thoroughly drunk former college roommate. How do you react? The research presented in this thesis suggests that if you are like most people, you do not have an immediate answer. Instead, the most likely immediate response here is a full stop—you would be doing some fast computing to cognitively process the situation in which you find yourself before you could even begin to react to its reality. Knowing how to act in a situation first requires defining the situation, noting pertinent information and disregarding the unimportant in order to orient oneself to appropriately respond to the situation before you (Goffman 1974).

A person's ability to quickly assess and appropriately respond to social situations relies in large part on the contextual cues that define the parameters of what is or is not acceptable or likely in a situation given the institutional framework imposed upon it. Institutions in society are the significant demarcations of social reality that organize, guide, and constrain sets of meanings concerning particular realms. Institutions are higher-order units of social structure than individual identities, and are implicit in the denotative and affective definitions of those identities (MacKinnon and Heise 2010:73-

74). Institutions tell people what set of behaviors and identities are appropriate in a particular context, even though those same behaviors or enacted identities may be completely inappropriate elsewhere (for example, the institutional framework defines the way one would interact with an older sibling while watching a movie with her at home compared to the way she would interact with her at the hospital where her sister is a scrub nurse, she herself a surgeon). Institutional cues are embedded not only in settings that activate different identities for single individuals; they are embedded in and tied to particular identities and behaviors. These cues constrain or permit certain behaviors to/from one type of identity or another—one would be nonplussed to hear a child ask him sternly whether he is following the proper diet for his cholesterol levels, but would not think twice at hearing such a query from his doctor. Institutional cues call up cognitive responses and constraints on individuals' assessments of and comportment within social interactions, and the one imposed on the situation is the one that best fits the cues presented by all components of the event.

In Affect Control Theory (explained in detail in the second and third chapters of this thesis), researchers have a rigorous computational theory that more than adequately maps out and predicts the way that people understand social events based on affective responses and beliefs (e.g., Britt and Heise 2000, Heise and Smith-Lovin 1981, Heise 1979, Heise 1985, Heise 2007, MacKinnon and Robinson 2014, Robinson and Smith-Lovin 1992, Robinson, Smith-Lovin and Tsoudis 1994, Schröder and Scholl 2009, Wiggins and Heise 1987), but it does a poor job of taking the rules provided by the institutional nature of social life into account. This is a theoretical gap that must be remedied, because the identifiable nature of an event's institutional framework is a

nontrivial component. This was apparent in Heise and MacKinnon's 1987 validation test of Affect Control Theory's ability to predict likelihood ratings of real life respondents. The authors found that

> Institutional clarity of identities was…the main conditioner of the relation between affect and likelihood. When an actor's identity is institutionally vague, deflections predict likelihoods but the level of predictability is low. … High levels of predictability are attained for events that involve people acting in roles that are central and normal in standard institutional contexts (Heise and Mackinnon 1987).

To account for their unexplained variance, the authors in that study hypothesized that the greater the institutional specificity of events, the greater the predictability of respondent likelihood ratings given the event's deflection (i.e., the mathematical measure of how much the experienced event differs from cultural expectations). This was supported by their data; Heise and MacKinnon found an R-square value of .61 for institutionally-clear events (defined as those with an Actor that the authors assumed belonged clearly to a singular and identifiable social institution) compared to an R-square of .24 for institutionally vague events (Heise and Mackinnon 1987). Deflection reduction as a mechanism for predicting respondent likelihood seems predicated on the clarity of an event's institutional framework.

Simulations had shown previously that low deflecting events are seen as plausible (Heise 1979); Heise and MacKinnon's study attempted to determine whether highly deflecting events seem implausible. Their main conclusions stated that "events that produce extremely large affective deflections are viewed as implausible, and deflections in either direction—positive or negative—reduce the perceived likelihood of an event. Only events producing small affective deflections ever are seen as extremely likely (Heise and Mackinnon 1987)." This conclusion does not take into account the full

influence of institutional cues on cognitive processing. In that study, the authors attempted to control out the institutional noise. The experimental research presented in this thesis seeks to answer the questions that Heise and MacKinnon's earlier study could not by exploring the mechanisms' interaction: What happens in events where the institutional framework is not only vague, but discordant? How much does institutional compatibility across an event's components affect likelihood ratings irrespective of deflection levels? How much does low deflection counter this effect?

The data and information available at the time of that study did not allow for the exploration of the processes that produce this tension between institutionalization and affect for the prediction of likelihood, but Heise and MacKinnon posited that institutionally vague identities call for cognitive work. They conjectured that when a cognitive accounting is readily available (when institutional cues are concordant and specific), likelihood assessments are solely a function of deflection reduction, but that when a cognitive accounting is difficult due to lack of institutional cues (or, I suggest, discordance in institutional cues), "a reduced likelihood for the event results independently of affective processes" (Heise and Mackinnon 1987). It is this independent cognitive process dependent on institutional concordance and specificity that must be reconciled with the cognitive process of deflection reduction for determining how an individual assesses likelihood and acceptability of events. This is the task undertaken by this master's thesis.

With the development of Affect Control Theory of Institutions (MacKinnon and Heise 2010), social institutions have been empirically codified, and the processing of this cognitive mechanism wedded to that of deflection reduction in a cybernetic model that

works in concert with itself to produce and guide interactions of society and people's assessments of those interactions' social acceptability. However, the nature of this combined process has yet to be investigated. In explaining that portion of their cybernetic model that depicts the process of Affect Control Theory's mechanism at work, Heise and MacKinnon state that after an individual has chosen an identity to enact in an interaction (the Affect Control Theory of Self portion of the joint process), he or she, in an Affect Control Theory process predicated on deflection reduction, "uses the affective meaning of that Selected Identity to choose an institutionally relevant Role Behavior" to enact (MacKinnon and Heise 2010:200).

The idea that individuals construct events that incorporate and adhere to the basic institutions of society has been a presumption of Affect Control Theory since its inception, but the equations that make up the theory do not actually account for this premise. Thus, the interaction of the two mechanisms remains unexplored still. The main research question guiding this thesis asks, "What happens when the cues given by these separate mechanisms collide?" Do each of these mechanisms contribute in equal measure to the assessment of an event's likelihood? Is one necessary but not sufficient? Which mechanism does the cognitive "heavy lifting"? Do they operate simultaneously, or sequentially? These questions must be answered to truly understand cognitive processing of social events and to increase the specificity and accuracy of predictions for behavior and attitude response.

Adherence to deflection-reducing affective rules provides an implicit mechanism that shapes and guides expectations for behavior and interaction; adherence to institutional parameters provides an explicit mechanism that shapes and guides

expectations for behavior and interaction. Because basic affective and institutional cognitive processes are universal (Heise 2007:10), results of the research presented in this thesis will allow for greater predictive ability and scientific understanding of the motivations for and attitudes concerning behavioral conduct and cultural appropriateness on a global scale. To this end, this thesis presents research that first verifies the deflection mechanism of Affect Control Theory (Study 1) and then tests this mechanism alongside that of Affect Control Theory of Institutions by having respondents rate the likelihood of simple events that vary by institutional concordance and deflection level (Study 2). In Study 2 Condition 1, events are institutionally concordant but have high deflection. In Condition 2 (the control condition), events are institutionally concordant and have low deflection. In Condition 3, all events have low deflection but are institutionally discordant.

In addition to the likelihood ratings, respondents provided text justifications for the likelihood ratings that they gave to each event. These help to offer concrete evidence for the overlap and relative explicative power of these two implicit and explicit cognitive mechanisms to shape and predict assessments and trajectories of social interactions. The ability to concretely isolate and assess the relative power of these cognitive mechanisms will give evidence concerning the link or disconnect between cognition and action, and can thus speak strongly to the controversy in the sociology of culture literature on the usefulness of different research methods and the best means to understand the link between culture and action.

This introduction has offered a synopsis of the full content of this thesis; each of these areas will be explained in much further detail. In the next chapter, I explain the logic and assumptions of Affect Control Theory.

CHAPTER TWO

AFFECT CONTROL THEORY: CONCEPTUAL FRAMEWORK

Affect Control Theory rests on the assumption that people want the "should" of human behavior to match the "does" of human behavior (Heise 1979, Heise 2007). In pursuit of this goal, people will change their behaviors in or understandings of a social event until their understanding and their reality mesh. Understandings of social events are guided by the affective responses concerning those events. As a noun, affect refers to the emotional attitudes or general feelings attached to stimuli that guide human behavior. These general feelings attached to stimuli are known as "fundamental sentiments", and they refer not to the personal or local reactions to a particular instance or representation of an identity or behavior, but to the affective attachment of a member of the culture to that identity or behavior in general.

Fundamental affective designations for identities in society are culturally global and denotatively static: should an observer see someone whom she identifies as a Mother[1] do something terrible to a child, she would not say to herself, "I have been mistaken thus far about the nature of Mothers. I saw that mother be terrible to her child, hence Mothers do terrible things to Children. I can expect to encounter similar behavior from people who are Mothers in the future." On the contrary, this observer would react with horror. She would think far less of this particular mother now than she did before she saw this mother act. She would not, however, change her opinion of the fundamental

[1] Capitalization of Identities and Behaviors should be read as conveying the dimensional definition (EPA profile) of the term as well as the standard verbal definition and its associated cultural connotations

nature of Mothers. Her fundamental sentiment about Mothers would instead be the reference point, shared by other members of her culture, against which she unfavorably judges this particular mother. By numerically capturing this fundamental sentiment, the affective definition of this identity (and all other identities) can be expressed mathematically.

Affective feeling—a culture's general sentiment about an identity (a social role or type of person) or behavior—can be mathematically captured using ratings along three dimensions: Evaluation, Potency, and Activity (Osgood, May and Miron 1975). The first dimension, Evaluation, concerns the goodness or badness of an identity or a behavior (or a modifier (adverbs and adjectives), or a setting). The other two dimensions are those of Potency (an identity, behavior, modifier, or setting as powerful/big/strong versus powerless/weak/little) and Activity (the fast/young/noisy versus slow/old/quiet nature of an identity, behavior, modifier, or setting). Together, these three dimensions define the cultural essence of a particular identity, behavior, modifier, or setting, and are captured by having respondents rate an identity along each dimension using a semantic scale. The set of these three resulting numbers is an identity or behavior's EPA profile. The first number refers to the identity's Evaluation rating, the second to its Potency rating, and the third to its Activity rating. Negative and positive numbers indicate opposite sides of the scale; the greater the absolute value of the number, the more extreme the estimation on that dimension. Scales range from -4.3 to 4.3.

The cultural essence of an identity is the way that members of a culture "feel" about that particular identity; it is a way of determining the definition of an identity by its emotional, dimensional character. For example, in US culture, children are fast and noisy

and inherently good, but have little power: they have an EPA profile of 1.97, -1.17, 2.01 (Robinson and Smith-Lovin 2015). Firefighters are extremely good, powerful, and active (3.26, 3.01, 2.31)—they occupy relatively the same dimensional space as cultural identities like Hero (3.67, 3.49, 1.49) and Champion (2.32, 2.87, 1.97), and would be farthest away (in dimensional space and in mental likeness) from an identity like "Coward", which is extremely bad, powerless, and inactive (-2.35, -3.05, -2.08). A host of adjectives covers each point and combination of these three dimensions. Doctors, for instance, who are rated by cultural members as very good, very powerful, and almost neutral on activity (2.73, 2.94, 0.21), we might refer to as "reserved".

Affect Control theorists can gather and use this affective information about different terms for people to make predictions for the trajectory of a social event in which they are involved, because culture is embedded in language. This is why two terms that are denotatively synonymous cannot be used interchangeably—the connotation of a word determines its meaning. "Tool" and "instrument" are both terms for items that are used for a particular purpose, but "instrument" suggests some level of finesse, refinement, and sophistication that "crude (an adjective almost never paired with "instrument") tool" does not. These distinctions and feelings about terms and labels in society can be captured numerically along the three affective dimensions of Evaluation, Potency, and Activity (or E, P, and A).

The label that someone uses to refer to another carries an affective connotation; the terms call up emotional responses that orient views concerning those identities. The identity label "bastard", for instance, has an EPA profile of -1.69, -0.68, 0.55, while the less inflammatory "illegitimate child" label has an EPA profile of -0.73, -0.79, -0.05—a

more passive, and not nearly as negatively evaluated, affective attitude toward ostensibly the same identity. These two different labels would call up different emotions and different expectations if the same person were so differentially labeled. Affect Control Theory researchers can model in what way there would be differences by using these different EPA profiles as variables in social interaction equations. The equations predict the outcomes and evaluations of social events by the identity, behavior, and setting labels numerically assigned to the elements within them.

In United States culture, how "good" one views an actor's self and his or her behavior during an event is based in large part on the level of inherent goodness tied to the initial social role label that one assigns to him. The assessment of the same behavior by the actor in the baby carriage example demonstrates this principle: if one assumes that the actor is a Kidnapper, then his behavior is deemed sinister, and he is not thought well of. If, however, he is the child's Father, then his behavior is deemed sweet, and he endearing. This broad cultural understanding that who people are colors how one sees them and what they do is one of many culturally global cognitive parameters for the assessment of social interaction.

These concrete, culturally global rules that people mentally import into and subconsciously apply to individual local interactions guide social interaction and shape reactions to events in society through the cognitive mechanism of deflection reduction. Deflection is the feeling of social discomfort that arises when social scenarios do not unfold as, given the characters, behaviors, and setting involved, one thinks that they ought to do: it is the mathematical difference between expectation and reality.

Deflection reduction guides interpretations of events; the lower the deflection, the more reasonable human beings find a scenario. Loosely, events that have a deflection level of 7.9 or less are considered "expected", those in the range of 8.0 to 14.9 are considered "unusual", those 15 to 21.9 are considered "weird", and those with a deflection score of 22 or above are considered "impossible" (Boyle and McKinzie 2015). In the baby carriage example, we have someone who is either a Father (2.65, 2.92, 0.65) or a Kidnapper (-3.88, 1.23, -0.04). This character either Snuggles (2.85, 1.32, -1.92) or Abducts (-3.82, 1.96, 1.33) a Baby (2.59, -2.63, 1.65). Note that fathers and snuggling are both good and powerful, while kidnappers and abducting are both bad and powerful. The expected pairings would be a father who snuggles and a kidnapper who abducts. The deflection level for the first event, "Father Snuggles Baby", is 6.5. This is an "expected" event. The deflection for the inverse of that event, "Father Abducts Baby", is 65.6. The deflection level tells us that cognitively, this event is impossible. This is not to say, however, that people who are fathers do not abduct infants; the event could technically happen, and people would even believe it if it happened, but it would not be described with those terms.

If a father took his child by force, this would fit the legal definition of abduction (if we assumed malfeasance in his motives). However, we assume benevolence if a father takes his own child, and would probably assume that if this occurred, that the baby's legal location from which the father took him or her was a danger to the baby. The accepted narrative to this hypothetical situation would likely follow along the lines of "defying the law and risking his own freedom, the father rescued his baby—whatever the court system may choose to be calling it." The event "Father Rescues Baby" has a

deflection of 5.4—much more in keeping with cultural expectations for the behavior of these individuals.

If we instead assume malice on the part of the father (which is not in keeping with our sentiments about Fathers), this might be one of those instances where commentators may cry "he's no father!" and other similar statements. These statements call on the affective definition of Fathers, which would exclude anyone who may biologically be labeled a father but who affectively does not meet the requirements. If this character were such a person, and the mother was hiding from him, the accepted narrative may even relabel the baby's biological father as a Kidnapper. If "Kidnapper Abducts Baby", were the understood scenario, the deflection level would be 5.2—whether the individual is a relabeled father or an outright masked stranger, we expect Abductions from Kidnappers. Though we would be upset by the situation, we would believe it and find it normal if it occurred, since that is what kidnappers do: they kidnap people. Low deflection does not imply pleasant aspect, only that the event is in keeping with expectations. "Kidnapper Snuggles Baby", which is certainly nicer than abduction, has a deflection level of 12.2. Even though snuggles are what happen to babies in our social estimations, we would find this behavior unusual if it came from such a bad and powerful actor as a Kidnapper. To use the example of a mother and a child, the event "the Mother Kissed the Child" has a deflection score of 1.1—kissing is almost exactly what we expect when a mother is acting towards a child. Unexpected behaviors have high deflection levels. The event "the Mother Kicked the Child" has a deflection score of 35. People do not expect mothers to kick children, and would be astonished and horrified to see it happen.

Deflection of an event is computed using the impression equations of Affect Control Theory. The numbers in the equations are merely a mathematical representation of our culture's internalized rules for social conduct, which is why one could intuitively predict which of the examples above would have high or low deflection levels. People implicitly follow these rules as they evaluate a scenario and compare the scenario's reality with their expectations for how they expected that scenario to unfold. The equations assign a sign (positive or negative) and a numerical weight to the defined terms of the culture's internalized feeling rules, and the EPA profiles of the involved identities and behaviors are the variables upon which those coefficients act. The resultant number from those summed equations' results is the event's deflection score.

Predictions can be made because the equations operate according to the rule of deflection reduction. If one were to put two identities into the equations and solve for the behavior, the resultant number would be the EPA profile of the optimal behavior for the specified Actor to do with or towards the specified Object. If one were to solve for the optimal behavior using "Ex-Boyfriend" as the Actor and "Ex-Girlfriend" as the Object, the resulting optimal EPA profile would be -0.59, -0.42, 0.56: the equations predict the Ex-Boyfriend to do something that is a little less than could be called good, that has little power, and that is at a mild level of arousal. There is no behavior in the most recent EPA dictionary that directly matches this optimal behavior, but the closest three are "Stammer At" (-0.94, -0.67, 0.60), "Idolize" (-0.30, -0.20, 0.18), and "Quibble With" (-0.94, -0.22, 0.94)—all behaviors that one might easily expect to happen in that awkward space when exes once again meet one another. This is the operation of the social equations used in

Affect Control Theory, the mathematics of which are described in more detail in the next chapter.

CHAPTER THREE

AFFECT CONTROL THEORY: TECHNICAL MATTERS

The implicit, unconscious evaluations of events as though the social elements within them are variables in a mental equation of acceptability occur in the minds of all members of a culture. The mental weighing of the pre-behavior evaluation of the Actor in the baby carriage scenario in order to affect the post-behavior evaluation of the actor in the baby carriage scenario is only one weight on one variable in an equation of many such variables. These weights act on the Evaluation, Potency, and Activity of the Actor, Behavior, and Object of a scenario, as well as on various interactions between these variables. Together, they make a set of nine mathematical equations (see Table 1) that can be used to evaluate and predict interactions and outcomes before they occur. These cultural equations (and those from other cultures/periods) form the grounded part of Affect Control Theory, the sociological theory of cultural action used by researchers to assess and predict cultural interactions.

Table 1 represents the impression change equations that model the implicit social rules of US culture for males for ABO (Actor, Behavior, Object) events. Each column represents a different equation. There are nine equation columns, one each for the post-event Evaluation, Potency, and Activity ratings for the Actor, the Behavior, and the Object, respectively. The numbers in each row of the column are the coefficients for the terms of the equation.

Table 1
Male Actor-Behavior-Object Impression Equations

Equation Terms	Ae'	Ap'	Aa'	Be'	Bp'	Ba'	Oe'	Op'	Oa'
constant	--0.26	--0.1	0.14	--0.19	0.06	0.11	--0.11	--0.37	0.02
Ae	0.41	0	0.05	0.11	0	0.02	0	0	0
Ap	0	0.56	0	0	0.16	--0.06	0	0	0
Aa	0	0.06	0.64	0	0	0.27	0	0	0
Be	0.42	--0.07	--0.06	0.53	--0.13	0.04	0.11	0.18	0.02
Bp	--0.02	0.44	0	0	0.7	0	0	--0.11	0
Ba	--0.1	0	0.29	--0.12	0	0.64	0	0	0
Oe	0.03	0.04	0	0	0.03	0	0.61	--0.08	0.03
Op	0.06	0	0	0.05	0.01	0	0	0.66	--0.05
Oa	0	0	0	0	0	0	0.03	0.07	0.66
AeBe	0.05	0	0	0	0.01	0	0.03	0	0
AeOp	0.03	0	0	0	0	0	0	0	0
ApBp	0	--0.05	0	0	0	0	0	0	0
AaBa	0	0	--0.06	0	0	0	0	0	0
BeOe	0.12	0.01	0	0.11	0.03	0	0.04	0.03	0
BeOp	--0.05	0	0	--0.05	0	0	0	0.03	0
OpOe	--0.05	0	0	--0.02	0	0	--0.03	0	0
BpOp	0	0	0	0	0	0	0	--0.05	0
AeBeOe	0.03	0	0	0.02	0	0	0	0	0
AeBeOp	--0.02	0	0	0	0	0	0	0	0

Note. Table presents the nine impression equations that model post-event evaluations (Heise 2015). Columns 2-10 list the coefficients in each equation for the variables listed in column 1. Downloaded from *Interact* Aug. 21, 2016. Copyright 2004—David R. Heise, Indiana University, Bloomington, Indiana.

The column to the left of the decimal numbers indicates the terms within each of the equations. For example, the .41 value in the first decimal column of the second row indicates that the pre-event evaluation of the Actor will be multiplied by a coefficient of .41 in the equation to obtain the post-event Actor evaluation. Note that this number is quite substantial, and represents the amount by which how good or bad a person is initially assumed to be will impact how good they are presumed to be after the event: pre-event evaluation is amplified in post-event evaluation ratings. I will explain this mathematical representation of affective rules through the explanation of one of the nine equations (Ap') in its entirety.

The second column of decimal numbers is the equation for the post-event ratings of the Actor's Power, Ap'. Each number in this column is a coefficient for the variable indicated by the first column. Any variable with a coefficient of zero is naturally not listed in the equation. This makes the equation for the post-event Potency of an Actor Ap' = -.01 + .56Ap + .06Aa - .07Be + .44Bp + .04Oe -.05ApBp + .01BeOe.
For explanatory purposes, we can simplify this equation to discuss only the largest coefficients (those above .10), which leaves a simplified equation of Ap' = .56Ap + .44Bp. In words, this says that actors in events are considered most powerful after they act if they were powerful to begin with (.56Ap) and if the behaviors that they performed were powerful ones (.44Bp). Like this equation for the post-event estimation of the actor's power, Ap', each of the other equations can be simplistically expressed verbally, as each is merely a mathematical representation of the implicit social rules that guide our particular understandings of events.

Affect Control theorists have created different equations for different cultures such that the same behavior by the same Identity, when modeled using the equations of another's culture, will be evaluated differently than if it had been modeled using the equations of one's own culture. There may be a different EPA profile of the person or behavior as well, in addition to the equation changes, which further alters the mental evaluations of the situation and the people within it by the members of that or another culture. This idea of different equations for different cultures that results in different reactions to the same scenario is self-evident if one pictures this basic logic as applied to a cross-cultural social scenario.

Imagine the disparate reactions you might receive if you bowed in greeting to a Latin American businessman and gave an abrazo to a Japanese businessperson, instead of the other way around. We can predict that the Latin American businessman would expect the abrazo but be off-put by the bow, and the Japanese businessperson would expect the bow and be entirely startled by the abrazo. Neither behavior is inherently better as a greeting than the other, but each businessperson will prefer one and have distaste for the other because the other does not fit the social parameters for such a situation in his or her culture. Researchers do in fact use the equations to simulate cross-cultural scenarios, and recent efforts have been made to gather term dictionaries and impression equations from various countries (Robinson and Smith-Lovin 2015) in order to further this effort.

The work of Affect Control theorists spans decades, and the tools of the theory have been repeatedly refined and honed over that time for better predictive and explanatory ability (Heise and Smith-Lovin 1981, Heise 1979, Heise 1985, Heise 1991, Hoey, Schroeder and Alhothali 2013, Smith-Lovin 1987a, Smith-Lovin 1987b). These equations are quantified mathematical representations of the unconscious calculations that human beings constantly make as they navigate their social worlds, and they are highly predictive of human behavior, able to account for one third of the variance in likelihood judgments (Heise and Mackinnon 1987). Using these allows a researcher to analyze a population's attitudes and to run scenarios that logistics, ethics, or both would normally preclude one from studying: for instance, the methods of coping which will best allow for social inclusion for people diagnosed with mental illnesses (Kroska and Harkness 2006, Kroska and Harkness 2011). Understanding the effect of affect on individual's emotions and decision making can aid in predicting the outcome of a

criminal trial (Robinson, Smith-Lovin and Tsoudis 1994), and can even work to increase the efficacy of our military while decreasing accidental deaths oversees from cultural misunderstandings between our soldiers and the citizens of the nations in which they are stationed, thus avoiding potentially lethal misunderstandings (Robinson and Smith-Lovin 2015), among many other applications.

Affect Control Theory's EPA profile dictionaries and impression change equations give a great deal of information and an excellent template for predicting outcomes of social interactions. However, the predictive ability of Affect Control Theory equations is left imprecise without presenting them within the template of a culture's social institutions. The next chapter will discuss social institutions, their formalization by Affect Control Theory of Institutions, and how the test of the relative power of the different mechanisms expressed in Affect Control Theory and Affect Control Theory of Institutions may help to explain human cognition.

CHAPTER FOUR

IMPLICIT AND EXPLICIT PROCESSES: INSTITUTIONS, DEFLECTION, AND COGNITION

Affect Control theory assumes that social institutions operate in some manner in the assessment of social events (Heise 1979, Heise 2007), but their influence has never been mathematically accounted for nor formally incorporated into the theory. This issue has been left unaddressed because until recent work by MacKinnon and Heise (2010), there was no principled method for identifying what constituted a social institution. With the development of Affect Control Theory of Institutions (MacKinnon and Heise 2010), there now exists a structured delineation of Institutional codes with which to test institutional appropriateness as a guiding cultural mechanism.

Social institutions are referential to both the tangible (as in the setting and accoutrement that accompany the physical domain of a hospital) and the intangible (as in the mental framework associated with designating someone "my scrub nurse" instead of "my sister") aspects of social structure. Institutional codes are filters automatically applied to social situations, and these filtering choices are instrumental in the labeling process that impacts so heavily the evaluations people make about social events. For an event to make sense to a member of a culture, the elements within it must not violate the logical rules imposed by that culture's institutions. For instance, it is feasible (albeit affectively deflecting) for an Intern to Command a Surgeon. The Intern cannot, however, Arrest the Surgeon, regardless of the level of social inappropriateness of such an action,

unless the Intern also holds an identity as a Law Enforcement Officer. Command and Arrest have affectively similar ratings in United States culture, but one would not choose Arrest over Command when mentally searching for a term to describe this intern's behavior, because Intern (social institution: Medicine) and Arrest (social institution: Law and Correction) are institutionally incompatible.

Codifying Social Institutions

While institutions can be understood, systematically mapping them has been more elusive. In 2010, MacKinnon and Heise published a book that presented two new theories, Affect Control Theory of Self and Affect Control Theory of Institutions. These two theories together explain identity selection, which is outside the purview of Affect Control Theory—Affect Control Theory is concerned with identities of society and a culture's orientation to them via their affective sentiments, but not in how identities are assigned and situations initially defined in observation of an event. Affect Control Theory of Self specifies how an individual chooses an identity label to enact. This identity is pulled from the individual's repertoire of identities, which are partitioned into social institutions. In pursuit of adequately testing this, MacKinnon and Heise developed Affect Control Theory of Institutions, which specifies that "society's stock of identities—its system of person classification—constitutes a cultural theory of people" (MacKinnon and Heise 2010:19). In their view, institutions are "macro-sociological structures…social worlds in which role-identity constellations have a unifying motif" (Mackinnon and Heise 2010:216). The social institutions of society are the guiding parameters that help individuals to delineate from which arena of their lives they will pull the identity labels that they attempt to affirm.

Based on the premise that social institutions are implicit in meanings of role identities, MacKinnon and Heise used network analysis of identity semantics to empirically identify the major institutions of society by conducting a systematic analysis using multiple-dictionary definitions of 300 distinct identities. They then analyzed these definitions for shared sets of concepts within their meanings, hypothesizing that since institutions are implicit in the meanings of identities, identities' codes will converge into cohesive components that congregate around social institutions (MacKinnon and Heise 2010:77). This approach allowed the authors to clarify the nature of social institutions, to state which ones exist in society, and to determine which identities belong to each of those institutions (MacKinnon and Heise 2010:73). They focused on the social institutions of business and work, education, law and corrections, marriage and family, medicine, politics and government, and religion (MacKinnon and Heise 2010:75). Results showed that identities relating to marriage and family partition into three separate components of Caregiving, Childhood, and Marriage; Sexuality emerged as a nascent institution in society; Medicine and Education each formed significant components on their own; religion split into two components of Ecclesiastic and Divinity; business and work partitioned into two distinct components of Work and Commerce; Law and Corrections as well had two components, Law and Police; and Politics and Government did not emerge as a standalone social institution (MacKinnon and Heise 2010).

Through their work, which utilized the idea that "an institution's quintessence is to be found semiotically, in the semantic network linking identities, actions, settings, and objects" (MacKinnon and Heise 2010:216), MacKinnon and Heise empirically established the social institutions of society and determined that these institutions do in

fact partition identity labels into categories, each of which has its own constraints on the choices available from it for the identity and behavior labels within an event. Given this new tool, it is now possible to determine the relative ability of the two theories' mechanisms of deflection reduction and institutional concordance to guide and shape respondents' determinations of the appropriateness and likelihood of various social events, which thus far has yet to be systematically explored. The research in this thesis seeks to narrow this gap with a test that experimentally controls in turn for each of two explanatory cognitive mechanisms, appropriate affective sentiment (i.e., deflection, an implicit cognitive mechanism) and adherence to institutional constraints (an explicit cognitive mechanism), on participant likelihood ratings for various hypothetical social situations.

Exploring Cognition

Understanding which of the two proposed cognitive mechanisms, the explicit or the implicit, carries greater predictive value for determining likelihood of social events can speak strongly to the efforts and debates in the field of the sociology of culture on how best to integrate, understand, and study the link between culture and action (Cerulo 2014, Eliasoph and Lichterman 2003, Jerolmack and Khan 2014a, Jerolmack and Khan 2014b, Pugh 2013, Swidler 1986, Tinkler, Becker and Clayton *under review*, Vaisey 2009, Vaisey 2014). Understanding and parsing the link between the unconscious and conscious processes of culture and action takes particular methods, but what those methods are and what can be gleaned from each is in contention: should interviewees be given a list of terms in order to aid them in orienting their narratives, or should they be asked to describe, without prompts? Are their explicit cognitive frameworks guiding their

designations, or are implicit processes overwhelmingly determining behavior and assessment?

Outside of Affect Control Theory, the body of work on implicit associations and attitudes has been focused on the use of the Implicit Association Test (Greenwald et al. 1998), which attempts to examine unconscious associations and judgments. Though the work studying implicit attitudes through the use of this measure has been fairly prolific (the Implicit Association Test has been used to measure implicit attitudes on self-esteem and the self-concept (Greenwald et al. 2000), brands and consumer attitudes (Maison, Greenwald and Bruin 2004), sexual beliefs and predicted condom use (Czopp et al. 2004), racial biases (Dasgupta et al. 2000, Dovidio, Kawakami and Gaertner 2002, Grant-Thomas and Orfield 2009, Green et al. 2007), attitudes towards homosexuality (Banse, Seise and Zerbes 2001), and others), it has been empirically driven and largely atheoretical (Fazio and Olson 2003). Because of this, questions arise that such an atheoretical measure cannot answer, most notably: if explicit and implicit attitudes differ, which one is "real," and can two different attitudes exist at once (Fazio and Olson 2003)?

Answering this question is vital, because the nature of unconscious, heuristic devices of rapid categorization and social script-following can allow for the creation and perpetuation of biases and prejudices. For example, one of the terms with a larger coefficient in Affect Control Theory's impression equation for the post-event evaluation of an actor, Ae', is that of BeOe. This is a product term, which means that people in United States culture think more highly of people who do good things to good people and bad things to bad people than they do of those whose behavior and object evaluations are mismatched. Because people attempt to orient situations to fit their worldviews, they

relabel identities or behaviors in events until realities match their preferred cognitive maps. Unfortunately, this means that when bad things happen to good people, individuals may reevaluate the identities' EPA profiles to make them match the behaviors of which they are the objects (i.e., they relabel the event's Object identity). One of the results of such a heuristic is victim-blaming, a phenomenon that actually occurs in society. Awareness of such processes has helped researchers to understand why certain changes in professed societal beliefs do not always extend to changes in the behaviors associated with them (Tinkler 2012); implicit biases counter to explicit beliefs may guide behavior. Cognitive biases may operate so seamlessly that the individuals who hold them may in fact be unaware of their existence, even while they guide their thoughts and behaviors. If, however, explicit mechanisms, such as cognitively placing an occurrence in a particular social institutional framework, are intentionally activated, will they override implicit biases? How much does each type of cognitive mechanism contribute to social evaluations and subsequent behaviors about and in response to them? Implicit and explicit associations may differentially drive behavior, but their relative importance has not been experimentally tested. Thus, the debate would benefit from an analysis of individual mechanisms that drive the cognitive processes and resultant behaviors that researchers endeavor to study coherently. It is imperative that we understand the mechanisms within the processes of human cognition so that that roadmap may be applied to any situation within and across any culture around the globe. When the basic mechanisms are understood, it becomes merely a process of gathering the relevant data needed to apply the information to each population.

CHAPTER FIVE

INITIAL CONSIDERATIONS (STUDY ONE)

The goals of this research required two separate studies. A comprehensive validation test of the theory's predictions has not been performed since 1987, and the specifications of the most recent equations (Heise 2015) are not based on recent dictionary data. The most recent dictionary was gathered from respondents located at the University of Georgia, Duke University, and Durham, NC community in 2013-2015 (Robinson and Smith-Lovin 2015)—will the predictions from simulations using this dictionary and the newest equations match the predictions given by real life respondents? Testing the predictive power of deflection against the predictive power of Institutional concordance required first performing a comprehensive test of Affect Control Theory itself in order to verify that the process of deflection reduction does indeed work to predict likelihood. Using a systematized set of Identities spanning the entire dimensional space, I created a comprehensive 81-event study testing simulated predictions against the choices of real life respondents using deflection alone as an independent predictor of likelihood.

Methods

Gathering dictionaries: obtaining EPA profiles. Originally pioneered by Osgood and colleagues (Osgood, May and Miron 1975), capturing affective feeling of a culture involves presenting respondents with a semantic differential scale and having them move a sliding bar along the scale to correspond with the level of the requested dimension for

each stimulus (see Figure 1). The scale ranges from -4.3 to 4.3, with 0 positioned at the center of the scale to denote a "neutral" rating. A separate scale is used for each dimension, so that a participant rating the Evaluation of a stimulus sees a scale weighted with good/nice at one end, and bad/awful at the other. The same stimulus was presented above scales for Potency and Activity as well, so that a respondent rated the same stimulus three times, once each for Evaluation, Potency, and Activity.

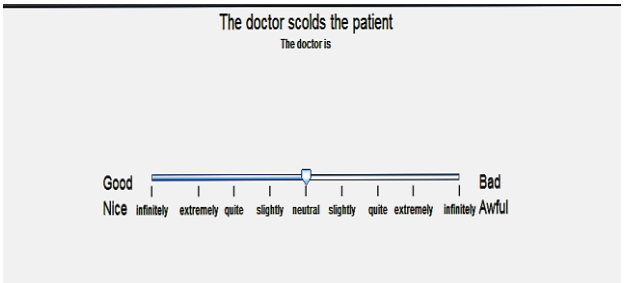

Figure 1. Semantic Differential Rating Scale. This figure shows a sample question for obtaining in-context respondent ratings on the Evaluation dimension.

The ratings for a particular stimulus were averaged on each dimension in order to arrive at the average cultural, affective rating of that stimulus on all three dimensions. We obtained out-of-context ratings when a single identity or behavior was presented as a stimulus. This was the method of stimuli presentation used to obtain the EPA profiles of the identities and behaviors for the dictionary used in this study. Analyzing the differences between within- and without-context ratings allows for the creation of the impression change equations described in Chapter 3.

EPA Dictionary Sample

For the newest dictionary, the respondent population mirrors that of 40 years ago, with most respondents between the ages of 18 to 20 and most of them undergraduate university students culled from introductory-level courses at Duke University and at the University of Georgia, making it an optimal test. They rated a total of 814 behaviors and

931 identities, with an average of 57 respondents per stimulus. Fifty-seven people per condition is especially rich; because this process surveys a cultural rather than a personal attitude, which is shared from person to person, each stimulus needs only a handful of participants to obtain an accurate rating (this is analogous to trying to obtain the average height of population where all people are between 5'11" and 6'1", rather than trying to obtain the average height of a population of children and adults with heights that range from 3' to 7'—an accurate result can be obtained from a much smaller sample from the first population than would be sufficient for obtaining an accurate result from the second population) (Heise 2010).

Testing Deflection

Affect Control Theory has been used to predict and test with whom others choose to interact after verification or lack of verification of self-identity (Robinson and Smith-Lovin 1992), verify with laboratory experiments the affective relationships between leaders and employees (Schröder and Scholl 2009), model reactions and social interaction strategies for dealing with the stigma of mental illness (Kroska and Harkness 2011), delineate communication problems in multicultural corporations (Schneider 2002), demonstrate that the subtle behavioral differences predicted by the theory are observable in real-life interactions after manipulations of participant emotions (Wiggins and Heise 1987), model the affective reactions to emotional displays in criminal trials (Robinson, Smith-Lovin and Tsoudis 1994), and has even been proposed as the proper tool with which to instill social intelligence in artificial agents (Hoey, Schroeder and Alhothali 2013). It has been used to test cognitive definitions and cultural expectations in subcultures as well, from the more tempered behavior of highway patrolmen towards

criminals (Heise 1979), to the positive experiences of religious gays (Smith-Lovin and Douglass 1992), to the comparatively high gender-differentiation of the Japanese culture (Smith, Umino and Matsuno 1998). The mechanics of the theory itself, however, have not been subject to a validation study that spans the entire dimensional space since Heise and MacKinnon's work in 1987 (Heise and Mackinnon 1987). Thus, I devised and orchestrated a test of Affect Control Theory's premise that deflection reduction guides determinations of event acceptability. The stimuli set for the validation study was designed to fully cross the evaluation, potency, and activity of the actor and object in each event vignette. I accomplished this by selecting identity labels from each octant of EPA dimensional space, as well as one from the origin, for a total of nine identity labels.

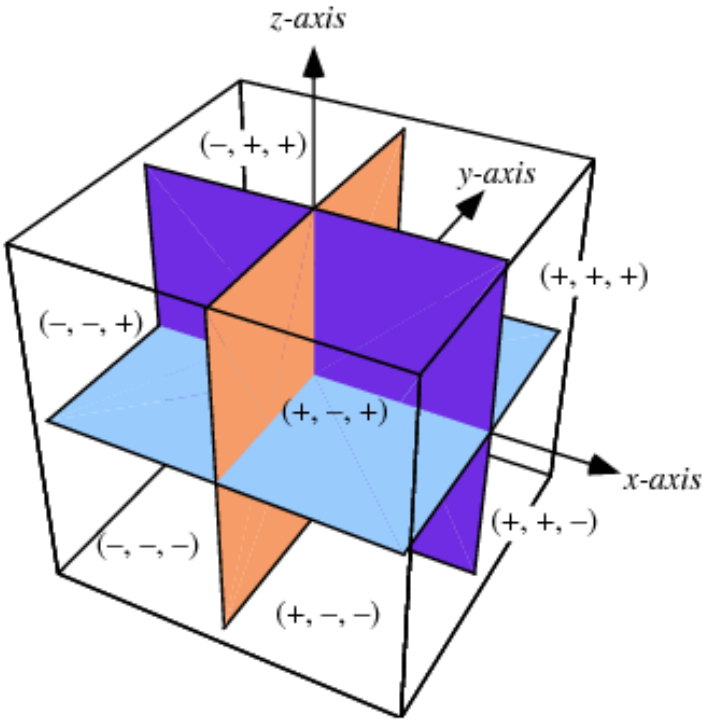

Figure 2. Octant. This figure shows the depiction of the EPA space octant divisions from which representative identities and behaviors were chosen. Weisstein, Eric W. Downloaded from Mathworld—A Wolfram Web Resource. http://mathworld.wolfram.com/Octant.html.

Each role (actor, object) could take on each identity label for an event design of 9 x 9 = 81 events. In addition, I selected a set of behavioral labels distributed across these same nine positions in EPA space. These nine sets of behavior labels served as a word bank representative of the full EPA dimensional affective space, from which respondents could select the behavior set that would serve best to fill in the blank in each simple event scenario (see Figure 3 and Table 2). Each question asked the participants to choose the behavior that they thought most people would find appropriate (this type of wording was important to ensure that the participants drew on their cultural rather than their personal knowledge). The word bank was the same for every sentence. Since each identity was paired with every other identity, there were a total of 81 events for each participant to rate.

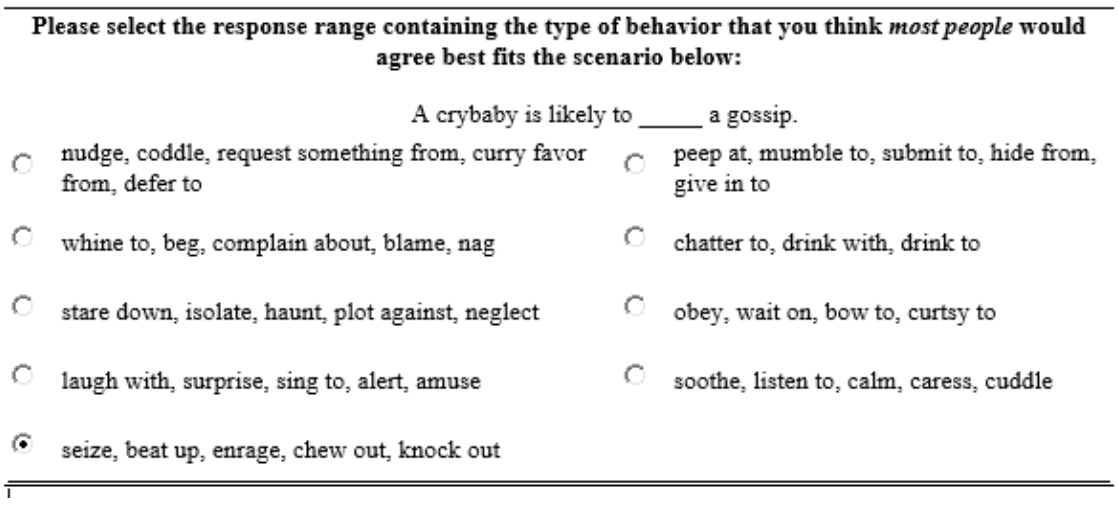

Figure 3. Sample Validation Question

Each possible choice was a range of behaviors, where the first behavior in each set is that which best fits the octant of space (see Table 2). Each of the subsequent behaviors in a particular choice set is in close affective proximity to the first behavior in that list. Table 2 shows the EPA profiles of each of the nine identities and the nine central behaviors of

each behavior choice set. These nine identities and nine behavior choice sets populated all questions in the validation study. Each H stands for "High" and each L stands for "Low"; A Firefighter and Laughing with Someone both have EPA profiles that are relatively "high" on all three affective dimensions, while a Coward and Peeping at Someone both have relatively low values on all three affective dimensions.

Table 2
Validation Study Identities and Behaviors

Octant Space	Behavior	EPA Profile	Identity	EPA Profile
HHH	Laugh with	3.23 2.48 2.53	firefighter	3.26 3.01 2.31
HHL	Soothe	2.92 2.11 -1.64	psychiatrist	1.78 1.80 -1.15
HLH	Chatter to	0.45 0.06 1.43	child	1.97 -1.17 2.01
HLL	Obey	0.91 -0.25 -1.05	janitor	1.49 -0.99 -1.02
LLL	Peep at	-2.13 -1.05 -1.5	coward	-2.35 -3.05 -2.08
LLH	Whine to	-2.01 -1.37 1.40	crybaby	-2.47 -2.08 1.94
LHL	Stare down	-1.43 1.40 -1.41	drug dealer	-2.26 1.57 -0.73
LHH	Seize	-1.91 1.84 1.74	gossip	-2.27 0.99 1.74
neutral	nudge	-0.03 0.01 0.29	stranger	-0.05 -0.17 -0.20

The latest and largest dictionary of American culture was gathered from respondents in Georgia and Indiana from 2012-2015, and it is from this as-yet-unpublished dictionary that the Identity and Behavior EPA profiles used in this study were drawn. So as to make sure that respondents would be choosing behavior EPA space ranges rather than individual behaviors, each behavior bank choice listed other behaviors that had EPA profiles very similar to that of the primary behaviors. The H and L designations of the Octant Space correspond to whether the EPA profiles had relatively high (H) or relatively low (L) ratings for each of those variables.

Pilot testing of identity choices found these nine to be the most apt for this study. The HHL identity was originally Confidant, but pilot participant interviews revealed that individuals assumed that the Confidant was the confidant of the other identity in the sentence. Being someone's confidant implies a level of acceptance from the confidant to

the other, which would change the EPA of the other. For instance, a Clergyman has relatively high E and P ratings, with neutral A rating (1.53 1.61 0.13). If he were interacting with a person who is the sibling identity Sister (2.01 1.35 1.32) and the person reading the sentence assumed that the Sister was the sister to the clergyman, he may conceptualize the Clergyman no longer as a Clergyman (1.53 1.61 0.13), but as the sibling identity Brother (1.86 1.82 1.50), fundamentally changing the conceptualized EPA definition of the original actor from good, powerful, and neither lively nor quiet to quite good, quite powerful, and active. This would create such noise in the study as to obscure any potential patterns. In a different but just as problematic error, one pilot participant thought that Confidant was a synonym for "informant to the police". Thus, the HHL identity choice became Psychiatrist.

The LLH identity Crybaby was originally Telemarketer, but respondents assumed that the event must be taking place over the phone and therefor immediately ruled out the behaviors that did not require verbalization; this necessitated changing that behavior. Finally, the original neutral identity choice had been Ward of the State, but lack of knowledge concerning this identity's traits and expected behaviors required a change to a more familiar term—participants thought that a Ward of the State was anyone from an inmate in a prison (exclusive of other options such as orphaned child) to the person's official title as an employee of the state. In light of these issues discovered during pilot testing, the neutral identity Ward of the State was replaced with the neutral identity Stranger.

Because none of these behavior choices are chosen with an event in mind, but merely represent approximate affect zones of the realm of choices, respondents may be

faced with the idea that none of the choices are appropriate. They are asked to choose the one that best fits given the available choices. For example, since Obey is the closest of the choices to the optimal behavior for a Janitor to do towards a Janitor, the theory would predict that respondents would choose the option "obey" when presented with this event (see Figure 4). If Affect Control Theory works in its raw form as we expect, we should see a statistically significant effect on the likelihood of that behavior choice as the deflection of the behavior choices decreases.

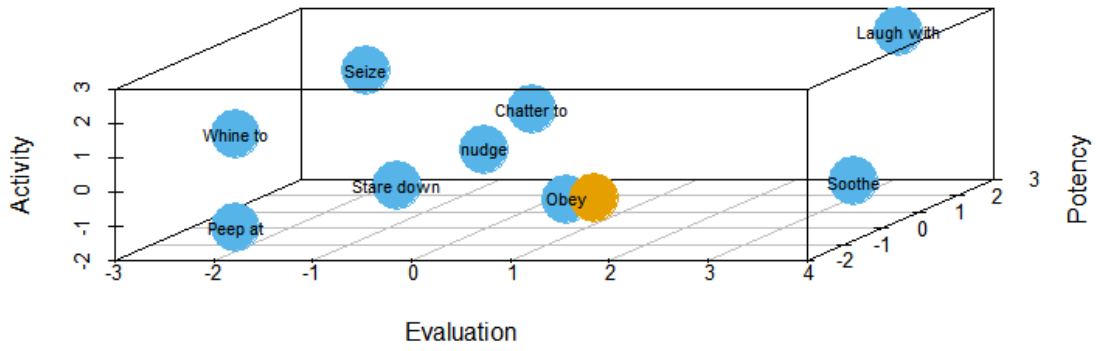

Figure 4. Representative Behaviors and "janjan" Optimal. In this example, the orange dot depicts the dimensional location of the theoretically-predicted optimal behavior for a janitor to do towards a janitor, while the blue dots depict the possible options.

Validation Study Sample 1

The initial sample used for this study consisted of 90 undergraduate students at the University of Georgia from a variety of majors, each of whom answered every validation question. As in the dictionary study, this study was one of surveying cultural knowledge rather than individual knowledge (asking participants what people know, rather than what the participants know); the ideal respondents are "cultural experts", those inculcated and enculturated in the culture under study. College students are an ideal

sample for a culture survey (Heise 2010) because they are producing and consuming culture in a shared and socially active space. Because they will have consensus with one another (Thomas and Heise 1995), a small sample is entirely adequate.

> Properly chosen respondents are those whose responses are quintessential for their culture, and the more normative the respondents' beliefs and sentiments, the few of them are needed to obtain an accurate view of the culture. Whereas there is no notion of respondent goodness in surveying a population, other than representativeness of the sample as a whole, proficiency in the target culture is a key desideratum in choosing respondents for a survey of culture (Heise 2010).

Because of this, criteria for inclusion specified individuals who were born in the United States and whose first language is English. Respondents who have spent 10% or more of their lives outside of the United States were excluded. Participants under the age of 18 were excluded. Self-reported participant gender was balanced for a total of 45 women and 45 men.

Validation Study Sample 2

In order to see if the results obtained from our standard populations of undergraduate students hold true for a wider swathe of the US population, this study was also run as a Qualtrics survey using Amazon Mechanical Turk workers (N=99). "Turkers" are reliable as a survey population and comparable to other participant groups in replicating established effects in other studies (Shank 2016). The Mechanical Turk worker sample was subject to the same exclusion criteria as those in Sample 1.

Procedure

All sample 1 participants were screened for their compliance with exclusion criteria by a set of prescreen questions. Students are solicited each semester to voluntarily join a pool of participants who are given electronic access to any study conducted by our laboratory for which they are eligible. These individuals complete a list of standard

prescreen questions upon admittance into the pool; answers to these questions determine whether specific studies are visible. Potential participants use an online sign-up system to choose a time conducive to their schedule. They were informed that the study would last "about an hour" (actual time averaged approximately 40 minutes). All participants completed the study using the Inquisit program on a computer in the Laboratory for the Study of Social Interaction in the basement of Baldwin Hall at the University of Georgia. Each person was paid $10. Order of all eighty-one questions was randomized for every participant.

The sample 2 Mechanical Turk data was collected within the same year as the newest EPA profile dictionary, giving an optimal population to generalize standard results. Turkers took the survey online according to the rules of Mechanical Turk and using the same exclusion criteria as applied to the sample 1 participants. They were each compensated $3. Order of all eighty-one questions was randomized for every participant.

Analyses

Analysis required an unusual data structure. Each respondent could choose one and only one of nine available behaviors which did not vary for each of the 81 questions, but the predicted answer varied across the nine choices for each question. In addition, how "correct"—by means of lowest possible deflection—each "correct" answer was varied from question to question. For instance, of the nine behavior choices, Chatter To creates the lowest event deflection of the possible behaviors for a Child to do with/towards a Child. Thus, a respondent who chose Chatter To would be making the choice most consistent with the predictions of Affect Control Theory. In this event, the choice Chatter To has a deflection score of 2.965. The behavior with the next lowest

deflection score for this event is Nudge; its deflection score is 7.137. In an event where a Child is acting towards a Coward, Chatter To is again the predicted response, but in this event its deflection score is 0.880. The next closest behavior choice is again Nudge, but the deflection score of Nudge in this event is 1.031. Thus if a participant chose the theoretically-predicted behavioral choice in the event of a Child acting towards a Child, she would have selected a behavior with a deflection score of 2.965. If the participant chose a behavior other than the predicted behavior in the event where a Child is acting towards a Coward, she could potentially choose one with a deflection score of 1.031—a theoretically "incorrect" response would, with deflection as the independent variable, appear more "correct" than a "correct" response on a different question, where a behavior choice with a deflection score that low is not an option.

The deflection scores for each behavior were computed by solving for the EPA profile of the mathematically optimal behavior for the event in question, and then taking the difference between that optimal EPA profile and the EPA profile of each of the possible behavior choices. Because these differed by event such that no event had numerically the same deflection score options across behavior choices or individual behaviors across events, the deflection score of the most optimal behavior choice for each event was subtracted from the deflection score of every possible behavior choice for that event to make the scores comparable across events. Thus, the theoretically-predicted behavioral choice would have a deflection score of zero for every event in the study.
In order to analyze data like these, the data were arranged in an Event x Behavior structure, with aggregate counts of the number of respondents who chose that response for that event forming the dependent variable for a negative binomial regression analysis.

Deflection score was the main independent variable of interest, but I controlled as well for Be, Bp, and Ba.

Table 3
Negative Binomial Regression of Predicted Counts

	Coefficient	Standard error	z-score
Event deflection	-0.0516***	0.004	-12.51
Be	0.149***	0.032	4.66
Ba	-0.020	0.029	-0.70
Bp	-0.070	0.046	-1.53
constant	3.381***	0.070	48.20

***$p<.001$

Because the predicted variables were count data, a negative binomial regression was calculated to predict behavior choices based on the independent variables. As seen in Table 3, the results showed that deflection and Be alone were significant predictors ($p<0.001$). Thus, along with the expectation that nicer things happen more often than not, respondents were more likely to rate an event as plausible the lower the event's overall deflection score. The coefficient for the effect of event deflection score was -0.052, meaning that the difference in the log of expected counts of respondent choice will decrease by .052 units per every unit increase in overall event deflection score. To apply this to a concrete example, a behavior that creates an event with a deflection score of 65.6 (Father Abducts Baby) will be chosen by 95% fewer respondents than will a behavior that creates an event with a deflection score of 6.5 (Father Snuggles Baby). As event deflection rises, likelihood of selection falls.

People do indeed rely on deflection reduction to determine event likelihood, and in addition they are more likely to choose behaviors as probable choices when those behaviors have higher ratings on the Evaluation dimension. These results hold without any further restrictions to the data, but this does not account for all of the variance in

ratings. The impression equations work, yet there is something else going on beyond the mechanism of deflection reduction.

CHAPTER SIX

BRINGING IN INSTITUTIONS (STUDY TWO)

In their original validation study in 1987, MacKinnon and Heise were only able to speculate on the probable importance of social institutions to the designations of event likelihood. Now that social institutions have been empirically established using the factor loadings of institutionally relevant identities (MacKinnon and Heise 2010), a more formal test of this other cognitive mechanism and its relation to that of deflection reduction is both possible and necessary.

The experimental test in this thesis examines side by side the two mechanisms of deflection reduction and institutional compatibility through three conditions, each consisting of 5 simple ABO (Actor-Behavior-Object) events. To create these events, identities and behaviors were chosen that did or did not fit particular institutions and which had particularly high or particularly low levels of deflection. Accomplishing this necessitated utilizing a current set of EPA profiles for the identities involved, as well as relying on the premise that Affect Control Theory does in fact predict likelihood ratings of real-life respondents by levels of deflection that an event produces.

Methods

A quantitative validation study of events will indicate whether participants choose the behaviors that the theory predicts that they will choose, but not why. To determine whether those compatible or discrepant choices were driven by the same cultural assumptions and mechanisms on which the theory is already based, a different study was

necessary that obtained likelihood ratings of separate condition questions that did and did not adhere to the deflection reduction mechanism. To answer this question, I created three separate conditions of five questions each; these conditions differed by institutional concordance and level of deflection.

The identities and behaviors chosen for these events were selected for their adherence to one of the social institutions specified in Self, Identity, and Social Institutions (MacKinnon and Heise 2010). The events are constructed so as to relate to one another in systematic ways. Though Heise and MacKinnon discussed the unexplained variance from the 1987 likelihood study as stemming in part from Institutional incompatibility (Heise and Mackinnon 1987, MacKinnon and Heise 2010), the discussion was limited to events of low deflection that were deemed unlikely because of Institutions (similar to those in Condition 3 in this study). This present study also tests events of high deflection that are institutionally compatible (Condition 1).

The five institutionally concordant but affectively discordant events have constructions for multiple iterations of the combinations. Each of these events have deflection high enough to place them in the "weird" range of events for this culture. The events in this condition make institutional sense for the behavioral purview of these identities within this culture. Institutionally, these Actors and Objects should reasonably interact with one another.

Table 4
Events by Experimental Condition

Institutionally concordant/high deflection	Institutionally concordant/low deflection	Institutionally discordant/low deflection
1b. The girlfriend aggravates the boyfriend (16.7)	2b. The CEO hires the secretary (2.3)	3b. The cleaning woman hires the CEO (4.9)
1c. The boyfriend aggravates the girlfriend (17.2)	2c. The physician injects the patient with medicine (2.4)	3c. The plumber injects the physician with medicine (3.9)
1d. The priest forgives the mugger (15.8)	2d. The policewoman arrests the suspect (1.8)	3d. The umpire arrests the policewoman (4.3)
1e. The priest forgives the murderer (19.6)	2e. The best man toasts the bridegroom (1.5)	3e. The elementary school teacher toasts the best man (1.2)
1f. The competitor threatened the champion (18.8)	2f. The rabbi marries the bride (1.9)	3f. The rabbi raises the pay of the bride (1.2)

Note: Numbers in parentheses indicate the deflection score of the event.

Events 1b and 1c are inverses of one another. These identities, boyfriend and girlfriend, naturally pair with one another because unless we are referring to, perhaps, the female friend of a female, "girlfriends" are known as girlfriends because they have boyfriends (and sometimes girlfriends), and the same is true of "boyfriends"; the identity requires the existence of another person to be that identity's significant other in order for that identity to exist. Boyfriends and girlfriends are in reference to one another; we expect them to serve as Object and Actor counterparts in events. The behavior, "aggravate," makes the event highly deflecting, but we know that the people filling these identity roles do sometimes aggravate one another.

Events 1d and 1e, "The priest forgives the mugger" and "The priest forgives the murderer" have high deflection in large part because it does not generally seem

appropriate to do such a nice thing to such bad people. This is the BeOe balance term, which carries a great deal of weight in American culture for determining affective distance and therefore cultural likelihood (Heise 1979, Heise 2000, Heise 2007). Culture members prefer that people do good things to good people and bad things to bad people. However, the Actor identity "priest" is one of the identities we expect to interact with other identities less good than himself, and to forgive, and to forgive those less good identities: this is the institutional role of the identity "priest." These two events, though they have very high deflection, are therefore expected to seem to be perfectly acceptable occurrences institutionally.

Event 1f, "The competitor threatened the champion" has a different type of reasoning. This one uses a less common interpretation of the definition of the behavior "threaten." "Threaten" tends to mean conveying an intention to do harm or violence to the person to whom one conveys the message. However, the intended harm could be psychological harm, or harm to one's status or social position. The Actor and Object of this event are institutionally complementary identities, while the Behavior utilizes the contextual definition of "threaten." This reading makes the sentence seem entirely plausible, as competitors threaten one's position as champion in any type of athletic, academic, or business rankings, but this event would be deemed unlikely if judged only on affective distance.

The events of condition 2 are control condition events. They are all Institutionally appropriate events in the culture; each event has an Actor, Behavior, and Object that do not mix Institutions (MacKinnon and Heise 2010). In addition, the deflection for each of these events is low enough to place it in the "expected" range (Boyle and McKinzie

2015). I call this the control condition because the events in this condition are crafted so as to elicit a rating of likely when judging by both mechanisms' predictions.

The events in condition 3 each have low deflection, placing them in the "expected" range of events in the culture (Boyle and McKinzie 2015), but they each lack Institutional appropriateness. All of these events subvert those from condition 2: The Actors from condition 2 are the Objects in condition 3, while the Actors in condition 3 are institutionally discordant identities (MacKinnon and Heise 2010) drawn from the same area of EPA space as the objects from condition 2. For example, event 2c is "The physician injects the patients with medicine." "Physician" is the Actor, "Inject with Medicine" is the Behavior, and "Patient" is the Object. In Event 3c, "Physician" is the Object, the Behavior remains the same, and the Object is an identity ("Plumber") with an EPA rating similar to the identity "Patient." Thus event 3c is "The plumber injects the physician with medicine." This construction pattern applies to events 3b, 3c, and 3e. Event 3d, "The umpire arrests the policewoman" follows the rule used in 3b, 3c, and 3e except that the new Actor identity is from the same EPA space as the previous Actor rather than previous Object identity (i.e., "umpire" has an EPA rating close to that of "policewoman," not close to that of "suspect").

Event 3f, "The rabbi raises the pay of the bride" is also an alteration of its complementary condition 2 event, except that in this case it is the behavior which is similar in EPA space to the behavior in the previous condition, but is institutionally inappropriate to pair with this Actor and Object. The behavior, "Raise the Pay of," is from the Institution of Work rather than Marriage.

Open Ended Responses

Following the condition event ratings, respondents answered several open-ended questions about their choices so as to allow for narrative comparisons across the three conditions. These questions were designed to capture to what the participant thought he or she was responding (i.e., what cognitive mechanism he or she thought he or she was using) in his or her evaluations of the plausibility of the events in his or her condition. These questions were as follows:

For [event 1-5], did you rate this as likely or unlikely?

How sure were you of your answer?

How sure were you that others would agree?

What made you choose this response?

What made you sure/unsure of your choice?

Question one was a multiple choice with the option to respond "more likely" or "more unlikely". Questions two and three used a semantic differential scale, while questions four and five were short-answer, and participants were provided a text box.

Procedure and Sample

The validation (Study 1) and condition (Study 2) questions were compiled into a single survey taken on a computer screen in the Laboratory for the Study of Social Interaction in the basement of Baldwin Hall at the University of Georgia. The sample of respondents for this experimental study was the same sample of undergraduate students used for study 1, N=90. Program-based electronic data corruption (random pattern) resulted in an N of 74 individuals for Study 2: 25 respondents for Conditions 1 and 3 and 24 respondents for Condition 2, with a total of 295 observations. Participants were paid

$10 each for their participation in the two studies. There was no time limit, though most respondents took between 30 minutes to 1 hour to complete the survey. The survey was run with the data collection program Inquisit. Each respondent first answered all of the validation questions (Study 1) in randomized order, followed by all five likelihood rating questions (Study 2) of his or her condition (questions appeared in randomized order). Respondents were randomly assigned to their conditions, blocking for gender. Participants were not deceived about the nature of this study and were given the option to leave the study at any time without loss of compensation.

Results

Institutional constraints have always been an implied but unspecified contributor to the deflection reduction processes of Affect Control Theory equations. Results from the test in this thesis show that deflection is the implicit process beneath social designations of appropriateness or likelihood, but that Institutional logic is a necessary and prevailing designator for determinations of likelihood or plausibility of a social scenario.

In the two conditions where the social institutions were concordant across all identities and behaviors, respondents rated the events as far more likely than unlikely. In the condition where the social institutions were not concordant across identities and behaviors, the events were not rated as likely (see Table 5). Responses ranged from 0 to 100, with higher responses indicating a rating of greater likelihood. Though the difference between the means of Conditions 1 and 2 was quite small (see Table 5), a Tukey pairwise comparison test confirmed that the difference is statistically significant: though respondents thought they were both quite likely occurrences—far more likely

than they thought low deflecting, institutionally discordant events—respondents still rated the events with lower deflection as slightly more likely than those with higher deflection.

Table 5
Mean Likelihood Ratings by Condition

Condition	Mean Likelihood Rating (1-100)
1. Institutionally concordant, high deflection	80.36
2. Institutionally concordant, low deflection (control)	89.07
3. Institutionally discordant, low deflection	12.17

Both mechanisms are in operation, but the interplay between them is a complicated one. Condition 3, where deflection scores were low and Affect Control Theory would predict a higher likelihood rating, respondents consistently rated these events as implausible. Institutional compatibility is an essential component of rating an event as likely. Event assignment error on the part of the researcher created some noise in the results, yet even these errors offered important insight into the importance of social institutions as guiding parameters for determining the plausibility of a social scenario.

Event e, "The elementary school teacher toasts the best man", was the only event of condition 3 that was given a likelihood rating above 30, and this rating was more than double the likelihood rating of the next highest in that condition. The Elementary School Teacher identity was chosen because it has an EPA profile similar to Best Man, and because it does not belong in the Marriage institution, but in that of Education. In composing this event, I presumed that respondents would quickly identify that the Best Man identity was institutionally inappropriate as the Object, rather than the Actor, of the

behavior “Toast”. Just as policewomen arrest but are not usually arrested (and not by umpires), and physicians inject others with medicine but do not usually get injected (and not by plumbers), I assumed it to be equally self-evident that best men toast but do not get toasted. This assumption was in error. Analysis of the respondents’ qualitative explanations revealed this event to have ambiguous associations. This error resulted from researcher bias in my individualized assumptions of the social distribution of cultural knowledge. I have several years’ personal experience as a member of the wedding industry, and did not account for the possibility that my own intensified level of familiarity with the nuances of role duties within this institution would not be shared by my respondents.

My use of this event reflects a familiarity with the extensive identity elaborations of a subculture, but delineations of subcultures are not necessarily retained in the collective lexicon of a culture (Mackinnon and Heise 2010:32). The role distinctions of identities within the wedding industry subculture are not a part of mainstream lexical culture, particularly when the respondent sample consists of undergraduate students who may be even less familiar with the intricacies of this subculture than might people who are older than they and who may have more association with wedding events. In addition, the traditional duty delineations of roles within the wedding subculture are changing as traditions become less rigid and the custom of toasting the bride and groom at a wedding no longer excludes the possibility of toasting others.

Responses explaining participant likelihood ratings revealed that it was the identity of Elementary School Teacher that participants assumed needed extra

explanation to justify a rating of likely, rather than Best Man, as the author had intended. A sample of these participant responses are presented verbatim in Table 6.

Other participants who rated the event as likely made the case for it to be acceptable for best men to be toasted at weddings. These responses are presented in Table 7.

Table 6
Justifying the Elementary School Teacher

I imagine that at weddings, toasts aren't decided by your profession and it would be perfectly logical for someone who is an elementary teacher to give a toast at a wedding since the two are not related.
I have a lot of family friends who started as school teachers at a young age and got married. Therefore, it doesn't surprise me that a teacher could be in a wedding and toast the best man.
I chose more likely because, just because the woman is an elementary school teacher doesn't mean she can't go to a wedding and toast the best man.
The position of teaching and the ability to toast do not seem correlated to me, therefore plausible
There is nothing about being an elementary school teacher that would prevent or encourage the teacher from toasting the best man, so I said that it was neither likely nor unlikely.
Depends on the age of the teacher
It could be easy for a member of the croud at a wedding or anoyher member of the wedding party to be an elementary school teacher so toasting the best man would not be out of the ordinary.
There are toasts at weddings, it didn't seen that strange
It's likely that a teacher would go to a wedding.
The best man's best friend could be an elementary teacher because that is common job. Also most weddings happen right out of college, so the since education majors only take 4 years then he would already be working as a teacher.

Table presents participants' qualitative responses as to why they provided the likelihood ratings they did.

Table 7
Best Men Receive Toasts

The elementary school teacher could be at the wedding, making a toast, but typically it would be to the bride and groom. Although, the best man could have done something deserving a toast.
It is very possible that the best man knows an elementary teacher very well. This means that maybe the teacher is giving a toast to the groom and inserts a comment or two about the best man as well.
The teacher could be the one getting married, thus making it plausible for him to toast his best man.
A teacher might be at a wedding or event in which the best man would be toasted. Yes, this situation is not typical, but it is also not unheard of. The teacher might be a close friend.

Table presents participants' qualitative responses as to why they provided the likelihood ratings they did.

One respondent who rated this event as likely expressed unfamiliarity with the parameters of the identities involved, but gave other possible explanations—fueled by institutional logic—to account for the best man being toasted by the elementary school teacher:

"People toast best men at weddings i think? and since anyone can toast a best man it is possible that the person could be an elementary school teacher. Or the person could have been a best man at a friends wedding (therefore technically, permananetly, always being a best man) and they could have bee ntoasted by an elementary school teacher in a way unrelated to weddings."

Though this respondent was giving a convoluted explanation for reasoning why this reasoning was applicable even when not in a wedding context, the individual was acknowledging that marriage was the cognitively called institution, as the respondent specified "in a way unrelated to weddings", which was not specified in the event, but was respondent-supplied.

One respondent related that they read the event, noted the institutional codes involved, and determined that since they were related, the event was reasonable. "I chose more likely because I thought that the best man was doing the toasting. However, the best man is receiving the toast." It was not until rereading the prompt during the follow-up questions that the respondent realized his or her error, explaining, "The best man makes a toast usually in weddings. He does not get toasted to."

Two events of condition 2, which as control condition events were intended to be unambiguously likely occurrences, were not rated as more likely than unlikely. These two events had similar stories of institutional familiarity and nuance. Event 2b, "The CEO

hires the secretary" had an average likelihood rating of only 42%, and 20 of the 30 respondents rated this event as "more unlikely". The respondent reasoning for this choice was nearly the opposite of the error for event 3d, "The elementary school teacher toasts the best man": where in event 3d I had assumed too much subcultural knowledge on the part of my respondents, in this case it is apparent that I had assumed too little. In composing this event, my intention had been to choose two identities from the Business institution, one of higher status than the other, and have the higher status business identity (CEO) Hire (a behavior in the Business institution) the lower status identity (Secretary). To one as distantly acquainted with the intricacies of the business organization as myself, I found this pairing acceptable. In reading my respondent's answers, I discovered a level of inculcation beyond my expectations, the specificity of which rendered my "control" event an institutionally disconsonant one. The respondents collectively asserted that CEOs are too important and powerful to hire secretaries, and that there are identities between the status levels of my chosen Actor and Object who would more naturally perform this type of task. 16 of the 19 respondents who rated this event as unlikely explicitly listed this specificity of within-Institution identity roles as their reasoning. Their responses are presented in Table 8.

Of the remaining three who did not use this specialized institutional logic, one did not offer an explanation, one said that the CEO's input on hiring decisions would depend on the company for which he works, and one presumed that if the Object identity was a Secretary, this meant that she was already working there and so could not be hired again.

I speculate that just as I made an error as an overly-inculcated subcultural member in the case of event 3e, I made an error as an inadequately-inculcated cultural member for

this event. I speculate alternatively that as individuals on the cusp of entering or already insinuated in the job market, the undergraduate students have specialized knowledge about the identities within this institution beyond that of general knowledge. MacKinnon and Heise elaborated on this inculcation variance, saying,

"As a subculture's arena becomes of general interest, its elaborated taxonomy of identities enters the cultural theory of people. When an arena no longer is of general interest, the bottom of its taxonomy of identities eventually moves out of the cultural theory of people, perhaps being retained in a subculture" (MacKinnon and Heise 2010, p.34).

Table 8
CEOs Do Not Hire Secretaries

The CEO most likely has people who hire his secrataries for him.
CEOs deal with other issues while managers or the HR department hire secrateries.
The CEO would hire or promote peopl to high profile positions, but I didn't place the probability at completely unlikely because he could hire his own personal secretary
The CEO is much higher up than a secretary so it would seem below him to address the concern of hiring a secretary.
A CEO is probably busier doing other more important things and would not concern himself with hiring a secretary
It seems as though CEOs have more to worry about than hiring a secretary so they probably designate that job to someone else
I assume that the workers under the CEO would hire secretaries not the actual CEO doing the hiring.
I don't think a CEO of a company would be directly involved in the hiring of a secretary.
CEOs generally have employees that hire lower level employees like secretaries
It seems strange that a CEO would have enough time to directly hire a secretary since secretary is a much lower position within a company.
I feel like someone in a lower position would hire lower jobs like secretaries.
The CEO has more important things to do than hire a secretary, unless perhaps it is his/her own personal secretary. In an office setting, however, someone of a less important ranking probably hires the secretary.
A secretary seems like s minor role to play in a company. Someone as high up as a CEO would not hire someone for that job.
I feel that most CEO's are not involved in the hiring process, however they could be in the case of a small business. Therefore I think generally most CEO's would not be very involved in hiring their secretary
It's not likely that a CEO will spend his time hiring a secretary when he has many people underneath him that can do that.
The CEO is the highest up in the company, he would not be in charge of hiring someone so low down.

Table presents participants' qualitative responses as to why they provided the likelihood ratings they did.

The other anomalous mean likelihood was that for event 2f, “The rabbi marries the bride”. This event evidently presumed cultural knowledge that participants did not have. Because “Marries” may have disparate and equally plausible interpretations that the Actor is either the groom or the officiant, I chose Rabbi as the Actor. Rabbis both perform wedding ceremonies for others and are permitted and encouraged to marry themselves, hence either interpretation would result in a rating of “likely” for this low-deflecting event. However, this was not the case; the presumed error I attempted to rectify was not one of enculturation or interpretation, but of inculcation. Respondents informed me that they rated this event as unlikely because “the groom is supposed to marry the bride”, and “The rabbi’s job is to marry the bride to the groom she wants to marry”, signifying that these respondents interpreted the event as stating that the Rabbi was himself getting married, and they saw this as inappropriate (though given this identity, it is not). Interestingly, one respondent saw this event as unlikely because “rabbis are scarce”. This logic involves the ubiquity of an identity: it may be likely for Astronauts to Buy Ice Creams if they are in a neighborhood, but Astronauts are uncommon identities. Therefore, it is unlikely to find them in the event (or in the neighborhood) at all, whatever they do once there. Hence, while not socially inappropriate, this event would certainly be unexpected. Testing identity scarcity as a factor in likelihood is a worthy pursuit that bears scrutiny, however, offering any suggestion on this factor is outside the scope of this experiment. In addition, perhaps this event was ill-advised (regardless of respondent inculcation) because Marrying necessarily involves more than one Institution, that of Marriage with either Law or Religion.

Replications of this experimental design should take care to craft events that do not create such Institutional noise.

Institutional logic was paramount in respondent estimations of event likelihood. Questions of likelihood call up cognitive cultural frames where respondents analyze institutional roles to see if a suggested event is likely to happen. Disregarding those events with composition error which caused them not to align with the conditions for which they were intended, when institutions were concordant across an event, respondents rated the event as likely. If institutions were not concordant, it did not matter that deflection was low: respondents saw these events as entirely unlikely. Institutional logic determined reasoning.

The mechanism of deflection reduction operated as well, however. Where institutions were compatible but deflection was high, respondents rated the events as likely, but the events with lower deflection in that institutionally concordant, high deflection condition were rated as more likely than comparable events with higher deflection. Only two of the events were transposed in their deflection order, and these were the mirror events "The boyfriend aggravates the girlfriend" and "The girlfriend aggravates the boyfriend". Table 9 depicts the likelihood ratings of the events in Condition 1, ranked in order of likelihood rating and event deflection.

Table 9
Likelihood Ratings Ranked by Deflection

Event code	Likelihood rating	Event deflection score	Event
e	73.6	19.6	The priest forgives the murderer
f	80.04	18.8	The competitor threatened the champion
b	81.4	16.7	The girlfriend aggravates the boyfriend
c	82.04	17.2	The boyfriend aggravates the girlfriend
d	84.8	15.8	The priest forgives the mugger

Prediction by Mechanism

Since the results of the conditions seem to show that institutional logic is paramount to predictions of likelihood, and the rank-ordering of the events in condition 1 seem to suggest that affect's mechanism of deflection reduction is at work implicitly beneath the explicit process of institutional compatibility, I created a dummy variable indicating institutional concordance across the event. I removed the problematic events 2b, 2f, and 3e. I then used a linear mixed model to analyze the resulting data (See Table 10). This type of model was necessary in order to account for the non-independence of subject (since two responses from one respondent are likely to be more similar to one another than are two responses from two different subjects).

Table 10
Effects on Event Likelihood Ratings: A Linear Mixed Model

Predictor	Coefficient (standard error)
Event deflection score	-0.81***
	(0.22)
Institutional concordance	77.85***
	(3.36)
constant	15.05***
	(2.54)

***$p<.001$

As stated previously, institutions account for the lion's share of the difference in likelihood ratings. However, when controlling for institutional concordance, deflection was still highly significant ($p<0.001$), and had nearly a 1:1 ratio with likelihood ratings. For every one unit increase in event deflection score, likelihood ratings decreased by 0.807. To give an example used previously, an event with a deflection score of 65.5 (Father Abducts Baby) would be given a likelihood rating about 48 points lower on a 100-point scale than would an event with a deflection score of 6.5 (Father Snuggles Baby), even after accounting for the incredibly predictive nature of an event's status as institutionally concordant or discordant. This is in keeping with the results of Study 1; deflection alone is highly significant in determining participant perceptions of event likelihood. However, Institutional concordance is paramount, as without concordance the cognitive processing does not occur. When institutional concordance exists, irrespective of particular event content, event deflection scores firmly guide respondent designations of event likelihoods. The mechanism of deflection reduction is highly predictive of likelihood ratings, and remains so when controlling for institutional concordance, but the mechanism is not activated in the first place unless an event first has institutional concordance. This has been the missing puzzle piece in the equations (though not the assumptions) of Affect Control Theory.

CHAPTER SEVEN

DISCUSSION AND CONCLUSION

Both implicit and explicit mechanisms of cognitive social processing occur as individuals assess social events, and these mechanisms work in conjunction with one another to predict likelihood ratings. Affect Control Theory's mechanism of deflection reduction certainly predicts event likelihood and reliably simulates social interactions, but low deflection alone is insufficient for likelihood designations: Institutional concordance across the event is essential.

Respondents saw no difficulty in rating events with institutional concordance as likely, even when deflection was high. Respondents imposed the most relevant institutional framework to highly deflecting events (events which Affect Control Theory would predict to be unlikely) to mentally transform them into low deflecting events, which could then be rated as likely. People use context clues given by the information implicit in identities and behaviors or events in order to orient themselves to the reasonable interpretation of the event in question. Event 1f, "the competitor threatened the champion," exemplifies this process. Out of context, the behavior "threaten" has a connotation of menace and aggression. This is likely one of the reasons such a term is used to describe competitive interactions between athletes—the speakers wish to evoke the idea of danger. The danger at hand, however, is readily understood as one against the athlete's career rather than against the athlete's person. People employ institutional logic to understand, evaluate, and predict social scenarios. Institutional logic is an explicit rule

of social interaction, and can be easily accessed in order to defend one's assessment of a scenario's cultural acceptability.

Deflection reduction is an implicit mechanism in its operation to guide designations of event acceptability or likelihood. Implicit rules are just as readily adhered to as explicit rules, though people are less able to articulate the dictums. In 1958, psychologist Jean Berko made a discovery about language acquisition that became the foundation of much research in child linguistic development. She drew a make-believe creature, which she called a "wug", and presented the drawing to children, adding another creature and asking the child to tell her the pluralization of the word with the prompt "Now there is another one. There are two of them. There are two…?" (Berko 1958). Berko found that children were able to correctly pronounce "wugs", the pluralization of the nonsense word, but they could not have told her why this word should be pronounced with an "s" sound like the "s" in the word "dogs" instead of like the "s" in the word "cats" (Berko 1958). As beautifully evidenced in this test, people unquestioningly follow internalized implicit language rules, the maxims of which they cannot articulate. The implicit cognitive mechanism of deflection reduction operates in similar fashion.

The desire for deflection reduction exists whether or not individuals are aware of the rules it specifies, and participants can become quickly frustrated if asked to explain it. In the text justifications for their high likelihood ratings of the control condition event "The policewoman arrests the suspect," respondents could no more articulate why this was likely than the children could tell Dr. Berko why they had pronounced a particular consonant sound. Respondents instead restated the event, as though the content of the event itself were explanation enough: "The policewoman's job is to arrest those that are

violating the law," "It is the police's job to arrest suspects," and "It is the job of a policeman/woman to arrest suspects under criminal circumstances" are representative responses for these types of scenarios. The reason, according to the respondents, is inherent in the event itself: that is simply how it works.

When events with high deflection ratings but institutional compatibility are rated as likely, the implicit process of deflection reduction is at work behind the scenes of the imposed institutional framework as people use the context cues of the scenario to understand the event in terms of that institution. Inherent in this process is the mechanism of deflection reduction. If we were to explicitly restate an institutionally concordant, highly deflecting event as the event the mental process had morphed it into, the deflection score of that redefined event would likely be in the "expected" range.

As individuals make mental redefinitions, they alter the scenario in question so that it follows the implicit rules of social interaction (Fallin-Hunzaker *forthcoming*). The explanations for the high deflecting, institutionally concordant events of condition 1 exemplify this process. Event 1f, "the competitor threatened the champion," has a deflection score of 18.8. The redefinition of this event as interpreted by respondents is closer to "the ambitious athlete competes with the defensive athlete on a tennis court." The deflection score of this redefined event is only 6.7—a "weird" event became an "expected" event through the process of institutional redefinition. The same process was in effect for all events in condition 1. The implicit mechanism of deflection reduction is an inherent component of cultural designations, but it operates within the parameters designated by social institutions.

Contributions

The research presented in this thesis offers a clearer picture of the tandem operation of two distinct cognitive mechanisms, and helps to link the unconscious and the conscious cognitive processes. Because respondent explanations followed institutional logic but occasionally failed to articulate from where their reasoning stemmed, it seems that respondents are to some degree aware of both types of processing mechanisms, but do not tap into them with equal clarity. This suggests that the debate in the sociology of culture concerning how best to study culture and action would do well to view the processes as unequivocally intermingled, rather than oppositional.

Results from studying the social patterns of human beings' interactions can combine a good deal of common sense with some truly startling behavioral surprises. This is not to say redundantly that surprises are surprising, but that the few behavioral surprises in store for researchers studying cultural beliefs and behavioral patterns are so startling, defy so much the common knowledge upon which so much of our assumptions are based, that it is the researchers' natural inclination to discount the data before their eyes. The research in this thesis offers verifiable and empirical data, which can aid knowledge in this field in a concrete way. Social scientists attempt to study culture, to tease out and identify the reasoning, shortcuts, and social psychological mechanisms that individuals use to determine behavior and arrive at conclusions. However, social scientists are themselves members of the culture we attempt to study and therefor are subject to the very reasoning, shortcuts, and social psychological mechanisms we attempt to analyze. This can make it difficult to be objective about the information the data reveals, as we run the risk of arriving at conclusions that are supported by the heuristics

we attempt to uncover. In having a mathematical representation of the determining factors, we have objective, empirically designated equations and mechanisms on which to rely.

Future Directions

Affect Control Theory research has consistently shown the profound effect of affect on understandings of social situations, but what does institutional concordance do to these understandings? This study tested Affect Control Theory's mechanism of deflection reduction and verified its predictive ability. Moving beyond this mechanism, this research investigated how this mechanism fits together with that of institutional concordance and found that institutional importance for the assessment of event likelihood is enormous.

In their 1987 study, Heise and MacKinnon accommodated the issue of institutions as a cognitive mechanism by controlling it out through hand-coding for clear institutional association, but this could not explain the nature of the interaction between these two cognitive mechanisms. As the authors discussed, greater explicative power was not feasible at the time. With MacKinnon and Heise's 2010 theoretical and empirical explication of the nature of social institutions, this interaction became possible to disentangle. My research questions delved into the heart of the interaction between the two mechanisms to determine not only how each operates, but what happens when the two mechanisms' predictions are in opposition.

The research in this thesis showed that the mechanism of deflection reduction operates irrespective of any particular event. With this established, I moved on to testing this mechanism's interaction with that of institutional concordance and found that

respondents use institutional logic to negate the institutionally discordant events, as well as to accept the highly deflecting events. Thus, meaning disruptions elicited by institutionally out-of-place behaviors or identities are as or more impactful than the affective meaning disruptions captured by Affect Control Theory's impression change equations. However, the relationship is more complicated than this, as respondent text explanations show that deflection reduction indeed operates as long as institutional concordance is in effect.

While both mechanisms significantly determine estimations of event likelihood, institutional concordance is essential to event processing and needs to be incorporated into the formalized theory. Understanding the necessity of this incorporation unfortunately offers no indication of how this should be done or how far the qualification of constraint should extend. Researchers must now unpack how to understand substantively and empirically the way in which the theory can accommodate the effect of this additional mechanism. How should they be incorporated into the equations: as a constant? A separate step prior to the deflection equations? As a coefficient added to one of the equations in particular and if so, which? Should each social institution be weighted equally?

I propose that first steps to incorporating institutions as a cognitive mechanism is to determine the hierarchical nature of our culture's social institutions. Institutions may be paramount when in conflict with predictions specified by deflection, but what about when institutions themselves are in opposition, when a scenario arises where Law is in opposition to Caregiving, or Caregiving in opposition to Medicine, or Medicine in opposition to Marriage? We can make no predictions about the outcomes of such events

until we determine the hierarchical structure of the social institutions by which we are all bound. A possible method to this may be an experimental vignette study with multiple events prioritizing one institution over another that requires respondents to select the more vital of the two in a bracket system.

Though a monumental undertaking in and of itself, should this hierarchy of social institutions be quickly determined, the necessary work would not be completed. Social Identity Theory would suggest variation in institutional hierarchies by groups and by individual characteristics. Perhaps there is not a culture-wide hierarchy of social institutions, but only individually-determined hierarchies where institutional immersion gives individualized biased ordering. Perhaps there are a small number of distinct institutional hierarchies divided by subcultures. If so, on what might these subcultures be predicated? It stands to reason that enculturation on social institutions would be high by their nature, but only further research projects will definitely determine this. The future of experimental research on cognitive mechanisms has a wealth of exciting theoretical possibilities before it to explore in order to further increase predictive specificity.

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