Teaching Family Theories: Building Conceptual Models Using Deductive Theorizing

Cheryl Buehler
Shakiera T. Causey
Sara Etz Mendonça
Alia D. Henderson
Pamela Linton Norcross
Peter D. Rehder

University of North Carolina Greensboro

ABSTRACT. This paper describes an andragogical method of creating substantive conceptual models from family theories using deductive thinking. Development of this method used ideas from Bloom's taxonomy, Piaget's conceptualizations of accommodation, and Masterman's descriptions of concrete ways to facilitate paradigmatic, abstract shifts in thinking. There is description of learning activities including an experience called *sit and think*. Illustrations of the method entail descriptions of five models based on theories: family systems (1 model), social exchange (1 model), and symbolic interaction (3 models). One of models based on symbolic interaction theory incorporated elements from critical race feminist theory. The creators of these models reflect on their learning processes and suggest recommendations for further development of the andragogical method

Keywords: deductive theorizing, family theories, model building

_____

Direct correspondence to Cheryl Buehler at cbuehler@uncg.edu.

Teaching Family Theories: Building Conceptual Models using Deductive Theorizing

I have been teaching about family theories to, and with, undergraduate and graduate students for 30 years. These experiences taught me that Bernard Bloom (1956, 1994) was onto something when he suggested we learn constructs and ideas at various levels of understanding, which serve multiple purposes. It took me years to realize some implications of Bloom's thinking. This paper describes and illustrates some of these applications and implications. The first section describes andragogical ideas and details a teaching strategy called *sit and think*. In the second section each of the co-authors presents a model she or he developed using the deductive theorizing process and reflects on her or his learning process. We conclude with ways that teachers and learners can begin extending ways of "knowing" and using family theories.

The five co-authors of this paper are first-year graduate students who learned to create a conceptual model from a family theory of their choice using deductive thinking processes. These model creators drew deductively from family systems, social exchange, symbolic interaction, and critical race feminist theories. The primary objectives associated with this learning experience were to demonstrate understanding of theoretical constructs and propositions from family theories and build substantive conceptual models using deductive theorizing. The co-authors achieved these goals in part by (a) extrapolating a theoretical construct that best represents the student's chosen dependent substantive construct, (b) identifying and defining a theoretical construct from a family theory that predicts the theoretical dependent construct, (c) explicating the theoretical proposition that links the theoretical predictor and outcome, (d) deducing a substantive predictor from the theoretical predictor, and (e) generating a substantive hypothesis that reflects the explicated theoretical process (Figure 1).

Deductive Theorizing

Theories serve several purposes; these include framing inspiring research questions and interpreting findings (Abend, 2008). Using theory as a general frame can be quite useful but can also create inconsistencies if confused with or obfuscated by the use of implicit ideologies or paradigms (Dilworth-Anderson, Burton, & Johnson, 1993). An exemplary use of theory occurs when one uses theoretical constructs and propositions to create a substantive, empirically testable hypothesis. For more ambitious endeavors, one can create sets of hypotheses to form conceptual models that can help frame research studies.

A central process in creating a conceptual model from a theoretical perspective is *deductive theorizing* (White, Klein, & Martin, 2015). Deduction occurs, for example, when one uses an abstract (relatively speaking) theoretical construct to suggest a more specific substantive construct. Deduction also occurs when one creates a substantive hypothesis from a theoretical proposition. Deductive reasoning is one of several ways to create a conceptual model, but it is an important capacity for family scholars to cultivate because of the expectation that scholars use the method when developing and communicating in manuscripts, grant proposals, and interventions.

My experience in teaching family theories while pursuing the goal of helping students create a hypothesis or model using a given theory has shown me that intentional activities and learning experiences are important. Part of the need for planning and intentionality is that the deductive thinking process is relatively new for most students. Many students (even graduate students) are much more familiar with inductive thinking processes in which they have reviewed empirical studies (or essays) and responded with their impressions, questions, or new ideas. Some of these students have also used this inductive thought and learning process to create conceptual models and they are comfortable with it. The deductive process, in which one starts with general, abstract theoretical ideas and creates specific, substantive ideas, often feels novel and somewhat uncomfortable for many learners. Students report that creating models from theory *without* using empirical literature is challenging. It feels "opposite to their way of thinking" and is contrary to their past experiences. My experience is that structure and intentionality facilitate this deductive learning process, increasing the likelihood that students will associate increased comfort and efficacy with understanding. Moreover, students will continue using these newly experienced deductive reasoning skills.

Learning Foundations

Bloom's ideas. My recognition of how new and different the deductive reasoning process felt to students steered me toward trying to understand and use Bloom's (1956) hierarchy of learning in more articulated and intentional ways. Bloom's (1956) theory suggests that people learn constructs and principles at increasing levels of depth (6 levels) and that these different learnings serve different purposes. The original levels that Bloom conceived were knowledge, comprehension, application, analysis, synthesis, and evaluation. Recently revised levels are remembering, understanding, applying, analyzing, evaluating, and creating (top two levels reversed; Anderson et al., 2001). The learning activities I created aim at achieving particular levels of learning for given sets of ideas. These levels are identified for students as we engage in particular activities (e.g., we are aiming for an application level as we think about how this theoretical construct might relate to domestic violence; "A" work on this homework demonstrates learning at the analysis level, "B" work demonstrates learning at the comprehension level). I agree with the criticism of Bloom's framework that focuses on instances when teachers favor or emphasize higher-level of learning (e.g., evaluation, creating) without sufficient "scaffolding." Students can be overwhelmed or confused when there is no "intentional scaffolding" that guides them through lower levels of understanding ideas.

Piaget's ideas. As students move from comprehension through application to analysis and synthesis (or creation) using a given set of constructs or ideas, I use notions abstracted from Piaget's concepts of assimilation and accommodation (Wadsworth, 2003). Assimilation is the process of incorporating new ideas into our pre-existing cognitive schemas (i.e., ways of thinking, perceiving, and understanding). Some theoretical constructs and propositions we use in this graduate-level class are not new to students, but we might be trying to increase their depth of understanding and use (e.g., role strain from symbolic interaction theory). When we work on learning particular ideas at higher levels of learning (e.g., synthesis) for new purposes (e.g., creating a substantive model from a grand theory), much of the required learning requires accommodation. Existing cognitive schemas need revision or restructuring and new schemas

need development; I call these tasks "drilling holes in the head." Students have told me this metaphor helps them truly understand that their brains change as they learn material at higher levels and that these accommodative processes can cause discomfort in surprising ways. As we work through these challenges and new understandings emerge, student recognitions of higher learning levels are palpable, rewarding, and motivating for learners and for me.

Masterman's framing of Kuhn's ideas. Finally, for planning and intentionality, I was influenced many years ago when I read an essay by Masterman (1970) that analyzed Kuhn's ideas about paradigms (i.e., ways of knowing, thinking) and paradigmatic shifts (e.g., accommodation). Masterman found that Kuhn used *paradigm* in more than 100 different ways; she grouped these uses into three categories: metaphorical (very abstract), sociological, and construct (rather concrete). As I read Masterman's descriptions of these three categories and thought about ways in which we shift our ways of thinking (i.e., Piaget's accommodation, Vygotsky's constructivism), I sensed that I may have been teaching abstract thinking skills like deductive theorizing ineffectively. Integrating Masterman's thinking about Kuhn into my teaching showed me that I needed help students learn content at higher levels of learning through concrete experiences (i.e., what Masterman labeled construct ways). Instead of scaffolding paradigmatic shifts in understanding using metaphorical (i.e., abstract) strategies, I needed to promote paradigmatic shifts (i.e., accommodative thinking) using concrete activities (e.g., drawing, creating models piece by piece, following singular ideas through each component of the research process in charts or images). Realizing that many students learn abstract thinking best through concrete, repetitive activities was instrumental to changing my thinking about, and my teaching of, the content of family theories.

Using "Sit and Think" Activities to Facilitate Deductive Theorizing
One set of repetitive, concrete learning activities I developed to facilitate learning of family theory is an experiential process I call *sit and think*. The *sit and think* metaphor is useful in describing activities (some solitary, some interactive) that promote creation of conceptual models using deductive theorizing. The essence of this learning process is using specific theoretical constructs and propositions from a given family theory to generate and select specific substantive constructs and hypotheses. Repeating this process systematically improves learning elements of family theory and results in a conceptual model that deductive thinking created. Central to this process are (a) learning basic assumptions, constructs, and propositions of family theory (i.e., lower-levels of learning) and (b) creating substantive hypotheses using steps outlined in Figure 1 (i.e., higher levels of learning). This hypothesis creation process involves five steps:

1. Backward deduction regarding a theoretical construct that "lives above" the substantive construct (e.g., marital satisfaction);
2. Thinking of a theoretical construct that might predict the outcome's theoretical construct, including its conceptual definition;
3. Explicating the theoretical proposition that links the two;
4. Deducing a substantive construct from the theoretical predictor, including a conceptual definition of the substantive construct; and
5. Deducing the substantive hypothesis from the theoretical proposition. This process is repeated for additional predictors, including mediators and moderators.

In this family theories course, students learn basic elements of a family theory by (a) reading two book chapters that detail the theory and one empirical article that uses some aspects of the theory, (b) completing worksheets, each with seven questions (see Appendix for a sample worksheet), and (c) participating in three-hour class discussion of the theory. Students learn how to use the theory to create conceptual models (and thus to think deductively) through repeated experiences in which they create substantive hypotheses using *sit and think*. They achieve this by organizing their theoretical materials and notes, reviewing the materials, and sitting to use a blank piece of paper (or the classroom white board) to deduce the substantive model (i.e., drawing a picture), one piece at a time. I encourage students to place the theory inside their heads and "just let it flow" or "just make it up." The important point is that students not be guided or "trapped" by empirical literature as they create substantive hypotheses. Instead, I encourage each student to think about what the theory says about shaping behavior (or shaping emotion, cognition, and relationship patterns). One implication is that students' source materials include theoretical writings rather than empirical studies. There is repetition of this process several times during the semester: in class, in large groups using a substantive construct we choose as a group and use with each family theory; in small groups, also during class; in one-on-one tutorials with me; and finally, by students on their own as they create models for their final course papers.

Illustrations of Deduced Conceptual Models and Learning Reflections

The final assignment for the family theories is to create two models; this assignment is used to assess students' abilities to demonstrate theoretical understanding by creating substantive conceptual models. Students describe these models in 15-page papers that constitute part of their semester grades. Each student chooses a family theory to create a model in which a substantive construct of her or his interest is predicted by several substantive predictors (each one deduced from one of the theory's central constructs). Students repeat this process using a second family theory to demonstrate how different substantive predictors may be identified when using different theoretical lenses. In this paper's examples, assignment parameters used for guiding model creation included (a) having a continuous dependent construct, (b) inclusion of several predictors (serving as main, mediating, or moderating constructs), and (c) having at least one "family" construct.

Using Family Systems Theory to Predict Children's Callous-Unemotional Behavior

The substantive construct of callous-unemotional (CU) behaviors refers to the affective component of psychopathy and is characterized by callousness, lack of empathy, lack of guilt, and shallow and/or deficient emotions (Frick, Ray, Thornton, & Kahn, 2014). Family systems theory posits that elements of family systems (e.g., individuals and relationships) can be understood only in the context of whole family systems (Whitchurch & Constantine, 1993), which leads researchers to examine transactional relationships between parents and children (Cox & Paley, 2003). To better understand etiology of CU behaviors, the current model was created using family systems theory to predict CU behaviors in early childhood (Figure 2).

System inputs and outputs refer to the "matter, energy, and information that are imported into the system or exported from it" (Whitchurch & Constantine, 1993, p. 333). The dependent substantive construct of *child CU behaviors* can be deduced from the theoretical construct of *system output*. Several family systems theoretical constructs affect system outputs, including child and parent inputs, negative feedback (i.e., behavior that promotes maintenance of system equilibrium), and rules of transformation (i.e., system perceptions and responses to input and feedback) (Whitchurch & Constantine, 1993; White et al., 2015). I hypothesize that *child self-regulation* during infancy and toddlerhood, which can be deduced from the theoretical construct of *child input*, is associated negatively with later CU behaviors (beginning as early as the preschool years). *Parent harsh-negative caregiving* can be deduced from *negative feedback* as a partial mediator of the negative association between child self-regulation and CU behaviors. *Parental stress* can be deduced from *parent input* as a moderator of the negative association between child self-regulation and parent harsh-negative caregiving, with the association stronger for parents experiencing higher stress levels of stress and weaker for parents with lower stress levels. Finally, *child internal representations and expectations of harsh-negative behavior in relationships* can be deduced from *child rules of transformation* as a partial mediator of the positive association between parent harsh-negative caregiving and child CU behaviors. In sum, the current model proposes that child self-regulation predicts child CU behaviors, partially mediated through harsh-negative parenting behavior and children's internal representations and expectations of harsh-negative behavior, with parental stress moderating the association between child self-regulation and parent harsh-negative caregiving behavior.

Model creator self-reflection. Using theory in understanding family processes is a crucial skill for emerging family scholars to learn because it allows them to develop concrete, testable hypotheses. Although inductive hypothesizing based on extant empirical findings is used often in family research, deductive hypothesizing from theoretical propositions is also necessary for understanding complex family processes. Becausemy previous experience has been involved inductive hypothesis formation, developing a model deductively has been helpful. Using family systems theory was particularly helpful in improving my deductive theorizing skills; it is defined clearly and uses simple metaphors for understanding family relationships and functioning. Theoretical constructs of input and output could easily guide selection of a substantive predictor and outcome. After doing so, I simply had to deduce my mediators and moderator from systems constructs that explain and alter the relation between input and output. As such, feedback and rules of transformation served as easily translatable theoretical constructs from which I could deduce my substantive mediators and moderator. Although deductive theorizing may be challenging to some students, the learning experiences from this course and the use of a clearly defined, easily translatable family theory have helped me use deductive theorizing without trouble.

Using Social Exchange Theory to Predict Intimate Partner Violence

The substantive dependent construct of intimate partner violence (IPV) is defined as threatened, attempted, or completed physical or sexual violence or emotional abuse by a current or former intimate partner (Centers for Disease Control and Prevention, 2010) and can be deduced from the exchange theoretical construct of relationship behaviors. IPV has been

examined using social exchange theory to evaluate risk for IPV involvement and contextual factors that predict why victims stay in or leave violent relationships (Redhawk-Love & Richards, 2013). The foundation of social exchange theory has three main theoretical constructs: costs, rewards, and relationship behaviors. These constructs are particularly relevant to the study of intimate partner violence (Figure 3). Costs and rewards as theoretical constructs are central to the theme of dependence in social exchange theory and in IPV victimization (Molm, 1990). The theoretical construct of *costs* is defined as any liability to a person's interests (Sabatelli & Shehan, 1993). One substantive predictor construct in the SE model is *parental hostility*, which is deduced from the theoretical construct of costs. Parental hostility includes physically and verbally aggressive parenting towards children. The theoretical hypothesis is that costs relates positively to negative relationship behaviors. The deduced substantive hypothesis is that there is positive association between parental hostility and adolescent IPV involvement.

The theoretical construct of *rewards* is defined as anything seen as a benefit to a person's interests (Sabatelli & Shehan, 1993). This theoretical construct is used for deducing the substantive construct of *emotional security* in IPV involvement. The proposition that actors prefer stable structure is central to identifying emotional security as a perceived reward (Sabatelli & Shehan, 1993). Therefore, the theoretical hypothesis is that there is positive association between rewards and relationship behaviors. The substantive hypothesis is that there is positive association between emotional security and adolescent IPV involvement.

The theoretical construct of *dependence* is used for deducing the substantive construct of *relationship assurance*. Dependence is the degree to which a person believes that he or she is subject to or reliant on another person for relationship outcomes (Sabatelli & Shehan, 1993). Relationship assurance includes physical contact, emotional dependence, and financial security. Relationship assurance also mediates the relationship between parental hostility and adolescent intimate partner violence involvement.

Model creator self-reflection. Learning to process deductive theorizing has been challenging. This meticulous and systematic thought process feels counterintuitive from a research perspective. I am a visual learner. This instructional approach of illustrating models to accompany our weekly class discussions on new theories was quite helpful in synthesizing what I read. In-class exercises that prompted us to label and identify constructs as a class were also useful in facilitating practice and raising the comfort level with the deductive theorizing process. The deductive process of shifting from the theoretical constructs to my substantive predictors became intuitive after several weeks of practicing the deductive process with weekly worksheet assignments and in-class activities. Because of its transactional nature, social exchange theory also made identifying variables less of a challenge after I mastered the deductive process. Consequently, I could succinctly deduce theoretical constructs of costs, rewards, and social capital to substantive predictors of parental hostility, emotional security, and relationship status. As an emerging scholar, this technique of deduction will allow me to ground my research in theory, which is a necessary tool to add to my skill set.

Using Symbolic Interaction Theory to Predict Child Materialism, Maternal Sensitivity, and Marital Satisfaction

One of the co-authors used theoretical constructs from symbolic interaction theory to deduce substantive constructs that might predict child materialism (Figure 4). A second co-author used this grand theory to predict maternal sensitivity (Figure 5) and a third author used symbolic interaction combined with critical race feminist theory to predict marital satisfaction (Figure 6).

Predicting child materialism. Child and adolescent materialism (CAM) can be defined conceptually as giving great importance to material goods and possessions as indicators of achievement and sources of happiness (Richins & Dawson, 1992). *Child and adolescent materialism* is the substantive dependent construct and can be deduced from the symbolic interaction theoretical construct of *symbols*, defined as any sign that people recognize and has a common meaning (White et al., 2015; Figure 4). Theoretically, child identity salience might predict symbols; the substantive construct of *children and adolescent consumer identity salience* can be deduced from the theoretical construct of *role identity salience*. Based on the symbolic interaction proposition that norms associated with a role affect an individual's behavior, one can hypothesize that children and adolescent consumer identity salience is associated positively with CAM (LaRossa & Reitzes, 1993). The theoretical proposition that individuals and small groups are affected by larger societal and cultural practices motivated inclusion of *child gender* as a moderator of this association between child and adolescent identity salience and CAM (LaRossa & Reitzes, 1993; association stronger for boys than for girls). The theoretical concept of *modeling interactions with significant others* can be used to deduce the substantive construct of *parental support*. The proposition that shared meanings of symbols are created in families and that roles and identities of family members are shaped through family members' interactions led to the hypothesis that parental support is associated negatively with CAM. LaRossa and Reitzes (1993) posit that when self-concepts act as motivation for behavior when they are developed, leading to the final hypothesis that self-esteem partially mediates the relationship between parental support and CAM. The theoretical construct of *self-concept*, which is defined as individuals' beliefs about themselves, is used to deduce the substantive construct of *child self-esteem*.

Model creator self-reflection. The substantive dependent construct's determination before the theory is chosen requires that students use the *sit and think* process to (a) have the ability to see what theoretical concept could represent the dependent construct and (b) to consider what theoretical constructs might predict it. The idea behind *sit and think* is to let thoughts flow freely and focus on what the theory says in order to understand what theoretical constructs will be the basis for the substantive constructs that emerge. When this process is a new and unfamiliar way to process information, it is challenging to stop trying to think in concrete, empirical terms about independent and dependent variables. Most graduate students are already working on research projects and have collected data. To *sit and think* and *not* create a hypothesis for a concrete study based on the research value of substantive constructs is surprisingly difficult.

Building the model was an intense, laborious process because choosing a dependent construct without regard for what theory would be used for predicting it made it impossible to select the dependent construct just because it would naturally fit a theory we had chosen for use in model creation. To support the *sit and think* process and overcome confusion in my first model, I needed to meet with the professor twice to identify theoretical constructs that could predict my dependent construct to achieve my objective (which was the ability to create my theoretical model based on theory, not to find a theory to fit a pre-existing hypothesis). It is as if the brain does not want to give up control over deciding exactly what will be studied and how one studies it. That is why class time for practicing deductive reasoning and having one-on-one meetings with the professor are invaluable. The brain needs to be trained to trust what the theory says and to follow where the theory leads. Although the process of changing thought patterns is extremely challenging, theorizing deductively is an invaluable skill for conducting theory-based research successfully.

Predicting maternal sensitivity. Symbolic interaction theory suggests that individuals develop their senses of self and identity through shared meanings (LaRossa & Reitzes, 1993); therefore, symbolic interaction is useful for understanding mothers' role behaviors. The substantive dependent construct of *maternal sensitivity*, defined as the level of quality and amount of responsiveness mothers can provide infants to satisfy infants' needs (Belsky & Fearon, 2010; Leerkes, Weaver, & O'Brien, 2012), can be deduced from *maternal role behaviors* (Figure 5). Three essential theoretical constructs from symbolic interaction are used for predicting maternal sensitivity (i.e., role behavior): social identity, role clarity, and social interactions.

Maternal experiences can have a profound impact on the creation of identity; therefore, the substantive construct of *maternal identity* can be deduced from the theoretical construct of *social identity*. Maternal identity, which refers to self-significance within a role (LaRossa & Reitzes, 1993), is positively associated with maternal sensitivity. Within symbolic interaction, shared meanings lead to creation of roles, which are central mechanisms for the socialization process of social influence. Therefore, clarity of role expectation is having clear understanding of these actions for social interaction and expectations. As a result, the substantive construct of *clarity of role expectation for sensitive behavior* to one's infant can be deduced from *clarity of role expectation* and is positively associated with maternal sensitivity. Social interaction for support, or informal experiences, is the process by which individuals apply meaning to symbols to define self, others, and the situation or situations (LaRossa & Reitzes, 1993; White et al., 2015). *Maternal support-seeking behavior* is a substantive construct that can be deduced from the theoretical construct of *informal experiences* and is positively associated with maternal sensitivity. Finally, self-efficacy, the belief one has for ability to perform the necessary task successfully (Leerkes & Crockenberg, 2002), affects maternal behaviors. Thus, *maternal self-efficacy*, how confident mothers feel about themselves as mothers, can be deduced from the theoretical construct of *self-efficacy* and theorized as a partial mediator of the positive association between two substantive constructs: (a) clarity of role expectations for maternal sensitivity and maternal support seeking behaviors and (b) maternal sensitivity.

Model creator self-reflection. Deductive reasoning has contributed greatly to my understanding of theory by introducing a new framework for viewing conceptualization of theoretical and substantive constructs. The concrete, hands-on process of using deductive reasoning to create a theoretical model for understanding maternal sensitivity has given me clear understanding of and appreciation for how theoretical constructs and propositions are useful for examining substantive family processes. The theoretical constructs demanded clear definitions of variables for deduction to occur when creating the substantive model. This is where *sit and think* is critical. It takes time to conceptualize and think through these processes. The global lesson was learning how variables fit together logically, to avoid creating redundancy among variables from theoretical to substantive models, and to have actual understanding of associative structures set in place. I learned how to state hypotheses correctly with deeper understanding of the associations I actually was stating. This method for developing models through constructing visual diagrams was also vital for me in revealing how substantive constructs and hypotheses can be deduced from theoretical constructs and propositions. All these techniques helped me grow as a student of theory.

Predicting marital satisfaction. Marital satisfaction (the dependent substantive variable being predicted) is a cognition defined by the global evaluation that one's marriage is good (Norton, 1983). In this model, marital satisfaction was predicted by using the lens of symbolic interactionism integrated with critical race feminism. Symbolic interactionism seeks to explain how human beings develop meanings for the world around them through social interactions (LaRossa & Reitzes, 1993). The benefit of using critical race feminism is that it helps conceptualize experiences of marginalized populations and is compatible with existing family theories (Few, 2007). In symbolic interactionism, *marital satisfaction* is the substantiation of the theoretical construct of *definition of the situation*. This is the ideology that one's *perception of reality has real consequences* (White et al., 2015). Thus, perceptions of one's marriage have real consequences because these perceptions influence one's attitude towards and behavior within the marriage. Theoretical predictors are role expectation mediated by identity salience hierarchy. Respective substantive predictors are Eurocentric and Heteronormative marital role expectation mediated by Eurocentric and Heteronormative intersectional identity (Figure 6).

In SI, the construct of role expectation is a socially normative belief regarding how one is to behave within a certain role or roles (White et al., 2015). I suggest that critical race feminism postulates that white, heterosexual, and patriarchal families are the standard for creation of *marital role expectations*; thus, the deduced substantive construct of *Eurocentric and Heteronormative marital role expectation* emerges. According to White et al. (2015), society creates social roles and their meanings and individuals organize these social roles into an identity salience hierarchy, which shapes individual behaviors in various situations. Therefore, if the societal role expectation corresponds with a person's identity salience hierarchy, the expectation is that the person will be self-motivated to meet the role expectation and define the situation positively (Ihinger-Tallman, Pasley, & Buehler, 1993; LaRossa & Reitzes, 1993).

Using a critical race feminism lens, *Eurocentric and Heteronormative intersectional identity* is deduced from *identity salience hierarchy*. Intersectional identity ideology recognizes t a person is composed of various social identities (i.e., ethnicity, gender, socio-economic status,

sexual orientation) that are indicators of positionality (a person's relational position in a situation based on social identities; Few-Demo, 2014). In marriage, the more one's social identities align with Eurocentric and Heteronormative marital role expectations, the more that person is motivated to meet Eurocentric and Heteronormative marital role expectations, resulting in higher marital satisfaction. Therefore, based on the proposition that "the quality of ego's role enactment in a relationship positively affects ego's satisfaction with the relationship" (White et al., 2015, p. 83), I hypothesized that positive association between meeting Eurocentric and Heteronormative marital role expectations and marital satisfaction is partially mediated by Eurocentric and Heteronormative intersectional identity.

Model creator self-reflection. The skill set of deducing hypotheses from theories has been a challenging yet rewarding learning experience. My discipline is applied statistics, where hypotheses are generated in terms of quantified null and alternative hypotheses. Thus, learning various theories and deducing a substantive model from a given theory engaged me in a different form of intellectual gymnastics.

Initially, I struggled to understand how to deduce a hypothesis from a theory, but after meeting with my instructor several times, I slowly gained solid understanding. During our meetings, she would help me draw models of the theory and the deduced hypothesis; we also discussed the models. Each time we met, my understanding deepened until the information finally "clicked" in my brain. Once the information clicked, I could formulate and ask my questions more clearly during interactive discussions and could write my paper more clearly because I was no longer in a state of confusion but in a state of understanding. I believe that by taking this course, I not only gained a new method of formulating hypotheses, but also expanded my ability to conceptualize material in my discipline.

Conclusion and Recommendations

Although using theory to create models and generate hypotheses is only one of many functions of theory, it is one of the most important. Deductive processes embedded within this use of theory produce essential capacities for family scholars. Since most students are accustomed to using theory more generally and to creating models using empirical literature, learning to deduce (a) substantive constructs from theoretical constructs and (b) substantive hypotheses from theoretical propositions is often a challenging learning experience requiring accommodation and high engagement levels. The *sit and think* process and the various concrete learning strategies this paper describes facilitate this engaged, accommodative learning process. A structuralized, intentional, and engaged learning process facilitates (a) learning several theories during a semester and (b) using the theories to create conceptual models in students areas of substantive interest. Structuring class time to practice using this step-by-step process and tutoring students one-on-one facilitate the learning process.

The culmination of these lessons described in this application of *sit and think* is the creation of two models in a final course paper. Each model is deduced from a family theory and a substantive construct that students choose. Predicting their substantive construct of choice

facilitates motivation and utility in students' developing scholarship. This also structures a learning context in which students realize that predictors of their "outcomes" vary because of family theories they chose to use in model creation. This helps concretize the important point that each theory has its own boundaries and focus. As one of the co-authors noted, this project requirement can complicate the learning process because of the need to start the *sit and think* deductive process by "going backwards" from the substantive dependent construct to the theoretical construct that "lives above it." I often facilitate this part of the process (step 1 in Figure 1) with a one-on-one tutoring session. For large classes, I believe this could be facilitated in small groups where students can help one another with this "backward deduction."

Another recommendation stems from the need to reframe grand theories used frequently in family science (e.g., social exchange, family development, symbolic interaction, family systems) in ways that increase cultural relevance (Dilworth-Anderson et al., 1993). Within the context of the andragogical ideas this paper presents, we reframed theoretical constructs and propositions from these theories using ideas from critical race theory (Burton, Bonilla-Silva, Buckelew, & Freeman, 2010), feminist theory (Osmond & Thorne, 1993), and critical race feminist theory (Few-Demo, 2014). This reframing was part of weekly worksheets and group activities in which we practiced creating models while learning theories. As such, learning the theories took place first so the material could be used in reframing processes of each family theory. Addition of other perspectives, such as minority stress theory, could enhance this part of the learning and creation experience. Inclusion of these reframing experiences in the deductive theorizing processes helps prepare students for engaging in culturally relevant scholarship as they become leaders in the family science field.

Cheryl Buehler is Professor and Director of Graduate Studies in Human Development and Family Studies at University of North Carolina Greensboro, Greensboro, NC 27412.

Shakiera T. Causey, Sara Etz Mendonça, Pamela Linton Norcross, and Peter D. Rehder are graduate students in Human Development and Family Studies at the University of North Carolina Greensboro, Greensboro, NC 27412.

Alia D. Henderson is a graduate student in Educational Leadership and Cultural Foundations at the University of North Carolina Greensboro, Greensboro, NC 27412.

References

Abend, G. (2008). The meaning of "theory." *Sociological Theory, 26*, 173-199. doi:10.1111/j.1467-9558.2008.00324.x

Anderson, L. W., Krathwohl, D. R., Airsian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., Raths, J., & Wittrock, M. C. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives.* New York: Pearson, Allyn, & Bacon.

Belsky, J., & Fearon, R. M. P. (2010). Precursors of attachment security. In J. Cassidy & P. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed.*)* (pp. 295-317). New York: Guilford Press.

Bloom, B. S. (1956). *Taxonomy of education objectives.* Boston: Allyn and Bacon.

Bloom, B. S. (1994). Bloom's taxonomy: A forty-year retrospective. In K. J. Rehage, L. W. Anderson, & L. A. Sosniak (Eds.), *Yearbook of the National Society for the Study of Education, 93*. Chicago: National Society for the Study of Education.

Burton, L. M., Bonilla-Silva, E., Ray, V., Buckelew, R., & Freeman, E. H. (2010). Critical race theories, colorism, and the decade's research on families of color. *Journal of Marriage and Family, 72*, 440-459. doi: 10.1111/j.1741-3737.2010.00712.x

Centers for Disease Control and Prevention. (2010). Intimate Partner Violence surveillance report 2009. Atlanta: US Department of Health and Human Services.

Cox, M. J., & Paley, B. (2003). Understanding families as systems. *Current Directions in Psychological Science*, *12*, 193-196. doi:10.1111/1467-8721.01259

Dilworth-Anderson, P., Burton, L. M., & Johnson, L. B. (1993). Reframing theories for understanding race, ethnicity, and families. In P. Boss, W. Doherty, R. LaRossa, W. Schumm, & S. Steinmetz (Eds.), *Sourcebook of family theory and methods: A contextual approach; A contextual approach* (pp. 627-649). New York: Springer. doi: 10.1007/978-0-387-85764-0_14

Few, A. L. (2007). Integrating Black consciousness and critical race feminism into family studies research. *Journal of Family Issues, 28*, 452-473. doi:10.1177/0192513X06297330

Few-Demo, A. L. (2014). Intersectionality as the "new" critical approach in feminist family studies: Evolving racial/ethnic feminisms and critical race theories. *Journal of Family Theory and Review, 6*, 169-183. doi:10.1111/jftr.12039

Frick, P. J., Ray, J. V., Thornton, L. C., & Kahn, R. E. (2014). Can callous-unemotional traits enhance the understanding, diagnosis, and treatment of serious conduct problems in children and adolescents? A comprehensive review. *Psychological Bulletin*, *140*, 1-57. doi:10.1037/a0033076

Ihinger-Tallman, M. I., Pasley, B. K., & Buehler, C. (1993). Developing a middle-range theory of father involvement postdivorce. *Journal of Family Issues, 14*, 550-571. doi:10.1177/019251393014004005

LaRossa, R., & Reitzes, D. C. (1993). Symbolic interactionism and family studies. In P. Boss, W. Doherty, R. LaRossa, W. Schumm, & S. Steinmetz (Eds.), *Sourcebook of family theory and methods: A contextual approach* (pp. 591-622). New York: Springer. doi:10.1007/978-0-387-85764-0_14

Leerkes, E. M., & Crockenberg, S. C. (2002). The development of maternal self-efficacy and its impact on maternal behavior. *Infancy, 3*, 227-247. doi:10.1207/S15327078IN0302_7

Leerkes, E. M., Weaver, J. M., & O'Brien, M. (2012). Differentiating maternal sensitivity to infant distress and non-distress. *Parenting: Science & Practice*, *12*(2/3), 175-184. doi:10.1080/15295192.2012.683353

Masterman, M. (1970). The nature of paradigm. In I. Lakatos ,& A. Musgrave (Eds.), *Criticism and the growth of knowledge* (pp. 59-90). Cambridge: Cambridge University Press.

Molm, L. (1990). Structure, action, and outcomes: The dynamics of power in social exchange. *American Sociological Review, 55*, 427-447. doi:10.2307/2095767

Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family, 45*, 141-151.

Osmond, M. W., & Thorne, B. (1993). Feminist theories: The construction of gender in families and society. In P. Boss, W. Doherty, R. LaRossa, W. Schumm, & S. Steinmetz (Eds.), *Sourcebook of family theory and methods: A contextual approach* (pp. 591-623). NY: Springer. doi:10.1007/978-0-387-85764-0_14

Redhawk-Love, S., & Richards, T. (2013). An exploratory investigation of adolescent intimate partner violence among African American youth: A gendered analysis. *Journal of Interpersonal Violence, 28*(17)*, 3342-3366.doi:10.1177/00886260513496898

Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research, 19*, 303-316.

Sabatelli, R. M., & Shehan, C. L. (1993). Exchange and resource theories. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 385-416). New York: Springer.

Wadsworth, B. J. (2003). *Piaget's theory of cognitive and affective development: Foundations of constructivism.* Boston: Allyn & Bacon.

White, J. M., Klein, D. M., & Martin, T. F. (2015). *Family theories* (4th ed.). Thousand Oaks, CA: Sage.

Whitchurch, G. G., & Constantine, L. L. (1993). Systems theory. In P. Boss, W. Doherty, R. LaRossa, W. Schumm, & S. Steinmetz (Eds.), *Sourcebook of family theory and methods: A contextual approach* (pp. 325-355). NY: Springer. doi:10.1007/978-0-387-85764-0_14
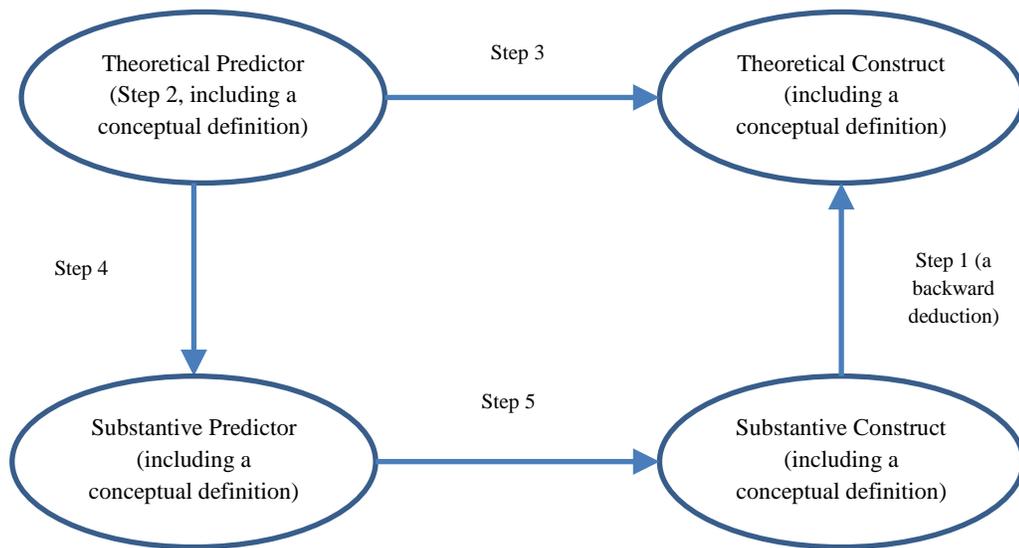
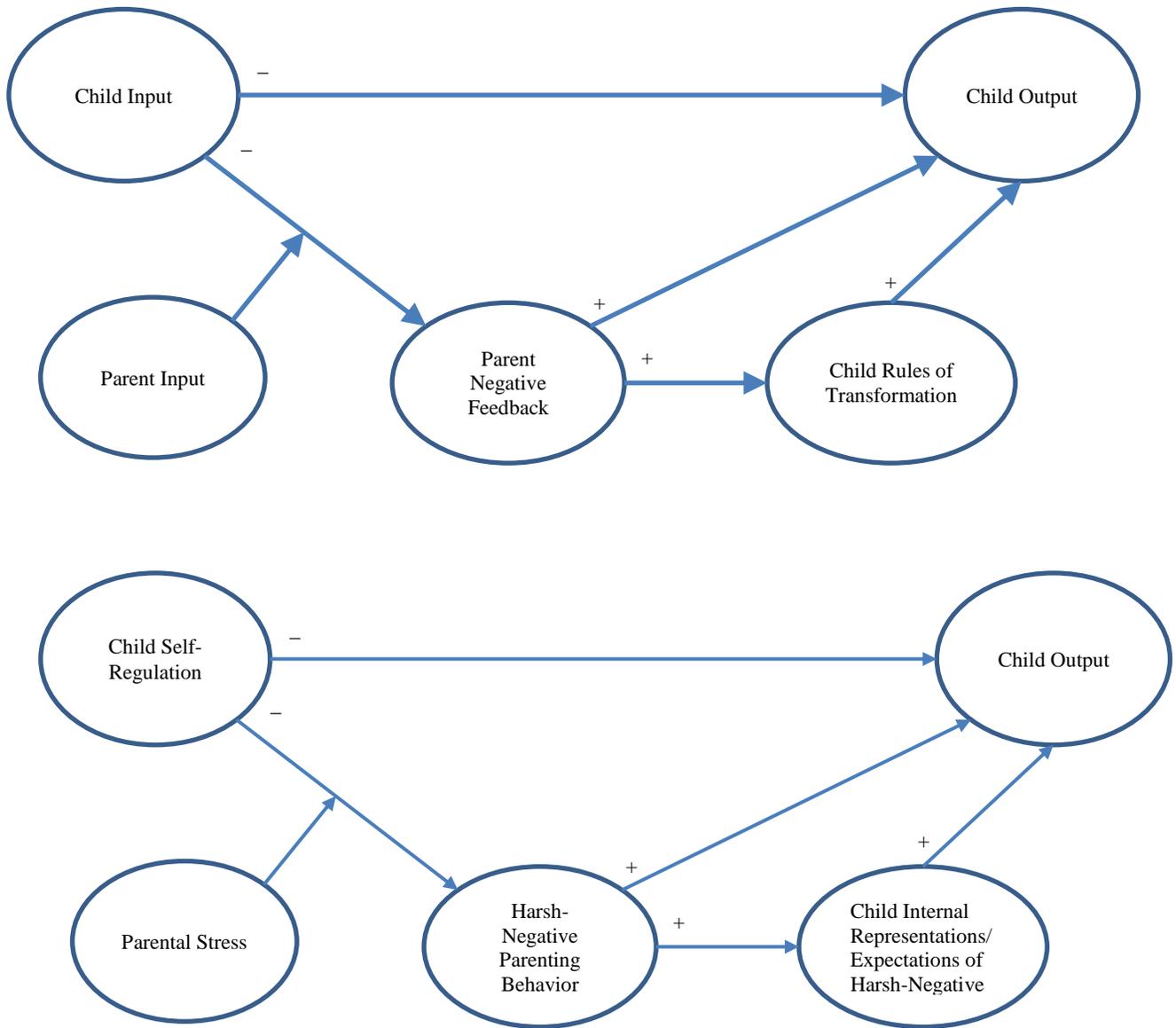*Figure 1*. Hypothesis Created using Sit and Think Deductive Reasoning

Figure 2. Using family systems theory to predict child callous and unemotional behaviors
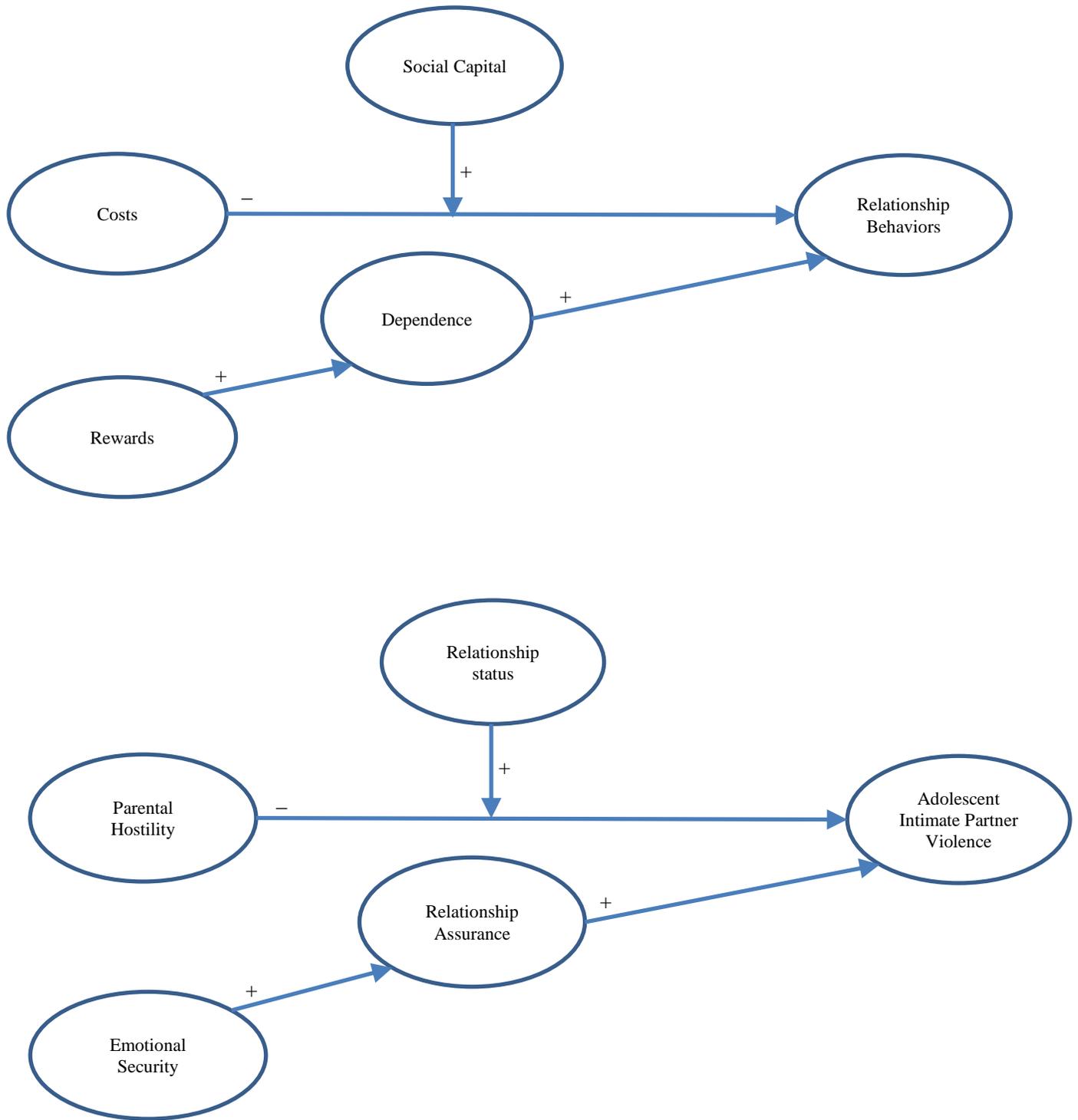
Figure 3. Using social exchange theory to predict adolescent intimate partner violence.

Figure 4. Using symbolic interaction theory to predict child and adolescent materialism.
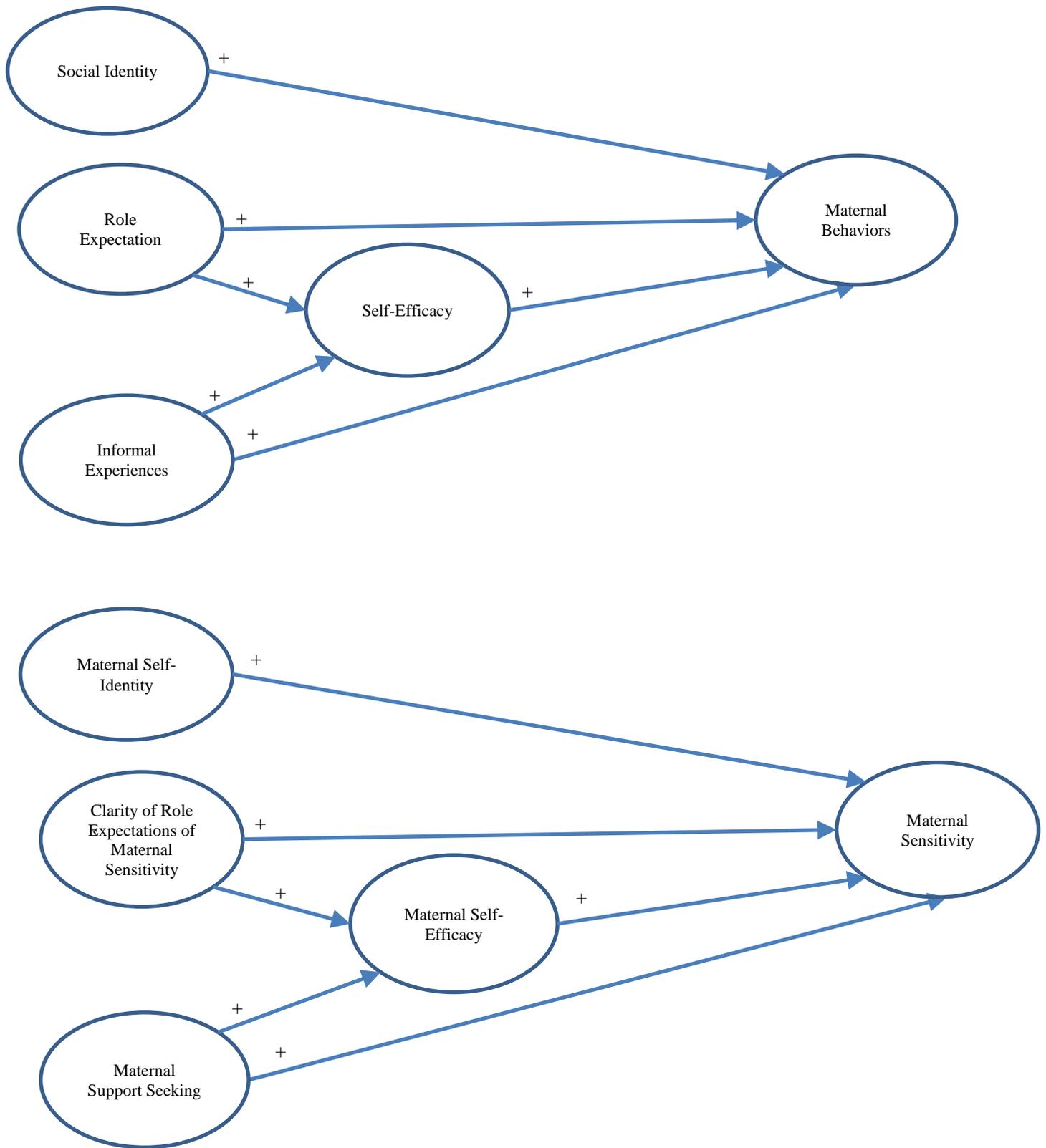
Figure 5. Using symbolic interaction theory to predict maternal sensitivity.
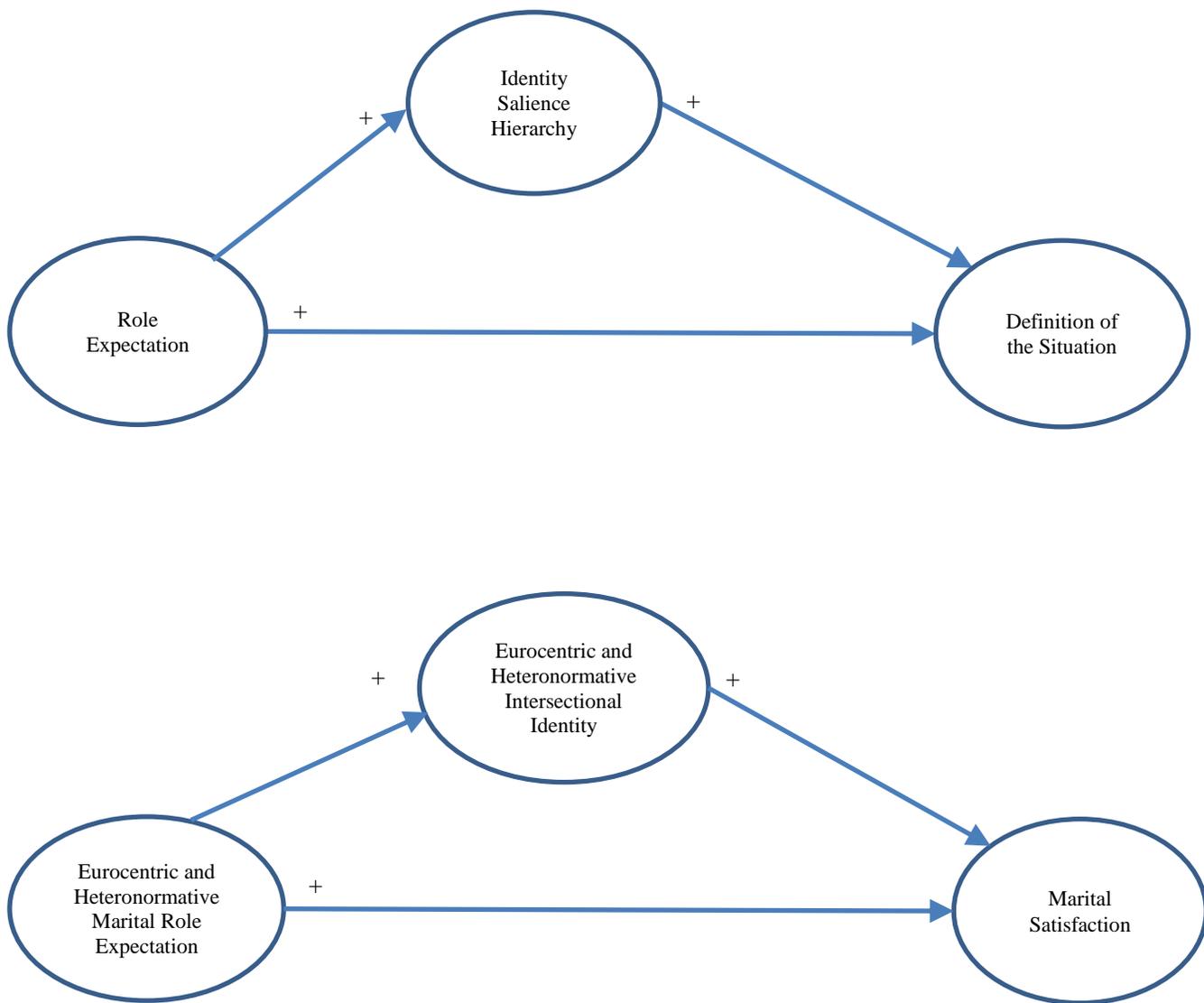
Figure 6. Using symbolic interaction theory with critical race feminism to predict marital satisfaction.

APPENDIX A

Assessment of learning from reading - symbolic interaction

1.   Describe in 3-4 sentences the main "gist" of the symbolic interaction theoretical perspective **as it can be applied to families**.

2.   List and define 6 most central constructs of the symbolic interaction perspective.

        Please give an example for each, one other than that given in the reading.

3.   Identify and briefly discuss 2 key assumptions of the SI perspective. Do one at a time with about 2 sentences of discussion for each assumption.

4.   Describe how society is viewed from this theory.

5.   Describe of the concept "the self" from a symbolic interaction perspective.

6.   Interpret (explain) the following finding using principles from the theory: Husbands scored higher on marital satisfaction than did wives. Use at least 3 constructs and/or propositions in your response, and please make sure you explicitly identify each theoretical concept and proposition you use in your interpretation. Please make sure you think of your explanation as an untested mediator rather than moderator, as we detailed in our class discussion.

7.   Write a hypothesis that is derived from symbolic interaction theory. Please explain in several sentences why this represents an SI perspective (in other words, make your deductive thought transparent). Please make sure that you explicitly identify each theoretical construct and proposition you use in your creation of the hypothesis. Novel part for this week: Please have this be a bivariate hypothesis in which the IV is categorical and the DV is continuous.

Please use Arial 11 font. You can single space within response and double space across responses. Please limit your response to about 2-3 pages. Please put your name on a separate page and use another separate page for used citations (in APA format). This is due by the beginning of class time on February 10.