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BECOMING A MOTHER: IDENTITY ACQUISITION DURING THE
TRANSITION TO PARENTHOOD

by

Kathleen A. Ethier

A dissertation submitted to the Graduate Faculty in
Psychology in partial fulfillment of the requirements for
the degree of Doctor of Philosophy, The City University of
New York.

1995

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Abstract

BECOMING A MOTHER: IDENTITY ACQUISITION DURING
THE TRANSITION TO PARENTHOOD

BY

Kathleen A. Ethier

Advisor: Professor Kay Deaux

The process of identity acquisition is examined in a longitudinal study of women making the transition to motherhood. The growth and development of the mother identity during pregnancy, and the relationship between a mother identity and a pregnancy identity, the latter conceptualized as a threshold identity, are explored. Second, the influence of both active identity work (i.e. pregnancy planning, specific information-seeking, and social acknowledgement), and feedback from external or direct sources (i.e. physical signs and symptoms and infant temperament) on the definition of threshold and goal identities, the importance of these identities, and self-related feelings about pregnancy and motherhood are examined. The potential predictors of the mother identity

after childbirth (e.g. social comparison) are also assessed.

Results indicate that the majority of women begin to define themselves as mothers during pregnancy, that this identification increases in importance and elaboration across the transition, and that women feel more confident about their abilities after childbirth. At the same time, women decrease their identification with non-familial roles and identities. In addition, the majority of women named a threshold identity, although the how this identity was labeled and defined varied. Some women named separate pregnancy and mother identities during pregnancy, however, other women combined these identities into a "mother-to-be" identity. Variation in these patterns was associated with feelings about pregnancy.

Active preparation for pregnancy was associated with identification of oneself as a mother and positive feelings about pregnancy and motherhood early in the transition. The most important predictors of newly acquired identity are external feedback (conceptualized in this study as infant temperament), time spent performing role behaviors, and social comparison with other mothers.

The results of this study provide insights into the process of identity acquisition for women in the transition to motherhood: the patterns of how women begin to identify themselves as mothers, the presence of a threshold identity, and the role of particular types of identity work and external feedback in identity acquisition. They also raise questions about the meaning of the labels women use to define their identities and the role of preparation and social interaction in the acquisition process.

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The most significant events in our lives are those that lead to a fundamental change in our definitions of ourselves. The death of a spouse, the birth of a child or a change of career each exemplifies a transition that involves a definition or redefinition of self. Although major life transitions have been the subject of study (Ruble, 1993; Ruble & Seidman, in press), the process of self-definition during these major transitions has not.

The current study attempts to fill this gap by examining the process of self-definition during the transition to motherhood. This period is chosen because of both the quantity of literature on this transition as well as its acknowledged implications for the self. According to Antonucci and Mikus (1988), "the birth of a first child ushers in a period of disequilibrium and reorganization; it is a period that includes...the definition, creation, and integration of new roles and relationships" (p. 63). Although not all women make the commitment to become mothers, the attainment of this role is seen as a sign of adulthood (Shereshefsky & Yarrow, 1973) and womanhood (Gerson, Alpert, & Richardson, 1984).

The objectives of this study are to explore questions concerning identity acquisition, framed in theories of identity. This research will take a longitudinal perspective, following individuals involved in a transition from before to after a significant life event. Changes in existing identity structure and processes of the acquisition of a new identity within the transition to motherhood will be examined.

Identity and Acquisition

The term identity refers to a sense of self-definition or self-categorization. Identities are the response to the question "who am I?" (Stryker & Serpe, 1982); implicit in this definition is the assumption of the multiplicity of the self. People define themselves in a variety of different ways, including age, gender, racial or ethnic group membership, membership in social organizations and relationships with significant others (Ethier & Deaux, 1990). Identity refers to those particular self-definitions that are attached to social relationships (Stryker & Serpe, 1982) and group membership (Tajfel, 1981). Identities are comprised of sociocultural role expectations and individual attributes (McCall & Simmons, 1978; Rosenberg & Gara, 1985).

Along with the labels that individuals ascribe to themselves and the meanings of those identifications, definitions of self also include the perceived importance of that relationship or group membership (Tajfel, 1981; Stryker & Serpe, 1982), attitudes or feelings about the identity and/or evaluation of the self in the identity (McCall & Simmons, 1978), and a sense of identification with others who share group membership (Tajfel, 1981; Turner, 1987). Identities are assumed to be arranged in a hierarchy that includes the set of identities, their content and their interrelationships (Rosenberg & Gara, 1985; Stryker & Serpe, 1982). An identity's position in the hierarchy is based on the degree to which it shares meaning with other identities within that same structure. According to Rosenberg and his colleagues (Ogilvie & Ashmore, in press; Rosenberg & Gara, 1985), identities are elaborated to the degree that they appear prominently in an individual's identity structure and have more associated characteristics. These different aspects of self-identification have been assessed individually in studies of identity, but are generally not explored collectively.

The study of identity can not be complete without an understanding of how individuals acquire and define identities. Although identity change has received some attention (Ethier & Deaux, 1994), there has been no systematic study of the acquisition of new identities or the factors that might affect this process.

The first question to be addressed in the study of identity acquisition concerns the nature and onset of this process. Several theorists suggest that the process of self-definition is active (Deaux, 1991), that individuals socialize themselves into new identities (Ruble, 1993) and that this process may begin long before the individual actually possesses the new identity (Markus & Nurius, 1986; Markus & Ruvolo, 1989).

The concept of the active attainment of new identities is an important one. It suggests that new definitions of self are not simply added to the self, but are defined by the individuals over time and with experience. Thus, as individuals learn what it means to be an "X", decide how they want to be in that role, let others know they are taking on the identity, and begin to perform the behaviors associated with the identity, the definition, importance and

feelings about that identity will increase and become more positive.

That this process of definition begins before the individual is actually performing the behaviors associated with the identity also has important implications. Markus and her colleagues use the term "possible selves" to describe how we begin to define ourselves before we take on a new role. Possible selves are the selves that we would like to or could become, or are even afraid of becoming. Research on possible selves has focused mainly on their implications for task performance (Ruvolo & Markus, 1986), delinquency (Oyserman & Markus, 1988) and health (Hooker, 1992). In terms of its implications for identity acquisition, research on possible selves suggests that the possession of a possible self in a particular arena will lead to feelings of success in the new role (Markus & Ruvolo, 1989).

Thus, during the acquisition of a mother identity, women actively prepare to take on this new role. They will begin to define themselves as mothers during pregnancy (Leifer, 1977), and women who begin this process before they actually become mothers will feel more confident about their

abilities once they begin the role. The new identity will also increase in importance over the course of the acquisition process and will also become more positively evaluated over time.

The role of preparatory identities in the acquisition process: Threshold identities. Given the premise that individuals actively prepare to take on new identities, the preparatory period during which they begin this process will be very important. Identity acquisition is often quite structured with either physically or culturally prescribed preparation periods. These periods often have distinct identities associated with them. For instance, a doctor first has to be a medical student, then an intern and then a resident. Similarly, a woman is usually pregnant before she becomes a mother. Although other scenarios are possible (e.g., adoption, people entering a profession without the formal education that usually goes along with it), most goal identities (identities that are worked towards or achieved) seem to have preparatory periods.

Thus, I propose the concept of the "threshold" identity. Although theory and research have explored the implications of people's thoughts of themselves for the

future (i.e., Markus' notion of possible selves), no one has examined identities associated with particular preparatory periods (e.g., student). Further, no research has studied the implications of identities that are preparatory to the goal identities for which individuals are preparing themselves.

What is the nature of a threshold identity? First, it is an identity in itself. It has role-related and idiosyncratic content, importance, and self-evaluation associated with it, even though its purpose is to prepare for another identity. For instance, some role expectations related to being a student (e.g., taking tests, studying) have little to do with the future professional identity for which one prepares. The identity of student has importance in its own right that may have little to do with the future professional identity. Further, an individual's feelings about the student identity and self-evaluation in that role may be quite different from later feelings about one's professional identity. Although many features between the threshold identity and the goal identity may overlap, the two are separate identities.

Second, a threshold identity involves two sets of tasks, one having to do with the threshold identity (e.g., pregnancy, student) and the second having to do with the identity for which one is preparing (e.g., mother, doctor). The person is not only acquiring the information and skills needed to be a student (e.g., what classes to take, what foods to avoid while pregnant) but also the information and skills needed to acquire the goal identity (e.g., how to conduct a physical exam, how to change diapers).

Third, threshold identities typically fade out of the identity structure once the preparatory period is over. They are specific to the temporary, preparatory period and are left behind after this period is complete

The concept of a threshold identity is useful in several ways. First, it bridges the gap between possible ways individuals may see themselves in the future and an identity that one is actively preparing to take on. For instance, an adolescent may envision the possibility of becoming a doctor, an athlete, or a teacher in the future. Although these possible selves can have implications for the paths a person may take, it is the behaviors associated with the student identity that make the acquisition of these

future identities possible. Second, although some consider the self to be quite stable (Swann, 1983), threshold identities represent change. Because they are temporary, threshold identities can provide information about how individuals move through periods of change and life transition.

During the transition to motherhood, pregnancy will serve as the preparatory period and women will identify in terms of pregnancy as a threshold identity. Research on pregnancy has focused mainly on the stresses experienced by pregnant women, the development of maternal feeling, changes in relationships with significant others during pregnancy, and psychological adaptation (Albeit, 1975; Ballou, 1978; Flapan & Schoenfeld, 1972; Grossman, Eichler & Winickoff, 1980; Leifer, 1977; Lobel, 1994). There has been little research on the relationship between pregnancy and identity.

As a whole, the process of identity acquisition is proposed to be one of growth, taking place across a period of transition. Individuals are hypothesized to work actively toward the attainment of new identities or roles in their lives and to begin this process before they actually possess the new role. In the case of the transition to motherhood,

women will begin to define themselves as mothers during pregnancy. As predicted by theories of possible selves (Markus & Ruvolo, 1989), this early identification with motherhood will lead women to feel confident in their abilities as a mother. At the same time, women will acquire a pregnancy identity that serves as a "threshold identity". This pregnancy identity will have implications for the mother identity, although the nature of that relationship is yet to be determined.

Identity work

With the proposition that individuals are active in the attainment of new identities, the next set of questions in the study of identity acquisition concerns the nature of these acquisitional activities. According to Deaux (1991), considerable "identity work" goes on between the point at which a person imagines him or herself to be a doctor, an electrician, or a parent, makes a commitment to attaining that identity, and actually acquires that identity. Several forms are suggested for this work, including the decision to take on the new category, the search for relevant information, and letting significant others know that one is taking on a new identity. The degree to which individuals

perform these behaviors will be related to the degree to which they identify with the new role and how positively they feel about the new identity. The following is a detailed discussion of each of these possible types of active identity work and the form they would take in the study of identity acquisition in the transition to motherhood.

Planning. According to Deaux (1991), the first step in beginning the work necessary to construct an identity is the decision to define oneself in terms of that category. Although people may be forced to take on identities that they do not want or have not sought out (e.g., widowhood), the preparation for a new role indicates that thought and effort were put into the new identity. This effort may have implications for its importance and one's feelings about the new identity. Although no research thus far has examined the effect of planning on the definition, importance, or feelings associated with a new identity, a long history of research on attitude change suggests that activity on behalf of a position increases commitment to that position (e.g. Aronson & Mills, 1959). Thus, it would be expected that the

degree to which women plan to acquire an identity will increase their commitment to that identity.

In terms of the transition to motherhood, the degree to which women plan their pregnancies and the impact of this planning on identification with and feelings about motherhood has not been widely examined. Data on whether women plan their pregnancies are quite conflicting; in some samples the majority of women did not plan their pregnancy and in others most women planned their pregnancy (Lobel, 1994). This inconsistency may be partly a consequence of measurement. Planning is often viewed as a dichotomous concept: either the pregnancy was planned or it was not. It may be more relevant to examine the degree to which women plan their pregnancy. For instance, women who stop using contraceptives, although certainly not putting effort into avoiding pregnancy, may not be actively seeking to become pregnant. The development of identity for these women may be very different from those who read books on the subject, take their temperature every day to know when they are ovulating, or even plan their pregnancy for a particular time. Thus, knowing the degree to which women plan their pregnancies may have important implications for identity.

The acquisition of relevant information. Ruble (1993) suggests that as part of the active socialization into new roles, individuals seek relevant information to those new roles. This information can come from a number of sources and varies according to the type of transition. In examining the transition to motherhood and the development of maternal self-definition, Deutsch and her colleagues (Deutsch, Ruble, Fleming, Brooks-Gunn & Stangor, 1988) found that women actively seek information in anticipation of a first birth and use this information to construct identities incorporating motherhood. This information was most likely to come from books, emphasizing the active nature of the search for information.

The search for information will be particularly important during the preparatory period because individuals cannot learn about the new identity through the performance of the behaviors associated with the new role. It is through this search for information that individuals discover what it is like to have the new identity.

During the transition to motherhood, women will seek information about pregnancy and motherhood; this information

in turn will influence the definition, importance and feelings about those identities.

Social acknowledgement. Because identities are social in nature, other people will play a significant role in the development of a new identity. According to Gollwitzer (1986), social acknowledgement of the possession of a particular identity influences the acquisition of that identity. We display the symbols of an identity so that others will recognize our possession of that new role. Thus, the degree to which (a) we discuss our new identities with others and (b) others acknowledge our possession of a role will be related to the importance and positive feelings about that identity. No research, thus far, has examined the impact of social interaction on identity acquisition. However theory would suggest that increased social interaction about pregnancy and motherhood would be associated with the definition, importance and feelings about those identities (Gollwitzer, 1986).

Feedback on role performance

After identities are acquired, we learn about ourselves by performing the behaviors associated with the role and from the direct feedback that we receive (Deutsch, Ruble,

Fleming, Brooks-Gunn & Stangor, 1988). While preparing for a new identity, individuals are not yet acting out the duties associated with that role, but are performing the behaviors required of the threshold identity. Therefore, the most influential external feedback will be specific to the threshold identity during the preparatory period and oriented to the goal identity after the transition.

In the transition to motherhood, external feedback could take several forms. During pregnancy, feedback on how the pregnancy is progressing might not come from another person, but instead from physical signs and symptoms. Physical evidence (e.g., morning sickness, weight gain, fetal heartbeat, sonograms) helps the pregnant woman to feel that she is really pregnant (Gloger-Tippelt, 1983). However, it also appears that excessive physical symptoms can lead women to feel negatively about their pregnancy (Flapan & Schoenfeld, 1972). These effects may be dependent on the point during pregnancy at which they are measured. Early in pregnancy when physical signs are more moderate, they may be positively related to identity, whereas, late in pregnancy, when these symptoms may be more physically uncomfortable they are related to more negative feelings.

After childbirth, the most important information appears to be infant temperament (Deutsch, Ruble, Fleming, Brooks-Gunn & Stangor, 1988). Infant temperament is especially important in terms of self-evaluation in the mother role. Reilly, Entwisle and Doering (1987) examined changes in women's evaluation of themselves in the maternal role and looked for a relationship among those changes, infant adjustment and husband's involvement in child care. Although husbands' involvement was not related to self-evaluation, a downward shift in self-evaluation was related to infant adjustment. The fussier the baby was, the more negative the mother's evaluation of herself in the maternal role became. Deutsch and her colleagues (Deutsch, Ruble, Fleming, Brooks-Gunn & Stangor, 1988) found similar results.

Thus, feedback on how one is doing in a new identity -- direct or inferred -- has implications for definitions of the identity and feelings about one's performance in the role. The impact of this feedback will be specific to the threshold identity during the preparatory period and to the goal identity after the transition. It will also be particularly influential on self-related feelings about the identity.

Predictors of the goal identity

The end result of the identity acquisition process is the goal identity. Much of the definitional work of this identity begins before the transition. Given this assumed connection, several questions remain about the actual pattern of the relationship. First, what is the relationship between the identity as defined during the preparatory period and the same identity once the individual is actually performing the behaviors associated with the new role? According to Markus and Ruvolo (1989), the possession of a possible self leads to feelings of success in a new role. Thus, in terms of the transition to motherhood, it would be expected that women who defined themselves as a mother during pregnancy would feel more confident about their abilities as a mother after childbirth.

In addition to these factors, several other factors theorized to influence the definition, importance and self-evaluation associated with identities will also have an impact on the goal identity. These additional factors include comparison with other members of one's social group and the amount of time spent performing the behaviors associated with the identity.

Identification with other group members is an important aspect of identity (Tajfel, 1981). This identification can serve several functions for individuals (Forsyth, Elliot, & Welsh, 1990). One function that a social group can serve is as a source of social comparison. We not only look to other individuals who share membership in a category for support and information, but also as a means to "find out how we're doing" based on how other group members are faring in similar situations. Thus, for new mothers, social comparison with other women who are mothers will make women feel better about their abilities if they feel they are doing better than other women and will lead to more negative feelings about the self if they feel they are doing worse than other women who are mothers.

Individuals do not perform the behaviors associated with a particular identity in a vacuum; they have multiple identities and may have commitments that compete with the new identity. These other commitments may have an impact on the amount of time and energy that a person devotes to a new identity. Although the relationship between the amount of time a person spends performing the behaviors associated with an identity and the importance or feelings about the

identity has not been examined, theories on role commitment and identity salience (Stryker, 1987) would suggest a relationship between these factors.

Summary and research questions

Theory on identity acquisition and research on the transition to motherhood suggest a picture of the identity acquisition process during a major life transition. Figure 1 presents a schematic of this process.

Individuals are proposed to begin the definition of their goal identity during a preparatory period and this identification will strengthen throughout the transition. In addition, the transition period will also be the arena for a threshold identity that will fade when the transition is complete. Individuals will also proceed with active "identity work" in the form of specific planning, information-seeking and social acknowledgement. This active identity work will have an impact on the definition, importance and feelings about the threshold and goal identities. In addition, feedback on role performance from external or direct sources will influence identity. This feedback will be particularly influential on the definition

of the threshold identity during the preparatory period and on the goal identity after the transition.

The final goal identity will be influenced by several factors in addition to active identity work and external feedback. Social comparison with other group members and the amount of time spent performing the behaviors associated with the new identity are two factors that are predicted to influence the goal identity.

The current study examines identity acquisition during the transition to motherhood at three points in time. (See Figure 2). First, I will explore (a) the growth and development of the mother identity during pregnancy, and (b) the relationship between a mother identity and a pregnancy identity, the latter conceptualized as a threshold identity. Second, I will examine the influence of both active identity work (i.e. pregnancy planning, specific information-seeking, and social acknowledgement), and feedback from external or direct sources (i.e. physical signs and symptoms and infant temperament) on the definition of threshold and goal identities, the importance of these identities, and self-related feelings about pregnancy and motherhood. Third, I will examine the potential predictors

of the mother identity after childbirth. Specific variables to be assessed include infant temperament, social comparison with other women who are mothers, and the amount of time spent performing the behaviors associated with the new identity.

This study will fill several major gaps in the existing literature on self and identity and on the transition to motherhood. First, there is a lack of research on the process of identity acquisition and the range of factors that may affect this process. In addition, the speculation that active identity work may influence the process is an important one in the study of identity acquisition and change (Deaux, 1991). Also, little research has examined self-definition during the transition to motherhood. Because this research also synthesizes theory on self and identity with research on the transition to motherhood, it will advance what is known about both topics.

Specific Hypotheses:

1. Identity Acquisition

Women will begin to define themselves as a mother during pregnancy and this identity will increase in importance and become more positive across the transition.

In addition, women will define themselves in terms of a pregnancy identity. The relationship between the threshold and the goal identity (i.e., pregnancy identity and mother identity) will be explored. In particular, relationships between the rated importance, structural variables, and self-related feelings about pregnancy and motherhood will be examined.

2. Active identity Work

Three sources of active identity work will be examined:

A. Planning: The degree to which women plan their pregnancies will be related to whether women define pregnancy and mother identities, the importance they assign to these identities and to how positively they feel about pregnancy and motherhood. The more the pregnancy was planned the more likely women will be to name pregnancy and mother identities, to rate these identities as important, and to feel more positively about them.

B. Information-seeking: Women who seek more information about pregnancy and motherhood will be more likely to define these identities, to rate them as important, and to feel positively about them.

C. Social acknowledgement: Women who interact more with others concerning pregnancy and motherhood will be more likely to name these identities, to rate them as important, and to feel positively about them.

3. External signs and information

Women will receive "feedback" from several sources during pregnancy and after childbirth and this feedback will be related to whether they name pregnancy and mother identities, the rated importance of those identities and self-related feelings about pregnancy and motherhood. This feedback will be specific to the threshold identity during the preparatory period and to the goal identity after the transition.

A. The relationship between the experience of physical signs and symptoms and identity will be dependent on the time at which they are measured. Early in pregnancy these signs will be positively related to identity; women who experience physical signs and symptoms of pregnancy will be more likely to name pregnancy and mother identities, to rate these identities as important and to feel positively about pregnancy than women who experience very few of these markers. Late in pregnancy, however, the experience of

excessive physical symptoms will lead to negative feelings about pregnancy.

B. After childbirth, women who have "easier" babies will rate their mother identity as more important and will feel more positively about themselves as a mother.

4. Predictors of goal identity

Several factors, in addition to active identity work and feedback, will predict the importance of the newly-acquired mother identity and feelings of confidence about oneself in the new role after childbirth:

A. The degree to which women possessed a mother identity during pregnancy (i.e., had a possible self as a mother) will predict feelings of confidence after childbirth.

B. Women who engage in downward social comparison will feel more positively about themselves in this role.

C. Women who spend more time caring for their new infant will rate that identity as more important and will feel more positively about themselves as a mother.

5. Exploratory analyses of identity structure.

Although the emphasis of this investigation is on the process of identity acquisition, consideration of the

structure of each focal identity, i.e. pregnancy and mother, is another question of potential interest. Available methodology allows an analysis of structural issues, including the position of each identity within an overall identity structure (Rosenberg & Gara, 1985). The present study will include an examination of structural patterns of identity. Because this area is so uncharted, these efforts will be only exploratory and no hypotheses are offered.

Method

The current study examined the process of identity acquisition during the transition to motherhood. The role of threshold identities in this process and the influence of identity work and external feedback on identity acquisition are examined over the course of the transition from early in pregnancy to after childbirth.

Participants

Fifty-one pregnant women were recruited through several means: a private obstetrician and a prenatal clinic, signs posted on bulletin boards at a university and in several places of business, and word of mouth. The requirements for participation were that the woman be less than 16 weeks pregnant with her first child, currently have a spouse or spouse equivalent, and speak English. Most of the women (77%) lived in the New York City area (including New Jersey, Westchester County and Long island).

The sample of women was predominantly white (80%). The remaining women were African-American (6%), Hispanic (8%), Asian-American (2%), Native American (2%), and Indian (2%). Their ages ranged from 23 to 40 with a mean of 30.1. The

median family income level was \$60,000 to \$79,999. The women were, in general, well educated: 82.3% of the women had at least a college degree. Of that number, 39.2% had a graduate degree. All of the women were employed outside the home at the time of the first interview.

Procedure

Each woman was interviewed on three separate occasions: (a) at the end of the first trimester or the beginning of the second trimester of pregnancy (12 to 16 weeks); (b) during the third trimester of pregnancy (32 to 38 weeks); and (c) 3 months post- partum. At Time 1 the interview was conducted in person, either at a university office or in the woman's home; Time 2 and 3 interviews were conducted over the telephone.

The procedure was the same at all three measurement occasions: During the interview, women were asked to name all of the identities they currently had and then to list the characteristics that they associated with themselves in each of the identities they named. They were also asked to rate the importance of each identity and to rate how different their life would be if they did not have each identity. After the interview a packet of questionnaires

was sent to the participant's home. The participant completed these measures and mailed them back to the investigator. If the materials were not received within two weeks, the participant was contacted by phone and reminded to complete the measures. The women were paid \$50 for their participation in all three interviews (\$15 each for Times 1 and 2, and \$20 for Time 3). Fifty-five women completed Time 1, fifty-three women completed Times 1 and 2 and fifty-one women completed all three interviews. The overall (i.e. across the three measurement occasions) dropout rate was 7.2%.

Measures

The following domains were measured in this study: threshold and goal identities; self-related feelings and attitudes about pregnancy and motherhood; active identity work; feedback from direct or external sources; and other predictors of the goal identity, including social comparison and time spent performing the behaviors associated with the new identity. Table 1 provides a list of the measures used in this study and the times at which they were administered.

Threshold and Goal Identities

The definition of threshold and goal identities, i.e., the pregnancy identity and mother identity, and the importance of those identities were assessed as part of an analysis of all of the identities women named during their pregnancy and immediately following childbirth. The range of identities women named and the structure of those identities were assessed using a technique developed by Rosenberg and his colleagues (DeBoeck & Rosenberg, 1988; Rosenberg, 1977; Rosenberg & Gara, 1985). It entails asking participants to name all of the identities they currently have, to list the attributes or characteristics they associate with each identity, and to rate the importance of each identity. Three aspects of threshold and goal identities were derived from this part of the identity interview: label, importance, and the number of attributes women named for the identity.

Identity label. The definition of threshold and goal identities was measured by recording whether women named either a pregnancy or mother identity spontaneously during each of the identity interviews. If a woman did not name the pregnancy or mother identity, she was asked specifically about these identities. Although this probe increases the

incidence of these identities being reported, research has shown that the probe does not lead to a universal endorsement and that individuals feel free to indicate that they do not identify with a particular category (Ethier & Deaux, 1994). Whether women named a pregnancy and/or mother identity was coded as 0 if they did not endorse the identity and 1 if they did. Pregnancy and mother identity were for the first two interviews (during pregnancy); only mother identity was assessed after childbirth.

Identity importance. In this study, importance was assessed both directly and indirectly (Rosenberg & Gara, 1985). Participants were asked to rate how important each identity they named was on a seven-point scale, with 1 being least important and 7 being most important. Importance was also measured by responses to the question "If you were to wake up one morning to find that this identity had been taken away or had lost its significance, how much would your life be affected?" This question was also answered on a 1- (not at all) to 7 (extremely)-point scale. Because women were specifically asked if they had an identity as a pregnant woman or a mother, the rated importance of these identities was coded as 0 if the woman declined to name the identity.

This approach has been used in other research (Ethier & Deaux, 1994). Although it strongly ties the rating of importance to whether individuals name the identity in question, it is reflective of the importance of the identity to them at that particular time (i.e. declining to name an identity when specifically asked about it implies that the identity is not important to the person).

The ratings of the two importance questions were highly related, with correlations ranging from .69 to .99 across the various identities. Thus, the two questions were summed to form a single index of identity importance for each identity. Table 2 presents the descriptive statistics for this index for the pregnancy, mother, and mother-to-be identities across all three measurement occasions.

Attributes associated with an identity. The number of attributes women named in the description of their threshold identity was used as one measure of the elaboration of that identity. Rosenberg and Gara (1985) define elaboration as the various ways identities are experienced and enacted. The more varied the experiences a person has with a particular identity the fuller and broader it is. An identity that is more elaborated will, therefore, have more

associated features. Table 3 presents descriptive information for this variable.

Identity structure, elaboration, and integration.

Individual identity structures and several other aspects of identity derived from these structures were measured and examined. The individual identity structure was assessed by a continuation of the identity procedure used to elicit identity labels and importance and through the use of hierarchical classification analysis (HICLAS) (DeBoeck & Rosenberg, 1988).

After participants named all of the identities they currently had and the characteristics they associated with those identities, they then rated the degree of association between each identity and each attribute on a scale of 0 (never applies to the identity), 1 (sometimes applies to the identity), or 2 (always applies to the identity).

A binary matrix of association was derived from these ratings by collapsing assigned ratings of 1 and 2. This "object X attribute" matrix was then analyzed using the Hierarchical Classes Analysis developed by DeBoeck and Rosenberg (1988) based on a hierarchical classes model. The goal of the algorithm is to recover the underlying

hierarchical structure of objects (in this case identities) and their descriptive attributes (De Beock & Rosenberg, 1988).

Identities are subdivided into "object classes" based on shared attributes. Identities appear in the same class when they are defined by the same attributes. Likewise, attributes are clustered into "attribute classes" based on the identities to which they are associated. Hierarchical relationships between the classes are determined also based on shared attributes. Classes at lower levels of the hierarchy are subsets of those at higher levels of the structure because the attribute classes associated with identity classes at lower levels are subsets of attribute classes associated with identity classes at higher levels.

The hierarchical structure is overlapping, that is, a lower class may be a subset of more than one equally ranked higher class. At the highest level in the structure are classes that subsume all of the classes at lower levels. These are identities that share attributes with all of the other identities in the structure. Because the order or level of classes is descriptive of the relationships between classes, pairs of classes are incomparable when they both

appear at the same level and neither class is above or below the other in the hierarchy.

The goal of the HICLAS algorithm is to produce a structure that best fits the data by minimizing the discrepancies between the original data matrix and the solution. The number of possible levels and the number of possible classes within each level is based on the "rank" of the solution. The concept of rank in HICLAS is analogous to the dimensionality of a multidimensional scaling model. In the data analytic procedure it is chosen by the researcher. In specifying the number of ranks, the goal is to produce a structure that is clear and interpretable (i.e. parsimonious), but to also have a structure that represents the data. The HICLAS program provides a goodness-of-fit ratio based on a comparison of the obtained pattern with an "ideal" pattern in which all pieces "fit" into the model. Goodness-of-fit ranges from 0 to 1 and a ratio of greater than .70 is generally acceptable (Rosenberg, personal communication). Goodness-of-fit usually increases as the number of specified ranks increases, although it may not increase enough to warrant the loss of interpretability. Thus, a higher number of ranks resulting in a more elaborate

structure which might better fit the data may be more difficult to determine and interpret. In most research using HICLAS, three ranks have been used (Ogilvie & Ashmore, in press); thus, three ranks were used in this study.

Figure 3 is a hypothetical example of a rank three structure derived through the use of HICLAS. HICLAS produces two individual, yet related structures; the hierarchical structure of identity classes appears in the top half of this figure and the hierarchical structure of attribute classes appears in the bottom half of the figure. The three numbers above each box represent the connections between the different clusters of identities and their associated attribute classes. The number of 1s that appear in this three digit number represents the level at which the identity appears: boxes with a single 1 are in the first level, two 1s in the second level, and three 1s in the third level. This number also represents the superset/subset relationships between the classes. Identities are supersets of those identity classes at lower levels with which they share a 1 in the same position. For instance, in this structure "mother" (101 cluster) is a superset of "teacher" and "researcher" (in the 100 cluster) and with "wife",

"aunt", and "friend" (in the 001 cluster). These identity clusters at lower levels are subsets of the cluster containing "mother". Attribute classes are associated with any identity that has a 1 in the same position. Thus, "Latina" (in the 010 cluster) is associated with the 010, 110, 011 and 111 attribute classes.

The output from HICLAS can be used to measure several concepts. According to Rosenberg and Gara (1985), a particular identity is elaborated to the degree that it has more features associated with it and appears at a higher level in the structure. Thus, in addition to the number of attributes given for an identity during the identity interview, the number of attribute classes associated with an identity within the HICLAS structure, and the level at which an identity appears in the structure provide information about the degree to which an identity is elaborated. (See Tables 4 and 5 for descriptive statistics associated with these variables.)

According to Stryker (Stryker & Serpe, 1982) an individual is committed to a particular role to the degree that a larger number of other relationships are dependent on the possession of that identity (extensivity). Within the

individual's identity structure, this concept might be operationalized as the number of other identities to which a particular identity is connected. In this study, the number of other identities connected to a particular identity was measured through the use of the HICLAS structure. The degree to which a particular identity is connected to or integrated within the structure (integration) was measured by coding the number of other identities that appear in the same identity cluster or in a connected lower cluster. (See Table 6 for descriptive statistics on this variable).

Self-related feelings and attitudes

Feeling, attitudes and beliefs about the identities we possess and our evaluations of ourselves in these identities are an important component of identity. In this study these concepts were measured for the two identities of interest, pregnancy and mother identities, using three scales, two assessing positive and negative feelings about pregnancy and one measuring worries and feelings of self-confidence about motherhood. To develop items for some of these scales, pilot interviews were conducted with women who were pregnant with their first child or who had recently become mothers. The scale used to measure attitudes toward motherhood has

been used in previous research on the transition to motherhood (Deutsch, Ruble, Fleming, Brooks-Gunn & Stangor, 1988; Ruble et al., 1990). (See Appendices A and B for the entire list of items.)

Positive feelings about pregnancy. This scale, consisting of 11 items, was developed from pilot interviews. It was designed to assess positive feelings participants had about their own pregnancy on a variety of dimensions, including physical condition (e.g., "Physically, I feel wonderful being pregnant"), affective reactions (e.g., "I really enjoy being pregnant") and relationships with others (e.g., "My relationship with my husband/partner has really improved since I've been pregnant"). Participants rated the degree to which they agreed or disagreed with each item on a scale of 1 (strongly disagree) to 7 (strongly agree). Table 7 presents the means, standard deviations, ranges, and reliability coefficients for this scale.

Negative feelings about pregnancy. This scale consisted of 11 items and was developed from pilot interviews. It was designed to tap difficulties and negative feelings the woman was having about pregnancy, including physical condition (e.g. "Physically, I don't feel

well) and social relationships (e.g. "I don't like people patting my stomach"). Participants rated the degree to which they agreed or disagreed with each item on a scale of 1 (strongly disagree) to 7 (strongly agree). Table 7 presents the means, standard deviations, ranges, and reliability coefficients for this scale.

The Positive Feelings About Pregnancy Scale and Negative Feelings About Pregnancy Scale were not highly correlated; correlations ranged from $-.31$ to $-.43$. The alpha coefficient for a combination of these two scales was $.57$, lower than those for each of the separate scales.

Worries and confidence about motherhood. Two subscales from the Childbearing Attitudes Questionnaire (Ruble et al., 1990) were used to measure self-related feelings about motherhood. Maternal worries were measured by six items that assess worries and anxieties about becoming a mother (e.g. "I am concerned that I will not know what to do when my baby cries"). Maternal self-confidence was assessed by four items measuring the individual's feelings of competence about being a mother (e.g. "I am certain that I will be a good mother"). Each item is rated on a 1 (strongly disagree) to 7 (strongly agree) scale. Table 8 presents the means, standard

deviations and ranges for these scales. Table 9 presents the reliability coefficients for these scales as well as the comparative reliability coefficients from Ruble et al. (1990). These scales were highly correlated; correlations coefficients for the relationship between these two scales ranged from $-.53$ to $-.64$ at the three measurement occasions and, therefore, they were combined into a single scale referred to from here as the Attitudes Toward Motherhood Scale. When the scale was combined, the items that measured worries about motherhood were reversed, so that higher scores on the new scale represent positive attitudes toward motherhood and lower scores indicate negative attitudes toward motherhood. The alpha for this combined scale was $.83$.

Active identity work

Three aspects of active identity work were assessed in this study: the degree to which women planned to enter the transition to motherhood; the degree to which they sought information about pregnancy and motherhood; and their social interaction with others around the topic of pregnancy and motherhood.

Planning. The degree to which women planned their pregnancy and how important they felt it was to get pregnant were measured with two 5-point Likert-type scales (1 = not at all, 5 = a great deal). These two items were highly correlated ($r(51) = .51$, $p < .001$) and were, therefore, combined into a single index.

Information-seeking. The degree to which women sought information about pregnancy and motherhood was assessed with the 12 information topics and 10 information sources used by Deutsch, Ruble, Fleming, Brooks-Gunn and Stangor (1988); three additional topics were added by the investigator. This scale has three subscales: Information about Pregnancy (5 items), Information about Labor and Delivery (4 items), and Information about Motherhood (6 items). (The three additional items were added to the Information about Labor and Delivery subscale, which was originally only assessed with one item.) Participants were asked to rate, on a 1 to 7 scale, the degree to which they sought information on the 15 topics. (See Appendix C for the entire list of items.) Table 10 presents descriptive statistics for this scale as well as comparative reliability coefficients from Deutsch, Ruble, Fleming, Brooks-Gunn and Stangor (1988).

Social Acknowledgement. Women's interactions with other people as related to pregnancy and motherhood were assessed using a scale developed from pilot interviews. The Social Acknowledgement scale consisted of 9 items concerning interactions with significant others during pregnancy (e.g. "People ask me many questions about my experiences being pregnant"). Items were scored in a direction indicating higher levels of social interaction around pregnancy and motherhood; items that concerned lower levels of social acknowledgement were reversed. Table 11 presents the descriptive statistics for this scale and Appendix D contains the entire list of items.

Feedback from direct or external sources

The degree to which women received feedback about their pregnancy from direct sources was measured with the Physical Signs and Symptoms index. Women were asked to indicate whether or not they had experienced each of ten physical markers of pregnancy: some weight gain or extensive weight gain, some nausea or extensive nausea and vomiting, hearing the fetal heartbeat, having a sonogram (fetus not visible or fetus visible), headaches, back pain, some baby movement and extensive baby movement. The number of these markers they

had experienced were totaled to become an index of physical symptoms. Descriptive statistics for this scale are presented in Table 12.

Previous research has shown that women use the temperament of their infant as an indication of their abilities as a mother (Reilly, Entwistle, & Doering, 1987). Infant temperament was measured in this study by the selected items from the Revised Infant Temperament Questionnaire (Carey & McDevitt, 1978). Items were selected on several bases. First, because the scale was originally designed for use by pediatricians to diagnose infant problems, a number of the dimensions measured by the scale were not relevant to this study. The dimension of easy-difficult was selected to examine women's ratings of the temperament of their infant. Second, because the scale was standardized on 4 to 8 month old infants, some of the items were not applicable to 3 month old infants; the items were compared with the expected behaviors of 3 month old infants and items that did not apply to infants at this stage were dropped. Twenty-four items measuring how easy or difficult the infant is remained. Easy infants are described as rhythmic, approaching, adaptable, mild and positive.

Difficult infants are described as arrhythmic, withdrawing, low in adaptability, intense, and negative. This scale had a mean of 103.35, with a standard deviation of 14.04 and a range of 26 to 168. The reliability of the scale was .85. (See Appendix E for the entire list of items used in this study.)

Other predictors of the goal identity

Social comparison. The degree to which women felt they were doing better than other women who were mothers was assessed using the Downward comparison factor from the Functions of Groups scale (Deaux, Reid, Addelston, & Micrahi, 1992; Forsyth, Elliot & Welsh, 1990). This factor contains 3 items addressing whether women feel they are faring better in the new role than other women who are mothers. (See Appendix F.) The original scale is phrased in terms of generic group membership; items used in this study were phrased in terms of "other women who are mothers". Women responded to the items on a 1 (strongly disagree) to 7 (strongly agree) scale. The mean score on this scale was 15.84 with a standard deviation of 3.72 and a range of 7 to 21. The alpha coefficient for this scale was .88.

Time spent performing behaviors associated with the identity. Women were asked the percentage of time they cared for their infant, the percentage of time their husband/partner spent caring for the infant, and the percentage of time others, besides either parent, spent caring for the infant. Table 13 contains descriptive information for these variables.

Data Analytic Strategies

The hypotheses proposed in this study were examined using bivariate and partial measures of association and repeated measures analysis of variance (ANOVA). Pearson r correlations were used to examine relationships between variables within measurement occasions. Associations over time were analyzed with partial correlations, controlling for the earlier time value(s) of the dependent variable. This was done using multiple regression analysis; thus, these coefficients are presented as standardized beta coefficients. Changes in variables over time were analyzed using repeated measures ANOVA, and one-way analyses of variance were conducted to analyze group differences when appropriate.

Results

The major questions addressed in this study concerned the process of identity acquisition, the impact of active identity work on this process, and the relationship of feedback to identity acquisition. Several representations of the pregnancy and mother identities were used: whether women named these identities, the rated importance of these identities, and feelings about pregnancy and motherhood. The elaboration and integration of the pregnancy and mother identities in women's identity structures were examined in an exploratory way. In order to place the pregnancy and mother identities in the context of all of the identities women named, the frequency with which other identities (e.g. wife, work, other family roles) were named over the course of the transition were also examined.

Relationships between identity variables

A number of variables were used to assess aspects of pregnancy and mother identities. Whether women named pregnancy and mother identities, the importance they assigned to the identities, structural variables derived from the HICLAS procedure and attitudes toward pregnancy and

motherhood were measured at all three occasions. As a first step in examining the process of identity acquisition, the relationships between these different measured was examined.

The rated importance of the pregnancy and mother identities and feelings and attitudes about those identities, as measured by the Positive and Negative Feelings about Pregnancy Scales and the Attitudes Toward Motherhood Scale, were not strongly related. Only the rated importance of the pregnancy identity early in the pregnancy and positive feelings about pregnancy at that time were significantly related to each other ($r(51) = .33, p < .01$).

The rated importance of the pregnancy and mother identities were strongly related to the various structural measures of identity. (See Table 14). Ratings of identity importance correlated significantly with the number of attributes given for the identity as well as the level at which the identity appeared in the hierarchy, the number of attribute classes associated with the identity, and the degree to which it was integrated with other identities in the structure. Although these relationships were significant for both pregnancy and mother identities during pregnancy, these intercorrelations were not significant after

childbirth. Approximately 3 months after childbirth, the mother identity was rated as extremely important by most women (i.e. the scores ranged from 9 to 14 out of a possible range of 0 to 14).

Identity Acquisition

The first set of questions addressed in this study concerned the nature of the identity acquisition process, including the presence of the threshold identity. Prior to addressing those process issues, however, it is useful to consider the general patterns of identities named by respondents so that the pregnancy and mother identities can be seen in their proper context.

As shown in Table 15, early in pregnancy most of the women (90.2%) named a pregnancy identity, but only a minority of the women (31.4%) defined themselves as a mother. Later in pregnancy, nineteen (37.3%) of the women named mother-to-be as an identity. Because this identity was unexpected, the women were asked whether it was separate from or in addition to a pregnancy or mother identity. All of the women indicated that they had this identity instead of either a pregnancy or mother identity. At this point in the pregnancy (32-38 weeks), almost all of the women defined

themselves in some way in terms of the transition to motherhood: all of the women had either a pregnancy identity or a mother-to-be identity and 88.2% had either a mother identity or a mother-to-be identity. After childbirth, all of the women defined a mother identity and none named a pregnancy or mother-to-be identity.

Beyond pregnancy and motherhood identities, women named a wide variety of identities. Early in pregnancy, the majority of women named family identities (e.g., wife, daughter, sister) and work identities. More than a quarter of the women named gender, ethnic/racial, religious, political, hobby, age-related, and personality-related identities. It is interesting to consider which identities decreased in frequency across the transition. Identities as a friend and as a woman, ethnic identity, religious identity, political identity, age, personality characteristics, and hobbies all declined in frequency from Time 1 to Time 3. In some cases (e.g., identity as a woman and religious identity), an identity did not decline in frequency until after childbirth; in other instances (e.g., ethnic identity), the shift had occurred by the end of pregnancy. In general, family identities remained stable,

while extrafamilial identities such as political identities and hobbies declined in frequency. In part this pattern may be a function of time constraints. Women probably have less time for interests outside the family when they have a new child. This pattern also suggests that involvement in new identities, specifically those of pregnant woman and mother, may replace previous interests.

Although other identities decreased in frequency across the transition and the overall mean number of identities women named dropped significantly ($F(2,100)=30.04, p<.001$), the mother identity increased in frequency (including the naming of the mother-to-be identity) over the course of the transition.

The rated importance of mother identity also increased over the course of the study, from 7 months prior to childbirth to 3 months following the event. (See Table 16). The significant trend in rated importance was due to a dramatic increase in ratings after childbirth. Post hoc comparisons indicated that the rated importance of the mother identity after child birth was significantly different than the rated importance of this identity at either measurement occasion during pregnancy. The rated

importance of mother identity did not, however, differ from early in pregnancy to late in the term.

Feelings of confidence about one's abilities as a mother also increased over the course of the transition to motherhood. Although the change in the Attitudes Toward Motherhood Scale was slightly more gradual than that of the rated importance of the mother identity, post hoc comparisons indicated that the significant change in this variable occurred between late in pregnancy and after childbirth.

The patterns of change in the structural variables associated with the mother identity were identical to those seen in the rated importance and self-related feelings and attitudes about motherhood across the transition. The number of attributes associated with the mother identity, the level at which that identity appeared in the identity structure, the number of attribute classes associated with the identity and the integration of mother identity with other identities all increased from early in pregnancy until after childbirth. Table 16 presents the means and F statistics for these variables over the course of the transition.

The women in this study seemed to center their self-definition around pregnancy and mother identities and other family roles during the transition to motherhood. The frequency with which they named pregnancy and mother identities increased during pregnancy. Although the rated importance of the pregnancy identity remained stable during pregnancy, the rated importance of the mother identity increased significantly over the course of the transition. Women also began to feel more confident about their abilities as a mother during this time.

The threshold identity. The concept of a threshold identity was proposed as an integral part of the identity acquisition process. It was hypothesized that women would define themselves in terms of the preparatory period leading up to their new identity. Indeed, the majority of women in this study defined themselves in terms of their pregnancy, separately from their mother identity early in the term. Later in pregnancy, however, almost half of the women defined a mother-to-be identity and responded, when asked, that they did not have either a pregnancy or mother identity at that time.

Thus, women differed in the ways that they characterized their threshold and goal identities, and the labels they used for these identities changed during their pregnancy. The naming of a mother-to-be identity on the part of 19 of the women was unexpected and intriguing, raising questions about possible differences between women who maintained separate threshold and goal identities and women who named a mother-to-be identity in place of a pregnancy and/or mother identity late in the term. These questions involved both the labels used by women for these identities and changes in the labels they used from early to late in pregnancy.

In order to further explore the implications of the labels women used in reference to their threshold and goal identities and changes in those labels over the course of pregnancy, women were separated into groups based on whether they named pregnancy and mother identities at each point during pregnancy and whether they named a mother-to-be identity in place of a mother or pregnancy identity late in pregnancy. Several patterns in these labels and the changes in labels over time emerged. Some women (n=13) named only a pregnancy identity early in the term and added a separate

mother identity late in pregnancy. A second group of women (n=10) maintained separate pregnancy and mother identities throughout the pregnancy. A third group of women (n=6) named a pregnancy identity but did not name a mother identity early in pregnancy and named a mother identity but not a pregnancy identity late in pregnancy. Similarly, some women (n=9) named a pregnancy identity but not a mother identity early in pregnancy and named a mother-to-be identity late in pregnancy. A fifth group of women (n=10) named separate pregnancy and mother identities early in pregnancy but named a mother-to-be identity late in pregnancy. Three women didn't fall into any of these patterns and were not similar to each other. Table 17 presents these groups and the labels each group used to define their threshold and goal identities during pregnancy.

What seems to define the differences in these groups is whether women name distinct pregnancy and mother identities (Groups 1 and 2), whether they move from only having a pregnancy identity early in the term to only naming a mother identity (Group 3) or a mother-to-be identity (Group 4), or whether they define separate pregnancy and mother identities early in pregnancy and then move to a single mother-to-be

identity late in pregnancy (Group 5). Because several of these groups involve the addition or deletion of one identity in favor of another later in pregnancy, possible differences between the groups in feelings about pregnancy and motherhood were examined. One-way Analyses of Variance were conducted to examine differences in scores on the Positive and Negative Feelings About Pregnancy Scales and the Attitudes Towards Motherhood Scale among the five groups of women. In addition, because some women changed their identity labels differences in changes in these scales between the groups were also examined.

Although the groups did not differ in their attitudes towards motherhood or changes in those attitudes during pregnancy, the five groups of women were significantly different in their positive and negative feelings about pregnancy. Table 18 presents these results. Post-hoc analyses indicated that Group 5 (i.e. those women who named separate pregnancy and mother identities early in pregnancy and changed to a mother-to-be identity late in pregnancy) had significantly lower negative feelings about pregnancy throughout the term than the other four groups, which did not differ from each other. In addition, Groups 3 and 4

(i.e. those women who named only a pregnancy identity early in pregnancy and either a mother identity or a mother-to-be identity late in pregnancy) were associated with increased negative feelings about pregnancy. These two groups did not differ from each other in the degree to which their negative feelings about pregnancy increased, but they were both significantly different from the other three groups in changes in negative feelings. Similarly, the shift from a pregnancy identity to a mother or mother to be identity (Groups 3 and 4) were associated with fewer positive feelings about pregnancy late in the term.

Summary. As a whole these results present a picture of growth and change in identity across the transition to motherhood. Women increased their identification with motherhood and feelings of confidence about their abilities as a mother. Women also seemed to consolidate their self-definition around transition-related identities (i.e. pregnancy and motherhood identities) and family roles.

The majority of women named a threshold identity, although the label used to define this identity and the patterns of this definition varied over the course of pregnancy. Women fell into five different groups according

to the way they labeled their threshold and goal identities during pregnancy. These patterns were related to differences in feelings about pregnancy. Women who dropped their pregnancy identity in favor of a mother or mother-to-be identity also experienced increased negative feelings about pregnancy. Women who named separate pregnancy and mother identities early in pregnancy and then combined these into a single mother-to-be identity had the most positive feelings about pregnancy.

Active Identity Work

The next set of questions addressed in this study concerned the active identity work that people do when preparing to take on a new identity and the influence of this work on self-definition. Three forms of identity work were measured: the degree to which women planned to enter the transition, the amount of information they sought about the transition, and the degree to which they interacted with others about their pregnancy and motherhood (see Figure 2). It was hypothesized that these factors would be positively related to whether women named pregnancy and mother identities, the rated importance of these identities, and self-related feelings about pregnancy and motherhood. These

relationships were first examined at the bivariate level. Finally, the more general question of the impact of active identity work on self definition was addressed by examining the combined contribution of all three forms of identity work to whether women named pregnancy and mother identities, the rated importance of those identities, and women's self-related feelings about pregnancy and motherhood.

Planning. The first aspect of active identity work was the degree to which women planned to enter the transition and its impact on identity and self-related feelings. In this study, planning was conceptualized as a continuous variable, incorporating both the degree to which women planned their pregnancy and how important they felt it was for them to get pregnant, rather than as a dichotomous (i.e. planned versus not planned) concept. It was hypothesized that the more planning an identity involved, the more important and positively that identity would be rated. This hypothesis was confirmed. Planning the pregnancy before beginning the transition had an impact on whether women defined themselves as a mother early in pregnancy. Those women who put more planning into their pregnancy were more

likely to name a mother identity early in pregnancy ($r(51) = .29, p < .04$).

Although planning did not affect whether women named a pregnancy identity, it was related to the rated importance of that identity early in pregnancy ($r(51) = .35, p < .01$) and the rated importance of mother-to-be identity later in pregnancy ($r(19) = .60, p < .01$). Planning was also related to self-related feelings about pregnancy and motherhood. Women who planned their pregnancy felt more positively about pregnancy and motherhood early in the term. The degree to which women planned their pregnancy was significantly related to positive feelings about pregnancy ($r(51) = .55, p < .001$), fewer negative feelings about pregnancy ($r(51) = -.47, p < .001$) and self-confidence in mothering abilities ($r(51) = .51, p < .001$) early in the pregnancy. Planning was not related to any of these variables late in pregnancy or after childbirth.

In sum, planning to make the transition to a new identity was an important factor in self-definition early in the process of identity acquisition. Women who planned their pregnancy were more likely to name a mother identity, rated their pregnancy identity as more important, and felt more

positively about pregnancy and their abilities as a mother. Planning, however, influenced self-definition only early in the transition.

Information-seeking. The next set of questions regarding active identity work concerned the impact of the search for relevant information on identity and self-related feelings. It was hypothesized that women who sought more information about pregnancy and motherhood would be more likely to claim those identities, to rate them as important, and to feel more positively about pregnancy and motherhood. These hypotheses were not confirmed.

The degree to which women sought information about pregnancy and motherhood was not related to whether they named pregnancy and mother identities or how important they rated these identities during pregnancy or after childbirth. Information-seeking about pregnancy was significantly related to positive feelings about pregnancy early in the term ($r(51) = .37, p < .01$), but this relationship is only marginally significant later in pregnancy ($r(51) = .24, p < .08$). The degree to which women sought information about pregnancy and motherhood was not significantly related to

self-related feelings about motherhood at any point in the transition.

Thus, the search for information about the transition was not related to self-definition. Women who sought more information did feel more positively about pregnancy; however, this relationship was limited to early in the term and information-seeking was not related to any other measures of identity used in this study.

Social acknowledgement. The third aspect of active identity work examined in this study was the degree to which others acknowledged women's pregnancy and new motherhood, and the relationship between social acknowledgement and identity. It was hypothesized that greater social acknowledgement around the topics of pregnancy and motherhood would be related to whether women claimed pregnancy and motherhood identities, the rated importance of those identities, and self-related feelings about pregnancy and motherhood.

Levels of social acknowledgement had no direct relationship to the endorsement of pregnancy and mother identities or the rated importance of those identities within each measurement occasion. In contrast to the

hypothesized relationship between social acknowledgement and positive feelings about pregnancy or motherhood, women who felt more negatively about pregnancy (as measured by the Negative Feelings About Pregnancy Scale) and more worried about motherhood (as measured by the Attitudes Toward Motherhood Scale) reported more interaction with others around the topic of their pregnancy early in the term ($r(51) = .40, p < .01$ and $r(51) = -.34, p < .01$, respectively). This relationship centered around feelings about pregnancy later in the term ($r(51) = .37, p < .01$); the relationship between attitudes toward motherhood and social acknowledgement was not significant at this time.

Although women who felt more negatively about pregnancy and motherhood interacted with others more about these topics, this interaction did not alleviate their negative feelings. There was no relationship between social acknowledgement and changes in negative feelings about pregnancy and worries about motherhood.

Thus, social acknowledgement was related to identity in ways that did not support the hypothesized relationships. Women who felt more negatively about pregnancy and motherhood interacted more with others about these topics,

although this did not decrease their negative feelings later on.

The general contribution of identity work. The final question regarding active identity work concerned whether the measures of identity work, as a whole, were significantly related to identity importance or the self-related feelings associated with a particular identity. To examine this question, a series of regression equations were computed to examine the effect of the group of identity work variables (i.e. planning, information-seeking and social acknowledgement) on each measure of identity (i.e., whether women named the identity, the rated importance of that identity, self-related feelings about the identity). These equations were computed for both the pregnancy and motherhood identities. In addition, the relationship of active identity work to the structural variables associated with pregnancy and mother identities were examined. All equations were computed within time; that is, the group of independent variables were measured at the same time as the dependent variable in question. Also, all of the independent variables were entered simultaneously in a single step.

The results of these regression equations are presented in Tables 19 - 21. Active identity work was related to self-related feelings about pregnancy and motherhood. The set of identity work variables was significantly related to positive and negative feelings about pregnancy and feelings of confidence about motherhood throughout pregnancy; the set of identity work variables explained between 26 and 47 percent of the variance in each of these measures during pregnancy. The regression coefficients for the individual identity work variables within the set were significantly related to the outcome variables in patterns that mirrored the bivariate relationships described earlier. Overall, women who actively prepared to take on a new identity felt more positively about the preparatory period and more confident about their mothering abilities. Increased social acknowledgement was also indicative of negative feelings about the transition.

Active identity work, as a whole, was not significantly related to whether women named pregnancy and mother identities during pregnancy or after childbirth. In addition, the set of identity work variables was not significantly related to the rated importance of pregnancy

or mother identities at any measurement occasion.

Similar regression analyses were run to examine the relationships between active identity work and the number of attributes named for pregnancy and mother identities and the other structural variables derived from the HICLAS analysis, i.e. the level the identity appears in the structure, the number of attribute classes associated with an identity and the degree to which it was integrated with other identities in the structure. Active identity work was not, overall, related to these identity variables.

In sum, actively planning to begin the acquisition process was most influential in the definition of threshold and goal identities and in the development of positive feelings about these identities, but only early in the transition. Social interaction, on the other hand, was associated with negative feelings about pregnancy and worries about motherhood throughout pregnancy.

Feedback on Role Performance

The next set of questions concerned the relationship between "external" or "direct" feedback and identity. It was hypothesized that, because feedback is generally a response to role performance, it would be associated with

the threshold identity during pregnancy and with the goal identity after childbirth. In addition, feedback will influence self-related feelings about an identity. In this study, external or direct feedback was defined as information a woman might receive that would indicate how well either her pregnancy was proceeding (i.e. physical signs and symptoms) or would be an indication that her baby was healthy and happy (i.e. infant temperament).

The degree to which women experienced physical signs and symptoms of pregnancy was not related to whether they named pregnancy or mother identities during pregnancy. However, women who experienced more physical signs and symptoms rated their pregnancy identity as more important early in pregnancy ($r(51) = .30, p < .05$). This relationship was not significant later in the term. Physical signs and symptoms were not associated with feelings about pregnancy early in pregnancy; however, women who experienced more signs and symptoms felt more negatively about pregnancy later in the term ($r(51) = .46, p < .001$). Thus, the positive effects of the experience of physical feedback on pregnancy identity was limited to early pregnancy; later these physical signs were related to more negative feelings.

Physical signs and symptoms were assessed at both measurement occasions and increased significantly throughout the term ($F(1,46)=119.83, p < .001$). Early in pregnancy physical signs may provide confirmation of the pregnancy, whereas later in pregnancy they cause discomfort and, thus, are related to negative feelings about pregnancy.

Infant temperament was not related to the rated importance of mother identity after childbirth. However, women who had infants who were easier felt more confident about their abilities as a mother ($r(51)=.49, p < .001$).

Once again, identity structural variables were explored for possible relationships to the measures of feedback. Overall, external or direct feedback had little relationship to the elaboration and integration of pregnancy and mother identities. Neither physical signs and symptoms nor infant temperament were related to any structural variables.

Thus, although both physical signs and symptoms and infant temperament were related to threshold and goal identities, the patterns of these relationships were quite different. Physical signs and symptoms influenced the rated importance of the threshold identity and not self-related feelings about this identity early in pregnancy, whereas

infant temperament was related to feelings rather than importance. Although physical signs were related to negative feelings about pregnancy late in pregnancy, this was probably an indication of physical discomfort.

Predictors of the Goal Identity

The final question in this study of identity acquisition concerned the factors that predict the goal identity, in this case mother identity after childbirth. It was hypothesized that, beyond active identity work and external signs and information, several additional variables would have an impact on mother identity after childbirth: whether women named a mother identity during pregnancy, social comparison, and time spent performing the behaviors associated with the role. Table 22 presents a summary of hierarchical multiple regression analyses examining the relationship of these factors to the rated importance of mother identity after childbirth. Because several of the predictors were assessed at previous measurement occasions, the rated importance of mother identity assessed in late pregnancy was entered into the equation in the first step. In order to assess the contribution of the other predictors beyond the variance accounted for by measures of active

identity work and feedback, Information-Seeking About Motherhood, Social Acknowledgement and Infant Temperament were entered into the regression equation at Step 2 and the set of predictors was entered simultaneously in the third step. Table 23 presents these same results for self-related feelings about motherhood. The strategy for the computation of the equations was the same as that examining the rated importance of mother identity.

The regression equation examining the relationship between the set of variables hypothesized to be related to the rated importance of mother identity after childbirth was not significant. However, two of the variables entered, infant temperament and the percent of time women cared for their infant were significantly related to the rated importance of mother identity at this time. An additional simultaneous regression equation was then computed examining the relationship between these two variables and the importance of mother identity. The results of this equation are presented in Table 24. This equation was significant, and these two variables explained 16% of the variance in the outcome variable.

Hierarchical regression equations were also computed for the relationship between the same group of predictor variables and self-related feelings about motherhood. This equation was statistically significant; however, only three variables, attitudes toward motherhood measured at Time 2, Infant Temperament, and Social Comparison, contributed significantly to the explained variance. Thus, an additional hierarchical regression equation was computed with these three variables. The results of this equation are presented in Table 25. These three variables continued to relate to attitudes toward motherhood, explaining 38% of the variance in this measure.

The relationships between the identity structural variables associated with mother identity after childbirth and the variables predicted to influence mother identity (active identity work, infant temperament, time spent caring for the infant, and social comparison) were also examined. Overall, the group of variables predicted to influence mother identity after childbirth were not related to the elaboration or integration of mother identity in the hierarchy after childbirth.

Thus, infant temperament appeared to be the strongest predictor of mother identity after childbirth, influencing both the rated importance of mother identity and self-related feelings about motherhood. In addition, the rated importance of mother identity was influenced by the percent of time women (as opposed to others) spent caring for their infant and self-related feelings about motherhood was related to the degree to which women felt they were doing well compared to other women who were mothers.

Discussion

The results of this study provide insights into the process of identity acquisition for women in the transition to motherhood: the patterns of how women begin to identify themselves as mothers, the presence of a threshold identity, and the role of particular types of identity work and external feedback in identity acquisition. It also raises questions about the meaning of the labels women use to define their identities and the role of preparation and social interaction in the acquisition process.

Identity Acquisition

Because so little is known about the process of identity acquisition, the first task of this study was to examine how women develop a new identity during a particularly important transition in their lives: the transition to motherhood. For most of the women in this study, the development of this identification took place throughout pregnancy. The frequency with which women named a mother identity, the importance of the mother identity, the number of attributes associated with it, its position in the identity structure and feelings of self-confidence as a mother all increased during pregnancy and after childbirth.

Many women did not identify themselves as a mother until late in pregnancy. This suggests that the development of a new identity is a gradual process; even when it is clear to a woman that she is going to be a mother in a number of months, she doesn't necessarily identify herself as such. At the same time, most women begin the identity development process before they are actually performing the behaviors associated with the new role.

These findings coincide with other literature that suggests that women identify themselves as a mother by late in pregnancy (Deutsch, Ruble, Fleming, Brooks-Gunn, & Stangor, 1988). The increased number of attributes associated with the identity, in particular, and increased feelings of confidence also suggest that, once established, the identity continues to grow and change. This growth is especially evident after childbirth, when women strongly identify with their new role. At this time, all of the women in this study identified themselves as a mother and rated the identity as extremely important.

Although there is identity development all through the transitional period, the greatest change occurs around the actual event (i.e. childbirth), possibly because this is the

point at which the identity changes from being "thought" based to being linked with behavior. That is, before childbirth women are not yet caring for their infant. Even though they may be formulating ideas about what they will be like as a mother, and this may be an important identity for them, they are not acting out this identity. During pregnancy, the mother identity is most likely akin to a possible self (Markus & Nurius, 1986), a cognitive representation of the self in the future. After childbirth, however, women are enacting the identity -- it is no longer in the future. It makes a great deal of sense, then, that the majority of changes in the mother identity occur between the end of pregnancy to after childbirth. There is no way of knowing from this study whether and how the mother identity will continue to change and develop. It is an identity linked to a significant other, that is, the child. As the child changes and grows and with the possible addition of more children, it would be expected that the mother identity would continue to develop. An interesting question, beyond the scope of this study, is whether the same kind of change occurs during subsequent pregnancies; do

women return to a more "possible" state in anticipation of a second or third child?

While the women in this study were adding a new identity during the transition to motherhood, they also reported a decrease in their total number of identities. The identities that decreased in frequency during the transition tended to be those related to activities and interests outside of family roles. The percentage of women who named family-related identities (e.g. daughter, sister) did not decrease, but work, political, hobby, and friend identities were dropped by the majority of women who had named these identities early in pregnancy. Identities that involve activities outside of the family may be discarded because of time constraints. New infants require a great deal of time, and women may not be able to keep up with their outside interests.

What is puzzling, however, is the drop in gender and ethnic/racial identities. These identities do not appear to require time and, in fact, it would make sense that these particular identities might become stronger during the transition to motherhood (i.e., because race and ethnicity are ascribed through a family and motherhood is gender-

based). A possible explanation is that not only does a new identity impose "real" time constraints, it may also impose psychological time constraints. That is, women may be so focused on the new role that they do not have the time to think about or even feel attachment to other identities. Family identities, on the other hand, may remain intact because women rely on their partner or other family members for tangible and emotional support during the first few months after childbirth; thus, these identities are less likely to be dropped.

A remaining question is whether and when women regain some of their earlier identifications. Because the women in this study were interviewed at about 3 months after childbirth, motherhood was still quite new and possibly overwhelming. Several scenarios for the future seem possible. Women may permanently replace former identifications with their new identity as a mother, never regaining these identities. Another possibility is that they completely or partially reestablish these roles depending on other factors (e.g. whether they return to work).

Threshold identities. In addition to the development of a mother identity, most women defined a threshold

identity (i.e. pregnancy identity), which was temporary, leaving the identity structure by the end of pregnancy or after childbirth. Unexpectedly, however, a number of women named a mother-to-be identity late in pregnancy as an alternative to either a pregnancy identity or a mother identity. Because this label was unexpected, women were asked whether they also had either a pregnancy or mother identity in addition to the mother-to-be identity. All of the women who named a mother-to-be identity late in pregnancy responded that they did not have either a pregnancy identity or a mother identity at that time.

Over the course of pregnancy, the labels women used to name their threshold and goal identities changed. Some women maintained separate pregnancy and mother identities, one group identifying as a mother early in pregnancy and another adding that identity later. A third group of women named only a pregnancy identity early in the term and only a mother identity later in pregnancy. A fourth group of women named only a pregnancy identity early and only a mother-to-be identity later in pregnancy. A fifth group of women named both a pregnancy and mother identity early in the term and only a mother-to-be identity later.

Although the naming of a mother-to-be identity in itself is not related to particular feelings about pregnancy or motherhood, the findings in this study suggest that changes in the label used to define the threshold and goal identities were associated with either feeling more positively about pregnancy or increased negative feelings about pregnancy. Women who dropped their pregnancy identity in favor of a mother identity or a mother-to-be identity did so in relation to an increase in negative feelings about pregnancy, while the women who had separate pregnancy and mother identities to begin with and changed to a mother-to-be identity late in pregnancy felt more positive (or at least less negatively) about pregnancy. The differences in these patterns suggest that the mother-to-be identity did not have the same meaning for all women who used that label. For some, the change to the mother-to-be label might represent a shift away from an identification with pregnancy to a more mother-oriented identification. On the other hand, the mother-to-be identity might represent a fusion of the two early identities. It is interesting that these changes were associated with feelings about pregnancy and were not at all related to feelings about motherhood, again

suggesting that the fluctuations in label represented differing conceptions of the threshold identity. Although these findings must be interpreted with care due to the small numbers of women in each group, they do speak to the significance of the labels used to define identities and particularly changes in those labels across transitional periods.

These findings also raise questions about the conceptualization of a threshold identity and the role of the mother-to-be identity in that definition. It was hypothesized that the threshold identity would be oriented toward pregnancy and kept separate from the mother identity. This was clearly the case for some women, who maintained a separate pregnancy identity throughout the term. The implications of the maintenance of an identity oriented specifically toward the preparatory period is unclear. There do not seem to be differences in identity after childbirth between women who strongly identified with the pregnancy and those who dropped that identity or for whom pregnancy was a negative experience. Because no measures of psychological adjustment were included in this study, there is no way to determine whether any of these changes had

implications for women's psychological well-being. Given the large quantity of research on women's emotional responses to motherhood (e.g. post-partum depression) and the lack of literature on the relationship between identity and mental health, this is clearly an area that is open for further study.

The concept of the threshold identity provides a starting place to examine the process of identity acquisition during preparatory periods. Clearly, the women in this study envisioned themselves in terms of this transition in ways that went beyond their future identity as a mother. The presence of a threshold identity suggests that individuals do identify with temporary periods in their lives, and that these identities can provide a bridge between possible ways to envision future selves and identities that one is actively working to acquire.

As a whole, these results present a picture of an identity acquisition process that is gradual and fluid. As women increasingly focus their attention on the new identity, other roles fell away from active identification. The new identity increased in importance and elaboration, and women felt more confident about their abilities,

especially after they began performing the behaviors associated with the identity. For some women, the development of the new identity seemed to include the threshold identity; for others the threshold identity was kept separate or dropped altogether.

The Role of Identity Work and External Feedback in the Acquisition Process

Beyond examining the process of identity acquisition, the findings in this study provide some insight into factors that might affect this process, most notably the relation of planning and infant temperament to the threshold and goal identities.

The "identity work" most influential for the women in the acquisition process actually took place before the transitional period began. Research has indicated that the motivation to enter a transition is a major factor in the experience of that transition, in part because this period begins earlier for individuals planning to take on a new role (see Ruble & Seidman, in press, for a review of this literature). In this study, women who planned their pregnancy were more likely to name a mother identity, rated their pregnancy identity as more important, and felt more

positively about pregnancy and their abilities as a mother. Planning, however, influenced self-definition only early in the transition. Thus, the effects of planning were time-limited. Although women who put a great deal of planning into their pregnancy may have had a "head start" in the development of their pregnancy and mother identities, the direct effect of planning on the naming of these identities, their importance and self-related feelings about pregnancy and motherhood did not carry into late pregnancy or after childbirth. This may be a function of time; initial planning efforts may have taken place as long as a year previously, too long to be related to feelings about pregnancy and motherhood so close to childbirth. Because the women in this study were interviewed only a few weeks before they gave birth, the approach of this event may have loomed too large for planning to have had an impact on identity at this time.

Once women began to perform the behaviors associated with the new identity, feelings of confidence and identification with the role were related to feedback they received on their performance in that role. New mothers have very little direct feedback that women to gauge their

success in the new role. Previous research has shown, and the results of this study confirm, that the temperament of the infant has a major impact on women's feelings of confidence as a mother (Deutsch, Ruble, Fleming, Brooks-Gunn & Stangor, 1988; Reilly, Entwistle, & Doering, 1987). Women who had easier babies felt better about their abilities as a mother. Although women may be incorrect in interpreting infant temperament as a measure of their performance as a mother (e.g. in the case of a new infant with colic), it seems clear that they are interpreting it in such a way that has definite implications for their feelings about the identity and themselves in the role. It would be incorrect to assign causality to these results because the variables were measured at the same time. It is possible that women who feel more positively about being a mother would rate their infants as easier and vice versa. There was no relationship, however, between feelings about motherhood before childbirth and infant temperament. In addition, infant temperament explained a significant amount of the variance in post-childbirth attitudes about motherhood beyond the contribution of previous scores on this scale.

A question remains as to why infant temperament is so strongly related to women's feelings about themselves as a mother. Burke and Reitzes (1991) refer to identities as "cybernetic control systems". They postulate that identities motivate action much like a thermostat regulates temperature by matching the needs of the situation with the needs of the self to produce the desired state. For instance, women for whom being a mother is an important identity are motivated to perform the behaviors required of the role and respond to the situational demands of that role. In this study, infant temperament was like the temperature of the room as measured by the thermostat; an easy, content infant was a signal to the woman that she was doing well and need not change her behavior. A difficult or unhappy infant, however, may have signaled that the behavior needed to be changed and women may have felt that it was a reflection of their mothering abilities.

The effects of prior planning to acquire a new identity and the role of feedback in that new identity would most likely vary to the degree that the new identity could be chosen and whether feedback on role performance is available. Transitional periods vary in the degree to which

they can be entered freely (Ruble & Seidman, in press). The results of this study suggest that, although identity development may be initially different for those transitions which are not planned, ultimately the individual adapts to this unexpected event.

Other identities may provide more direct feedback than does infant temperament. Thus, in a new identity, such as a new job, where the individual's performance is regularly reviewed in a more structured way, feedback could be more influential on identity development.

The Contribution of Time Spent in the Role and Social Comparison to Mother Identity

In addition to infant temperament, several other factors were related to the importance of and feelings of confidence about motherhood for the women in this study. The more time women, as opposed to their partner or other caretakers, spent caring for their infant the more important they rated their mother identity and the more confident they felt about their abilities as a mother. Also, women who engaged in downward social comparison with other mothers felt more positively about themselves as mothers.

These additional variables suggest that the context in which women are living with their new identity is important. Beyond their relationship with the new infant, comparisons with other women who share the same identity provides information for themselves. The amount of time they (as opposed to others) spend caring for the infant is influenced by other time commitments (e.g. work) and of the availability of other sources of child care.

Information-seeking and Social Acknowledgement

A number of hypotheses set forth in this study were not confirmed. It was hypothesized that women would socialize themselves into new identities by seeking relevant information and that this search for information would be related to both the threshold and goal identities. In general, these hypotheses were not supported. The search for information about the transition to motherhood did not relate strongly to self-definition. Women who sought more information felt more positively about pregnancy at the end of the first trimester; however, information-seeking was not related to any other measures of identity used in this study.

These findings contradict those of Deutsch and her colleagues (Deutsch, Ruble, Fleming, Brooks-Gunn & Stangor, 1988). One explanation could be a difference in measurement. In their study of the role of information-seeking and self-definition during the transition to motherhood, Deutsch and her colleagues (Deutsch, Ruble, Fleming, Brooks-Gunn & Stangor, 1988) found that the actual amounts of information women received predicted self-perceived mothering characteristics (i.e. the characteristics women felt they would exhibit as a mother), but the importance of the mother identity was not measured. In addition, feelings about pregnancy or identification as a pregnant woman were not measured. Thus, the conceptualization of identity was different between the two studies. This discrepancy suggests that information-seeking may be related to different aspects of identity. Although information-seeking is not related to the importance of an identity to the person, it may influence the meaning that a person associates with the identity.

Due to the social nature of identities, it was also hypothesized that the degree to which individuals interacted with others (e.g., partner, family members, friends, co-

workers) around the topic of the transition would impact the acquisition process. Social acknowledgement was not strongly related to either the pregnancy identity or mother identity. The exception to this was negative feelings about pregnancy and worries about motherhood during pregnancy. Women who had more negative feelings about their pregnancies and who were more worried about their abilities as a mother talked to others about their pregnancy more. Notably, social acknowledgement early in pregnancy predicted negative feelings and worries later in pregnancy, even after controlling for the initial levels of negative feelings and attitudes toward motherhood. This pattern suggests that interaction with others did not relieve concerns about pregnancy and motherhood, but in fact increased them. Anecdotally, a number of women reported that others often shared "horror stories" with them; bad things that had happened to them or to others during pregnancy, childbirth, or with new infants. Thus, women who were more worried about pregnancy and/or motherhood talked to others which, at the very least, did not relieve the worry and may have increased it.

Talking with others may have been a way for these women to seek social support. A separate measure of social support was not included in this study: therefore, this interpretation is speculative. The results of this study point out, however, that if women are seeking support, social interaction is not always an effective strategy for reducing worry and negative feelings.

These findings may also reflect measurement problems. An examination of the items in the Social Acknowledgement and Negative Feelings About Pregnancy scales reveals some overlap. Thus, the relationships between these measures could be evidence of common method variance rather than conceptual linkage.

Identity structure

The structural variables associated with the pregnancy and mother identities (i.e. the number of attributes associated with the identity, the level at which it appeared in the structure, the number of attribute classes associated with it within the hierarchy and the degree to which it was integrated with other identities) were strongly related to the rated importance of those identities. Basically, these indicators showed the same patterns of change as did

measures of importance and feelings about mother identity across the transition. One exception was the degree to which the mother identity was integrated with other identities: integration increased during pregnancy but declined after childbirth.

The structural variables were not associated with any of the factors related to the importance of pregnancy and mother identities or feelings about these identities. This lack of relationship can not be solely due to methodology, because all of these indicators are not derived in the same way. Although the level of the identity, the number of attribute classes and the integration of the identity are all derived from the HICLAS procedure, the number of attributes generated for the identity is gathered at the same time as the importance rating for that variable. Thus, the lack of relationship between these structural variables and the other measures in this study can not be strictly due to the use of the HICLAS procedure. Clearly, these structural variables need to be further examined. It is reasonable to expect that some of the behaviors measured in this study, particularly the active identity work, will have an impact on the quantity of characteristics an individual

associates with an identity. It is less clear whether these behaviors would lead to an increased association between identities. Since both of these factors (i.e. the quantity of attributes a person names for an identity and shared attributes between identities) influence the identity's place in the hierarchy, it is difficult to say whether there should have been an association between identity work and structure. These questions need to be pursued.

Implications

The findings in this study fit well into the patterns suggested by Figures 1 and 2. Women began to define themselves as a mother during pregnancy and this identity increased in importance and became more positive across the transition. Women also defined a threshold identity. In addition, active identity work and external feedback had implications for the identity acquisition process. However, the relationships between active identity work and self-definition were more complicated than initially hypothesized. For instance, active identity work was related to identity only during the preparatory period. In addition, information-seeking was not strongly related to identity, and social acknowledgement was associated with

negative feelings about pregnancy and motherhood rather than having a positive relationship to these identities.

The findings in this study raise several issues. First, what was the purpose of preparation? Early in pregnancy, preparation had definite implications for the acquisition of mother identity. Women who planned their pregnancies were more likely to define themselves as mothers early in their pregnancy and to feel positively about pregnancy and motherhood. Women also prepared for motherhood during pregnancy by seeking information about it, although this search for information did not greatly influence self-definition. Social interaction was not related to importance, but was related to negative feelings about pregnancy and motherhood. After childbirth, however, the most important source of variation in importance and feelings about motherhood was infant temperament.

Although information-seeking and social interaction did not relate to identity, they may have served other purposes. According to Hogg and Abrams (1993), motivation toward group processes are a result of a need to reduce uncertainty. The process of self-definition includes learning how to successfully perform in the role. This process begins

before individuals are actually expected to perform these behaviors. In this study, women often identified themselves as a mother during pregnancy and sought information about being pregnant, going through labor and delivery, and being a mother. This definition and search for information, although not ultimately influencing the importance of their identity as a mother or the self-related feelings about motherhood, may nonetheless have served the purpose of reducing the uncertainty of a transitional time.

Second, because this study considered identity acquisition during a particular transition, it is important to examine the factors that may have been particular to it and how it might differ from many other transitions. Certainly, the physical nature of pregnancy would differentiate it from other acquisition experiences. It is impossible to determine from this study how identity was affected by the visibility of pregnancy and increases in that visibility over the course of the term. Although social acknowledgement, as measured in this study, did not directly influence identity, the impact of physical signs and symptoms on identity may have been due, in part, to recognition from significant others of those physical signs.

Certainly, the types of feedback women received and their interpretations of physical signs and symptoms or infant temperament as feedback on role performance is different than might be experienced during other acquisition processes. Although these factors may not be direct results of women's behavior, they do affect the importance of these identities and women's feelings about themselves in the new role. These findings especially illuminate the role that feedback plays in identity acquisition. In other preparatory periods (e.g., student), where the feedback on role performance is more direct (e.g. grades on tests), the role of feedback might be even stronger than the less direct measures in this study. In other words, feedback that does not need to be inferred as such would probably have stronger implications for identity.

Study Limitations

There were a number of limitations in this study. The sample, although examined longitudinally, was relatively small. The size of the sample may have limited the ability to detect relationships that existed between variables (i.e. a Type II error). Because a number of hypothesized relationships were not significant, particularly in the

areas of information-seeking and the structural aspects of identity, this may have been a particular problem in the study. Research in this area with larger, more diverse samples are necessary to determine whether these insignificant findings are due to sample size problems.

In addition, most of the women in this study were well educated and well-off financially. Few women of color were included in the sample. Women from different ethnic or racial backgrounds, socioeconomic or education levels may perceive and describe new motherhood, specifically, and their identities, in general, quite differently. The lack of diversity of this sample makes it difficult to generalize these results to other groups of women who do not share their characteristics.

The limitations in this study are representative of these same problems in research on identity overall. In asking individuals to describe themselves, we are biased toward people who actually think in those terms. In particular, measures such as the number of attributes associated with an identity are biased toward people who have cognitive and verbal tendencies that are more elaborate. An association between these variables and level

of education has been noted (Ouellette, Bochnak, and McKinley, 1995). In addition our understanding of the types of identities that are described, the relationships between them, and the factors that influence self-definition are quite limited by the lack of diversity in samples. This bias in our conceptions can only be overcome with research with larger more diverse samples.

Conclusions

The findings from this study suggest several processes that may be essential to our understanding of identity in transition and several questions that require further study. The process of identity acquisition, although illuminated in this study, must receive further attention. The meaning that women assign to new identities and changes in meaning across the transition is an important next question to be addressed. Now that it seems clear that people not only define goal identities but also temporary identities associated with the preparatory periods -- what I term "threshold identities" -- further research on the role that these identities play and the impact of the loss of these identities after the transition is necessary.

The second area that appears to be key is the role of planning and preparation in identity acquisition. Although it seems clear that individuals actively prepare to take on a new identity, this preparation seems to have an impact on identity only before the transition. The possibility of preparation as a source of uncertainty reduction also needs to be explored in further research.

The role of feedback in other types of identity acquisition is a third question requiring further study. Do more direct sources of feedback have greater influence on new identities than inferred feedback?

Although the small size of this study and the lack of diversity in the sample are concerns, these data speak to the necessity of examining identity processes within contexts that are real to individuals. By studying women during their transitions to motherhood we learn about identity acquisition processes; we also gain more insight into this important transition in many women's lives.

Table 1

Measure Administration Schedule

| <u>Measure</u> | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> |
|--|---------------|---------------|---------------|
| Identity Measures: | | | |
| Rated Importance | X | X | X |
| # Attributes | X | X | X |
| Identity Structure: | | | |
| # Attribute Classes | X | X | X |
| Level in the structure | X | X | X |
| Integration | X | X | X |
| Self-related Feelings About Pregnancy and Motherhood: | | | |
| Positive Feelings About Pregnancy | X | X | |
| Negative Feelings About Pregnancy | X | X | |
| Worries About Motherhood | X | X | X |
| Confidence About Motherhood | X | X | X |
| Active Identity Work: | | | |
| Planning | X | | |
| Information-seeking | X | X | X |
| Social Acknowledgement | X | X | X |
| External Feedback: | | | |
| Physical Signs and Symptoms | X | X | |
| Infant Temperament | | | X |

Table 2

Means, Standard Deviations, and Ranges for the Identity Importance Index

| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> |
|-------------------------------|----------------|---------------|----------------|
| Pregnancy Identity: | | | |
| Mean | 10.88 | 11.13 | (not measured) |
| SD | 4.16 | 4.06 | |
| Range | 0-14 | 0-14 | |
| N | 51 | 32* | |
| Mother-to-be Identity: | | | |
| Mean | (not measured) | 13.11 | (not measured) |
| SD | | 1.15 | |
| Range | | 11-14 | |
| N | | 19 | |
| Mother Identity: | | | |
| Mean | 6.33 | 9.84 | 13.55 |
| SD | 7.46 | 5.12 | 1.03 |
| Range | 0-14 | 0-14 | 9-14 |
| N | 51 | 32* | 51 |

*Note: The drop in the number of people who named Pregnancy and Mother identities is due to women who named a Mother-to-be identity but not a Pregnancy or Mother identity.

Table 3

Means, Standard Deviations, and Ranges for the Number of Attributes Named For an Identity

| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> |
|------------------------|----------------|---------------|----------------|
| Pregnancy Identity: | | | |
| Mean | 10.45 | 10.37 | |
| SD | 5.86 | 6.01 | (not measured) |
| Range | 0-27 | 0-29 | |
| N | 51 | 32* | |
| Mother-to-be Identity: | | | |
| Mean | | 11.10 | |
| SD | (not measured) | 6.36 | (not measured) |
| Range | | 1-29 | |
| N | | 19 | |
| Mother Identity: | | | |
| Mean | 2.75 | 9.13 | 12.88 |
| SD | 4.80 | 6.73 | 6.22 |
| Range | 0-19 | 0-25 | 4-32 |
| N | 51 | 32 | 51 |

*Note: The drop in the number of people who named Pregnancy and Mother identities is due to women who named a Mother-to-be identity but not a Pregnancy or Mother identity.

Table 4

Means, Standard Deviations, and Ranges for the Level at Which an Identity Appears in the Identity Structure

| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> |
|------------------------|----------------|---------------|----------------|
| Pregnancy Identity: | | | |
| Mean | 1.29 | 1.29 | |
| SD | .94 | 1.01 | (not measured) |
| Range | 0-3 | 0-3 | |
| N | 51 | 32* | |
| Mother-to-be Identity: | | | |
| Mean | | 1.75 | |
| SD | (not measured) | 1.12 | (not measured) |
| Range | | 1-3 | |
| N | | 19 | |
| Mother Identity: | | | |
| Mean | .55 | 1.30 | 1.90 |
| SD | .92 | 1.02 | .88 |
| Range | 0-3 | 0-3 | 1-3 |
| N | 51 | 32 | 51 |

*Note: The drop in the number of people who named Pregnancy and Mother identities is due to women who named a Mother-to-be identity but not a Pregnancy or Mother identity.

Table 5

Means, Standard Deviations, and Ranges for the Number of Attributes Classes Associated With an Identity in the Identity Structure

| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> |
|-------------------------------|----------------|---------------|----------------|
| Pregnancy Identity: | | | |
| Mean | 3.51 | 4.43 | |
| SD | 1.93 | 1.80 | (not measured) |
| Range | 0-7 | 0-7 | |
| N | 51 | 32* | |
| Mother-to-be Identity: | | | |
| Mean | | 5.95 | |
| SD | (not measured) | 2.30 | (not measured) |
| Range | | 2-7 | |
| N | | 19 | |
| Mother Identity: | | | |
| Mean | 1.49 | 3.20 | 4.39 |
| SD | 2.32 | 2.07 | 1.59 |
| Range | 0-7 | 0-7 | 1-7 |
| N | 51 | 32 | 51 |

*Note: The drop in the number of people who named Pregnancy and Mother identities is due to women who named a Mother-to-be identity but not a Pregnancy or Mother identity.

Table 6

Means, Standard Deviations, and Ranges for the Integration of an Identity in the Identity Structure

| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> |
|------------------------|----------------|---------------|----------------|
| Pregnancy Identity: | | | |
| Mean | .31 | .34 | |
| SD | .41 | .38 | (not measured) |
| Range | 0-1 | 0-1 | |
| N | 51 | 32* | |
| Mother-to-be Identity: | | | |
| Mean | | .32 | |
| SD | (not measured) | .29 | (not measured) |
| Range | | 0-.8 | |
| N | | 19 | |
| Mother Identity: | | | |
| Mean | .18 | .36 | .50 |
| SD | .33 | .40 | .41 |
| Range | 0-1 | 0-1 | 0-1 |
| N | 51 | 32 | 51 |

*Note: The drop in the number of people who named Pregnancy and Mother identities is due to women who named a Mother-to-be identity but not a Pregnancy or Mother identity.

Table 7

Means, Standard Deviations, Ranges and Reliability Coefficients for Attitudes Toward Pregnancy Scales

| | <u>Time 1</u> | <u>Time 2</u> |
|--|---------------|---------------|
| Positive Feelings About Pregnancy | | |
| Mean | 51.98 | 51.78 |
| SD | 9.46 | 8.30 |
| Range | 28-69 | 33-66 |
| Alpha Coefficient | .82 | .73 |
| | | |
| Negative Feelings About Pregnancy | | |
| Mean | 38.10 | 41.10 |
| SD | 9.60 | 11.44 |
| Range | 18-59 | 16-61 |
| Alpha Coefficient | .69 | .73 |

Table 8

Means, Standard Deviations, and Ranges for the Childbearing Attitudes Questionnaire Subscales

| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> |
|--------------------------|---------------|---------------|---------------|
| <u>Subscale</u> | | | |
| Maternal Worries | | | |
| Mean | 23.65 | 24.24 | 20.82 |
| SD | 6.88 | 6.33 | 6.17 |
| Range | 9-37 | 9-37 | 9-37 |
| Maternal Self-Confidence | | | |
| Mean | 18.65 | 17.82 | 21.27 |
| SD | 4.83 | 4.03 | 4.24 |
| Range | 9-27 | 10-28 | 9-27 |

Table 9

Alpha Reliability Coefficients of Childbearing Attitudes Questionnaire Subscales

| <u>Subscale</u> | <u>Present Study</u> | | | <u>Ruble et al. (1990)</u> | |
|-----------------|----------------------|---------------|---------------|----------------------------|------------------|
| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> | <u>Pregnant</u> | <u>Postnatal</u> |
| Worries | .70 | .68 | .69 | .70 | .63 |
| Self-Confidence | .80 | .74 | .78 | .74 | .72 |

Table 10

Means, Standard Deviations, Ranges, and Alpha Reliability Coefficients for the Information-Seeking Scale

| | <u>Present Study</u> | | | <u>Deutsch et al. (1988)</u> |
|--------------------|----------------------|---------------|---------------|------------------------------|
| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> | |
| <u>Subscales</u> | | | | |
| Pregnancy | | | | |
| Mean | 23.92 | 20.88 | 8.92 | |
| S.D. | 6.12 | 6.77 | 8.46 | |
| Range | 7-35 | 8-33 | 5-34 | |
| Alpha | .83 | .86 | .95 | .92 |
| Labor and Delivery | | | | |
| Mean | 12.37 | 18.41 | 6.96 | |
| S.D. | 5.83 | 3.83 | 7.06 | |
| Range | 4-25 | 11-28 | 4-27 | |
| Alpha | .72 | .54 | .98 | NA |
| Motherhood | | | | |
| Mean | 14.84 | 25.14 | 18.53 | |
| S.D. | 7.96 | 7.44 | 9.17 | |
| Range | 6-32 | 8-42 | 6-37 | |
| Alpha | .91 | .82 | .88 | .86 |
| <u>Total Scale</u> | | | | |
| Mean | 50.82 | 64.43 | 34.41 | |
| S.D. | 15.98 | 14.79 | 21.41 | |
| Range | 19-86 | 29-98 | 15-93 | |
| Alpha | .89 | .87 | .95 | |

Table 11

Means, Standard Deviations, Ranges and Reliability Coefficients for the Social Acknowledgement Scale

| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> |
|-------|---------------|---------------|---------------|
| Mean | 34.00 | 38.67 | 42.75 |
| SD | 7.33 | 6.64 | 6.77 |
| Range | 18-49 | 22-53 | 23-58 |
| Alpha | .63 | .57 | .72 |

Table 12

Means, Standard Deviations, and Ranges for Physical Signs and Symptoms

| | <u>Time 1</u> | <u>Time 2</u> |
|-------|---------------|---------------|
| Mean | 4.5 | 7.0 |
| SD | 1.9 | 1.4 |
| Range | 1-8 | 4-10 |

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Table 13

Means, Standard Deviations, and Ranges for Percent of Time Spent Caring for Infant

| | <u>Mother</u> | <u>Father</u> | <u>Others</u> |
|-------|---------------|---------------|---------------|
| Mean | 65.04 | 20.98 | 15.75 |
| SD | 20.90 | 10.98 | 18.03 |
| Range | 15-97 | 3-50 | 0-70 |

Table 14

Correlation Coefficients for the Relationship Between Identity Importance and Structural Variables Over the Course of the Transition to Motherhood

| | <u>Identity Importance</u> | |
|---------------------|----------------------------|------------------------|
| | <u>Pregnancy Identity</u> | <u>Mother Identity</u> |
| Time 1: | | |
| #Attributes | .38** | .48*** |
| Level | .48*** | .46*** |
| # Attribute Classes | .52*** | .54*** |
| Integration | .41** | .44*** |
| Time 2: | | |
| #Attributes | .52*** | .68*** |
| Level | .50*** | .73*** |
| # Attribute Classes | .29 | .77** |
| Integration | .33* | .54* |
| Time 3: | | |
| #Attributes | (not | .22 |
| Level | measured) | .12 |
| # Attribute Classes | | .16 |
| Integration | | .15 |
| * p < .05 | | |
| ** p < .01 | | |
| *** p < .001 | | |

Table 15

Frequencies of Identities Named Over Time

| <u>Identity</u> | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> |
|--------------------------------|---------------|---------------|---------------|
| Pregnant Woman | 90.2 | 62.7 | 0.0 |
| Mother | 31.4 | 50.0 | 100.0 |
| Mother-to-be | 0.0 | 37.3 | 0.0 |
| Wife | 95.9 | 100.0 | 92.9 |
| Housewife | 8.2 | 0.0 | 10.7 |
| Work | 100.0 | 97.7 | 49.0 |
| Daughter | 83.7 | 79.1 | 75.0 |
| Sister | 59.2 | 60.5 | 60.7 |
| Other Family | 28.6 | 41.9 | 35.8 |
| Friend | 55.1 | 55.1 | 39.3 |
| Woman | 49.0 | 23.3 | 14.3 |
| Ethnic/Racial | 25.5 | 9.3 | 7.1 |
| Religious | 32.7 | 30.2 | 14.3 |
| Political | 25.5 | 14.0 | 3.6 |
| Hobbies | 28.5 | 7.0 | 0.0 |
| Age | 26.5 | 7.0 | 3.6 |
| Personality Characteristics | 26.5 | 9.3 | 7.1 |
| Other | 4.0 | 7.0 | 17.8 |

Table 16

Change in Mother Identity Variables Over the Course of the Transition to Motherhood

| | <u>Time 1</u> | <u>Time 2</u> | <u>Time 3</u> | <u>F</u> |
|--------------------------------|---------------|---------------|---------------|----------|
| Rated Importance | 6.20 | 6.30 | 13.55 | 27.52*** |
| Number of Attributes | 2.75 | 9.13 | 12.88 | 19.00*** |
| Level | .55 | 1.30 | 1.90 | 11.54*** |
| Elaboration | 1.49 | 3.20 | 4.39 | 7.74*** |
| Integration | .18 | .36 | .50 | 6.62** |
| Attitudes Toward Motherhood | 35.6 | 37.0 | 42.5 | 16.21*** |

** p < .01

*** p < .001

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Table 17

Identity Labels Used by Different Groups at Times 1 and 2

| <u>Group</u> | <u>Identity</u> | <u>Time 1</u> | <u>Time 2</u> |
|--------------|-----------------|---------------|---------------|
| 1 (n=13) | Pregnancy | yes | yes |
| | Mother | no | yes |
| | Mother-to-be | no | no |
| 2 (n=10) | Pregnancy | yes | yes |
| | Mother | yes | yes |
| | Mother-to-be | no | no |
| 3 (n=6) | Pregnancy | yes | no |
| | Mother | no | yes |
| | Mother-to-be | no | no |
| 4 (n=9) | Pregnancy | yes | no |
| | Mother | no | no |
| | Mother-to-be | no | yes |
| 5 (n=10) | Pregnancy | yes | no |
| | Mother | yes | no |
| | Mother-to-be | no | yes |

Table 18

Mean Scores on the Positive and Negative Feelings About Pregnancy Scales And Changes in Negative Feelings About Pregnancy For the Five Groups of Women

| | Group | | | | | F |
|--|-------------|-------------|------------|------------|-------------|--------|
| | 1 (n=13) | 2 (n=10) | 3 (n=6) | 4 (n=9) | 5 (n=10) | |
| Negative Feelings About Pregnancy (Time 1) | 39.2 | 41.0 | 40.7 | 37.9 | 30.0 | 2.56* |
| (Time 2) | 40.9 | 41.3 | 48.3 | 46.0 | 30.3 | 3.99** |
| Positive Feelings About Pregnancy (Time 2) | 50.5 | 54.9 | 43.8 | 50.1 | 56.7 | 3.46** |
| Changes in Negative Feelings About Pregnancy (Time 1 - Time 2) | 1.7 | .3 | 7.7, | 8.1 | .3 | 3.10* |

*p<.05
**p<.01

Table 19

Summary of Simultaneous Regression Analyses for the Relationship Between Active Identity Work and Positive Feelings About Pregnancy at Time 1.

| Variable | B | SE B | Beta |
|--|------|------|--------|
| Planning | 2.36 | .47 | .58*** |
| Information-seeking About Pregnancy | .25 | .18 | .16 |
| Social Acknowledgement | .18 | .17 | .14 |

Note. $R^2=.45$, $F(3,46)=12.6$, $p<.001$. All variables are measured at Time 1.

*** $p < .001$

Summary of Simultaneous Regression Analyses for the Relationship Between Active Identity Work and Positive Feelings About Pregnancy at Time 2.

| Variable | B | SE B | Beta |
|--|------|------|--------|
| Planning (Time 1) | 1.89 | .47 | .53*** |
| Information-seeking About Pregnancy | -.19 | .19 | -.15 |
| Social Acknowledgement | .09 | .16 | .07 |

Note. $R^2=.31$, $F(3,47)=5.61$, $p<.002$. Unless otherwise noted, all variables are measured at Time 2.

** $p < .01$

*** $p < .001$

Table 20

Summary of Simultaneous Regression Analyses for the Relationship Between Active Identity Work and Negative Feelings About Pregnancy at Time 1.

| Variable | B | SE B | Beta |
|--|-------|------|---------|
| Planning | -2.11 | .48 | -.50*** |
| Information-seeking About Pregnancy | -.12 | .19 | -.07 |
| Social Acknowledgement | .72 | .17 | .55*** |

Note. $R^2=.46$, $F(3,46)=11.6$, $p<.001$ All variables are measured at Time 1.

*** $p < .001$

Summary of Simultaneous Regression Analyses for the Relationship Between Active Identity Work and Negative Feelings About Pregnancy at Time 2.

| Variable | B | SE B | Beta |
|--|-------|------|---------|
| Planning (Time 1) | -3.02 | .57 | -.62*** |
| Information-seeking About Pregnancy | .29 | .19 | .17 |
| Social Acknowledgement | .81 | .23 | .47** |

Note. $R^2=.46$, $F(3,47)=12.8$, $p<.001$. Unless otherwise noted, all variables are measured at Time 2.

** $p < .01$

*** $p < .001$

Table 21

Summary of Simultaneous Regression Analyses for the Relationship Between Active Identity Work and Attitudes about Motherhood at Time 1.

| Variable | B | SE B | Beta |
|---|------|------|--------|
| Planning | 2.27 | .56 | .50*** |
| Information-seeking About Motherhood | -.02 | .18 | -.01 |
| Social Acknowledgement | -.47 | .22 | -.32* |

Note. $R^2=.35$, $F(3,47)=8.44$, $p<.001$. All variables are measured at Time 1.

* $p < .05$
 *** $p < .001$

Summary of Simultaneous Regression Analyses for the Relationship Between Active Identity Work and Attitudes about Motherhood at Time 2.

| Variable | B | SE B | Beta |
|---|------|------|-------|
| Planning (Time 1) | 1.78 | .54 | .44** |
| Information-seeking About Motherhood | -.36 | .17 | -.29 |
| Social Acknowledgement | -.56 | .22 | -.40* |

Note. $R^2=.26$, $F(3,47)=3.80$, $p<.02$. Unless otherwise noted, all variables are measured at Time 2.

* $p < .05$
 ** $p < .01$

Table 22

Summary of Hierarchical Regression Analysis for Variables Predicting the Rated Importance of Mother Identity After Childbirth (N=51)

| Variable | B | SE B | Beta |
|---|------|------|--------|
| Step 1 | | | |
| Mother Importance (Time 2) | -.07 | .12 | -.42 |
| Step 2 | | | |
| Information-seeking About Motherhood | .01 | .02 | .08 |
| Social Acknowledgement | .01 | .03 | .03 |
| Infant Temperament | .56 | .25 | .31*** |
| Step 3 | | | |
| Definition of Mother Identity (Time 1) | .15 | .33 | .07 |
| Definition of Mother Identity (Time 2) | 1.24 | 1.43 | .61 |
| Percent of Time Women Care for Infant | .02 | .01 | .43*** |
| Social Comparison | -.04 | .05 | -.13 |

Note. $R^2 = .01$ for Step 1. $\Delta R^2 = .03$ for Step 2. $\Delta R^2 = .19$ for Step 3, $F(8,42)=1.53$, $p<.18$. All predictors are measured after childbirth unless otherwise noted.

*** $p<.001$

Table 23

Summary of Hierarchical Regression Analysis for Variables Predicting Attitudes Toward Motherhood After Childbirth (N=51)

| Variable | B | SE B | Beta |
|---|------|------|-------|
| Step 1 | | | |
| Attitudes Toward Motherhood (Time 2) | .29 | .12 | .30* |
| Step 2 | | | |
| Information-seeking About Motherhood | -.04 | .12 | -.04 |
| Social Acknowledgement | -.14 | .19 | -.10 |
| Infant Temperament | 8.18 | 2.70 | .52** |
| Step 3 | | | |
| Definition of Mother Identity (Time 1) | .26 | 2.43 | .01 |
| Definition of Mother Identity (Time 2) | 3.28 | 2.46 | .18 |
| Percent of Time Women Care for Infant | .01 | .05 | .01 |
| Social Comparison | .12 | .42 | .35** |

Note. $R^2 = .17$ for Step 1, $\Delta R^2 = .01$ for Step 2. $\Delta R^2 = .23$ for Step 3, $F(8,42)=3.56$, $p<.01$. All predictors are measured after childbirth unless otherwise noted.

* $p < .05$

** $p < .01$

Table 24

Summary of Simultaneous Regression Analysis for the Relationship Between Infant Temperament and the Percent of Time Women Care For Their Infants and the Rated Importance of Mother Identity After Childbirth (N=51)

| Variable | B | SE B | Beta |
|--|-----|------|-------|
| Percent of Time Women Care for Infant | .02 | .01 | .38** |
| Infant Temperament | .51 | .20 | .31** |

Note. $R^2 = .16$, $F(2,48)=4.63$, $p<.01$. All predictors are measured after childbirth.

** $p<.01$

Table 25

Summary of Hierarchical Regression Analysis for Variables
Predicting Attitudes Toward Motherhood After Childbirth
(N=51)

| Variable | B | SE B | Beta |
|---|------|------|-------|
| Step 1 | | | |
| Attitudes Toward Motherhood (Time 2) | .39 | .13 | .41** |
| Step 2 | | | |
| Infant Temperament | 6.98 | 2.36 | .45** |
| Social Comparison | .04 | .01 | .36* |

Note. $R^2 = .17$ for Step 1. $\Delta R^2 = .21$ for Step 2,
 $F(8,42)=9.44$, $p<.001$. All predictors are measured after
childbirth unless otherwise noted.

*** $p<.001$

Figure 1: The Process of Identity Acquisition

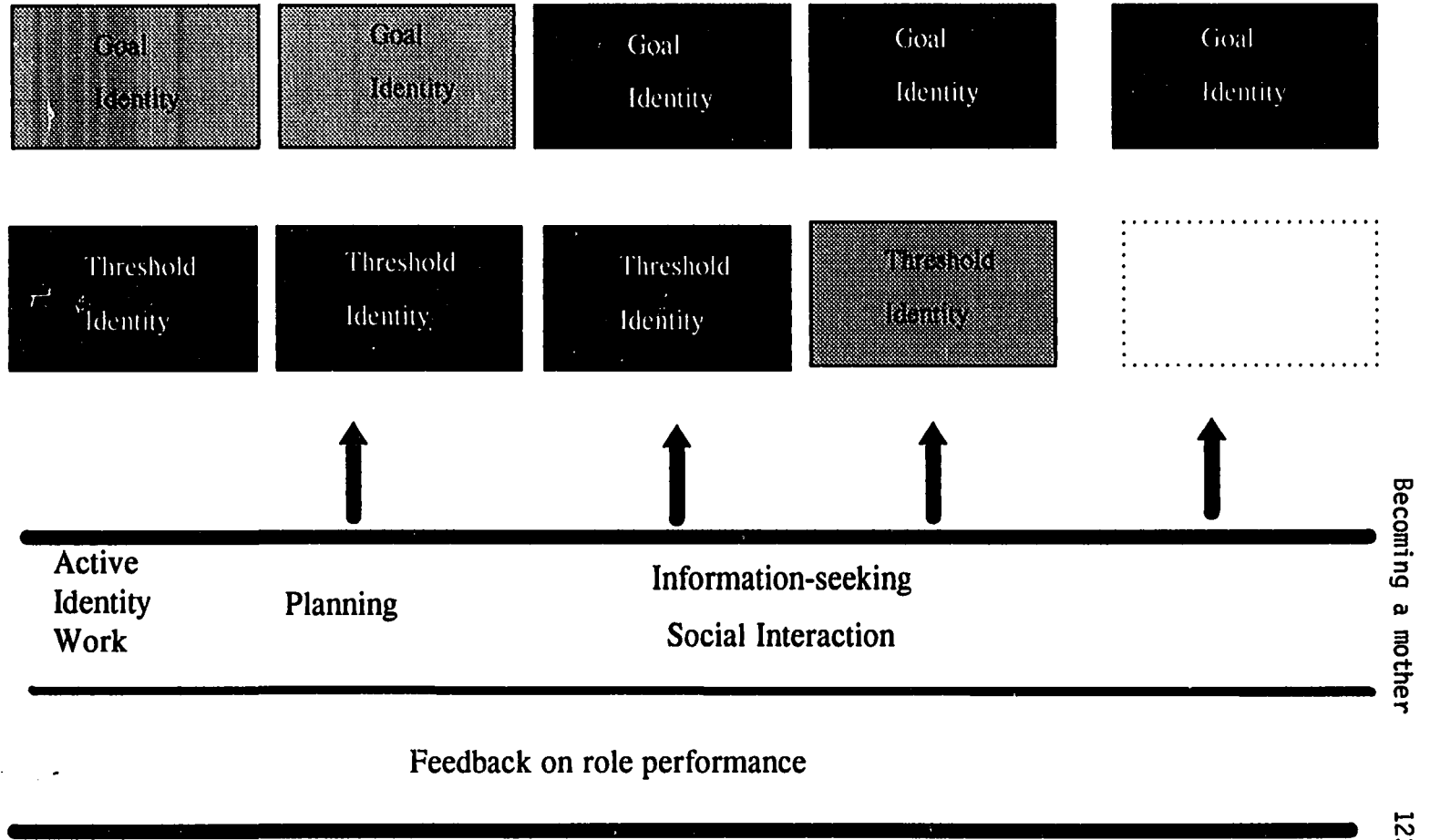


Figure 2: The Acquisition of Mother Identity

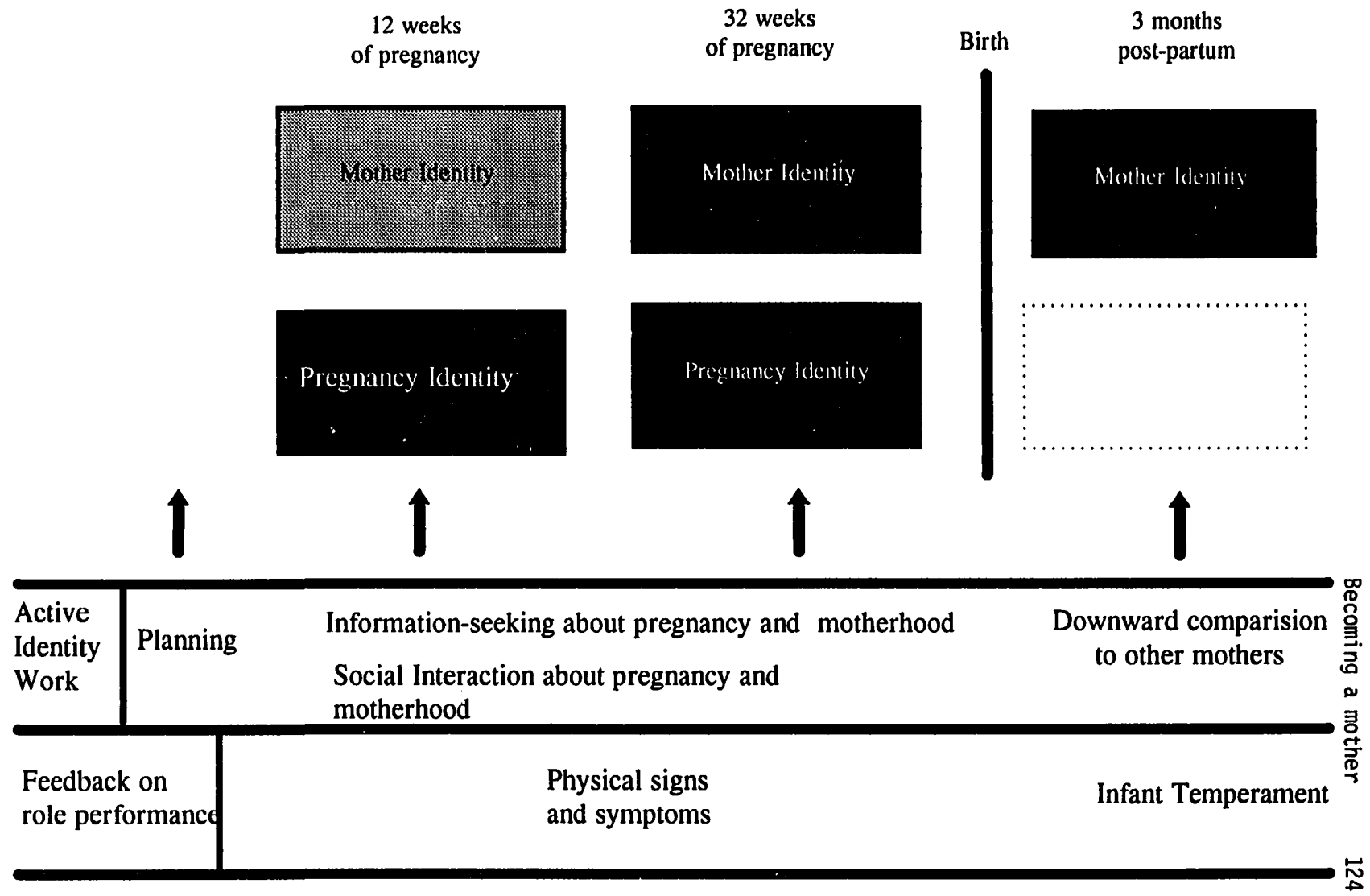
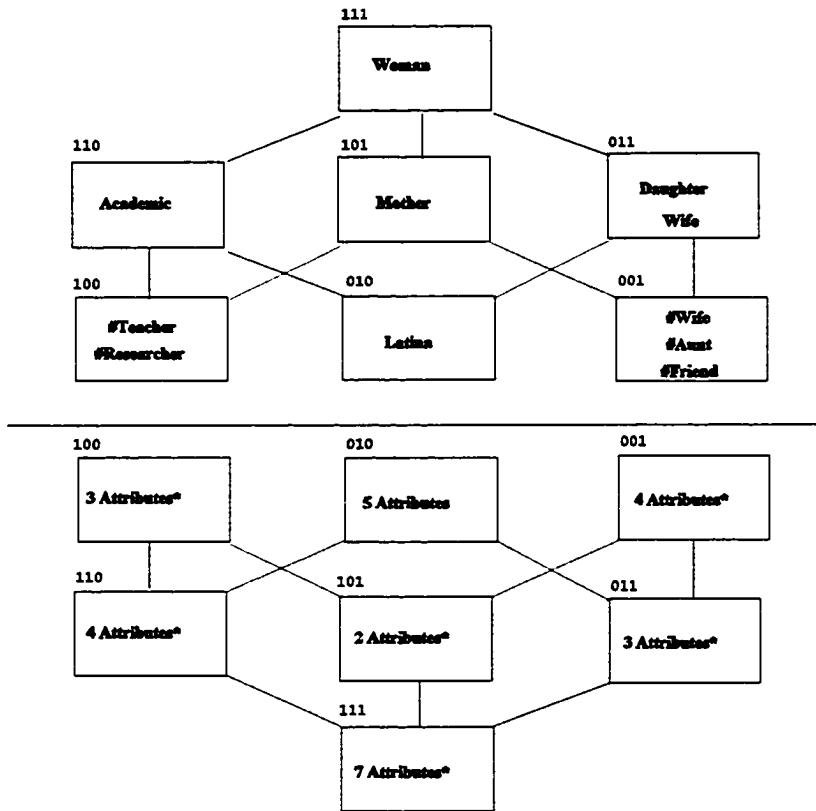


Figure 3

Hypothetical Identity Structure



Mother Identity:

Level = 2

Number of Attribute Classes = 6

Integration = $5/10 = .5$

* Attribute classes to which the Mother Identity is connected.

Identities that the Mother Identity encompasses.

Appendix A

Positive and Negative Feelings About Pregnancy Scale Items

Positive

Physically, I feel wonderful being pregnant.

I'm not worried about how the baby will change my relationships with friends and family.

My relationship with my husband/partner has really improved while I've been pregnant.

I really enjoy being pregnant.

My pregnancy has been such a positive experience that I know I'm going to be happy being a mother.

I will be able to get through labor and delivery well.

My relationships with family members have really improved since I became pregnant.

I'm really enjoying the attention I get because I'm pregnant.

Being pregnant makes me think about the positive ways my life is going to change when my baby is born.

My relationships with my friends have really improved since I became pregnant.

I enjoy talking to friends and family about my pregnancy.

Negative

Other people seem to only be able to talk to me about my pregnancy.

Physically, I don't feel well.

I've been very sick since I became pregnant.

I'm tired all of the time.

Being pregnant has taken over my life and I don't have time or energy to concentrate on other things that I enjoy.

I don't like that people treat me very differently because I'm pregnant.

I don't like people patting my stomach.

I am worried that my relationship with my husband is going to be more difficult when my pregnancy is over.

Since I've been pregnant I've worried about not having any time to myself after the baby is born.

I am worried about going through labor and delivery.

Being pregnant makes me feel like I will be taking care of other people from now on.

Appendix B

Childbearing Attitudes Questionnaire Items

Worries About Motherhood

It will be overwhelming to be completely responsible
for the care and welfare of another person.

There is so much to know about babies, I wonder if I'll
ever learn enough to feel comfortable.

I am concerned that I will not know what to do when my
baby cries.

I wonder if I'll be able to give my child all the love
he/she will need.

I often find myself worrying about my baby's health.

I feel anxiety over providing for my coming family.

Confidence About Motherhood

I am certain that I will be a good mother.

I anticipate no difficulties in becoming comfortable
caring for my child.

I feel completely ready for motherhood.

I feel comfortable about my abilities.

Appendix C

Information-seeking Scale Items

Topics

Physical changes during pregnancy.

Taking care of oneself during pregnancy.

Sex during pregnancy.

Positive aspects of pregnancy.

Negative aspects of pregnancy.

The physical process of labor and delivery.

Choosing a doctor or midwife.

The use of drugs during labor and delivery.

Emergency procedures (e.g., Caesarian section).

Actual care of an infant.

Positive aspects of motherhood.

Negative aspects of motherhood.

Breastfeeding.

Positive aspects of the post-partum period.

Negative aspects of the post-partum period.

Appendix D

Social Acknowledgement Scale Items

I have only told my close family and friends that I am pregnant.

My mother and I have talked about little other than my pregnancy since it began.

People ask me many questions about my experiences being pregnant.

Everyone I talk to asks me how I'm feeling before anything else.

I try not to make my pregnancy the topic of every conversation I have.

People touch my stomach a lot.

People who I didn't have much contact with before I was pregnant now call or stop by to ask how I am.

My interactions with people at work have changed since I told them I was pregnant.

I enjoy telling people that I'm pregnant.

My husband/partner and I rarely talk about anything else besides the baby.

Appendix E

Infant Temperament Scale Items

The infant is fussy on waking up and going to sleep.

The infant's hunger cry can be stopped for over a minute by picking up, pacifier, putting on bib, etc.

The infant accepts his/her bath any time of day without resisting it.

The infant wants and takes feedings at about the same times (within one hour) each day.

The infant continues to fuss during diaper change in spite of efforts to distract him/her.

The infant amuses self for 1/2 hour or more in crib or play pen.

The infant resists changes in feeding schedule (1 hour or more) even after two tries.

The infant gets sleepy at about the same time each evening.

The infant accepts regular procedures (bathing, nail cutting, etc.) at any time without protest.

The infant sits still (little squirming) while traveling in car seat or stroller.

The infant objects to being bathed in a different place or by a different person even after two or three tries.

The amount of milk the infant takes at feedings is quite unpredictable (over 2 ounce difference) from feeding to feeding.

For the first few minutes in a new place or situation the infant is fretful.

The infant continues to cry in spite of several minutes of soothing.

The infant wants daytime naps at differing times (over 1 hour difference) from day to day.

The infant cries when left alone.

The infant's daytime naps are about the same length from day to day.

The infant can be soothed by talking or singing when sleepy.

The infant adjusts easily and sleeps well within one or two days to changes of sleep time or place.

The infant cries for less than one minute when given an injection.

The infant's time of waking in the morning varies greatly (by one hour or more) from day to day.

The infant can be distracted from fussing or squirming during a procedure (bathing, nail cutting).

The infant is calm in the bath.

The infant's reaction to any new procedure is objection.

Appendix F

Social Comparison with other mothers

Some women who are mothers are worse off than I am.

I'm doing better compared to some women who are mothers.

I'm better off than some women who are mothers.

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