

## The Interaction of Positive and Negative Childbearing Desires: A Graphic Model

Warren B. Miller  
Transnational Family Research Institute

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Childbearing desires may be thought of as conscious motivational constructs that lie intermediate between the latent dispositions that humans have to respond positively or negatively to the prospect of having a child –i.e., childbearing motivational traits- and the plans or intentions that humans formulate in their minds when they decide to have or avoid having a child. Thus childbearing desires stand mid-way in the motivational sequence (traits-desires-intentions) that regulates the behaviors that in turn determine whether or not childbearing occurs (Miller, 1994).

Frequently childbearing desires are conceptualized in terms of a single bipolar dimension in which high or strong desires to have a child fall at one end of the dimension and high or strong desires not to have a child fall at the other end. This is typically measured by a question such as the one used by the NSFG that asks respondents to look at the depiction of an equal-interval eleven-point scale with a 0 at one end and a 10 at the other end and then use that scale to rate their childbearing desires right before they got pregnant with a particular pregnancy. The interviewer explains that the 0 means they wanted to avoid a pregnancy and the 10 means they wanted to get pregnant. Scores falling somewhere between 0 and 10 implicitly mean that the respondents' feelings about getting pregnant fell somewhere between the two extreme forms of wanting to avoid and wanting to achieve pregnancy.

An alternative approach is to conceptualize childbearing desires in terms of two unipolar dimensions. In this case one would posit that there are two separate desires that are driven by two fundamentally different types of motivation. One desire is the desire to get pregnant and have a child, which is driven by positive childbearing motivation, and the other desire is the desire to avoid getting pregnant and having a child, which is driven by negative childbearing motivation<sup>1</sup>. Each of these desires is unipolar. Thus the desire to get pregnant and have a child can be scaled from 0 = no desire to 5 = strong desire. Similarly, the desire to avoid getting pregnant and having a child can be scaled from 0 = no desire to 5 = strong desire. An important consequence of conceptualizing childbearing desires as two separate unipolar dimensions is that the two desires are then freed up to be independent of each other. There is good evidence that separate brain systems are involved in the rewards and punishments that are implicit in separate dimensions of this

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<sup>1</sup> It will be noted that getting pregnant and having a child are lumped together in this discussion. However, these can represent two entirely separate goals for the individual as evidenced by the fact that in some groups they have distinct motivational antecedents (Miller, Sable, & Csizmadia, in press). For the purposes of the present discussion of childbearing desires, I will make the simplifying assumption that getting pregnant and having a child together constitute a single goal toward which people orient their behavior.

sort (Cacioppo & Berntson, 1994) and, in fact, my own research has demonstrated that two broad measures of positive and negative childbearing motivation are largely uncorrelated with each other (Miller, 1995).

Figure 1 visualizes the proposed conceptualization. It assumes two unipolar desire dimensions that are orthogonal to each other, and therefore uncorrelated, and allows an examination of some important implications of such an arrangement. The two dashed lines represent the two unipolar desire dimensions, each extending from a valence of 0 to a valence of 5, the positive dimension from bottom right to top left and the negative dimension from bottom left to top right. Together these two lines define two additional dimensions, represented by the two lines with arrow heads. Line AC constitutes a pronatal/antinatal valence dimension. As it moves from the area on the right, where desires scores are high negative and low positive, to the area on the left, where they are high positive and low negative, it expresses a prenatal valence change. Movement in the opposite direction expresses an antinatal valence change. Line BD constitutes an intensity dimension. As it moves from the area below, where desires scores are low negative and low positive, to the area above, where they are high positive and high negative, intensity increases. Movement in the opposite direction indicates a decrease of intensity.

The self-report measures that operationalize this approach to the motivational structure that underlies childbearing require careful presentation to respondents in order to ensure reliability and validity. Perhaps the most important step is to prepare respondents for separate questions about positive and negative desires by explaining the distinction between them before hand. My own research with the Childbearing Questionnaire (Miller, 1995) has demonstrated that the notion of two separate unipolar measures is readily grasped by the average respondent.

Assuming that we have collected data for two such unipolar desire scales, a very useful approach to analysis is to classify respondents according to how their positive and negative desires interact. There are many ways to do this but one approach that illustrates well the potential explanatory power that comes from interacting two desire dimensions is to categorize respondents as to whether they fall into the high or low end of each of the two desires scales. This then generates a four category typology, which may be visualized by rotating Figure 1 45 degrees clockwise. When this is done the two dashed line can be seen as forming a two-by-two table, with respondents in the top left cell being high + and low -, those in the bottom right cell being low + and high -, those in the top right cell being high + and high -, and those in the bottom left cell being low + and low-. These four categories can in turn be designated with descriptive terms. The high + and low - category may be said to be strongly motivated toward childbearing, while the low + and high - category may be said to be strongly motivated against childbearing. The high + and high - category may be characterized as ambivalently motivated toward childbearing and the low+ and low - category may be characterized as indifferently motivated toward childbearing. Although this fourth group may also be said to be ambivalently motivated because their positive and negative childbearing motivations are

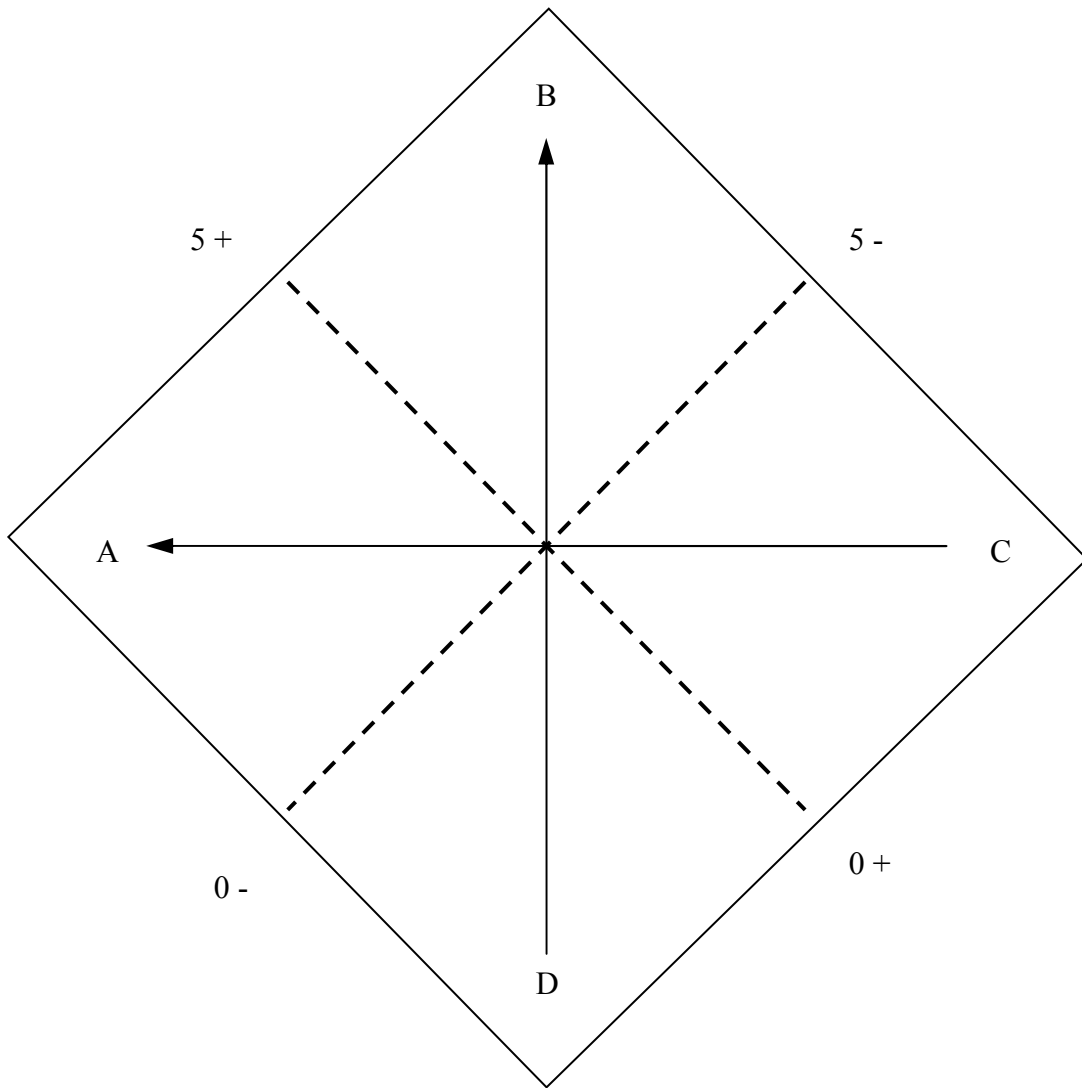


Figure 1. A graphic representation of the orthogonal interaction of two unipolar motivational dimensions, one + and the other -, both varying from 0 to 5. Line AC represents a net pronatal dimension and line BD represents a net intensity dimension.

more or less in balance, it is the low intensity of both of their motivations that especially distinguishes this category; hence, the “indifferent” designation.

The four category typology is a useful heuristic device but the reality is that positive and negative childbearing desires are best thought of as interval variables that characterize a continuum. This feature makes it possible to represent the interactions of the desire dimensions described above by means of some fairly simple mathematical manipulations. Thus line AC in Figure 1 can be calculated as a single score based on the positive desires score less the negative desires score. This would generate a bipolar pronatal/antinatal scale running from +5 (a 5 on positive desires minus a 0 on negative desires) to -5 (a 0 on positive desires minus a 5 on negative desires). Calculation of the BD line in Figure 1 is a bit more complicated because it involves combining the valence and intensity dimensions, which can be done in several ways. For example, an intensity score can be calculated by adding both positive and negative desires together, yielding a scale that extends from 0 (a 0 on both positive and negative desires) to 10 (a 5 on both positive and negative desires). Then a difference score can be calculated as the absolute value of positive desires minus negative desires, yielding a scale that extends from 0 (the same score on both positive and negative desires) to 5 (a 0 on either positive or negative desires and a 5 on the other). A bipolar ambivalence/indifference scale can then be generated by either subtracting this absolute difference score from the combined intensity score (Thompson, Zanna, & Griffin, 1995) or by multiplying the two together. A nice feature of the ambivalence/indifference scale is that it captures the way that ambivalence and indifference may be understood as polar opposites as discussed in the previous paragraph.

The descriptive terms used in discussing the four category typology suggest attitudes and behaviors that might be expected from the women falling in each category or group. The same is true for the descriptive terms used in connection with the two orthogonal bipolar scales. Thus these terms may be applied to the way that respondents might be expected to feel about a pregnancy. The high + and low- group would tend to feel a pregnancy was wanted, the low + and high - group would tend to feel a pregnancy was unwanted, the high + and high - group would tend to feel a pregnancy was ambivalently wanted, and the low + and low - group would tend to feel a pregnancy was indifferently wanted. The descriptive terms may also be applied to the social norms of different cultures. A society where social norms support high + and low - desires could be said to have a pronatal culture; and where the social norms support the opposite combination of desires, then it could be said to have an antinatal culture. Similarly, social norms might support desires in ways that produce ambivalent or indifferent cultures of natality.

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