Associations between Relational Pronoun Usage and the Quality of Early Family Interactions

Sarah Galdiolo1, Isabelle Roskam1, Lesley L. Verhofstadt2, Jan De Mol1, Laura Dewinne1 and Sylvain Vandaudenard1

1 Psychological Sciences Research Institute, Université catholique de Louvain, Louvain-la-Neuve, Belgium, 2 Department of Experimental Clinical and Health Psychology, Ghent University, Ghent, Belgium

Our study examined the relationships of relational pronouns used in parental conversation to the quality of early family interactions, as indexed by Family Alliance (FA). We hypothesized that more positive family interactions were associated with the use of more we-pronouns (e.g., we, us, our; we-ness) and fewer I- and you-pronouns (e.g., I, me, you, your; separateness) by both mothers and fathers. Our statistical model using a multilevel modeling framework and two levels of analysis (i.e., a couple level and an individual level) was tested on 47 non-referred families (n = 31 primiparous families; child's age, M = 15.75 months, SD = 2.73) with we-ness and separateness as outcomes and FA functions as between-dyads variables. Analyses revealed that we-ness within the parental couple was only positively associated with family affect sharing while separateness was negatively associated with different FA functions (e.g., communication mistakes). Our main finding suggested that the kinds of personal pronouns used by parental couples when discussing children’s education would be associated to the emotional quality of the family interactions.

Keywords: family alliance, we-ness, separateness, early family interactions, pronoun usage

INTRODUCTION

Mother: “Concerning our son’s education, we try to teach him values.”
Father: “Our values.”
Mother: “Yes, our values—and to do our best”.

These comments were made during a parental conversation on family, childcare and education in our study. The parents used we-pronouns to refer to important aspects of family life, whereas other parents might have concentrated more on their personal opinions and used you- and me-pronouns. Was such pronoun use simply fortuitous, or was it related to the degree of early family engagement and coordination? The aim of the current paper was to examine the association between pronouns used during parental conversations and quality of early family interactions.

We-ness Versus Separateness

The constructs of we-ness and separateness have long been studied in couples research (Singer et al., 2015). We-ness has been shown to reflect a schema of interdependence, shared responsibility, and partnership, while separateness would reflect one of independence and a focus on the individual spouses rather the couple as a unit. According to the investment model of interdependence, increases in relationship commitment should lead to a sense of we-ness and consequently to a
common couple identity in which “mental representations of
the couple became more prominent” (Agnew et al., 1998).
Researchers have employed natural language usage as an implicit
measure of we-ness and separateness. Psycholinguistic research
(Pennebaker and Stone, 2003) has shown that the words we
speak may reveal components of our psychological state such as
emotional feelings, social identity, and cognitive style. Current
research that has taken pronoun usage into account in the context
of couple relationships was encouraging. First-person plural
pronouns (e.g., we, our, us) seemed to reflect shared experience
while first-person (e.g., I, my, me), while second-person singular
(e.g., you, your) pronouns would reflect individuated experiences.
Individuals who preferentially employed we-pronouns rather
than you- and me-pronouns perceived their relationships as
more intimate and of higher quality (Fitzsimons and Kay,
2004). Seider et al. (2009) found evidence that pronoun use
was associated with the emotional quality of couple interactions
and to couple satisfaction. Specifically, they reported that we-
ness language correlated positively to interactions characterized
by low levels of negative emotional behavior and high levels of
positive emotional behavior. The opposite pattern of results was
found for separateness. Finally, Seider et al. (2009) reported that
older couples showed greater levels of we-ness and a greater
sense of shared identity because of the greater number of shared
experiences.

Early Family Interactions as a Context of
Interdependence
Until now, the constructs of we-ness and separateness as
assessed by natural language and pronoun usage have never
been studied in the family context, even though early family
interactions, especially, have been seen as an example of a context
of interdependence which involves a partial transformation of
identity (Agnew et al., 1998). Childbirth implies the arrival of
another individual in the family and in self- and relational
awareness (Aron et al., 1992). A model of early family interactions
has been developed called “Family Alliance” (FA),
which concerned “the degree of early family engagement and
cooperation in everyday activity involving triadic family
interactions (i.e., mother-father-child),” such as playing together
or having a meal (Favez et al., 2010). The aim of the current study
was to analyze whether we-ness and separateness language were
associated with FA.

Current Study and Hypotheses
In the current study, we examined pronoun usage during a
minimally structured parental conversation about the parents’
child's education. This study was thus the first to include a
measure of we-ness and separateness arising from conversational
text analysis and the observational assessment of early family
interactions, all obtained during actual family interactions.
According to the investment model of interdependence, and
because family is a context of interdependence, we hypothesized
that more positive family interactions would be associated with
the use of more we-pronouns and fewer I- and you-pronouns
by both mothers and fathers. Like Fitzsimons and Kay (2004),
we expected that parents who preferentially used we-pronouns as
opposed to you- and me-pronouns would show a higher degree of
family engagement and coordination. Secondly, like Seider et al.
(2009) we expected that, because of shared experiences in couple
and family life, long-term couples and multiparous parental
couples would use more we-pronouns and fewer separateness-
pronouns. Hypotheses were tested in a multilevel modeling
framework.

METHOD
Sample
Data were collected within a sample of 47 non-referred French-
speaking heterosexual families (n = 31 primiparous families).
The children were 30 girls and 17 boys (Age, M = 15.75 months,
SD = 2.73). Parents were aged from 23 to 43 years old
(M = 28.87, SD = 3.63) and were paired as couples (Relationship
duration, M = 7.63, SD = 3.50). Participants were recruited
with the help of seven gynecologists from hospitals who gave
information about the current study to their patients verbally and
by means of a flyer.

Procedure
Data were collected using the Lausanne Trilogue Play procedure
(LTP; Fivaz-Depeursinge and Corboz-Warnery, 1999) which was
a semi-standardized observation play situation including mother,
father, and baby together. Experimenters asked parents to sit
in front and on each side of their child so that the three were
arranged in a triangle. Technical equipment consisted of two
cameras, one recording the parents and one the child. Researchers
gave the following guidelines: “We’ll ask you to play together
as a family in four separate situations. In the first, one of you
plays with the child and the other one is simply present. In
the second, you reverse the roles. In the third, the three of you
will play together. In the last part, you (i.e., parents) will talk a
while together about how you raise your child, and it will be the
child’s turn to be simply present.” The research team randomly
decided who began the game in order to counterbalance any
possible order effect between the mother and father. The partners
were allowed to interact for as long as they considered necessary,
without any time limit. The mean duration of the LTP in this
study was 14 min, 34 s (SD = 4.47), instructions included.
Before participating in the LTP, parents were asked to separately
complete a brief questionnaire on relationship satisfaction. For
ethical reasons, this study was registered with the Commission
for the Protection of Privacy in Belgium. Parents signed an informed
consent and were assured that the collected data would remain
confidential.

Measures
Family Alliance
Family Alliance was evaluated with the Family Alliance
Assessment Scale (FAAS; Favez et al., 2010), which included 11
scales operationalizing the five functions of FA, as described in
Table 1. These functions represent interactional family patterns
and were needed for establishing a successful interaction. Each
scale allowed an evaluation of the family interaction according to an ordinal scoring system in three points: appropriate (2 points), moderate (1 point), and inappropriate (0 point). We used FAAS to analyze family interactions during the LTP. During the last part of the LTP, we asked the parents to talk to one another about the way they raised their child and to give their opinions about education-related questions (e.g., setting limits, rewarding, showing love and affection; Duration, $M = 3.35, SD = 1.52$). The scores of the different scales were added to obtain the score of each function. The higher the scores of the functions were, the more positive was the FA. Previous evidence for the reliability and validity of the FAAS functions can be found in Favez et al. (2010).

One certified coder (i.e., trained in LTP coding) coded all the videos. Two additional coders each coded half of the videos (videotaped interactions were randomly assigned to one of two coders), so that all the videos were double-coded to test inter-rater reliability. Inter-rater reliability (i.e., intra-class coefficient, ICC) ranged from 0.61 to 0.90, with an average of 0.80, all correlations being significant to at least $p < 0.05$. High internal consistency across 11 scales of FA ($\alpha = 0.92$) was also observed. In our sample, a five-factor solution relative to the five functions emerged, explaining 82.60% of the variance. As ranging from 0.63 to 0.80 and ICC was 0.87.

**RESULTS**

**Statistical Analysis**

Data were analyzed using hierarchical linear modeling (HLM 6.08). Our model included two levels of analysis, i.e., a couple-level (level 2 data) and an individual-level (level 1 data) with we-ness and separateness scores separately as the outcomes. Three kinds of predictors were included, i.e., between-dyads, within-dyads, and mixed variables. Between-dyads variables (i.e., variables with the same score for both partners in a couple, but different from couple to couple, i.e., FA functions, couple's relationship duration, and primiparity/multiparity) were introduced at the level 2 data (i.e., couple-level). Within-dyads variables (i.e., different within a single couple but similar between couples, i.e., gender) and mixed variables (i.e., variation both within the couple and between couples, i.e., relationship satisfaction and age) were introduced at the level 1 data (i.e., individual-level). Age, gender, and relationship satisfaction were used in the statistical model as control variables. Note that because of close correlations between the different FA functions, with $0.35 < r < 0.81, p < 0.001$, we used the residuals of the FA functions as between-dyads variables (for more details, see Table 1).

**We-ness and Separateness**

Two trained research assistants coded the we-ness and the separateness data in accordance with the coding procedure developed by Seider et al. (2009). The first step consisted in the verbatim transcription of the videotaped part 4 of the LTP and of identifying pronouns used by the parents when talking about child's education. Secondly, each pronoun was classified in one of three categories: (a) me-pronouns referring to the self, (b) you-pronouns referring to the partner, and (c) we-pronouns referring to the parental couple. Similar to Seider et al. (2009), the verbal context of participants' pronouns was considered as well, given its influence on the meaning of a particular pronoun. For example, “pronouns used as part of an idiomatic expression” used to fill a pause in conversation (e.g., “I don't know...”) were not classified in one of the categories above (for more details on the contextual analysis, see Seider et al., 2009). Finally, the number of we-pronouns of each mother and father was divided by the total number of words spoken by the mother and father, respectively (i.e., we-ness). The number of me-pronouns and you-pronouns for each mother and father were summed and then divided by the total number of words spoken by the mother and father, respectively (i.e., separateness; Hinnekens et al., 2016). Scores potentially ranged from 0 to 1. This procedure resulted in two pronoun variables for each parent, namely the we-ness and the separateness constructs. Reliability for this coding in the current study was very high (Cohen's kappa = 0.98).

**Relationship Satisfaction**

The Kansas Marital Satisfaction Scale (KMSS; Schumm et al., 1983) was a 3-item measure designed to assess relationship satisfaction with a 7-point Likert-type scale (1 = Extremely dissatisfied and 7 = Extremely satisfied). High internal consistency ($\alpha = 0.94$) was observed. Each partner's score was separately entered in the analysis.
HLM Model

Preliminary analyses indicated that the means, standard deviations, and ranges for the we-ness and separateness measures were 0.04 for both constructs (SD = 0.03 for we-ness and separateness; Range: 0.00–0.15 and 0.00–0.18 for we-ness and separateness, respectively). Significant negative correlations were found between the two types of pronouns both for mothers, \( r = -0.42, p = 0.003 \), and fathers, \( r = -0.57, p = 0.000 \). Examining the size of the correlation coefficients suggested that there was 18% and 32% shared variance between we-ness and separateness pronouns for mothers and fathers, respectively. The percentage of shared variance led us to treat the constructs of interest separately.

Two conditional models were tested with we-ness and separateness as outcomes, respectively. These models allowed us to test our main hypothesis, which questioned whether more positive family interactions were associated with the use of more we-pronouns and fewer I- and you-pronouns by both mothers and fathers. Table 2 depicts the results of the conditional models of we-ness and separateness with the FA functions as predictors. For we-ness, significant positive effect of affect sharing (\( \beta = 0.012, p = 0.009 \)) was found: The more the family shared warmth and positive affect, the more we-ness pronouns were used during parental conversation. For separateness, significant negative effects of participation (\( \beta = -0.020, p = 0.007 \)), organization (\( \beta = -0.021, p = 0.020 \)), affect sharing (\( \beta = -0.028, p = 0.008 \)), and timing (\( \beta = -0.022, p = 0.013 \)) were found. A gender-effect (\( \beta = -0.010, p = 0.040 \)) was observed: Within the couple, fathers tended to use more separateness pronouns than mothers. Finally, except for the FA functions, the other variables did not play any important role in the prediction.

| Parameter                          | We-ness                                      | Separateness                                  |
|------------------------------------|----------------------------------------------|-----------------------------------------------|
|                                    | Estimate| SE | Estimate| SE             |
| Fixed                              |         |    |         |                |
| Intercept                          | 0.017***| 0.002| 0.046***| 0.004          |
| Level 2                            |         |    |         |                |
| Between-dyads variables            |         |    |         |                |
| Participation                      | 0.006   | 0.003| -0.020**| 0.006          |
| Organization                       | 0.003   | 0.004| -0.021*  | 0.008          |
| Focalization                       | 0.009   | 0.005| 0.013    | 0.009          |
| Affect sharing                     | 0.012** | 0.004| -0.028** | 0.009          |
| Timing                             | 0.007   | 0.004| -0.022** | 0.008          |
| Primiparity/multiparity            | 0.003   | 0.002| 0.008    | 0.005          |
| Duration of the couple             | 0.000   | 0.001| -0.001   | 0.001          |
| Level 1                            |         |    |         |                |
| Within-dyad variable               |         |    |         |                |
| Gender                             | 0.000   | 0.001| -0.010*  | 0.004          |
| Mixed variables                    |         |    |         |                |
| Relationship satisfaction          | -0.001  | 0.003| 0.009    | 0.007          |
| Age                                | 0.000   | 0.000| -0.003   | 0.002          |
| Deviance                           | -211.179|    | -130.608|                |

DISCUSSION

The aim of this research was to determine whether personal pronouns utilized during a parental conversation were related to early family interactions, indexed here by FA. According to the investment model of interdependence, we expected that more positive family interactions would be associated with the use of more we-pronouns and fewer I- and you-pronouns by both mothers and fathers. First of all, our findings provided substantial evidence that we-ness and separateness were two distinguishable constructs and, de facto, did not constitute a continuum because of (a) the weak percentage of shared variance between we-ness and separateness and (b) their associations with different FA functions.

Secondly, we-ness and separateness were found to be, respectively, positively and negatively related to affect sharing during family interactions. When family members shared (positive) emotions, validated each other’s emotions, and showed affect congruence, more use of we-pronouns and less use of I- and you-pronouns were observed. We-ness may be considered a schema of interdependence in a context of interdependence, as family relationships were considered so-called close relationships, defined as relationships with a “strong, frequent, and diverse interdependence that lasts over a considerable period of time” (Kelley et al., 1983). Our findings suggested that a feeling of we-ness or interdependence in a family was an affective phenomenon and involved the recognition and validation of family members’ emotions (Reis et al., 2002; Reis, 2014). Previous research has already shown that we-ness and separateness, as measured by pronoun usage, were related to an individual’s (Rude et al., 2004) and couple’s (Seider et al., 2009; Gildersleeve, 2015) emotional states, but this has not been demonstrated in relation to family affect sharing. Our results suggested that the kinds of personal pronouns used by parental couples when discussing children’s education were associated with the emotional quality of family interactions. Such results may be particularly relevant from a clinical perspective. The association between language and emotional states would imply that language reflected the emotional states of family interactions, but also that attention to pronoun use could help family members to conceive themselves as in closer partnerships. The narrative approach (Fitzsimons and Kay, 2004; Freedman and Combs, 2008) has already underlined the importance of language use in shaping perceptions of reality and especially the fact that manipulating pronoun usage can lead individuals to perceive their own relationships as higher in quality. Narrative researchers (Fitzsimons and Kay, 2004) have shown that using the we-pronoun led to increased perceptions of the closeness and quality friendships and interactions. The influence of pronoun use on closeness was shown to be partially mediated by perceptions that close individuals were similar and shared common values. Consequently, family clinicians could use words such as “all of you” for inducing a sense of interdependence, positively influencing affect sharing during family sessions.

Thirdly, while we-ness was only related to affect sharing, separateness words, which reflected a concentration on the individuals and a schema of independence, were negatively
correlated to many FA functions, i.e., participation, organization, affect sharing, and timing. Early family interactions characterized by the exclusion of a family member, interferences, a lack of affect congruence, and communication mistakes were related to the use of more I- and you-pronouns during parental conversations. Previous research and clinical practice has indicated the importance of the autonomy of each individual in his or her relationships (Benson et al., 2013). However, our results suggested the importance of paying attention to such separateness language during parental conversations concerning a child's education and upbringing.

Fourthly, the second hypothesis was not confirmed: Long-term and multiparous couples did not use more we-pronouns and fewer separateness-pronouns than newer and primiparous couples. Previous research (Seider et al., 2009) has shown that older couples used more we-pronouns during couple conversation than younger couples, due to having more shared experience. However, this was not evident in early family interactions. Our results suggested that couple duration and family experiences would not lead to a greater sense of we-ness. This could be due to the fact that the span used in this study and the ranges of age and couple duration were small compared to previous studies comparing younger and older adults.

The current research extended prior studies on we-ness and separateness in many ways: (a) using schemas of we-ness and separateness derived from pronouns use during natural parental conversation, (b) employing text analysis methodology, and (c) studying associations between parental conversation and family interactions. Limitations included the absence of a study of actor-partner interaction effects and the weak sample size.

**AUTHOR CONTRIBUTIONS**

SG collected the data, made the statistical analyses and wrote the paper. IR helped for the analyses and the writing of the paper. LV and JD are specialized in family and couple interactions and gave a lot of recommendations. The idea of analyzing we-ness and separateness came from LV. LD and SV contributed to the literature section.

**REFERENCES**

Agnew, C. R., Van Lange, P. A. M., Rusbult, C. E., and Langston, C. A. (1998). Cognitive interdependence: commitment and the mental representation of close relationships. *J. Pers. Soc. Psychol.* 74, 939–954. doi: 10.1037/0022-3514.74.4.939

Aron, A., Aron, E. N., and Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *J. Pers. Soc. Psychol.* 63, 596–612. doi: 10.1037/0022-3514.63.4.596

Benson, L. A., Sevier, M., and Christensen, A. (2013). The impact of behavioral couple therapy on attachment in distressed couples. *J. Marital Fam. Ther.* 39, 407–420. doi: 10.1111/jmft.12020

Favez, N., Lavanchy Scaiola, C., Tissot, H., Darwiche, J., and Frascarolo, F. (2010). The family alliance assessment scales: steps toward validity and reliability of an observational assessment tool for early family interactions. *J. Child Fam. Stud.* 20, 23–37. doi: 10.1007/s10826-010-9374-7

Fitzsimons, G. M., and Kay, A. C. (2004). Language and interpersonal cognition: causal effects of variations in pronoun usage on perceptions of closeness. *Pers. Soc. Psychol. Bull.* 30, 547–557. doi: 10.1177/0146167203262852

Fivaz-Depeursinge, E., and Corboz-Warnery, A. (1999). *The Primary Triangle: A Developmental Systems View of Mothers, Fathers, and Infants.* New York, NY: Basic Books.

Freedman, J., and Combs, G. (2008). "Narrative couple therapy," in *Clinical Handbook of Couple Therapy*, ed. A. S. Gurman (New York, NY: The Guilford Press).

Gildersleeve, S. (2015). *Capturing the “we-ness” of Happy Couples Through Narrative Analysis.* New London, CT: Connecticut College.

Hinneken, C., Lemmens, G., Vanhee, G., and Verhofstadt, L. (2016). A pronoun analysis of couples' support transactions. *Front. Psychol.* 7:777. doi: 10.3389/fpsyg.2016.00777

Kelley, H. H., Berscheid, E., Christensen, A., Harvey, J. H., Huston, T. L., Levinger, G., et al. (eds). (1983). "Analyzing close relationships," in *Close Relationships* (New York, NY: W. H. Freeman and Company).

Pennebaker, J. W., and Stone, L. D. (2003). *Words of wisdom: language use over the life span.* *J. Pers. Soc. Psychol.* 85, 291–301. doi: 10.1037/0022-3514.85.2.291

Reis, H. T. (2014). "Responsiveness: affective interdependence in close relationships," in *Mechanisms of Social Connection: From Brain to Group*, eds M. Mikulincer and P. R. Shaver (Washington, DC: American Psychological Association), 255–271.

Reis, H. T., Capobianco, A., and Tsai, F.-F. (2002). Finding the person in personal relationships. *J. Pers.* 70, 813–850. doi: 10.1111/1467-6494.05025

Rude, S. S., Gortner, E. -M., and Pennebaker, J. W. (2004). Language use of depressed and depression-vulnerable college students. *Cogn. Emot.* 18, 1121–1133. doi: 10.1080/026999303441000030

Schumm, W. R., Nichols, C. W., Schectman, K. L., and Grigby, C. C. (1983). Characteristics of responses to the Kansas marital satisfaction scale by a sample of 84 married mothers. *Psychol. Rep.* 53, 567–572. doi: 10.2466/pr0.1983.53.2.567

Seider, B. H., Hirscheberger, G., Nelson, K. L., and Levenson, R. W. (2009). We can work it out: age differences in relational pronouns, physiology, and behavior in marital conflict. *Psychol. Aging* 24, 604–613. doi: 10.1037/a0016950

Singer, J. A., Labunko, B., Alea, N., and Baddeley, J. L. (2015). "Mutuality and the marital engagement - Type of union scale [ME (To US)]: empirical support for a clinical instrument in couples therapy," in *Couple Resilience*, eds K. Skerrett and K. Fergus (Dordrecht: Springer Science and Business Media).

**Conflict of Interest Statement:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2016 Galdiolo, Roskam, Verhofstadt, De Mol, Dewinne and Vandiaudenard. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) or licensor are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.