

## Explicit Reference to Theory: A Content Analysis of Two Prominent Human Development Journals

Bridget A. Walsh  
Melissa M. Burnham  
Cassie Pasley  
Robyn B. Maitoza  
University of Nevada, Reno

**ABSTRACT.** Flagship family journals have been analyzed for the extent of theory employment in published articles. However, there has been no exploration of frequency of theoretical references in the two leading developmental journals. Therefore, the authors analyzed articles from 2000-2010 in *Child Development* (N = 1174) and *Developmental Psychology* (N = 1075) for studies' frequency of theory engagement. Methods of analysis, names of referenced theories, and locations of theories were recorded. Most articles did not explicitly reference theories. Although there was no difference between qualitative and quantitative research methodologies and mentions of theory, the authors coded very few articles as strictly qualitative. When articles did include reference to theory, it was part of the input (e.g., introduction, literature review) more so than the output. Names of theories that explicitly included "family" (e.g., family systems theory) rarely appeared. We conclude that developmental researchers are doing no better than their family counterparts in mentioning theory in their articles in flagship journals.

*Keywords:* content analysis, human development, theory

---

Direct correspondence to Dr. Bridget Walsh at [bridgetw@unr.edu](mailto:bridgetw@unr.edu)

## **Explicit Reference to Theory: A Content Analysis of Two Prominent Human Development Journals**

### **Theory-Research Link**

Theory plays a dynamic and varied role in basic and applied research. Researchers use the term *theory* differently (Greenwald & Pratkanis, 1988; Lavee & Dollahite, 1991) and there are variations in how they integrate theory in their work (Sprey, 1988). Nonetheless, theory is an integral part of research and has potential to influence practice (Sprenkle, 1976). It is important to recognize that theory testing can hinder scientific progress when researchers seek to confirm a particular theoretical viewpoint instead of seeking to produce objective results (Greenwald, Pratkanis, Leippe, & Baumgardner, 1986). Some theories are specific while others are “metatheories,” or “...broad, overarching principles and assumptions—which may or may not be subject to experimental confirmation—that serve as a background for a host of more specific theories” (Bjorklund, 1997, p. 144). Thus, different forms of theory lend themselves more or less to practical use in research. While there are multiple functions and types of theories, many would agree that theory is important to framing research and explaining behavior of individuals (Thomas, 2005) and families (Bengston, Acock, Allen, Dilworth-Anderson, & Klein, 2005).

The research reported here is intended to provide understanding of developmental scholars’ references to theory in articles published in the last decade. Our primary interest was to examine the extent of explicit reference to theory within two flagship developmental journals. There have been similar analyses of theory by Family Studies field scholars in relevant journals, but the Human Development field has yet to conduct such analysis. Therefore, the following review of research necessarily relies heavily on the work of our Family Studies colleagues for its rationale.

### **Content Analysis of Theory in the Family Science Field**

Lavee and Dollahite (1991) stated that scholars should use theory explicitly to guide all stages of the research process. These researchers evaluated the use of theory in the Family Science field by analyzing articles (N = 75) published in 1985 in the *Journal of Marriage and the Family* (currently, *Journal of Marriage and Family, JMF*). The analysis of articles included (a) explicit use of theory, (b) implied theory (i.e., concepts in the research implied theory, but there was no explicit linkage between research and theory), and (c) no use of theory (Lavee & Dollahite). To be categorized as explicitly using a theory, a manuscript needed to identify the theory in the article’s introduction (input) and/or in its discussion (output) section (Lavee & Dollahite). Explicit theory usage in both the input and output occurred in only 27% of analyzed research articles (Lavee & Dollahite). Lavee and Dollahite’s analysis underscored the lack of explicit theory in studies in the field of Family Science, confirming an earlier analysis that Nye (1988) completed).

Similarly, Hawley and Geske (2000) adopted part of Lavee and Dollahite’s (1991) method in their content analysis of theory in two family therapy journals. Hawley and Geske (2000) analyzed articles to determine whether the articles included theory explicitly and noted

the theory's location (i.e., input, output, or both). The researchers also identified whether the study was quantitative or qualitative (or both) and found that qualitative studies employed theory the most. Eighty percent of studies using qualitative methods employed theory compared to only 52% of studies using quantitative methods (Hawley & Geske). Nineteen percent of the articles utilized theory explicitly in input and output, while 49% mentioned theory only in input and 38% mentioned theory only in output (Hawley & Geske). This finding, coupled with that of Lavee and Dollahite (1991), suggests that articles employing theory to frame research in the introduction/literature review and then extending or applying theory in the discussion were the exception, not the rule. Hawley and Geske (2000) concluded that the theory-research link is an ideal, but is lacking in empirical investigations in the family therapy field.

More than 10 years after the work of Lavee and Dollahite (1991), Taylor and Bagd (2005) confirmed that *JMF* research articles continued to lack explicit references to theory. Taylor and Bagd conducted a content analysis of explicit employment and placement of theories in articles ( $N = 673$ ) published in *JMF* between 1990-1999. A little more than one-third of the analyzed articles contained references to theory. According to Taylor and Bagd, the most frequently occurring human development theories included the life-course perspective (5%), ecology/human ecology theory (3.2%), and social learning theory (3.2%). Many researchers in Taylor and Bagd's study utilized mini-theories more than they utilized family and human development theories, which one typically finds in textbooks. In human development, mini-theories or microtheories identify narrow aspects of development for which they are designed (Thomas, 2005). The clear majority of articles employed quantitative methods (94%). However, qualitative method articles in Taylor and Bagd's (2005) analysis used theoretical frameworks more frequently, consistent with Hawley and Geske's (2000) finding.

The aforementioned content analyses from family scholars provide methodological support for content analysis of the explicit theory-research link in the development field. The journals from the aforementioned analyses were selected for their prominent or flagship status. The *Journal of Marriage and the Family (JMF)* has been the focus of analysis for many decades (Lavee & Dollahite, 1991; Nye, 1988; Taylor & Bagd, 2005). *JMF* is the main interdisciplinary journal dedicated to family research (Nye, 1988) and "features original research and theory, research interpretation and reviews, and critical discussion concerning all aspects of marriage, other forms of close relationships, and families" (National Council of Family Relations, n.d.). Hawley and Geske (2000) also chose their two journals based on their flagship status in the field of Family Therapy.

Collectively, extant content analysis findings (e.g., Hawley & Geske, 2000; Lavee & Dollahite, 1991; Nye, 1988; Taylor & Bagd, 2005) conclude that explicit reference to theory in flagship research publications is scant. Referencing theories is important to building of a body of knowledge in a field to provide a contextual frame (Lavee & Dollahite, 1991). The question remains: Are developmental scientists following the same trend in not referencing theory in their work? There is a need in the development field for content analyses that determine the extent of the explicit theory-research link as a way to reflect on the current state of practice.

### Developmental Science and Content Analysis

For decades, Developmental Science has included a mixture of "...theoretical fragmentation, conceptual insularity, and empirical arbitrariness" (Lewis, 2000, p. 36). Spencer and Buss (2011) concur with others that the "theoretical landscape in developmental science is in crisis" (p. 167). To change this view, they call for "theoretical clarity, greater specificity of concepts, and some deep theoretical labor to refine the concepts we use in our science" (Spencer & Buss, p. 167). They state that the field of Developmental Science needs to "collectively elevate our theoretical game" (Spencer & Buss, p. 167). One way to do this is to enforce a tight connection between theory and empirical work (Spencer & Buss). In the Developmental Science field, there has been no systematic study of the inclusion of theory in recent publications.

While family studies and human development are often considered inextricably linked fields of study (Kennedy, 1997) it remains to be seen whether scholars in these areas embrace shared theories. Theories that lend themselves to sharing across the human development and family studies fields tend to recognize internal and external factors in individual change and family processes (Boyd, 1997). Some theoretical perspectives (e.g., Bronfenbrenner's theory) allow for discussion of Developmental Science and Family Science points of view (Boyd). The interdisciplinary nature of contemporary research makes movement toward an integrated approach worthwhile and necessary (Boyd). Now, almost two decades after an issue in *Family Science Review* addressed integration of human development and family studies, it is of interest to examine the extent to which developmental scientists have embraced the use of family theories. While a division is, to some extent, healthy and consistent with divergent perspectives and levels of analysis of each field, an increase in developmental scholars' use of family theories would not be surprising given the move toward a greater contextual focus within the field. A content analysis of developmental science journals will provide Human Development and Family Studies scholars with preliminary information about the presence—or lack thereof—of "family" and "developmental" theories.

### Present Study

The present study analyzed articles published in *Developmental Psychology (DP)* and *Child Development (CD)*, the two most prominent journals in the field of Developmental Science. *DP* and *CD* were examined in an investigation of the frequency of experimental designs (Larson, as cited in Bronfenbrenner, 1977). In addition, *DP* and *CD* were, along with ten other development journals, included in a meta-analysis published in *CD* (e.g., Milligan, Astington, & Dack, 2007). To our knowledge, the present study is the only content analysis of theory that includes articles in *DP* and *CD*. The present study examined articles that manipulate raw data in some way, consistent with existing analyses of Family Science journals (e.g., Hawley & Geske, 2000; Lavee & Dollahite, 1991; Taylor & Bagd, 2005).

Similar to content analyses of theory in Family Science journals, the present content analysis was aimed at deciphering the extent to which Developmental Science journal articles integrate theory. The present content analysis examined this broad research question: To what

extent is there explicit reference to theories in articles in two prominent developmental journals? More specific research questions included: (a) to what extent is the theory-research link present in articles and does it differ by journal? (b) what is the location of the theory in each journal? and, (c) in each journal, do articles that employ a quantitative design, a qualitative design, or a mixed methods design differ in terms of reference(s) to theory?

## Method

### Sample

The analyzed articles were published from 2000 to 2010 in *Child Development (CD)* and *Developmental Psychology (DP)*. The articles in *CD* (N = 1174) include Volumes 71 to 81 with six issues per volume. The articles in *DP* (N = 1075) include Volumes 36 to 46 with six issues per volume.

These particular journals were selected for their flagship status in the field of Developmental Science. Since 1930, *Child Development (CD)* has published original contributions on numerous child development topics from birth through adolescence (Lockman, n.d.). *CD* also seeks to address diversity within the field by publishing content on various subject matter (Lockman). *CD* primarily provides information for theoreticians and researchers, but also targets those working directly with children and adolescents, such as psychiatric social workers, special education teachers, and child psychiatrists (Lockman). The mean impact factor from 2000 to 2010 was 3.35 ( $SD = .45$ ).

Established in 1969, *Developmental Psychology (DP)* is an American Psychological Association (APA) journal. *DP* features theoretical and methodological articles as well as empirical contributions and scholarly reviews (Eccles, n.d.). The journal publishes articles that aim to advance current knowledge and theories of development across the life span (Eccles). Topics covered in *DP* include studies of social, cultural, and biological factors that influence development (Eccles). The mean impact factor from 2000 to 2010 was 3.23 ( $SD = .38$ ).

### Materials and Procedure

**Coding sheet with operational definitions.** We created a coding sheet in Microsoft Excel (2010/xlsx) and included the journal name, volume number, issue number, article title, and start page and end page. Other categories required operational definitions. For example, articles were categorized as quantitative, qualitative, or both, similar to existing content analyses (Hawley & Geske, 2000; Taylor & Bagd, 2005). We defined “quantitative” as research employing numerical data and statistical analysis (Gall, Gall, & Borg, 2010). “Qualitative” included analyses of non-numerical data (Gall et al.; Sandelowski, 2001). Since research often does not fit cleanly into this dichotomy (Creswell & Plano Clark, 2006), we defined “both” operationally as an article including numerical and non-numerical data, such as results including frequency data on categories that emerged from coding (e.g., Maynard, 2002; Suárez-Orozco, Gaytán, Bang, Pakes, O’Connor, & Rhodes, 2010).

The coding sheet also included a category for whether or not the article referenced a theory and another to code the location of the theory: input, output, or both. Similar to Lavee and Dollahite's (1991) description, input was operationally defined as theory referenced in the introduction or literature review and output was defined as theory referenced in the results, discussion, or conclusion. Theory location could also be coded as "other" (e.g., theory in method). When theories existed in multiple categories of the publication (e.g., both input and output), the category of "both" was coded.

### Procedure

**Coder training and practice phase.** Prior to coding, the two coders participated in a training session on the coding approach that the first and second authors led. The coders were not blind to the research questions of the current study. During the training session, it was determined that the coders had no strong feelings or strong particular points of view toward the topic.

Using textbooks as a guide, we began by listing primary family and human development theories. The list of 66 theories evolved from an analysis of human development textbooks (Walsh, Cromer, Park, & Essa, 2012), a content analysis of human development theories in early childhood articles (Walsh & Sanchez, 2010), and human development theory books (i.e., Bergen, 2008; Crain, 2000; Thomas, 1990, 2005). Coders were asked to note the theory mentioned. Possible alternatives included (a) no explicit theory mentioned, (b) employment of theories not on the list, and (c) more than one theory explicitly employed in a publication.

Since coders making judgments independent of one another is important to the objectivity of content analysis (Kolbe & Burnett, 1991), the two coders independently—and at different times using different computers—coded each article during the practice phase and during the coding phase. The following procedure was used for both phases. Two coders (i.e., the third and fourth authors) independently accessed the journals via two online databases: Academic Search Premier and PsycArticles. All articles within the journals were opened in Portable Document Format (PDF) and electronically searched. Each coder scanned the article to determine that it manipulated data in some way. Thus, similar to the analysis that Lavee and Dollahite (1991) conducted, this study excluded literature reviews, theoretical essays, and methodological discussions. Articles that a coder determined to manipulate data were then searched. Specifically, five search terms of "theory" "theorizing" "theorist" "theoretical" and "theories" were separately entered and searched for by using the find tool in Adobe Reader. The use of search words was coupled with each coder perusing the text surrounding the search term(s) and the entire article. When explicit reference to a theory or theories occurred in an article, the method was coded (quantitative, qualitative, or both), the location of theory was coded (input, output, or both), and the name of the theory or theories was entered. For the practice phase, each coder independently analyzed one issue of each journal ( $n = 29$ ). Specifically, *DP* issue 6, Volume 35, published in 1999 and *CD* issue 6, Volume 70, published in 1999, were reviewed.

The practice phase revealed some disagreement between the two coders when an article mentioned "other" theories. Both coders agreed that they liberally coded explicit theory reference. They also agreed on the definition of "explicit" reference. For example, if an article

mentioned a hallmark of preoperational thought, it was not coded as explicitly referencing a theory, but if an article explicitly mentioned Piaget's theory of cognitive development, it was coded as such. Finally, the field uses a variety of terms, such as "model" (e.g., Bronfenbrenner's ecological model), and this was coded as explicit theoretical reference. The coders confirmed with the first and second authors that definitions agreed to during the practice phase would be held during the coding phase.

**Coding phase and consensus procedure.** The two coders independently coded the 2,249 publications in *Child Development (CD)* and *Developmental Psychology (DP)*, published from 2000 to 2010 with approximately four issues coded per sitting over a period of approximately six months (see the above section for coding procedure detail). After coding of all publications was complete, the first author electronically highlighted disagreements on each coding sheet. Next, all the authors had a consensus discussion that focused on possible sources of disagreement. The two coders then independently reanalyzed the publications that included disagreements. Independent coding after the consensus discussion provided coders with the opportunity to maintain an original coding or alter it. Coders' data after consensus discussions and independent reanalysis were used for all reliability analyses.

**Reliability.** Inter-rater reliability is essential for attaining objectivity in content analysis and using multiple coefficients to determine inter-rater reliability is important (De Wever, Schellens, Valcke, & Van Keer, 2006). The researchers used agreement percentages, Cohen's kappa, and Krippendorff's alpha (Hayes & Krippendorff, 2007; Krippendorff, 1980) to obtain an overall estimate of inter-rater agreement for each journal. Overall inter-rater agreement scores were determined by including in the calculation scores from the method (quantitative, qualitative, or both), theory location (input, output, or both), and if a theory was present or not. Inter-rater reliability for *Child Development* was adequate (percent agreement ranging from 84.1 to 100.0, Cohen's kappa ranging from .457 to 1.00, Krippendorff's alpha ranging from .433 to 1.00). Inter-rater reliability for *Developmental Psychology* was also adequate (percent agreement ranging from 92.1 to 100.0, Cohen's kappa ranging from .479 to 1.00, Krippendorff's alpha ranging from .469 to 1.00).

**Final coding phase.** In previous research, a third coder settled disagreements in a content analysis (e.g., Jeon, Franke, Huhmann, & Phelps, 1999). In the current study, the coding phase resulted in a total of 479 disagreements. The first author of the present study independently conducted the final coding phase. She used the procedure guidelines including the operational definitions stated in the method. She independently coded the disagreements and adjudicated. Analyses used data resulting from this resolved coding procedure.

## Results

### *Child Development*

**Descriptives.** Two coders rated 1174 articles in *Child Development*; a third coder resolved their disagreements. Coding showed that all articles in the sample manipulated data in

some way (100.0%). When examining method, coding classified most articles as quantitative ( $n = 1066$ , 90.8%); 8.9% were coded as mixed methods ( $n = 105$ ) and 3 (0.3%) were coded as qualitative. Regarding theory location, most articles were rated as having no theory location ( $n = 785$ , 66.9%); 17.2% ( $n = 202$ ) were rated as having both input and output locations; 10.2% of articles were coded as having input location ( $n = 120$ ); 4.0% were rated as having an output location ( $n = 47$ ); and, 1.7% of articles were determined to have “other” location ( $n = 20$ ). Overall, thirteen articles explicitly referenced a theory with the word “family” in it (e.g., family systems theory).

**Analyses.** To determine the potential relationships between theory location, method, and presence of theory, a series of cross tabulations with Pearson chi square statistics was conducted. Results revealed a significant relationship between theory location and method ( $\chi^2(8) = 80.59$ ,  $p < .001$ , *Cramer's V* = .185) such that a greater proportion of articles determined to be qualitative had an “other” theory location (66.7%) compared to articles that were quantitative (1.7%). This analysis should be viewed with caution due to small sample sizes per cell due to the low number of articles employing qualitative methodology. When excluding the three qualitative articles, the cross tabulation results revealed no significant relationship between theory location and method,  $\chi^2(4) = 4.79$ ,  $p = .309$ , *Cramer's V* = .064. Similarly, there was no significant relationship between theory presence and method,  $\chi^2(2) = 1.81$ ,  $p = .405$ , *Cramer's V* = .039.

Of interest to the researchers was the distribution of theory location for those articles that had a theory present. Therefore, the researchers conducted a chi square analysis. Results revealed a significant difference between observed theory location and expected theory location,  $\chi^2(3) = 203.86$ ,  $p < .001$ . Specifically, a greater number of articles than expected had an input location ( $n = 120$ , Expected  $n = 97$ ), whereas a lesser number of articles than expected had an output location ( $n = 47$ , Expected  $n = 97$ ). Furthermore, a greater number of articles than expected had both input and output locations ( $n = 201$ , Expected  $n = 97$ ). Finally, a lesser number of articles than expected had an “other” theory location ( $n = 20$ , Expected  $n = 97$ ). Next, the researchers conducted a point biserial correlation to determine whether the presence of theory increased or decreased in newer editions of *Child Development*. Results indicated that older volumes tended to have more theories present than newer volumes,  $r_{pb}(1173) = -.105$ ,  $p < .001$ .

### *Developmental Psychology*

**Descriptives.** Two raters coded 1075 articles for *Development Psychology*; a third coder resolved disagreements. Coding showed that all articles manipulated data in some way ( $N = 1075$ ; 100%). When examining method, the results demonstrated that only two articles were coded as qualitative (0.2%) whereas 88 articles were coded as being mixed methods (8.2%). The remaining articles were coded as being quantitative ( $n = 985$ , 91.6%). Regarding the articles' theory location, a majority of articles were rated as having no location ( $n = 662$ , 61.6%). The theory location for the remaining articles was coded as input ( $n = 165$ , 15.3%); output ( $n = 69$ , 6.4%); both ( $n = 153$ , 14.2%); and “other” ( $n = 26$ , 2.4%). Finally, only 38.5% ( $n = 414$ ) of articles were rated as having a theory referenced. Overall, ten articles explicitly included a theory with “family” in the name (e.g., family stress theory).

**Analyses.** The authors conducted a series of cross tabulations with Pearson chi square statistics to determine potential relationships between theory location, method, and theory presence. There was no significant relationship between theory location and method,  $\chi^2(8) = 3.24, p = .918, Cramer's V = .039$ . Furthermore, there was no significant relationship between theory presence and method,  $\chi^2(2) = .62, p = .732, Cramer's V = .024$ . There was, however, a significant relationship between theory location and theory presence,  $\chi^2(4) = 1070.78, p < .001, Cramer's V = .998$ . This result should be viewed cautiously because of small sample sizes within individual cells due to the number of articles that did not have a theory present. Of greater interest to the researchers was the distribution of theory location for those articles that had a theory present; therefore, the researchers conducted a chi square analysis. The chi square results revealed there was a significant difference between observed theory location and expected theory location,  $\chi^2(3) = 130.06, p < .001$ . Specifically, a greater number of articles than expected had an input theory location ( $n = 165$ , Expected  $n = 103.3$ ) and a greater number of articles than expected had both input and output theory locations ( $n = 153$ , Expected  $n = 103.3$ ). The results also revealed that fewer articles than expected had output theory locations ( $n = 69$ , Expected  $n = 103.3$ ) and an "other" location ( $n = 26$ , Expected  $n = 103.3$ ). Finally, the authors conducted a point biserial correlation to determine whether the presence of theory increased or decreased in newer editions of *Developmental Psychology*. Results indicated there was no relationship between theory presence and year of journal,  $r_{pb}(1075) = -.022, p = .474$ .

## Discussion

This content analysis primarily explores available developmental studies to address topics related to the theoretical landscape in the development field. Of secondary interest was exploration of the inclusion of theories with "family" in the theory title in two prominent development journals. Specifically, we examined the extent of explicit reference to theory in articles in two prominent developmental journals and whether there was a difference in theory reference between these two journals. Further, we were interested in examining the location of the theory in each journal. Finally, we examined the possible relationship between study design and reference to theory. Below, we discuss the findings of this content analysis, identify shortcomings of both this content analysis and the extant literature, and suggest directions for future research.

The content analysis revealed a surprising lack of reference to theory in both journals analyzed. Only 34% of articles in *Child Development* and 39% of articles in *Developmental Psychology* explicitly referenced a theory anywhere in the article. This is particularly surprising because of the generous definition given to "theory reference" when coding the articles. However, the lack of reference to theory in these developmental journals mirrors content analyses conducted using flagship journals in the field of Family Studies (e.g., Hawley & Geske, 2000; Nye, 1988). In other words, it seems that both fields suffer a similar unfortunate trend with regard to explicit reference to theory. This lack of reference to theory is occurring even within the most rigorous journals with the highest impact factors in their respective fields. It is interesting that theory was more present in older issues of *Child Development* compared to more

recent issues. This same relationship between theory presence and time of publication did not appear in *Developmental Psychology*. A discussion with editors of *CD* might reveal possible reasons for this trend. An important task for future work is to address reasons for scholars' lack of reference to theory in their articles. For example, it is unknown whether researchers are employing theory to guide their work and simply not framing it in this light within the publication, or not using theory to guide their work at all. It is possible that journal editors and reviewers are to blame for the lack of reference to theory, although this seems unlikely because a significant minority of articles in both journals *did* reference theory. If there is room in some articles for explicit reference to theory, it is possible to include it. The present content analysis has taken the first basic step in providing information for future work. Future research is now necessary in order to understand possible reasons for the lack of reference to theory that the authors discovered.

We were also interested in examining the presence of family theories in development articles. Given the interdisciplinary nature of the field of human development and family studies, we wondered about the extent to which developmental scientists employ theories from the family studies tradition. Despite the interdisciplinary nature of the field by definition, very few articles in either journal mentioned family theories. Indeed, only 1% of *CD* articles and less than 1% of *DP* articles mentioned family-related theories. In some ways this is not surprising, given that many authors publishing in *CD* and *DP* are in the field of "developmental psychology" rather than "human development and family studies." Nevertheless, both fields have acknowledged, at least to some extent, the importance of examining development within context, and the most significant context for children is certainly the family (e.g., Parke & Buriel, 2008). Thus, it is disconcerting that so few scholars are mentioning family theories in their work. Again, it is possible that researchers are using family theories but not including them in their publications. Future research should focus on examining what theories researchers employ in their work, as well as possible reasons for their inclusion or exclusion in publications.

The cross tabs analyses revealed some noteworthy results that confirm the work of other researchers conducting similar analyses of articles in family journals. For example, in both journals, more articles included theory as part of "input" (literature review, introduction) than was statistically expected, and fewer articles than expected included theory as part of "output." This result confirms the work of Hawley and Geske (2000), who found more articles that utilized theory in the input compared to the output sections of articles. Furthermore, in the current study, both *CD* and *DP* had more articles with theory mentioned in both input and output than was statistically expected. Other researchers (e.g., Hawley & Geske; Lavee & Dollahite, 1991) report a small percentage of articles mentioning theory in both input and output, despite this being considered best practice in research reporting (Bengston et al., 2005). Although our results suggest that more articles were categorized as mentioning theory in both input and output sections of the article than would be statistically expected, it is essential to note that this group of articles was still proportionally smaller than one would like to see. That is, only 17% of articles in *CD* and 14% of articles in *DP* included theory in both input and output. Thus, the overall percentages are similar to, if not smaller than, those presented in previous work.

Given the findings of Hawley and Geske (2000), we anticipated that we might see more mention of theory in qualitative articles. Unfortunately, a firm analysis of this question was not possible due to the surprisingly few qualitative studies published in either journal. The gross underrepresentation of qualitative articles was striking. Only 0.3% of articles from *CD* and 0.2% of articles from *DP* were categorized as qualitative. It is unclear whether this low representation of qualitative work is a characteristic of the field of Developmental Science in comparison to Family Science, whether it reveals bias in the journals' selection process or preference, or whether another reason is indicated. It would seem important to further investigate this severe lack of qualitative work in the developmental literature in order to understand why it exists. To some extent, the underrepresentation of qualitative work may explain the low percentage of articles that contained any mention of theory. In other words, if more qualitative research includes theory and there are fewer qualitative research articles presented, it follows that overall mention of theory would also be low.

There are clear limitations to the current study. First, we only analyzed whether theory was mentioned anywhere in an article, not the extent of its being mentioned, the level of depth provided, or even whether authors were employing theory explicitly to guide their work. Our method of ascertaining whether theory was present in a given article also is a limitation. Due to the sheer number of articles examined, it was necessary to use search terms and scan them in a relatively cursory manner. It is thus possible that we missed some subtle references to theory. Further, we were unable to fully analyze which theories were mentioned in the articles examined due to the lack of coherent reporting within the articles. That is, the same theory may be referred to as many different things; partial theories were often mentioned, and a variety of microtheories were presented that did not seem to fit within an extant, well-developed framework. Without thorough analysis of and reporting on each article by a theory expert, the task of presenting which theories were mentioned "most often" was untenable. Given the volume of articles involved, such an analysis was not possible.

Despite these limitations, there is value in this work. First, the study points out that developmental researchers are doing no better than their family counterparts in mentioning theory in their articles in flagship journals. As professionals in our fields of study, we might well consider covering theory differently or in more integrative fashions in academic coursework, including within research methods courses. If scholars are using theory but simply not including it in their publications, the editors of journals may be to blame for the lack of explicit references to theory. We might also ask whether either of these practices is acceptable, given the touted importance of theory in guiding, framing, and shaping our research. Regardless of the reasons for lack of explicit mentions of theory in research articles, the practice has far reaching implications. If articles do not mention theory, this exposes new members of the field to poor models of what they may have learned in research methods or theory courses as best practices. Given the likelihood of copying peers' styles if one desires to publish in a given journal, the practice of eliminating theory from one's papers may be imitated and thus promulgated. Thus, the lack of mentions of theory in articles can have lasting negative implications for researchers, journal editors, stakeholders, and indeed, the field itself.

Bridget A. Walsh, Human Development & Family Studies, College of Education, University of Nevada, Reno  
Melissa M. Burnham, Human Development & Family Studies, College of Education, University of Nevada, Reno  
Cassie Pasley, Human Development & Family Studies, College of Education, University of Nevada, Reno  
Robyn B. Maitoza, Human Development & Family Studies, College of Education, University of Nevada, Reno

### References

- Bengston, V. L., Acock, A. C., Allen, K. R., Dilworth-Anderson, P., & Klein, D. M. (2005). Theory and theorizing in family research. In V. L. Bengston, A. C. Acock, K. R. Allen, P. Dilworth-Anderson, & D. M. Klein (Eds.), *Source of family theory & research* (pp. 3-33). Thousand Oaks, CA: Sage.
- Bergen, D. (2008). *Human development: Traditional and contemporary theories*. Upper Saddle River, NJ: Pearson.
- Bjorklund, D. F. (1997). In search of a metatheory for cognitive development (or, Piaget is dead and I don't feel so good myself). *Child Development*, 68, 144-148. doi: 10.1111/1467-8624.ep9707256819
- Boyd, B. J. (1997). Integrating human development and family studies curricula: Pitfalls and possibilities. *Family Science Review*, 10, 56-61.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32, 513-531.
- Crain, W. (2000). *Theories of development: Concepts and applications* (4<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Creswell, J. W., & Plano Clark, V. L. (2006). Understanding Mixed Methods Research. In J. W. Creswell & V. L. Plano Clark, *Designing and conducting mixed methods research* (pp. 1-19). Thousand Oaks, CA: Sage.
- De Wever, B., Schellens, T., Valcke, M., & Van Keer, H. (2006). Content analysis schemes to analyze transcripts of online asynchronous discussion groups: A review. *Computers & Education*, 46, 6-28. doi: 10.1016/j.compedu.2005.04.005
- Eccles, J. S. (n.d.). *Developmental Psychology*. Retrieved from <http://www.apa.org/pubs/journals/dev/index.aspx>

- Gall, M. D., Gall, J. P., & Borg, W. R. (2010). *Applying educational research* (6<sup>th</sup> ed.). Boston, MA: Pearson.
- Greenwald, A. G., & Pratkanis, A. R. (1988). On the use of "theory" and the usefulness of theory. *Psychological Review*, *95*, 575-579. doi: 10.1037/0033-295X.95.4.575
- Greenwald, A. G., Pratkanis, A. R., Leippe, M. R., & Baumgardner, M. H. (1986). Under what conditions does theory obstruct research progress? *Psychological Review*, *93*, 216-229. 10.1037/0033-295X.93.2.216
- Hawley, D. R., & Geske, S. (2000). The use of theory in family therapy research: A content analysis of family therapy journals. *Journal of Marital and Family Therapy*, *26*, 17-22. doi: 10.1111/j.1752-0606.2000.tb00272.x
- Hayes, A. F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication Methods and Measures*, *1*, 77-89.
- Jeon, W., Franke, G. R., Huhmann, B. A., & Phelps, J. (1999). Appeals in Korean magazine advertising: A content analysis and cross-cultural comparison. *Asia Pacific Journal of Management*, *16*, 249-258. doi: 10.1023/A:1015491009717
- Kennedy, M. V. (1997). Recentring human development and family relations: Connection and separation, a case of gender and generation. *Family Science Review*, *10*, 32-46.
- Kolbe, R. H., & Burnett, M. S. (1991). Content-analysis research: An examination of applications with directives for improving research reliability and objectivity. *Journal of Consumer Research*, *18*, 243-250.
- Krippendorff, K. (1980). *Content analysis: An introduction to its methodology*. Newbury Park, CA: Sage.
- Lavee, Y., & Dollahite, D. C. (1991). The linkage between theory and research in family science. *Journal of Marriage and the Family*, *53*, 361-373.
- Lewis, M. D. (2000). The promise of dynamic systems approaches for an integrated account of human development. *Child Development*, *71*, 36-43.
- Lockman, J. J. (n.d.). *About Child Development*. Retrieved from [http://www.scrd.org/index.php?option=com\\_content&task=view&id=192&Itemid=507](http://www.scrd.org/index.php?option=com_content&task=view&id=192&Itemid=507)
- Lockman, J. J. (n.d.). *Editorial statement*. Retrieved from [http://www.scrd.org/index.php?option=com\\_content&task=view&id=178&Itemid=516](http://www.scrd.org/index.php?option=com_content&task=view&id=178&Itemid=516)
- Maynard, A. E. (2002). Cultural teaching: The development of teaching skills in Maya sibling interactions. *Child Development*, *73*, 969-982.

- Milligan, K., Astington, J. W., & Dack, L. A. (2007). Language and theory of mind: Meta-analysis of the relation between language ability and false-belief understanding. *Child Development, 78*, 622-646.
- National Council on Family Relations (n.d.). *Publications: The Journal of Marriage and Family*. Retrieved from <http://ncfr.org/publications>
- Nye, F. I. (1988). Fifty years of family research, 1937-1987. *Journal of Marriage and the Family, 50*, 305-316.
- Parke, R. D., & Buriel, R. (2008). Socialization in the family: Ethnic and ecological perspectives. In W. Damon, R. M. Lerner, D. Kuhn, R. S. Siegler, & N. Eisenberg (Eds.), *Child and adolescent development: An advanced course* (pp. 95-138). Hoboken NJ: Wiley.
- Sandelowski, M. (2001). Real qualitative researchers don't count: The use of numbers in qualitative research. *Research in Nursing & Health, 24*, 230-240.
- Spencer, J. P., & Buss, A. T. (2011). Finding a way out: Why developmental science does not need another "ism." *Child Development Perspectives, 5*, 166-168. doi: 10.1111/j.1750-8606.2011.00183.x
- Sprenkle, D. H. (1976). In my opinion: The need for integration among theory, research, and practice in the family field. *The Family Coordinator, 25*, 261-263.
- Sprey, J. (1988). Current theorizing on the family: An appraisal. *Journal of Marriage and the Family, 50*, 875-890.
- Suárez-Orozco, C., Gaytán, F. X., Bang, H. J., Pakes, J., O'Connor, E., & Rhodes, J. (2010). Academic trajectories of newcomer immigrant youth. *Developmental Psychology, 46*, 602-618. doi: 10.1037/a0018201
- Taylor, A. C., & Bagd, A. (2005). The lack of explicit theory in family research. In V. L. Bengston, A. C. Acock, K. R. Allen, P. Dilworth-Anderson & D. M. Klein (Eds.), *Sourcebook of family theory & research* (pp. 22-25). Thousand Oaks, CA: Sage.
- Thomas, R. M. (1990). *The encyclopedia of human development and education theory, research, and studies*. New York: Pergamon Press.
- Thomas, R. M. (2005). *Comparing theories of child development* (6<sup>th</sup> ed.). Belmont, CA: Wadsworth.
- Walsh, B. A., Cromer, H., Park, J., & Essa, E. (2012). Undergraduates' satisfaction with peer collaborative activities about developmental theories. *Family Science Review, 17*, 118-134.

Walsh, B. A., & Sanchez, C. (2010). Examining child development theories through collaborative learning: Techniques for the instruction of early childhood preservice teachers. In E. Luzzatto & G. DiMarco (Eds.), *Collaborative learning: Methodology, types of interactions, and techniques* (pp. 81-94). Hauppauge, NY: Nova Science.