University of Southampton

Doctoral Programme in Educational Psychology

Title: To what extent do secondary caregivers have a unique role in children's language development and how might this be explained?

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Abstract

The role of mothers in children's language development has been well researched but the contribution made by fathers has received less attention. Mothers spend more time talking with children and are more attuned to their developmental level than fathers. The dominant social interactionist perspective considers the communicative competence of others and the frequency of exposure to language to be important factors in language development. As such it would be reasonable to assume the contribution made by fathers to language development to be only an additive to that of mothers. This essay investigates the paradox that, though fathers have more difficulty communicating effectively with children than mothers, and do so less often, recent research suggests that they may have a unique role to play in language development. The essay concludes that the unique role of fathers is only possible because they are incompletely attuned to their child's developmental level. The essay also concludes that this is due to differences in the roles of secondary and primary caregiver rather than due to gender differences between mother and father. Implications of these findings for single-parent families and early interventions for children with language difficulties are discussed.

Only recently have researchers begun to turn their attention to the role of fathers in language development. This is understandable, given that the dominant social interactionist perspective gives no reason to assume that the role of fathers in children's language development would be qualitatively distinct from that of mothers. Vygotsky (1978) believed that children learn language from communication with more competent others and subsequent internalisation. As mothers traditionally spend more time with the developing child, it is their language that the child is most often exposed to. As fathers spend less time with their children it would be reasonable to assume that fathers' contribution to language development is only additive to that of the mother. However, recent evidence suggests that fathers may have a unique impact on children's language development (Pancsofar and Vernon-Feagans, 2006, 2010).

It is important to understand the contributions of mothers and fathers in children's language development. Vygotsky (1978) believed that social language was the basis of higher mental functions: that social processes became intrapsychological processes through internalisation. In terms of language, Vygotsky stated that social speech used to convey meaning to others was internalised to become private speech, which is important in self-regulation (Shaffer, Kipp, Wood, and Willoughby, 2009). Vygotsky also believed that social interaction became the source from which children could internalise other higher functions such as problem solving and mental reasoning. As such, if fathers have a unique role to play in language development, understanding what makes their contribution unique may have implications both for early interventions for children with language difficulties and for single-parent families; helping these children to develop language skills will also have an effect on their capacity to think and learn in the future.

This essay will explore the valuable role of mothers in children's language development and consider the limited evidence on the complementary role of fathers. The

essay will go on to evaluate research suggesting that there are differences between mother-child and father-child communication. This research will be interpreted to suggest that fathers and children have difficulty communicating with one another. Taken together with Pancsofar and Vernon-Feagans' (2006, 2010) suggestion that fathers have a unique role to play in children's language development, these findings are paradoxical. The essay will investigate this paradox and use theories from Gleason (1975) and Vygotsky (1978) as well as more recent research in the field to argue that fathers only have a unique role to play because they are incompletely attuned to their children's language development. As such the process of father and child meeting the challenge of communicating leads to benefits in language development. The essay will go on to suggest that this unique contribution is a product of fathers' role as secondary caregiver rather than due to gender differences between mothers and fathers. Implications for early interventions and advice given to single parents will also be discussed.

Consistent with the social interactionist perspective, research has shown that Mothers have a valuable role to play in children's language development. Mothers are ideally placed to provide opportunities for their children to experience language (Snow, 1986). As such, variations in the amount of speech Mothers use in communicating with their children are reflected in variations in their children's vocabulary. Huttenlocher, Haight, Bryk, Seltzer, and Lyons (1991) measured the amount of speech 22 Mothers used in interacting with their children aged between 14 and 26 months. Huttenlocher et al found that the amount of speech mothers used with their children was significantly related to the rate of growth of their children's vocabulary. Variations in the vocabulary of Mothers have also been shown to influence children's language development. Bornstein, Haynes, and Painter (1998) observed 131 mothers and their firstborns in natural interactions. Bornstein et al (1998) found that the

breadth of the mothers' vocabulary directly influenced both the receptive language ability and vocabulary of their children. Mothers also have the ability to tune their language to the developmental level of their children (Furrow, Nelson, and Benedict, 1979). By analysing speech samples from seven mothers' interactions with their children Furrow et al (1979) demonstrated that mothers' use of this attuned language, colloquially termed *motherese*, aided the development of children's language. Furrow et al (1979) also described how complexities in mothers' language actually hindered language development, though this claim has been challenged (Gleitman, Newport, and Gleitman, 1984). The amount that mothers talk to their children, the breadth of their vocabulary, and their ability to tune language to their children's developmental level, have all been associated with improved language outcomes for their children.

The role of fathers in children's language development has been less well researched. Fathers speak less to their children than mothers do (Golinkoff and Ames, 1979; Gottman, 1998; Hladik and Edwards, 1984; Leaper, Anderson, and Sanders, 1998; Rondal, 1980) and their language is less well tuned to the developmental level of their children (McLaughlin, White, McDevitt, and Raskin, 1983; Tenenbaum and Leaper, 1998). However, as fathers provide their children with additional opportunities to experience language their presence may have some additional effect to that of mothers. Blake, Macdonald, Bayrami, Agosta, and Milian (2006) gave both 1-year-old and 2-year-old children from dual and single parent families the MacArthur Communicative Development Inventory in order to measure the breadth of their vocabulary. They found that the older children from dual parent families had significantly wider vocabularies than those from single parent families. Calderon and Low (1998) found, similarly, that children with hearing loss had significantly better language outcomes if their father had been present during language acquisition. Tamis-LeMonda,

Shannon, Cabrera, and Lamb (2004) investigated parents' sensitivity to, positive regard for, and cognitive stimulation of their children during interactions with their 2-year-old sons and daughters. Tamis-LeMonda et al then analysed the power of these factors combined (termed *supportiveness*) to predict their children's expressive language ability at 3 years of age. Tamis-LeMonda et al found that fathers' supportiveness was able to predict variations in their children's expressive language ability after mothers' supportiveness had been taken into account. These findings support the notion that experiences of fathers' language have an additive effect to the experiences of mothers' language on the development of the child. However, research by Pancsofar and Vernon-Feagans (2006) suggests that fathers may actually have a unique role in the development of children's language.

Pancsofar and Vernon-Feagans (2006) video recorded 92 triadic families (mother, father, and child) playing for 20 minutes with a range of preselected toys. Parents were also interviewed individually. Fathers in the study spoke to their children less often and used fewer words when doing so than mothers, but the quality of their language input did not differ significantly. Pancsofar and Vernon-Feagans' (2006) regression analysis showed that variations in fathers' vocabularies explained 9% of the variance in children's expressive language skills whilst mothers' vocabulary was not found to be a significant predictor. The findings of Pancsofar and Vernon-Feagans were paradoxical. Children's experience of fathers' language, though there was less of it to experience than mothers', seemed to have had a unique effect on the child's development.

There are alternative explanations for Pancsofar and Vernon-Feagans' (2006) findings. It may have been that fathers with a higher vocabulary were likely to be better educated and subsequently have greater resources to devote to their children's learning. Thus fathers with a higher vocabulary may have been able to afford books and other materials that could have

then had an impact on the child's expressive language skills. However, Pancsofar and Vernon-Feagans found that fathers' level of education was not related to language outcomes in their children. Cabrera, Shannon, and Tamis-LeMonda (2007) also found an effect of fathers on children's language development after their income had been taken into account. Pancsofar and Vernon-Feagans' findings could also be explained by fathers having an effect on the mother-child relationship rather than a direct effect themselves on the child's language development. However, Tamis-LeMonda et al (2004) found that, though fathers did have a significant impact on the mother-child relationship, the effect of fathers' supportiveness on children's language development remained after this effect had been taken into account.

In 2010, Pancsofar and Vernon-Feagans replicated the finding from their earlier research both with younger children and those from families with a low socio-economic status. Pancsofar and Vernon-Feagans found that the breadth of vocabulary used by fathers with their six-month-old children was able to significantly predict variance in those children's communication skills at both 15 months and 36 months of age. Again, mothers' vocabulary did not predict children's communication skills. This replication of earlier research lends support to the notion that fathers have a unique impact on the language development of their children.

Pancsofar and Vernon-Feagans (2006, 2010) were unable to explain why fathers appear to have a unique impact on their children's language development. If fathers have a unique impact, this may be reflected in aspects of their communication with children that are different from mothers'. Indeed, evidence has highlighted five main differences. In 1983, McLaughlin et al analysed 24 parent-child interactions, each lasting eight minutes. They interpreted the differences between mother-child and father-child communication. McLaughlin et al found that fathers used more *wh- questions* (questions beginning with wh-)

as a proportion of total questions than mothers. This finding was supported in a later study by Walker and Armstrong (1995). Walker and Armstrong interpreted natural conversations in four families in four different settings within the home. Not only did they find that fathers produced more wh- questions when communicating with their children but also that they used more verbal reflective questions: questions that repeat phrases or sentences back to the child to check understanding. This additional difference between mother-child and father-child interactions was also found by Rondal (1980), who identified that fathers made more requests for clarification when talking to children than mothers did. Both the increased incidence of wh- questions and the requests for clarification in fathers' language were also highlighted in a meta-analysis by Leaper, Anderson, and Sanders (1998).

Additional differences between mother-child and father-child communication were highlighted by Ratner in 1988. Ratner observed eight mother-father-child triadic free-play interactions lasting 45 minutes each and discovered a difference in the vocabulary of mothers and fathers in their talk with children. Ratner found that mothers used significantly more high-frequency words (words occurring frequently in the English language) and significantly fewer low-frequency words than fathers. This difference was not identified in Leaper et al's (1998) meta-analysis but this may be due to a lack of studies including this as an independent variable. In addition, research by Tomasello, Conti-Ramsden, and Ewert (1990) videotaped 15-minute, free-play sessions between mothers and their 1-year-old children. They also videotaped free-play sessions of the same length between fathers and those children. Analysis and comparison of these sessions revealed that fathers requested clarification from children proportionally more than twice as much as mothers. Tomasello et al also found that fathers had significantly more communicative breakdowns with their children than mothers did. In summary, evidence has highlighted that fathers produce more wh- questions and more

unusual language, have a greater need for clarification and have more frequent breakdowns in communication with their children than mothers do.

The highlighted differences between mother-child and father-child interactions can be interpreted to show that father-child interactions are different because fathers have a harder time communicating with their children than mothers do. More frequent breakdowns in communication, the need for clarification and the use of unusual language imply that fathers and their children have difficulty understanding one another. This might be because fathers are less well attuned to their children's language skills than mothers. In their observations of free-play in the home McLaughlin et al (1983) found that mothers expanded their statements less and asked more questions as children's language ability increased, indicating that they were attuned to their children's language development. Fathers in McLaughlin et al's study did not make the same adjustments as mothers, indicating that they were less attuned to their children's developing abilities. In 1998, Tenenbaum and Leaper interpreted videotaped play sessions between mother and child, and father and child. Tenenbaum and Leaper observed adjustments in mothers' language that were less present in fathers' and concluded that fathers were less attuned to the cognitive abilities of their children than mothers. McLaughlin et al (1983) and Tenenbaum and Leaper (1998) demonstrated that fathers adjust their language less completely than mothers in response to their children's changing developmental abilities.

Research indicates that the differences between father-child and mother-child communication are due to fathers and their children being less able to understand one-another than mothers and their children. Yet Pancsofar and Vernon-Feagans (2006) found that fathers made a unique contribution to children's language development. Paradoxically, it may be that fathers are only able to make a unique contribution to children's developing language because they have such difficulty communicating with them. In 1975, Gleason

wrote about how the difficulty in communicating with their fathers may provide a linguistic challenge for children. In talking with fathers, children need both to adapt their language for, and to learn to understand the language of, a less familiar conversational partner. Gleason and Weintraub (1978) stated eloquently that "Fathers may provide just the sort of comfortable cognitive dissonance that leads children to exert themselves in any effort to communicate" (p196). Gleason did not describe fathers as active in this process, but considered that the unique role of fathers was a fortunate consequence of being less attuned to their children's developmental level. However, the role of fathers can be seen to be much more active than previously thought when Gleason's theory and supporting evidence is interpreted in the light of Vygotsky's (1978) theory.

Vygotsky (1978) stated that tasks are most valuable learning experiences when they fall within the child's zone of proximal development (ZPD). A child facing a task outside of their ZPD would have difficulty completing it individually but would be able to do so with some guidance from a more competent person. A task falling outside of a child's ZPD will be too challenging for them to complete, even with guidance, and often results in frustration for the child; equally, a child's abilities will not develop as efficiently from tasks that a child can complete independently with ease. Wood, Bruner and Ross (1976) describe how, through *scaffolding*, more competent individuals can tailor aspects of difficult tasks to fall within a child's ZPD. In this way even very challenging tasks can become valuable learning experiences. Gleason (1975) theorised that fathers provided a *linguistic-bridge* to the outside world. She theorised that communication with strangers was difficult as they had little or no experience of, and as such would not be attuned to, the child's developmental level. Communication with strangers can therefore be seen as a task that is outside of the child's ZPD. Children's communication with fathers breaks down more often than with mothers

(Tomasello, Conti-Ramsden, and Ewert, 1990), suggesting that there are times when talking successfully with fathers is also a task outside of the child's ZPD. However, the increased use of wh- questions (Walker and Armstrong, 1995; McLaughlin et al 1983), requests for clarification (Leaper et al, 1998, Rondal, 1980) and verbal reflective questions (Walker and Armstrong, 1995) are examples of fathers' attempts to aid communication with their children and prevent communicative breakdowns. As such, these efforts may incidentally become a form of scaffolding whereby the father is simplifying the task of communicating with him such that it falls within the child's ZPD. In this way it becomes a valuable experience from which the child can learn about communicating with more challenging partners most effectively and develop their language skills generally.

There are two main theories about why fathers are often incompletely attuned to their children's developmental level. Walker and Armstrong (1995) support the differential experience hypothesis, and identify that there are gender differences in the way fathers and mothers interact with their children. McLaughlin et al (1983) also suggest that the difference between fathers and mothers is due to gender differences in the sensitivity of men and women to the developmental abilities of children. The idea that fathers are less attuned to their children than mothers because of inherent gender differences is not inconsistent with much of the research, which often highlights the gender differences but does not attempt to explain the cause. However, Gleason (1975) believed that the differences between fathers' and mothers' ability to attune to their children was due to the differences in the experiences they had of the child. Mothers, who talk with their children much more than fathers do (Golinkoff and Ames, 1979; Gottman, 1998; Hladik and Edwards, 1984; Leaper et al, 1998; Rondal, 1980), have had more time to become accustomed to their children's language abilities. Subsequently, mothers find attuning to their child much easier (Gleason, 1975). In support of her argument

Gleason showed similarities in the mean length of utterance and amount of repetitions between male and female day care teachers and significant differences in these between male and female parents. Gleason concluded that both men and women are capable of attuning to children but that it is the traditional roles of the mother and father that create a disparity.

Further supporting Gleason's argument, Davidson and Snow (1996) and Leaper et al (1998) showed that the differences in the use of language between mothers and fathers also disappears as the child gets older. Davidson and Snow analysed dyadic and family interactions between mothers, fathers and their 5-year-old children. They found that fathers used less complex language than mothers and concluded that as the child had become older, fathers were playing the role of linguistic-bridge much less. In the meta-analysis of Leaper et al the differences previously highlighted in the language used by mothers and fathers with their children disappeared once the child had reached school age. It may be that fathers gain more experience of communicating with their children over time. Subsequently, they are better able to attune to their developmental level as the child becomes older. This evidence supports the notion that differences between fathers' and mothers' communication with their children are due to differences in the experiences of the child offered by their roles as primary and secondary caregiver rather than due to inherent gender differences.

The role of secondary caregivers in children's language development has implications both for advice given to single parents and for early interventions for children with delayed language development. The research suggests that the inability of fathers to completely attune to their children's developing language is due to their common position in the family as a secondary caregiver. Thus similar advice can be given to both single mothers and single fathers about how to give their children the best opportunities to develop language effectively. The role of a secondary caregiver is important. Blake et al (2006) found that older children

from dual parent families had significantly greater vocabulary than those from single-parent families, and this could be attributable to the presence or absence of the unique role of the secondary caregiver in language development. It seems that up until school age secondary caregivers provide an opportunity to experience communicating with a more challenging conversational partner, who can scaffold the task of communication such that it becomes a valuable learning experience for the child. As such, children from single-parent families might benefit from regular contact with other family members or family friends that spend time getting used to communicating with them as their language develops. In this way the child can experience communicating with people that are somewhat, though not completely, attuned to their developmental level. Indeed it may be the case that many single parent families already have a number of friends and family members that, together, have a combined secondary caregiver role.

Early interventions for children with delayed language development should focus on helping both primary and secondary caregivers to communicate with their children. Indeed, Calderon and Low (1998) found that the presence of a father during and following early intervention with hearing-impaired children significantly improved their language outcomes. If children have particular receptive or expressive language difficulties, the role of the secondary caregiver could be exploited to provide regular interventions. Primary caregivers may find themselves in a position where, even though their children have particular language difficulties, they are able to communicate with their children effectively as they are so well attuned to their children's developmental abilities. As secondary caregivers are less well attuned, they are in a position where they can scaffold the task for children of either understanding the secondary caregiver's language or making themselves understood. In this

way secondary caregivers can give children the opportunity to develop in particular areas of difficulty.

The research into the different roles of primary and secondary caregivers in children's language development also has implications for other areas of research. Blewitt, Rump, Shealy, and Cook (2009) suggest that fathers' style of book reading is more cognitively demanding than that of mothers and that both higher and lower demand styles are necessary for effective language development. Though their suggestion is only somewhat supported by the evidence they draw upon, more recent research by Barachetti and Lavelli (2010) does suggest that fathers are more challenging book reading partners than mother. Barachetti and Lavelli found that fathers' utterances during shared book reading were significantly associated with children's subsequent requests for further information whilst mothers' utterances were not. They conclude that the way in which fathers communicate with children can make their understanding of the text more challenging. Duursma, Pan, and Raikes (2008) show that only for better educated fathers (who may subsequently make more challenging reading partners) more frequent book reading was predictive of better language development in children. It may be that fathers make more challenging book reading partners in the same way that they make more challenging conversational partners, by being less attuned to the developmental level of their children.

Secondary caregivers may have a unique role to play in the development of children's language. Their unique impact on children's language may only be possible because of the often reduced experience of communicating with the child offered by the role of secondary caregiver (Gleason, 1975). However, though circumstance places secondary caregivers in a helpful position where communication with their child poses a challenge for both of them, their role in language development is not passive. By scaffolding the task of communicating

with them, secondary caregivers give children a unique and valuable learning experience. From this experience children can most effectively learn about communicating with more challenging conversational partners and, in so doing, develop their language abilities more generally. The unique role of the secondary caregiver may be most valuable before the child reaches school age (Davidson and Snow, 1996; Leaper et al, 1998). Though the emphasis of this essay has been on the part of the secondary caregiver, this does not diminish the value of the primary caregiver in helping children to develop language. Indeed as a main provider for many of the child's needs the primary caregiver needs to be able to communicate with the child effectively to know what those needs are as the child first develops language. As such primary caregivers are necessarily attuned to their child's developmental level. Without the role of the primary caregiver, the secondary caregiver's role might not even be possible. The roles of the primary and secondary caregiver are complementary. Together, they are valuable in the language development of children.

References

Barachetti, C., & Lavelli, M. (2010). Preschoolers' communicative functions during shared book reading with mothers and fathers. *Early Education and Development, 21*(4), 595-613.

Blake, J., Macdonald, S., Bayrami, L., Agosta, V., & Milian, A. (2006). Book reading styles in dual-parent and single-mother families. *British Journal of Educational Psychology, 76*(3), 501-515.

Blewitt, P., Rump, K. M., Shealy, S. E., & Cook, S. A. (2009). Shared book reading: When and how questions affect young children's word learning. *Journal of Educational Psychology, 101,* 294–304.

Bornstein, M. H., Haynes, M. O., & Painter, K. M. (1998). Sources of child vocabulary competence: A multivariate model. *Journal of Child Language, 25,* 367−393.

Cabrera, N., Shannon, J., & Tamis-LeMonda, C. (2007). Fathers' influence on their children's cognitive and emotional development: From toddlers to pre-K. *Applied Developmental Science*, *11*(4), 208-213.

Calderon, R., & Low, S. (1998). Early social-emotional, language, and academic development in children with hearing loss: Families with and without fathers. *American Annals of the Deaf, 143*(3), 225-234.

Davidson, R. G., & Snow, C. E. (1996). Five-year-olds' interactions with fathers versus mothers. *First Language, 16,* 223–242.

Duursma, E., Pan, B., & Raikes, H. (2008). Predictors and outcomes of low-income fathers' reading with their toddlers. *Early Childhood Research Quarterly*, *23*(3), 351-365.

Furrow, D., Nelson, K., & Benedict, H. (1979). Mothers' speech to children and syntactic development: Some simple relationships. *Journal of Child Language, 6,* 423−442.

Gleason, J. B. (1975). Fathers and other strangers: Men's speech to young children. In D. P. Dato (Ed.), *Developmental psycholinguistics: Theory and application* (pp. 289-297). Washington DC: Georgetown University Press

Gleason, J. B., & Weintraub, S. (1978). Input language and the acquisition of communicative competence. In K.Nelson (ed.), *Children's language. Vol. 1* (pp. 171-222). New York: Gardner Press.

Gleitman, L. R., Newport, E. L., & Gleitman, H. (1984). The current status of the motherese hypothesis. *Journal of Child Language, 11,* 43−79

Golinkoff, R. M., & Ames, G. J. (1979). A comparison of fathers' and mothers' speech with their young children. *Child Development, 50,* 28−32.

Gottman, J. M. (1998). Toward a process model of men in marriage and families. In A. Booth & A.C. Crouter (Eds.), *Men in families: When do they get involved? What difference does it make?* (pp. 149-192). Mahwah, NJ: Erlbaum.

Hladik, E. G., & Edwards, H. T. (1984). A comparative analysis of mother-father speech in the naturalistic home environment. *Journal of Psycholinguistic Research, 5,* 321-332.

Huttenlocher, J., Haight, W., Bryk, A., Seltzer, M., & Lyons, T. (1991). Early vocabulary growth: Relation to language input and gender. *Developmental Psychology, 27,* 236−248.

Leaper, C., Anderson, K. J., & Sanders, P. (1998). Moderators of gender effects on parents' talk to their children: A meta-analysis. *Developmental Psychology, 34,* 3–27.

McLaughlin, B., White, D., McDevitt, T., & Raskin, R. (1983). Mothers' and fathers' speech to their young children: Similar or different? *Journal of Child Language, 10,* 245–252.

Pancsofar, N., & Vernon-Feagans, L. (2006). Mother and father language input to young children: Contributions to later language development. *Journal of Applied Developmental Psychology*, *27*(6), 571-587

Pancsofar, N., & Vernon-Feagans, L. (2010). Fathers' early contributions to children's language development in families from low-income rural communities. *Early Childhood Research Quarterly*, *25*, 450-463.

Rondal, J. A. (1980). Fathers' and mothers' speech in early language development. *Journal of Child Language, 7,* 353−369.

Shaffer, D.R., Kipp, K., Wood, E., & Willoughby, T. (2009). *Developmental psychology*: *Childhood and adolescence*, Third Canadian Edition. Toronto: Nelson.

Snow, C. E. (1986). Conversations with children. In Fletcher. P, and Garman, M. *Language acquisition,2nd edition (pp.69-89).* Cambridge university press: Cambridge.

Tamis-LeMonda, C. S., Shannon, J. D., Cabrera, N. J., & Lamb, M. E. (2004). Fathers and mothers at play with their 2- and 3-year-olds: Contributions to language and cognitive development. *Child Development, 75,* 1806−1820.

Tenenbaum, H. R., & Leaper, C. (1998). Gender effects on Mexican-descent parents' questions and scaffolding during toy play: A sequential analysis. *First Language, 18,* 129–147.

Tomasello, M., Conti-Ramsden, G., & Ewert, B. (1990). Young children's conversations with their mothers and fathers: Differences in breakdown and repair. *Journal of Child Language*, *17*, 115–130.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard Press

Walker, K., & Armstrong, L. (1995). Do mothers and fathers interact differently with their child or is it the situation which matters?. *Child: Care, Health and Development*, *21*(3), 161-181

Wood, D., Bruner, J.S., & Ross, G. (1976). The role of tutoring in problem-solving. *Journal of Child Psychology and Psychiatry, 17, 89-100.*