Bilingualism is more than just the sum of two parts : the family context of language development in ethnic minority children

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Chapter 6

General discussion

GENERAL DISCUSSION

The findings reported in this dissertation provide evidence for the importance of immigrant-background bilingual children's language skills for their school outcomes, and shed light on the intricate role that contextual factors play in the development of these important language skills. Chapter 2 showed that there were robust moderate to strong within-language relations between oral language proficiency and the school outcomes of early literacy, reading, spelling, mathematics and academic achievement, and cross-language relations for early literacy and reading. The study with Turkish-background toddlers in the Netherlands presented in Chapter 3 showed that the increase in maternal use of Dutch with the child between ages 2 and 3 was stronger for mothers of children who started using a child care facility in the previous year and for mothers from families living in a neighborhood with a low percentage of non-Western immigrants. In Chapter 4, the results showed that reading input mediated the relation between SES and host language vocabulary and between maternal language use and host language vocabulary, whereas only maternal language use was related to ethnic language vocabulary. Chapter 5 provided support for the hypothesis of context-dependent linguistic interdependence, and showed that positive transfer from L1 vocabulary to L2 vocabulary growth was only present for children who used L1 more than L2 when talking to others. The findings of these four chapters are integrated below. Furthermore, theoretical and practical implications, the limitations of the studies, and directions for future research are provided.

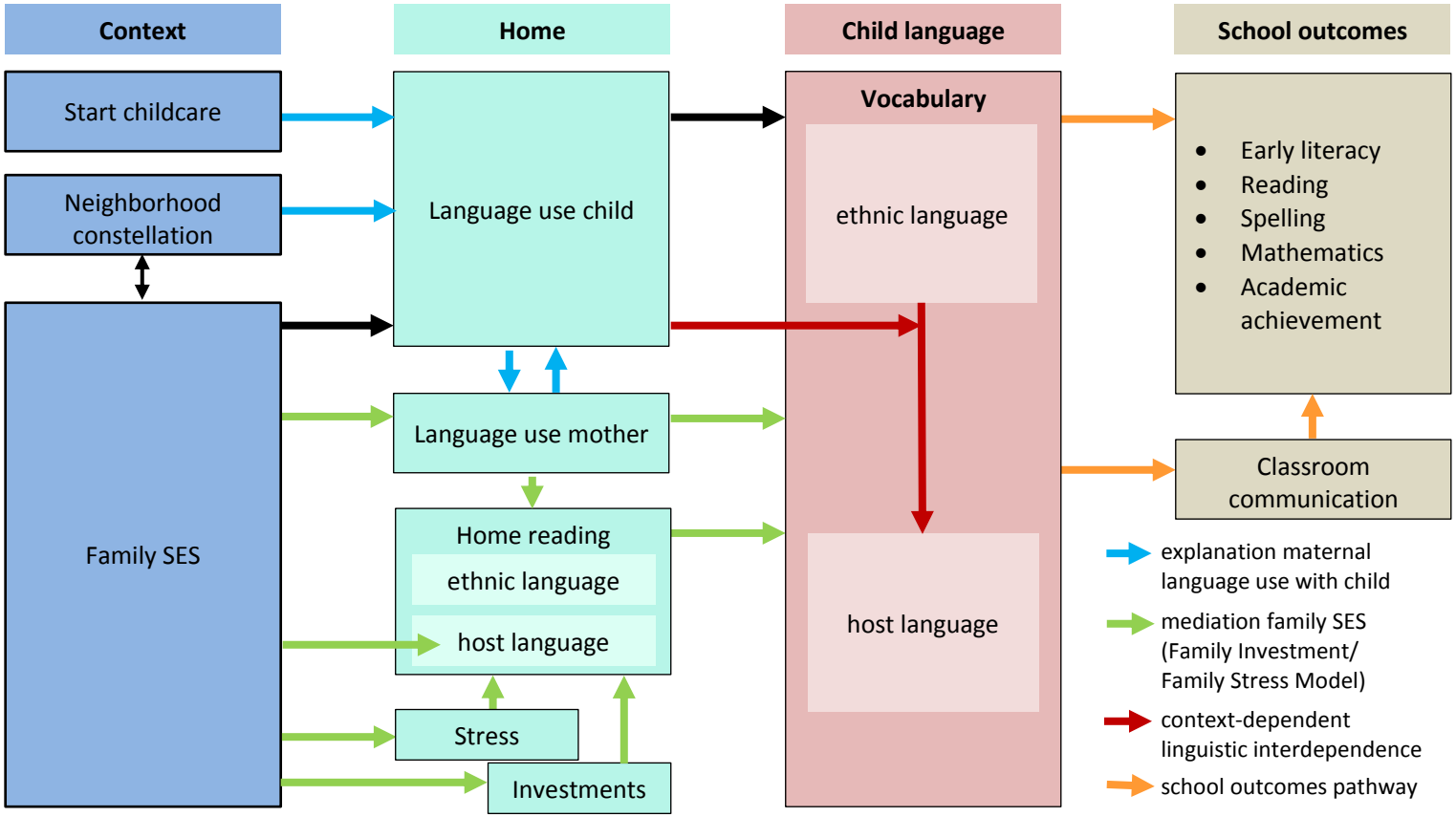
Theoretical implications

The results of the studies presented in this dissertation and findings from previous research can be integrated into the model presented in Figure 1. The model shows interrelations that were confirmed by our studies as well as potential mechanisms to explain certain interrelations derived from previous research findings. Consistent with the bioecological model of development (Bronfenbrenner & Morris, 2007), our integrated model includes proximal processes and characteristics of the proximal and more distal environment in which children's language development progresses.

First of all, the model shows the importance of bilingual children's language competence as represented by the relation between children's vocabulary and their school outcomes (the orange arrow). The results of our meta-analyses (Chapter 2) showed that within-language relations between the oral language proficiency of bilingual children with an immigrant background and their school outcomes were substantial and significant. Part of the influence of oral language proficiency on school outcomes, particularly proficiency in the language of education, is likely to be mediated by the ability to communicate with the teacher and to understand explanations and instructions in class (Hoff, 2013). This explanatory mechanism is included in the school outcomes pathway (orange arrows) in the model.

Language input in the home environment (turquoise boxes) plays a central role in our integrated model. According to the constructivist view, language input is critical to children's language outcomes (Huttenlocher, Waterfall, Vasilyeva, Vevea, & Hedges, 2010). Children infer language rules from the language input to which they are exposed (Ellis, 2002). Because in most families mothers are the primary caregivers and generally provide more language input to children than fathers do (Pancsofar & Vernon-Feagans, 2006), maternal language use forms an important language input source for children. Reading input is a specific form of language input, which can be used by parents as a means to stimulate children's language development. Reading provides children experiences to learn words from text and pictures (Collins, 2010). The families in our sample provided less reading input in the ethnic than in the host language (Chapter 4), which might be the result of an ongoing increase in use of the host language as was found for mothers of toddlers (Chapter 3). The more limited amount of reading input in the ethnic language might not be sufficient to affect children's vocabulary in that language, contrary to the more frequent reading in the host language which affected host language vocabulary (Chapter 4).

The notion of context-dependent linguistic interdependence is represented by the red arrows in the model. We found that child language use moderated the relation between Turkish vocabulary and Dutch vocabulary growth (Chapter 5). Linguistic interdependence (Cummins, 1979) was only present for children who used the ethnic language more than the host language for speaking to others. We assume that the use of ethnic language knowledge as a base for host language development depends on the availability of other sources



Note. The model is based on associations found in our studies and potential explanatory mechanisms derived from the literature

Figure 1. Integrated model of research findings and potential explanatory mechanisms regarding bilingual language

for language development, such as frequent L2 use. If a child knows a word in the ethnic language, the concept that the word refers to will also be available in the child's conceptual memory (Kroll & Stewart, 1994), and that conceptual representation can form a base to further develop host language vocabulary. This ethnic language base is likely to be stronger when the ethnic language is used more, as producing output in a language requires more profound processing of the language than only listening to input in that language (Bohman, Bedore, Peña, Mendez-Perez, & Gillam, 2010). Also, children might be more inclined to use ethnic language knowledge for their host language development if they lack sufficient experience with using the host language.

Family SES is an environmental variable that exerts its influence mainly via elements of the home environment, as reflected by the green mediation pathways in our model. Our study showed that SES was an important factor that explained differences in maternal language use and home reading input in the host language (Chapter 4). Parents with a higher SES generally used the host language more, which also led them to read more in the host language. Maternal language use was in turn related to children's vocabulary in both languages, and host language reading input in the home was related to host language vocabulary. In an immigrant-background sample, SES is not only an indicator of a family's socioeconomic situation but might also be an indicator of acculturation to the host culture (Bohman et al., 2010). Increased host language use is part of this acculturation, which can be a result of as well as a reason for their higher education and income. Also, in line with the Family Investment Model and the Family Stress Model, families with a higher SES can invest more financial and educational capital in language stimulation and reading and they experience fewer stressors that interfere with undertaking language and literacy activities with their children (Conger & Donnellan, 2007).

Finally, the model shows childcare and the ethnic constellation of the neighborhood as environmental variables that might affect child language use, represented by the blue pathways. The exposure to the host language in child care has a positive effect on children's host language proficiency (Silvén & Rubinov, 2010; Uchikoshi, 2006), whereas the pressure to use the host language to adapt to the host culture is less strong in neighborhoods with relatively more immigrants (Van Tubergen & Kalmijn, 2009). This percentage of immigrants is likely to be higher in low-SES neighborhoods (Termorshuizen, Smeets, Braam, & Veling,

2014). We hypothesize that changes in mothers' host language use (Chapter 3) are partly fuelled by children's increasing use of and proficiency in the host language (Fillmore, 2000; Pearson, 2007). The environmental effects of the neighborhood and childcare facilities can lead to increased host language proficiency and use by the child, which in turn invites the mother to use the host language more when speaking to the child, which is again beneficial for host language proficiency and use of the child (Pearson, 2007). Thus, as the blue arrows in the model suggest, the relation between child and mother language use is thought to be reciprocal.

Limitations and implications for future research

The findings of the studies in this dissertation provide directions for future research. Our study samples were relatively small, and our data cross-sectional for some of our analyses. The integrated model in Figure 1 should be tested longitudinally in a large bilingual sample to examine its validity. Especially the concepts and pathways that are hypothesized in the model but not tested in the studies in this dissertation, such as interrelations between language use of children and mothers, deserve further investigation. In addition, the potential mediational role of child language use in the relation of start of childcare and ethnic constellation of the neighborhood with maternal language use should be studied further. Also, to test the validity of the Family Stress and Family Investment Model (Conger & Donellan, 2007) in the context of bilingual language development, it would be helpful if future studies measure families' educational and financial investments and stress levels and examine their relation to home reading input and children's vocabulary outcomes. Classroom communication also deserves further research attention to confirm its hypothesized mediational role in the relation between oral language proficiency and school outcomes.

Except for the meta-analyses, all studies in this dissertation focus on Turkish immigrant-background children in the Netherlands in early childhood with mainly second-generation mothers. However, our findings cannot be generalized to other immigrant-background samples without caution. First, immigrant policies, status of the ethnic language, distance between the ethnic and the host language, and the availability of written materials in the ethnic language can vary between host countries and ethnic groups. Also, the importance of certain environmental factors can decrease or increase with increasing age, and the ethnic language is more prominent in earlier immigrant generations

(Hakuta & D'Andrea, 1992). Convergence of our findings with previous research findings in monolingual or bilingual samples provides some initial support for generalization of the relations and mechanisms to other immigrant-background samples. Nevertheless, the relations between environmental and language variables and differences in these relations between the ethnic and the host language that we found and the notion of context-dependent linguistic interdependence should also be studied in immigrant-background populations from different ethnic backgrounds, in different host countries, at older ages, and from earlier or later immigrant generations to confirm validity across immigrant-background samples.

In addition, there are some measures that could be added in future studies to obtain a more complete view of language environments and language outcomes. The Likert scales that we used in Chapters 3, 4 and 5 to measure which language mother speaks most to her child and which language the child speaks most to others, measure the relative quantity of language use and do not provide information about the absolute amount of language use. Future studies using separate measures in each language to measure language use frequency with scale points referring to absolute amounts of time, can test hypotheses about a critical mass of language input or the leveling off of the relation between input and proficiency and look into issues of language mixing (Byers-Heinlein, 2013; Pearson, 2007; Thordardottir, 2011).

Furthermore, future studies should also include questionnaires or observations measuring not only the quantity but also the quality of the language input, which was not captured by the questionnaires we used. The effect of maternal language input on children's language development will probably be stronger if the input is of good quality, as lexical richness and syntactic complexity of maternal language input and maternal use of referential are positively related to children's expressive vocabulary (Hoff, 2006; Hoff & Naigles, 2002; Tamis-LeMonda, Song, Leavell, Kahana-Kalman, & Yoshikawa, 2012), and word learning is prompted if the words that a child hears are accompanied by rich definitions (Collins, 2010). Finally, future studies should use normed tests for receptive and expressive vocabulary in the ethnic and the host language, so that children's scores can be interpreted relative to age norms for bilingual and monolingual children in each language.

Implications for policy and practice

In Chapter 3 we found an increase in mothers' use of the host language, relative to the ethnic language, with their children between ages 2 and 3. It is likely that this increase in use of the host language will continue after the preschool years (Mancilla-Martinez & Kieffer, 2010). Host language development is important in children's school careers, because most or all of their education takes places in the host language (Uccelli & Páez, 2007). However, this language shift towards more use of the host language can jeopardize children's ethnic language development (Hammer, Davison, Lawrence, & Miccio, 2009), which can be important for children's ethnic identity and parent-child relationships (Oh & Fuligni, 2010; Phinney, Romero, Nava, & Huang, 2001), and under certain circumstances also for development of the host language. The family is an important resource for maintenance of the ethnic language. We found that if mothers used the ethnic language relatively more with their children, the children had a larger ethnic language vocabulary, and if they used the host language relatively more, the children had a larger host language vocabulary. If the increase in use of the host language indeed continues over the years, the need to speak the ethnic language within the family is lowered and children receive less input in that language to learn new words and language rules.

Such a language shift is seen in immigrant-background families worldwide (McCabe et al., 2013). Many immigrant language policies focus only on development of the host language. This also holds true for the Netherlands, where no more government support for ethnic language education is provided since 2004 and the use of a language other than Dutch at home is perceived as a barrier to successful school achievement (Extra & Yağmur, 2004, 2006; Verspoor & Cremer, 2008). However, our findings show that for certain subgroups ethnic language skills can have a positive effect on growth in host language skills. Previous studies have shown such positive cross-language transfer even for Turkish-Dutch children with specific language impairment (Verhoeven, Steenge, & Van Balkom, 2012). Besides the effects that the ethnic language can have on development of the host language, the ethnic language is also important for ethnic identity (Phinney et al., 2001), and parent-child relationships, because it is oftentimes the language in which the parents can most easily express themselves (Fillmore, 1991, 2000; Oh & Fuligni, 2010). Not speaking the same language can increase the emotional distance between parent and child (Tseng & Fuligni,

2000). The language in which parents are proficient, is also the language in which they can provide qualitatively better input to their children (McCabe et al., 2013). In addition, bilingualism brings along cognitive advantages in attentional control, working memory, metalinguistic awareness, and abstract and symbolic representation skills (Adesope, Lavin, Thompson, & Ungerleider, 2010).

The importance of bilingualism for ethnic identity and parent-child relations, and its cognitive advantages, combined with our findings that under certain circumstances ethnic language proficiency can have a positive effect on host language development, plead for a shift towards a situation in which not only the host language, but also the ethnic language is valued and parents are supported to use this language with their children. Both monolinguals and bilinguals need to be made aware of the benefits of bilingualism (Agirdag, 2010). In the specific case of Turkish-Dutch bilinguals in the Netherlands, it is encouraging for initiatives aimed at supporting the ethnic language in addition to the host language that the Turkish language has a high vitality, meaning that large proportions of Turkish-background people from later immigrant generations still know and use the language (Extra & Yağmur, 2006). This high vitality of the Turkish language in the Netherlands is also shown by the fact that the children in the Turkish-Dutch samples used in Chapter 3, 4, and 5 are still proficient in Turkish to some extent, although they are from later immigrant generations, and might thus be expected to have lost their ethnic language (Hakuta & D'Andrea, 1992).

Home-based interventions to directly and indirectly improve bilingual children's language proficiency, which will in turn benefit their school outcomes, can include home visits in which parents receive information about home language and literacy activities, and provision of literacy resources (Hirst, Hannon, & Nutbrown, 2010; Zhang, Pelletier, & Doyle, 2010). Home reading in the host as well as the ethnic language can have beneficial effects for host language development (Roberts, 2008). Video support as provided in digital picture storybooks can add to the learning from book reading for immigrant-background children (Verhallen & Bus, 2010). Educational TV programs can also have a positive effect on vocabulary (Uchikoshi, 2006). On the school level, book-rich classrooms have positive effects on children's language proficiency and home rereading of school books can improve parents' involvement in language learning and children's motivation for language learning (Koskinen et al., 2000). Schools

can also impact the home literacy environment by providing literacy resources or assigning home reading as homework (Reese, Thompson, & Goldenberg, 2008).

Conclusions

Overall, the findings in this dissertation show that bilingualism is more than just the sum of two parts. Meta-analyses show that proficiency in the language of education has a positive effect on all school outcomes, and for early literacy and reading proficiency, cross-language effects were also found. Ethnic constellation of the neighborhood, start of child care, and family SES are related to home language and literacy input, which is in turn related to children's vocabulary outcomes. Under circumstances of more ethnic than host language use, children can experience positive effects of their ethnic language skills in the development of their host language skills. Although the optimal balance between the languages can vary depending on individual circumstances, the focus of interventions and policies should not be solely on the host language, but the ethnic language should receive the attention it deserves. Our findings show that bilingualism is a complex puzzle of input and output in two languages that can only be solved by taking children's (family) environment into account.