

Sibling influences on musical development

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ABSTRACT

Psychological research shows increasing interest in early social experiences among siblings; however very little is known about sibling relations' effects on musical development. Thus the aims of the study are to precisely describe typical sibling influences in the field of music and to discover interacting environmental variables.

63 music students completed an open-ended questionnaire about their memories of musical influences by siblings during childhood and adolescence. 394 statements were classified in 30 content categories generated by qualitative content analysis. Categories were assigned to four higher categories of relation context. Basic quantitative analyses suggest that musical sibling influences depend on period of life (childhood or adolescence), age difference and sex of respondents and siblings ($p < .04$).

Sibling influences in the field of music are multifaceted. Whereas some respondents, for instance, started to play an instrument in order to become part of a music making sibling group, others preferred their music style to differ from a sibling.

I. INTRODUCTION

The sibling relation is one of the earliest and closest relationships of life. In contrast to the parent-child relation siblings mostly interact on the same hierarchy level. They compare with each other, they mediate, they wish to be different from one another, or they ally against their parents. Siblings are dependent on the same parents and compete for parental love and acceptance. However, siblings belong to a common destiny, sharing central family experiences for life (Frick 2009, Kasten 2003). Even during adulthood, siblings often keep in touch, share significant memories, give family backing and orientation, and ask each other for advice (Petri 2006). Thus sibling relations receive significant attention in psychological research, psychotherapy, family therapy and socialization studies. During the last three decades the number of journal articles on sibling relations is clearly increasing. Studies either attend to variables determining the quality of sibling relations (such as age difference, sex, living arrangements, parenting style, illness or loss of a family member etc.) or to effects of sibling relations on individual variables (such as personality, abilities, self-concept, future relations etc.).

Studies that deal with the birth order of siblings have a long tradition. Alfred Adler was the first to assume that early experiences with older and younger siblings significantly impact the individual. According to Adler the firstborn tends to be orderly and conservative, the second might become overambitious in order to overtake the first, and the lastborn often develops feelings of inferiority (Adler 1927). Walter Toman drafted the duplication theorem by analysing divorce rates. He found for instance that a firstborn and a later-born better harmonize in marriage than two firstborns, who both fight for leadership (Toman 1965). Frank Sulloway probably

is the most popular sibling researcher. He analysed the biographies of revolutionary scientists, such as Nicolaus Copernicus, Isaac Newton, Charles Darwin, Albert Einstein, and the biographies of their conservative opponents. Data show that the "revolutionists" mostly were later born siblings, while many of the "conservatives" were grown up as firstborns (Sulloway 1997). From the psychological point of view the essential question is how the individual estimates and devices their own family position, which depends on personal and environmental variables (Frick 2009, 36).

In the field of music psychology the relevance of family for the musical development is well known (e.g. Creech 2009, McPherson 2009, Young 2008, Manturzewska 2006, Custodero 2006, Moore Burland & Davidson 2003, Davidson et. al 1996, Bastian 1991, 1989, Kelley & Sutton-Smith 1987). But "family" in that context usually is understood as parent-child relation. Very few studies question sibling influences on musical development (Howe & Sloboda 1991, Pape 1998, Davidson & Borthwick 2002). Howe & Sloboda (1991) interviewed 42 students (aged 11-18) at a secondary school specialized in music education. They asked for early experiences perceived by the students as potentially relevant for their musical development. 43% reported on older children, mostly siblings, who played an instrument. Through those children interviewees became aware of music and realized that daily practicing is normal. Older siblings were an attainable musical model and aroused the interest to play with, as well as envy and rivalry. Pape (1998) found a smaller influence of siblings by asking 600 German music amateurs for childhood experiences, which furthered their interest in playing an instrument. Only 9% of all answers indicated siblings playing a role. Female respondents perceived the impact of siblings as higher than males. Davidson & Borthwick (2002) made a longitudinal case study on a family with two sons who both played the violin. It appeared that musical talent was ascribed in a relatively stable manner within the family and that the siblings were classified as "more talented" and "less talented". The authors assume, that through this so-called "family script" every family member is assigned a defined role. Chances are slow going but possible. During the investigation the "less talented" became more successful by several chancing circumstances and the relation to his predominant brother was modified. Thus, the term "sibling dynamics" also is discussed. In few other studies play either the music specific question or the fact that participants were siblings a minor role (Trehub et al. 1994, Watzlawik 2009, Blank & Davidson 2007, Davidson & Burland 2006, Kurosawa & Davidson 2005).

The aims of the present study are to describe typical sibling influences in the field of music and to explore interacting environmental variables.

II. METHODS

A questionnaire with two open-ended tasks was constructed in order to receive qualitative data. The first task consisted of the instruction “Please describe the role your sibling (1, 2, 3, 4) played in your musical life during childhood!” The second task was identical but related to adolescence. Respondents were asked to fill a short, separate explanation in which they attached a number to each sibling and gave some information about each sibling and the parents and themselves (age, sex, musical activities). 23 students at the University of Music and Performing Arts in Frankfurt, Germany (mostly future school teachers) and 40 music students at the University of Applied Sciences in Osnabrück, Germany (mostly future instrumental teachers) participated. Respondents were 19 to 42 years old; the average age was 23. 41 female and 20 male students participated, in two cases participants omitted to declare their gender.

Text data was analysed by qualitative content analysis according to Mayring (2003): First, different statements were separated from one another and umbrella terms were generated. Thus, the first 10-15 text answers were classified in groups, which were subsequently used as content categories to classify the remaining statements. Statements that did not fit into these initial content categories were classified as “other contents”. In that category statements were again classified in groups leaving only statements that had been made by a very low number of respondents. Categories with less than three statements were not kept as separate categories, but were either merged into other categories or were left in “other contents”. Categories with more than 30 statements were subdivided. Data was managed and analysed in Microsoft Excel and SPSS 19.

III. RESULTS

The data contains 394 statements in 30 content categories and four higher categories, which were called “relation contexts”. In the following all content categories within their relation context are presented (tables 1-5) and illustrated by text examples.

A. Content categories and relation contexts

First relation context is labelled “Interaction at eye level”: Siblings interacted in the field of music and influenced each other with neither party being especially dominant (table 1).

Table 1. Relation context “Interaction at eye level”
R=Respondent, S=Sibling, Frequency: Childhood / Adolescence

Content categories to “Interaction at eye level”	Frequency Childh. / Adol.
R and S were making music, dancing, playing together	43 / 23
a) R and S were musically active while playing	6 / 0
b) R and S made music with their parents	6 / 5
c) R and S took part in the same music ensemble	5 / 7
d) R and S performed together or formed a band	7 / 5
R and S were practicing together, supporting one another	5 / 6
R and S motivated and/or inspired one another	3 / 3
R and S were jointly listening to and/or exchanging music	7 / 8
R and S developed similar musical preferences	5 / 11
R and S were rivals in the field of music	7 / 1
Total	70 / 52

Statements about joint music making, dancing, and playing represent the largest part of “Interaction at eye level”. Some Statements were assigned to sub-categories (a-d). During childhood, for instance, several respondents were musically active by just playing with siblings. They dressed up and gave little music shows or imitated video clips etc. Others described how they made music with the whole family or how they and their siblings took part in the same music ensemble. Also band formations among siblings were often mentioned. A female respondent with four younger siblings told of several shared music activities:

During Childhood I listened with (1) to many music tapes, dancing and singing along. When I reached third grad we played duets (violin and flute). We taught one another to speak words backwards so that we could sing in “our own foreign language”. During car trips we always sang (Rolf Zuckowski). With all siblings (1, 2, 3) we often arranged little performances. [FB 30]

Other forms of “Interaction at eye level” emerge in practicing together or supporting one another in musical activities. A female respondent experienced that with her twin sister:

During adolescence each of us had found our own field. I supported my sister with rhythm and she was better in interpretation and performance. We always helped one another. We felt this as an incentive remaining with us during puberty, whereas many of our friends stopped playing their instruments. It was also very helpful that we always could practice together. [FB 2]

Respondents also described mutual motivation, inspiration, and incentives to continue with music, joint music listening, exchanges of music, and the development of similar musical preferences. However, sibling rivalry was also reported within the “Interaction at eye level” category.

Table 2. Relation context “Leading role of a sibling”
R=Respondent, S=Sibling, Frequency: Childhood / Adolescence

Content categories to “Leading role of a sibling”	Frequency Childh. / Adol.
S was motivating and/or inducing in the field of music	10 / 8
S was a trailblazer in playing or choosing an instrument	14 / 4
S was a trailblazer concerning preferences, interests	7 / 17
S was a trailblazer in joining a music ensemble	9 / 4
S was a “teacher” to R, guiding and supporting practicing	8 / 4
S had music CDs etc., which R was allowed to listen to	3 / 6
R was impressed by S’s musical abilities and activities	9 / 3
R listened to S’s practicing, attended S’s performances	5 / 3
S took R with him/her to concerts or to the disco	1 / 4
S’s feedback to R’s music activities was very important	0 / 3
Total	66 / 56

The second relation context is called “Leading role of a sibling”. Content categories at this point express that respondents orientated on a sibling, imitated musical activities of a sibling or were impressed by a music-making sibling (table 2).

Sibling influences in that relation context are less mutual and more one-sided. Thus motivation and incentive to engage in musical activities are caused by a sibling but not by the

respondent. In respondent's memories of childhood siblings often were trailblazers in playing an instrument or choosing a specific instrument. In contrast, during adolescence, siblings appear to give guidelines for musical preferences, interests and music listening habits. A male respondent, who grew up as the middle child of three siblings, wrote:

The music (2) listened to was mostly interesting to me, too. So I listened tapes of him for many years. Especially two Bob Marley disks left a deep mark on me and aroused my stalwart love for reggae. [FB 26]

Furthermore some siblings took the function of a teacher for practicing. Others became a musical idol who was admired and whose concerts the respondent always attended. Siblings also often were trailblazers in joining a choir, an orchestra or a band (table 2). A youngest of four siblings described:

My siblings regularly participated in a wind band and were always practicing at home. My parents supported them with much energy, so I grew up with music. I often watched their performances and loved their playing, especially on festive occasions, like Christmas and Birthdays. (2) taught me to play the clarinet, at least in the beginning. Thus I started at the age of ten to join the wind band too. [FB 34]

In the third relation context "Leading role of the respondent", role allocation is the other way around. Thus, the respondent him- or herself was a model, trailblazer or teacher in terms of music (table 3).

Table 3. Relation context "Leading role of the respondent"
 R=Respondent, S=Sibling, Frequency: Childhood / Adolescence

Content categories to "Leading role of the respondent"	Frequency Childh. / Adol.
R was a trailblazer concerning preferences, interests	1 / 3
R was a trailblazer in playing or choosing an instrument	8 / 1
S got support from R in the field of music	1 / 8
S was falling short of R's musical abilities	5 / 9
S listened to R's practicing, attended R's performances	2 / 6
Total	17 / 27

These categories closely resemble the categories of the second relation context, though fewer statements were assigned here. The reason might be that respondents mostly thought of obvious influences on their self. Only a few respondents came to mind, that their own role as a model might also leave a mark on their own musical identity. Some statements at this point describe simply the head start in playing an instrument. It is often seen as a disadvantage for a sibling. A female respondent wrote:

I affected (1) negatively: I was always better than him in the field of music, so he felt bad and didn't want to do any musical things for some time. Luckily, it has changed by now. [FB 62]

The last relation context is called "Differentiation". In some cases music was a field in which siblings could differ from one another. They developed opposing musical preferences or played in very different music ensembles. In other cases only one sibling was musically active and the other was explicitly not (table 4).

Table 4. Relation context "Differentiation"
 R=Respondent, S=Sibling, Frequency: Childhood / Adolescence

Content categories to "Differentiation"	Frequency Childh. / Adol.
R's music activities provided a distinction from S	7 / 18
Because S learned a certain instrument, R learned another	3 / 0
S was not interested in R's music activities	2 / 5
R didn't like S's music preferences and listening habits	3 / 6
Total	15 / 29

Some respondents asserted that differentiations from siblings in the field of music were very important for their own musical development. A younger sister wrote:

During adolescence my brother didn't play an instrument anymore. Though I think that perhaps our role allocation (me as "musician", he as "none-musician") had an influence just on me. Thus I could differ from him and could receive special attention by my parents. [FB 16]

If siblings didn't play any role in the respondent's musical development, also that was often explained. An oldest brother of altogether three children commented on adolescence:

Since we had our own rooms, our own CD-players and different daily routines at that time, we developed widely independent from one another. Friends played a more important role. [FB 31]

Table 5. Other contents (mentioned less than three times) and statements about siblings who didn't play a significant role,
 R=Respondent, S=Sibling, Frequency: Childhood / Adolescence

Other contents and statements about siblings who didn't play a significant role	Frequency Childh. / Adol.
Other influences / experiences among siblings	5 / 11
S didn't play a significant role	28 / 18

B. Data from a quantitative perspective

At the end of this section a small quantitative evaluation of the same material follows. The 63 respondents have 1.86 siblings on average, resulting in a total of 117 separate sibling relations, thereby increasing the sample size to N=117. Content categories and relation contexts were defined as variables coded in 0 or 1, depending on whether a statement was assigned to the category or not. Age difference and sex of respondents and their siblings were included as further variables. Additional phases of life were distinguished (childhood and adolescence).

The question of whether a sibling was relevant for the respondents' musical development or not, is connected to the age difference. During childhood, siblings with an age difference of maximal six years were rarely perceived as "unimportant" (16-17%). But 21% of siblings who were more than six years older and 64% of siblings who were more than six years younger didn't play a considerable role (χ^2 p=.014). During adolescence tendencies were similar but not significant (s. tables 6 and 7). The three relation contexts "Interaction at eye level", "Leading role of a sibling" and "Leading role of the respondent" are significantly connected to age difference. Other connections can't be proved because of low expected frequencies.

Table 6. Relation contexts during childhood by age difference; percentage values relate to the five groups of age difference. Since often several relation contexts emerged in one sibling relation, cumulated values in each column can rise above 100%.

Childhood	Age difference: the sibling is...					χ^2 (Pearson)
	7< years older	3-6 years older	of the same age ± 2	3-6 years younger	7< years younger	
Frequencies (N=117, 3 n.s.)	n=24	n=18	n=37	n=24	n=11	
“Interaction at eye level”	25 %	56 %	68 %	46 %	9 %	p=.001
“Leading role of a sibling”	58 %	44 %	30 %	25 %	0	p=.007
“Leading role of the respondent”	0	6 %	8 %	42 %	9 %	p=.000
“Differentiation”	8 %	6 %	22 %	13 %	0	non-sign.
“Sibling didn’t play a significant role”	21 %	17 %	16 %	17 %	64 %	p=.014

Table 6. Relation contexts during adolescence by age difference; percentage values relate to the five groups of age difference. Since often several relation contexts emerged in one sibling relation, cumulated values in each column can rise above 100%.

Adolescence	Age difference: the sibling is...					χ^2 (Pearson)
	7< years older	3-6 years older	of the same age ± 2	3-6 years younger	7< years younger	
Frequencies (N=117, 3 n.s.)	n=24	n=18	n=37	n=24	n=11	
“Interaction at eye level”	21 %	17 %	54 %	38 %	9 %	p=.007
“Leading role of a sibling”	50 %	50 %	24 %	38 %	0	p=.017
“Leading role of the respondent”	17 %	11 %	14 %	38 %	46 %	p=.039
“Differentiation”	17 %	28 %	24 %	17 %	9 %	non-sign.
“Sibling didn’t play a significant role”	21 %	6 %	16 %	4 %	27 %	non-sign.

Respondents’ gender only matters when it comes to childhood memories: Men responded more often that siblings didn’t play a significant role in their musical life during childhood (42%) than women did (14%, p=.001). This result goes well with Pape’s findings (Pape 1998, see above). Additionally women’s statements about their childhood memories more often fit the context “Interaction at eye level” (57%) than men’s statements do (21%, p=.001). Both gender effects do not transfer from childhood to adolescence. The other relation contexts appear to be independent from gender, at least in this sample. Whether siblings belong to the same or to a different gender is also nearly irrelevant within this sample, with the exception of the relation context “Interaction at eye level”. This context is more represented in same-gender sibling relations (43%) than in sibling constellations with different gender (22%, p=.017).

IV. CONCLUSIONS

Although the presentation of results has ended with quantification, the study clearly pursues qualitative research interests. It gives initial answers to the question of how siblings can influence one another in the field of music. It is still unknown to what extent or under which conditions siblings do or don’t share specific musical experiences. Also the general importance of sibling influences on musical development in relation to other biographical variables can’t be estimated based on this data. However, results show the variety of sibling influences in the field of music, whose further exploration will be promising. The presented system of content categories sorted into relation contexts also calls for verification and further processing.

The open-ended format of the questionnaire leads to remarkable differences in the level of reflection due to respondents’ various abilities to verbalize their thoughts and write them down (cf. Howe & Sloboda 1991, Pape 1998). Additionally, respondents who functioned as model or trailblazer to their siblings rarely realize that this very active role probably was a formative experience for their own development, too. Indeed, interactions at eye level or situations in which siblings played a leading role were described much more often. To receive a nearly standardized level of reflection in future studies it would be necessary either to carry out detailed interviews with standardized further inquiries or to provide pre-written items in a closed questionnaire. The present study clears the way for both methods by establishing the 30 content categories presented above.

One should also discuss the subjectivity of descriptions. It can’t actually be known, for instance, to what extent preparing a musical performance with siblings “really” made an impression on the respondent’s personality, since memories are subjective. From the perspective of biographical research, it is very difficult to attain objectivity and this is therefore not usually aimed at. Biographies contain necessarily subjective interpretations, classifications, and valuations of influences and experiences during life. Persons, who were perceived as important and formative, thereby attain that relevance within the biography. Life stories with all stations and progressions are personal (re)constructions, which plausibly tell how a person became who he or she is (cf. Fuchs-Heinritz 2009; Bollmann 2012, 71-77).

Following the presented investigation an interview study with sibling pairs and triples is intended. In that follow-up

study further variables such as parenting style or family traditions will be systematically requested. In order to verify and extend the current findings, a quantitative inquiry also is proposed. Furthermore musical influences among siblings who don't aspire to a musical profession will be explored. Even if nobody in the family makes music, musical preferences, listening habits, interests will emerge, which also might be influenced by siblings. Additionally it will be attempted to prove the importance of sibling relations in comparison with friendships and peer groups.

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