# Abstract representations underlie rhythm perception and production: evidence from a probabilistic model of temporal structure

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# Friends in the Boardroom: Attendance, voting, and turnover☆

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## HIGHLIGHTS

- Dissent in board is rare and more so from outside directors with social ties to CEO.
- Attendance rate of outside directors with social ties is lower than those without.
- Absence is to let inside directors have power to make decisions.
- Outside directors who have opposed CEO face high turnover risk next year.
- CEOs tactically steer composition of boards by retaining only those with social ties.

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ABSTRACT

We analyze a unique data set on board activities of individual outside directors contingent on social ties to the CEO. We find that outside directors' dissents are rare and this is even more so from those with social connections with the CEO. Dissenting outside directors, especially those without connections to the CEO face a significantly higher chance of being replaced. Besides, outside directors with social ties to the CEO tend to participate in board decision less often than independent ones.



## 1. Introduction

The corporate board is responsible for overseeing management on behalf of the shareholders. The role is particularly expected for outside directors. Existing policies have emphasized the expansion of outside directors, but many experts, including those in academia, have long doubted whether these seemingly independent directors could play substantial roles as supervisors. In line with this skepticism, increasing attention has been placed towards the existence of social ties between outside directors and their CEOs (e.g., Berger et al. (2013), Fracassi and Tate (2012), Hwang and Kim (2009)). Ariely (2012) found that people are prone to engage in fraudulent activities when the interests of their friends/relatives are at stake because people often find it much easier to rationalize the misconduct that benefits their personal connections. This paper reviews individual outside directors' behaviors and turnover patterns in conjunction with their social ties to the CEO to see whether social ties can undermine boards' supervisory role.

## 2. Data and empirical results

### 2.1. Data

First, we used the annual business reports published in the DART (Data Analysis, Retrieval, and Transfer System) to select the

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**Table 1**
Summary statistics.

| | Sales (trillion won) | Debt ratio | Profit to sales ratio | No. outside directors | Board size |
|---|---|---|---|---|---|
| Obs. | 300 | 300 | 300 | 300 | 300 |
| Mean | 7.74 | 1.00 | 0.06 | 3.95 | 7.87 |
| Std dev. | 14.25 | 5.72 | 0.17 | 1.61 | 2.12 |
| Min. | 0.31 | −93.22 | −0.28 | 0.33 | 3 |
| Max. | 141.21 | 9.33 | 2.36 | 9 | 15 |

top 100 Korean listed companies with the highest average sales among the companies that disclosed individual outside directors' attendance and voting records by board agenda item from 2010 to 2012, with the exception of financial firms and public enterprises. To the best of our knowledge, Korea and China are the only countries where board activities are disclosed at the individual director and agenda level. Due to the paucity of data, actual behavioral patterns of outside directors have not yet been studied actively in academia (with few exceptions such as Ma and Khanna (2016) and Jiang et al. (2016), which used Chinese firm data to analyze dissenting outside directors). In this study, the final sample has the three-year information on 100 companies: 612 outside directors, 135 CEOs, 4253 board meetings, 9101 items.

Financial information of the firms (see Table 1 for summary statistics at the firm–year level) and information on the terms of office of CEOs and outside directors are available from the DART and the KIS (Korea Information Service)-Line. Demographic characteristics of directors are collected from the KIS-Line, People Chosun (Who's who database offered by the Chosun Daily), and online news search. Social ties between a CEO and an outside director are defined based on regional origins and school backgrounds. If a CEO and an outside director (i) are from the same region (administrative divisions such as special/metropolitan city and province), (ii) went to the same high school, or (iii) did their undergraduate study at the same college, they are defined as having respective social ties and described as "friendly". The data shows that social ties are indeed common: About 15% of the CEO–outside director pairs are from the same region, 9% went to the same high school, and 23% went to the same college. The reason why the percentage of college alumni is high can be that CEOs and outside directors tend to have attended one of Korea's top three universities.

### 2.2. Outside director dissents and attendance

First of all, outside directors' dissents are very rare. Only 33 items out of over 9,000 items (or 0.4% out of all outside director–item pairs) received at least one dissenting vote. The rare case of dissents may be due to board agendas given as a result of preliminary agreement rather than outside directors playing the role of "yes man" as generally criticized. Nevertheless, we assume that dissents can be seen as active supervision. In fact, the items which received more than one dissenting vote were associated with overseas investment in resources, personnel management, corporate governance, stocks, etc., which is likely to be involved in serious conflict of interests.

Not only that, dissents are even rarer from friendly outside directors (see Fig. 1). Among those from the same region as the CEO, only seven (5%) voted against at least once; and among those who went to the same high school as the CEO, only two (3%) did so. Among outside directors without such ties, 53 (8%) and 58 (8%) casted at least one dissenting vote, respectively. The tendency was not evident among outside directors with university ties.

Outside directors are supposed to attend board meetings to fulfill their supervisory role. The average attendance of outside directors is generally high at around 91%. But it differs depending on whether or not outside directors have social connections with the CEO. To illustrate, we say that an outside director has attendance problem if he/she is absent from 20% or more of the board meetings in a year. We found that regional ties and high school ties are positively associated with the attendance problem. About 20% (18.9%) have the attendance problem among the outside directors with regional (high school) ties whereas about 14% (14.6%) do among those without such connection.

The pattern remains after controlling for other factors. Table 2 shows the Logit estimation results of outside director's attendance per agenda item. 65% of the sample firms had assets worth more than 2 trillion won (about 200 million dollars) in the previous year and hence are required to have a majority of outside directors on their boards (whereas the minimum requirement is 1/4 of their board seats for listed companies with smaller assets). We call these companies "regulated". In a regulated company, outside directors can serve as a pivot, meaning that outside directors are strategically more important than in non-regulated companies. In recognition of this possibility, we added the analysis of regulated companies only (Column (2)).

Column (1) shows that the attendance rate of outside directors with regional and high school ties drops significantly by about 1 percentage point (marginal effect evaluated at mean values). When considering regulated companies alone (Column (2)), outside directors with regional ties tend to be more absent by 1 percentage point, those with high school ties by 2 percentage points than those without such connection. These effects are not small given that the average absence rate is about 9 percentage points.

### 2.3. Outside director tenure

Even if the number of outside directors is the same, their composition can sway the effectiveness of the boards' oversight function. CEOs may want to reappoint friendly outside directors and replace those who are proactive. To test this idea, we estimated the Cox Proportional Hazard model on outside director turnover (see Table 3). An outside director is regarded as being "replaced" if he/she is not on the board of the same company in the following year. The analysis of the entire sample (Column (1)) shows that outside directors who regularly attend board meetings have less chance of being replaced. However, if they cast at least one dissenting vote during the year, their chances of being on the board the following year diminish significantly. The analysis of regulated firms (Column (2)) shows attendance has no meaningful influence but any recorded opposition doubles the probability of termination. Regional ties also influence the turnover risk. In regulated companies, outside directors with regional ties have half as much chance of being replaced as those from other regions. The probability of those with high school ties is also 53% that of those without.

On another note, the comparison between outside directors with regional or high school ties and those without such ties reveals that friendly outside directors tend to avoid displacement even if they both opposed agenda items at board meetings (see Fig. 2). For example, of the 62 outside directors who are without regional ties and voted against at least once in a certain year, 18 (29%) were replaced in the following year. But none of the 12 dissenting outside directors with regional ties was replaced.

## 3. Concluding remarks

The analysis of the actual data on board activity and turnover patterns of outside directors shows that regional and high school ties can weaken board supervision. We found that dissent itself is rare and it is more so from outside directors with social ties to the CEO. The attendance rate of outside directors with social ties to the CEO is at a lower level than those without. Considering

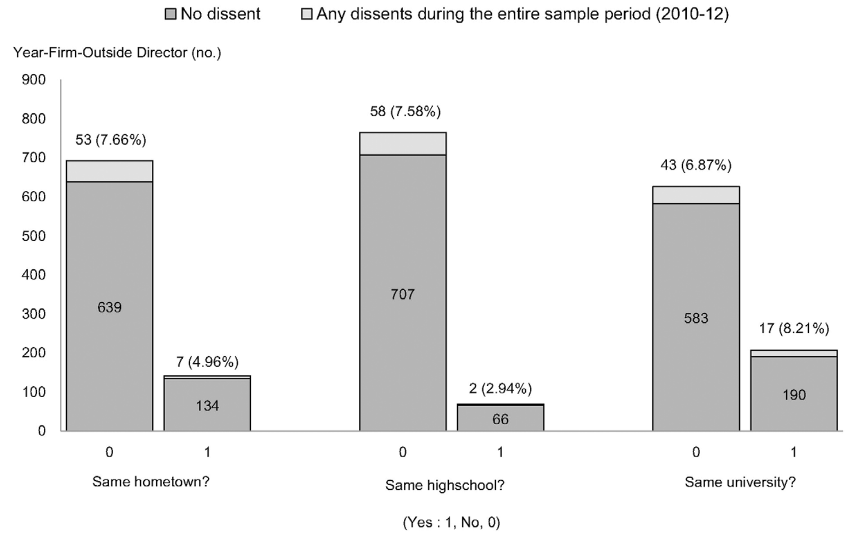


**Fig. 1.** Dissents by social tie.

**Table 2**
Logit estimation results on attendance.

| | | Attend (=1) | |
|---|---|---|---|
| | | All | Regulated |
| Age | | 0.0299*** (0.00341) | 0.0228*** (0.00436) |
| Age gap | | 0.00865** (0.00340) | 0.0274*** (0.00400) |
| Male (=1) | | 0.670*** (0.143) | 0.816*** (0.185) |
| Foreigner (=1) | | −2.648*** (0.107) | −2.727*** (0.120) |
| Social Tie | Same hometown (=1) | −0.183*** (0.0551) | −0.174*** (0.0641) |
| | Same high school (=1) | −0.141** (0.0693) | −0.250*** (0.0753) |
| | Same university (=1) | 0.163*** (0.0581) | −0.0213 (0.0675) |
| Outside director career | Business (=1) | 0.0557 (0.0626) | −0.252*** (0.0734) |
| | Bureaucrat; Politician (=1) | −0.232*** (0.0524) | 0.0151 (0.0558) |
| | Academia (=1) | −0.124* (0.0651) | −0.223*** (0.0734) |
| | Professionals (=1) | 0.0305 (0.0703) | −0.0454 (0.0807) |
| | Banker (=1) | 0.561*** (0.120) | 0.625*** (0.130) |
| Board Characteristics | Board size | −0.138*** (0.0102) | −0.114*** (0.0117) |
| | Outside director ratio | −0.308 (0.238) | −1.893*** (0.345) |
| | Total num of items voted on in a meeting | 0.0509*** (0.00965) | 0.0725*** (0.0110) |
| | Total num of meetings in a year | −0.0153*** (0.00190) | 0.00605*** (0.00231) |
| CEO characteristics | Owner family (=1) | −0.303*** (0.0548) | −0.826*** (0.0633) |
| | Stock ownership | 0.0269*** (0.00403) | 0.0424*** (0.00486) |
| Obs. | | 37,248 | 29,374 |

Notes: (1) Robust SE clustered at agenda level in parenthesis.
(2) Firm characteristics (“regulated” dummy, Log(asset), foreign ownership, debt ratio, “large business group” dummy), year–month/industry/agenda category/university dummies included.
* $p < 0.1$.
** $p < 0.05$.
*** $p < 0.01$.

**Table 3**
Cox PH estimation results on turnover.

| | | Replaced (=1) (1) All | (2) Regulated |
|---|---|---|---|
| Age | | −0.0583*** | −0.0753*** |
| | | (0.0118) | (0.0151) |
| Age gap | | 0.00534 | 0.00474 |
| | | (0.0135) | (0.0152) |
| Male (=1) | | 0.0471 | −0.280 |
| | | (0.742) | (0.939) |
| Foreigner (=1) | | −0.584 | −0.666 |
| | | (0.517) | (0.672) |
| Outside director behavior | Average attendance | −0.948** | −0.494 |
| | | (0.386) | (0.589) |
| | Any dissents in a year (=1) | 0.751** | 0.717** |
| | | (0.326) | (0.340) |
| Social Tie | Same hometown (=1) | −0.357 | −0.527* |
| | | (0.243) | (0.300) |
| | Same high school (=1) | −0.0674 | −0.566* |
| | | (0.260) | (0.335) |
| | Same university (=1) | 0.382** | 0.589** |
| | | (0.171) | (0.208) |
| Obs. | | 1242 | 959 |

Notes: (1) Robust SE clustered at firm level in parenthesis.
(2) Outside director career dummies, board and CEO characteristics, firm characteristics ("regulated" dummy, Log(asset), foreign ownership, debt ratio, "large business group"dummy), year–month/industry/agenda category/university dummies included.
* $p < 0.1$.
** $p < 0.05$.
*** $p < 0.01$.

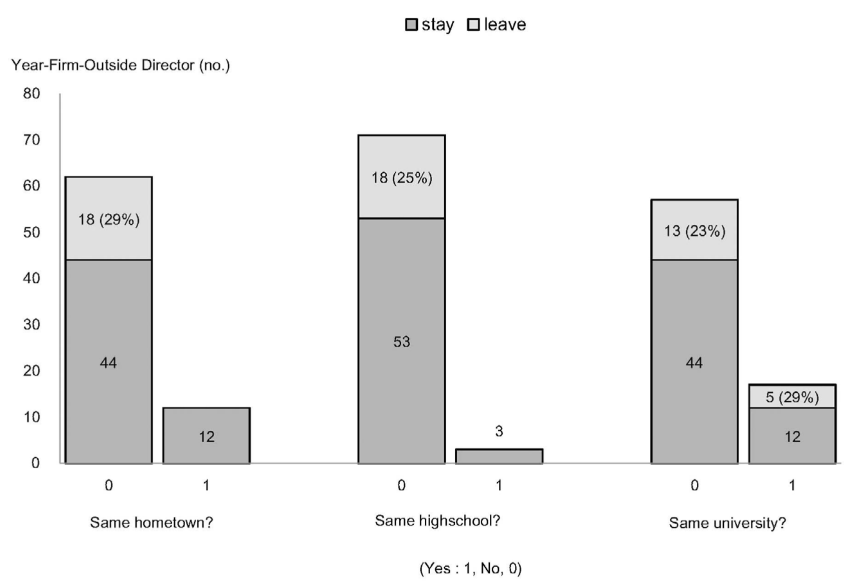


**Fig. 2.** Turnover of dissenting outside directors, by social tie.

that the absence of outside directors is to let inside directors have the power to make decisions on the proposed agenda, this result can be interpreted as friendly outside directors are not being faithful as playing a supervisory role. Moreover, CEOs can steer the composition of outside directors by retaining only those with whom they have personal connections and/or those who tend to be obedient. Such actions can severely undermine oversight by outside directors.

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