Dialogues and the problems of knowing: Reinventing the architectural competition

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Summary   We describe and analyze the introduction of legitimate dialogues in architectural competitions. What happens to the competition when the contestants are allowed to interact with each other and with the competition jury? We consider dialogues to be a supplementary social technology that is becoming embedded in well-known forms of architectural competitions. By enabling feedback on preliminary design ideas and solutions, the dialogues are meant to accelerate processes of clarification and learning, and to enable the contestants to implement changes and improvements during the development of their final design entries. However, in an empirical study the actual effects proved less straight-forward. The feedback allowed the architects to react and adapt, but in some cases they reacted and adapted in ways which they later regretted.

   By showing that feedback may also mislead the architectural teams to draw wrong implications we are sensitized to the inherent problems in knowing certain things *ahead of time*. We elaborate on this dilemma and suggest some implications for the theory and management of architectural competitions.

Introduction: knowledge sharing

To organize involves the twin-task of dividing and connecting, of specializing and coordinating the efforts of multiple individuals (Mintzberg, 1979). Differentiation and integration feed on each other and need to find some kind of balance (Lawrence & Lorsch, 1967). Division of labor implies a division of knowledge (von Hayek, quoted in Duguid, 2005), and the adding of knowledge to knowledge becomes the main driver of value creation (Drucker, 1993). One form of differentiation in the so-called knowledge society is the proliferation of disciplines, knowledge domains, and epistemic cultures (Cetina, 1999). The proposed strategies for connecting, integrating and coordinating across such disciplines vary. Some consider it to be a matter of contracting and providing incentives for collaborative behavior (Williamson, 1979); others look for boundary objects that facilitate integration (Carlile, 2002). But also dialogues have been proposed as a way of integrating effort and understanding across knowledge domains (Tsoukas, 2009). Such dialogues may be implied in coordination by feedback (March & Simon, 1993) and mutual adjustment (Mintzberg, 1979; Thompson, 1967).

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However, we still need to study and understand how dialogues are practiced in specific settings, and what impact such dialogues have on the coordination and integration of social action. Presumably, both the context and the situation matter in co-producing effects (Ryle, 1949/2000).

This article is based on an empirical study of dialogues in the setting of an architectural competition. Dialogues are designed and staged as supplementary social technologies embedded within the architectural competition. Architects are envisioned to share their "prototype" ideas and solutions, and to receive concrete feedback from assigned experts and members of the competition jury. Such processes mirror current ideas in product development and software development (Cho, 2010; Highsmith, 2004; Schipper & Swets, 2010; Schwaber, 2004) that aim to accelerate and rationalize the learning and development processes. In our case, dialogues are meant to accelerate and rationalize the development of competing architectural designs within the parameters of the overall competition process, parameters that include a defined design task and a specified timeframe. The dialogues are believed to achieve their envisioned effects by enabling *early clarification* of the client's needs and preferences, of the valid interpretations of the competition brief, and of the assessments of jury members. Oftentimes, such clarification emerges only retrospectively, i.e. in reviewing the final outcomes of the competition. By achieving clarification *during* the competition, changes and improvements may still be implemented by the competing architects before they commit themselves to specific designs and solutions.

Below we explore the interaction between the social technology of architectural competitions and its supplementary technology in the form of dialogues. Rather than assuming that dialogues will have effects according to their design, we make such effects our subject of empirical studies. In doing so, we are assuming that the context of an architectural competition will matter, and will co-produce eventual effects. Architectural competitions that stage dialogues as an integral and legitimate part of the procedure we refer to as *dialogue-based architectural competitions* (DAC).

Dialogues may be seen as the symbol of central managerial challenges as they are currently understood. The ambition is to create value, and to do so knowledge needs to be added to knowledge. Dialogue creates the occasion — and to some extent the obligation — to add own knowledge to the knowledge of others. Our study gives us the opportunity to challenge such an understanding. For instance, we can show that the knowledge shared and created in dialogue may have a very problematic implication for individual and collective performance. In some sense, adding knowledge may leave the contestants less informed. This insight raises more fundamental issues about the nature of knowledge that is worth and possible to share.

After a brief discussion of the research methodology, we present the DAC as a modernization of a very old social institution. We ask the obvious question what problems the introduction of dialogues attempts to solve. The case study of a very early instantiation of such a DAC then illustrates that knowledge gained through dialogue has very ambiguous implications for action in the context of an architectural competition. Finally, we generalize these empirical findings to reflect general managerial challenges in the current, so-called knowledge society.

Methodology

The paper rests on an ethnographic study of one unique architectural competition. We observed the competition for several months and we video-taped several events. Our documentation includes:

- a two-day workshop,
- the work of the architectural teams in between the workshops and the final submission,
- all the meetings and deliberations of the competition jury, including the final selection of the winner,
- the presentation of the results and,
- a few of the various follow-up activities that the outcome ignited.

In addition, we conducted several semi-structured interviews with most of the key-participants, and we have presented and discussed our observations and findings at a seminar with a representative group of participants, including the architectural teams and the various client representatives and experts.

Most observations were done by all three authors, and each interview was conducted by at least two of the authors.

Prior to the ethnographic study we documented the initial phases of the DAC. We had full access to all documents and protocols. We gained additional insights into the early phases through interviews.

While having previously studied other architectural competition, this paper relies only on one case. What can we learn from a unique case of a highly unusual form of competition? Obviously, we cannot claim that our case is representative of a larger population of competitions. We cannot claim that the processes and outcomes are typical or predictable, should we encounter another such case of DAC. The lesson we can draw is a very limited, yet rather profound one. We know that the participants in the competition did not know, and did not understand, some very fundamental aspects of the competition. Yet, this fact did not prevent the competition to proceed in an orderly fashion. We could not make empirical generalizations, e.g. that participants will never know, or that the competition will always proceed in an orderly fashion. But we know that merely because a competition proceeded orderly it does not mean that the participants understood the game and coordinated it knowingly.

In other words, the contribution is to demonstrate that competitions *can* proceed as documented, not that they will, nor how often they will. Thus, knowledge of an expanded and extended variability of an empirical phenomenon is the potential benefit of this study of a unique case.

The case story

A Danish municipality planned to build a new public school in a newly developed part of the city. In the process, it was decided that the school should also house a public library. An architectural competition was staged for the design of the building. The competition brief was exceptionally detailed in terms of aims and requirements, which reflected the high ambitions of the client. On all counts, including also sustain-

ability and pedagogic principles, the school should be exemplary, and such high ambitions should be reflected in and facilitated by the architectural design. The design challenges were further augmented by the decision to fit this large institution onto a very narrow piece of land with many zoning restrictions. Finally, the challenges included the staging of a very unique form of competition, i.e. a DAC.

DAC as a phenomenon

As mentioned above, the *dialogue-based architectural competition* deserves its name because contestants are given the opportunity to discuss their ideas with experts and members of the competition jury. In some competitions, such dialogues are private, in the sense that the dialogue is conducted with each contestant individually and confidentially, and normally they are done as an initial preparation for the subsequent tendering. Such competitions are commonly referred to as *competitive dialogues* (Rawlinson, 2008). However, in the case of DAC, the dialogues are conducted openly in the presence of all the other contestants, and they continue over most of the competition period. Thus, in this case the dialogue becomes a much more fundamental and integral part of the competition procedure, a collaborative element within the framework of a competition. Such collaborative elements are often implicitly present in competitions (Bengtsson & Powell, 2004), often referred to as "*coopetition*" (see e.g. Buuren, Buijs, & Teisman, 2010). However, in the case of DAC the collaborative behavior is prescribed, as an explicit contractual requirement. Thus, the interaction and concurrence of collaborative and competitive processes are enduring, and are matters of conscious design and deliberate management.

For centuries the rationale for architectural competitions has been to mobilize unknown and unrelated sources of creativity. However, rational considerations for the efficiency and legitimacy of such procedures have led to a modern architectural competition with very few participants, each representing a large investment for the client in the search for valuable designs (Kreiner, 2010).

Adding dialogue to the blind forces of competition was meant to add opportunities for correcting the course of the design processes in progress. Misunderstandings of the task, uncertainty about the needs and desires of the client, and misconceived and inadequate solutions to the problems would be made transparent at a point in time where corrections might still be implemented in the final design proposal. In a more creative sense, the dialogue gave the client the possibility to point out the best ideas and proposals, against which the other teams could benchmark their own performance. Thus, the rationale of DAC led to a conscious effort at combating irrelevance while enabling and accelerating mutual learning.

Mixing competition with dialogue, information sharing, and collaboration would seem the equivalent of mixing oil and water. Our empirical study demonstrated that it is indeed possible to conduct an orderly and serious competition between contestants who communicate directly and indirectly about their ideas and solutions.

The design of the DAC

After several rounds of prequalification processes, three architectural teams were invited to a competition that required of them a high degree of openness and collaboration.[i] Unusually cross-disciplinary teams were invited to the competition. They should include architects, structural engineers, experts on sustainability, pedagogy and children's playgrounds, etc. The design of the competition required a close collaboration within each team, the explicit ambition being that the ideas of the other disciplines should be taken into consideration even before the architects started sketching the building. Structuring the design work in the usual sequential manner was claimed to limit the benefits of sharing expert knowledge of diverse sorts.

Collaboration across teams was also an integral part of the design of the DAC. The teams were required to present their ideas and design solutions along the way, not only to a group of assigned experts, including several members of the competition jury, but also to each other. To motivate an open and voluntary sharing of information all teams were awarded '1st prize' from the start. In return, the teams should allow the other teams to learn from and copy ideas and solutions as they saw fit. No team could claim ownership and exclusive rights to any idea, principle or specific solution.

Dialogues at consecutive workshops were the mechanism through which such sharing of ideas and knowledge was designed to be enacted. Workshops were organized as stage-gate meetings. To each workshop, teams were required to present specified aspects of their work and to discuss with a diverse group of assigned experts. The other teams sat in on these workshops. It should be noted that also members of the competition jury participated actively in the workshops. Some of the feedback was spontaneous and immediate, and was given verbally. But feedback was also negotiated between the experts and the jury members before being sent to the architects in writing.

The final entries were evaluated and rated by a jury in the usual manner, except in this case the entries were not anonymous. Also, since several jury members had been active at the workshops, they shared a history with the competing teams and had an additional insight into the intentions and strategies behind the design solutions.

Observations

The planning of workshops and dialogues was somewhat undermined by the slow progress of the teams. Meager contributions to the workshops made the assigned experts complain and left them with too little to comment on. Thus, in some respects the sharing of ideas and information fell short of what was envisioned. Nonetheless, dialogues were conducted, and ideas were discussed and, in a few cases, streamlined. The illustration of the location of the library serves as a specific example of the dialogue having exactly the kinds of effect that was the rationale behind the DAC.

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[i] Due to legal requirements, the competition process was divided into two major parts. The first one was considered a parallel task assignment that allowed for collaboration and more openness across the three architectural teams, while a short concluding phase was organized as an ordinary competition process with no interaction among the architectural teams, and with no further communication with the client.

Illustration: the library that moved

The public school was planned also to house a public library. Its location within the school building proved to be an issue of contention. At the first workshop, two architectural teams presented designs with the library located on the ground floor. Such a location made it possible to integrate it with other school functions and to attract incidental customers. However, the third team chose to locate the library on the top floor. Functionally, a larger portion of the school would be exposed to and have the opportunity to interact with the library users, and vice versa. Symbolically, the library was likened to the cathedral at the top of an Italian mountain village — a guiding metaphor of that architectural team.

In no uncertain terms, the experts praised the metaphor but criticized the location of the library on the top floor of the building. Nonetheless, at the second workshop the team had not changed its location. The team was scolded for not listening to the feedback at the first workshop and was now explicitly *ordered* to move the library to the ground floor. The other teams received explicit and repeated praise for their location and integration of the library. Being told that they already had found ''a good solution'' encouraged them to attend to the many other open issues that needed resolution.

Unsurprisingly, on the issue of the location of the library only the criticized team changed its solution in the end. This team, which became the winning team, moved the library to the ground floor, but also to the end of the building facing the busiest street where it would be visible from the nearby Metro line — a location which the librarian among the assigned experts had mentioned as the optimal one.

The jury collectively adopted the librarian's perspective in emphasizing the new location of the library in the final evaluation. The optimal library location became one among several arguments for appointing the ultimate winner of the architectural competition. In stark contrast to the feedback they received at the workshops, the other teams were now criticized for having chosen *a suboptimal solution*. While in a physical sense the library did not move in these proposals, it did move category: from a favorable feature to an unfavorable feature of the losing entries.

Analysis

This illustration shows that dialogues work! There is no doubt that the dialogue moved the library to its optimal location. It seems to offer a complete vindication of the assumptions and premises that lie behind the DACs.

> *We would have put the library on top had we not had the dialogue* (Leader of the winning team, reflecting on the process after the competition. Our translation)

> *The project gives the new public library its ultimately optimal location, both in relation to the site and the urban context*. (The jury's report, p. 17. Our translation)

Thus, the dialogue made the difference without which the library would have ended up in a less than optimal location.

Dialogues work, but as we shall see, they probably work in somewhat mysterious ways. We should not be carried away by the rhetorical closure that makes the dialogue the cause of a better design outcome that eventually enabled the choice of a winner of the competition. We will use the above illustration as an insight into the intricacies of knowledge sharing through dialogue.

The knowledge presumption

Designing an architectural competition to include open and free dialogue is premised on the idea that if ideas and knowledge are shared across different actors and disciplines learning will occur and performance will improve. This is true when dialogue is conceived as merely a process of articulation of the participants' tacit knowledge (Nonaka & Takeuchi, 1995) and when dialogue is conceived as processes of knowledge creation (Tsoukas, 2009). Structured processes of dialogue may have dispositional qualities, but in practice they may lead to many, not a few predictable outcome in terms of new understanding and better collective performance. Thus, while we have shown empirically that, in this specific case, the DAC did achieve its stated goal we would not presume that this would always be the case. There are many more ingredients to success than the dialogue. First and foremost, information and ideas to be shared must exist for the dialogue to function.

Our data demonstrate the problems of such presumptions. The meager inputs of specific design solutions at the various workshops raised the suspicion among the assigned experts that the architectural teams participated illegitimately by withholding their work and intentions (Kreiner, 2010). In one particular case, we know that the meager input was due to conflicting commitments, and in general we can use such observations to confirm the fundamental ambiguity of the existence of information and ideas to be shared in dialogue.

On the other hand, to be seen as participating legitimately the architectural teams felt pressured to present ideas and solutions even before they considered them sufficiently developed. In the dialogue with the assigned experts, they risked becoming committed to ideas and solutions that proved untenable later on. When we celebrate the dialogue for zooming in on the optimal location of the library we must also acknowledge the possibility that conceptions of optimality may change in the process. The process achieved a convergence of ideas, presenting the jury with a narrower set of alternatives. But in the process, a full exploration of alternative solutions was sacrificed. It is conceivable, even for the winning architect, that the location on the top floor might still have proven superior if further explored. Continuing his reflections cited above, he expressed this ambivalence which was never resolved,

> *It would have been better [to keep the library on the top floor], or perhaps it would have been worse* (Leader of the winning team. Our translation)

Dialogues have more consequences than merely articulating tacit knowledge and stimulating the creation of new knowledge. As we have seen here, it may encourage convergence more than exploration, and it may give priority to the timing more than the quality of ideas. Finally, it may encourage strategic behavior in view of the social complications of asymmetrical distributions of information (Jacobsen, Jensen, & Kreiner, 2010).

However, our empirical observations may also illuminate the issue of what knowledge is, i.e. what we may know about and what we can share.

The knowledge problem

The existence of epistemic barriers is generally recognized in the literature. Duguid (2005) points out that these barriers exist also on a smaller scale. If the participants in a dialogue do not belong to the same community of practice (Lave & Wenger, 1991; Wenger, 1999) and therefore do not share *knowing how*, sharing *knowing that* will possibly not make sense (Duguid, 2005). What is being said and shared in the dialogue will probably mean and imply different things to the various participants.

In a sense, the mobilization of many new domains of expertise made the sharing more promising, but also less likely to happen. In another sense, what is important to know for the participants in a DAC is the kind of knowledge that often cannot be known! This paradox will preoccupy us here because it is defining the ultimate managerial challenges in staging DAC in the future.

We will adopt the perspective of the architectural teams and ask what they need to know in order to fare well in such competitions. It is perfectly obvious that ultimately they need to know the criteria on which their design entry will be evaluated by the jury. The dialogue makes it likely that the competing architects will learn about the needs of the client and the evaluations of the experts, including the professional members of the jury. From reading the competition brief they all know that aesthetics, sustainability, pedagogy and community are important requirements. From the dialogue on each of the workshops they know that the experts like or dislike certain features of the presented designs. The problem for the architects is not in knowing (and getting to know) all this, but what implications to draw from such *knowing that*. What they need to know in addition is *knowing how* to act (Ryle, 1949/2000), i.e. the more tacit aspects of knowledge that make the *knowing that* actionable (Duguid, 2005).

The architects can all read the same program with a seemingly unending list of requirements, needs and desires. It would be virtually impossible for any team to address all such demands, and it would be virtually impossible for the jury to evaluate across so many dimensions. Thus, the DAC process necessitated a process also of selecting, ignoring and reformulating the various requirements in the brief. We know that the location of the library became salient in the end, but by no means was that obvious from the start. The architects heard the same comments and feedback from the experts and jury members. They also heard that they had found a good location for the library on the ground floor and inferred — wrongly as it later showed — that they should leave the library there. They took the feedback literally and acted on it in a straightforward, but unfortunate way.

Presumably, the experts also meant their feedback to be taken literally. The scolding of the non-complying architectural team seems to indicate this. However, in the end the reclassification of the location of the library, from a good one to a sub-optimal one, proved the situated nature of assessments and evaluations. The third team's final design entry changed the perspective from which the other entries were evaluated. If it is necessarily true that assessment premises change dynamically, the implications of any form of feedback, praise or criticism, are always problematic, irrespectively of the seriousness of the intentions behind the feedback. Assessments are thus bounded by situations, and if situations change, so too will the meaning and implications.

The dialogue fuels the dynamic changes of the design entries and the evaluation criteria. In this sense, the learning, which was part of the rationale for adding dialogue to the process of architectural competition, seems to be somewhat self-undermining. The more we learn, the less we may know, because the implications we can draw from the gained '*knowing that*' knowledge becomes all the more uncertain.

Discussion and conclusions

We will now draw a few implications from the above analysis. The theoretical and managerial contributions will be discussed briefly.

Theoretical implications

We have demonstrated how knowing something may have an ambiguous implication for adequate action. Knowing the positive inclinations of the experts at the workshop to the location of the library led the architectural team to draw unfortunate implications for their subsequent effort. What they did, made much sense in view of the consensus achieved through the dialogue, but subsequently something happened to make the implication false. The winning team moved their library to the ultimately optimal location. What are right and wrong implications to draw from knowledge may only be determined retrospectively (Weick, 1995). Quality is relative, and meaning situated (Brown, Collins, & Duguid, 1989; Lave & Wenger, 1991). We can never predict the adequate links between knowledge and action, between cause and effect, and between means and ends, because they do not exist outside the specific situation in which such links are constructed. How the opportunities are construed is determined in specific circumstances through processes of interpretation and judgment, in which ends, means and causalities are cognitively in play. Jean Lave (1988) calls such cognitive playing "gap closing", a concept that pays special attention to the ways in which situations are constructed as a constitutive part of sense-making and human action. Similarly to the tenets in the Garbage Can models of decision making (Cohen, March, & Olsen, 1972), the subsequent design premises and design solutions exist independently to a start, and become *selected and connected* in the course of the dialogue. In closing the gaps, the dialogue creates and selects means and ends simultaneously. The process resembles enactment (Weick, 2001) by continuously construing situations where means become means to the appointed ends, and ends become ends to the selected means.

We cannot assume consistency across situations and choice opportunities. Dialogues may nonetheless produce such expectations. What jury members say during the workshops would normally be expected to signify their subsequent evaluations in the jury. But as we saw, the workshop and the jury meeting constituted two very different situations. Apparently, and fully justifiably, the jury felt more accountable to the current situation than to the previous situations. The task of gap closing was new, since the situation was new, and since new solutions, new problems and new decision makers were involved. We may predict that gaps will be closed, but we cannot know *how* they will be closed ahead of

time. The architectural teams made their choice of action easier by assuming consistency of evaluation across time, discounting the risk that the bases of evaluation would change.

If we accept the situated nature of learning and knowledge, we have to acknowledge the highly ambiguous implications of knowledge for action. Tacit knowledge may help us navigate under such conditions, but it will never re-establish a causal link between action and outcomes. A community of practice may help in making knowledge actionable (Duguid, 2005), but it will never ensure that the outcomes become predictably constructive. Adding dialogue to a competition for primacy (March, 1999) provides a compelling case for this contention. No matter how informed, no matter how much knowledge is shared in the process, in the end all both one contestant will meet failure and defeat. Knowing the outcome, the losers would probably all wish they had done something different. Adding dialogue and knowledge sharing to the process will not change the inevitably large amount of regrets in architectural competitions.

Thus, at least not under the circumstances studied here, the rationale for dialogue and knowledge sharing cannot be substantive, in the sense of improving the outcome for all of the involved parties. However, the insight into the garbage can processes of gap closing will not leave the participants untouched, even if it will not allow them to act with predictably positive effects. In Ryle's (1949/2000) terminology, to know is a disposition, not an act. It allows you to act in many different ways without obliging you to act in any particular way. In this sense, to know makes it harder to choose, because there are many more alternatives to choose among and still fewer criteria for choice. Presumably, knowledgeable action becomes *more,* not less, unpredictable to others.

To conclude we suggest that the knowledge society may deserve its label not so much because of the abundance of knowledge, but because of the fact that knowledge is increasingly problematic. We have illustrated this contention in the form of the tenuous link between knowledge and action.

Managerial implications

Is there a managerial role in the knowledge society? If so, it would have to reflect the fundamental problems of linking knowledge with action (Kreiner, 2002). Knowledge is typically treated, not as an opportunity but as an obligation or a license. Knowing the favorable evaluations at the location of the library was used to legitimize spending no more thoughts on that aspect of the design. Obviously, on other occasions it might have been a wise strategy, but in this case it proved dysfunctional. Episodes like workshops and dialogues require some kind of gap closing, and in general there are strong social pressures to make actors draw implications from information and knowledge. However, given the problematic nature of such implications, maybe the managerial role should be conceived as a counter-weight to such pressures. In practice, that would mean

- preventing the fast and false learning of drawing simple behavioral implications from knowledge;

- helping actors to avoid surrendering authority to the experts, i.e. to encourage the architectural teams to take the evaluations and advice of jury members and experts seriously, but to be creative in the exploitation and implementation of such evaluations and advice;
- celebrating the situated nature of knowledge, opinions and priorities, maintaining that such phenomena are both premises and outcomes of dialogues and other forms of collaboration.

Many more lessons for management could be drawn, but these examples will suffice. While knowing that the relation between knowledge and action is fundamentally problematic; and while realizing that there may be many new dimensions in the role of a manager, we will still not be in a position to prescribe easily identifiable action. We have to acknowledge that our contribution lies in adding to the already large set of possible and meaningful rationales for managerial action. How managers will choose to close the gap, i.e. to select specific rationales to act upon, depends on a whole lot more than our ideas about the problems of knowing things ahead of time.

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