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Asymmetric Information and Collective Ignorance

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ASYMMETRIC INFORMATION AND COLLECTIVE IGNORANCE:

Dilemmas in Dialogue-based Architectural Competitions.

We know more than we can tell
- and less than we think!

(Kristian Kreiner)

ABSTRACT

By way of studying a unique type of architectural competitions, the *dialogue-based architectural competition*, we elaborate on the idea and role of dialogue as a remedy to fundamental problems in the knowledge society. Dialogues have many possible effects, and one of them may be to foster illusions about what can be known in advance. Upon disclosure of such illusions, many seek refuge in the belief that the problems originate in an asymmetrical distribution of information, for which early dialogue is a potential cure.

Our study of dialogue-based architectural competitions allows us to address a few implications for action and learning from experience if we take more seriously the fact that some things cannot be known ahead of time.

INTRODUCTION

This paper describes and analyzes a most unique form of architectural competitions, a form that we call *dialogue-based architectural competitions* (DAC). In essence, a DAC engages the participants in a design competition in an elaborate sequence of interaction at seminars and workshops, on which occasions they share and discuss ideas and intended solutions with each other, with the client, with the competition panel, and with an array of other stakeholders, including neighbors and future users. This is done, not in preparation for the competition, but as an integral part of the competition process itself.

We consider DAC a modernization of a very old institution of architectural competitions (Nasar 1999; King 2000; Rich 2000-2001; Lipstadt 2003), and we try to understand the rationale for such a

modernization. In short, why are modernizations of architectural competitions necessary, and why are DACs an answer to such needs for modernization?

However, we also see DAC as a manifestation of, even a symbol of, pressing problems in the present knowledge society. It symbolizes the fact that society is a knowledge society, not because of the volume of knowledge, but because of the problems of knowing in the first place. 'Had we only known' is a recurrent regret when things go wrong one way or the other. It indicates that information is often untimely and/or unavailable when we need it. If knowing after the fact leads to regrets, the ambition of knowing ahead of time seems sensible. DAC constitutes such an attempt at knowing ahead of time, or at least early enough for allowing better informed action to be taken. The aim is to ensure design proposals that are better aligned with the client's needs and preferences.

However, it is not unproblematic to act on knowledge ahead of time. DAC is, along with most other organizations, designed on the implicit presumption that appropriate knowledge and information exist and that making such knowledge and information available ahead to acting would change the course of history for the better. However, our observations strongly suggest that such presumptions fail on at least two counts. First of all, on some issues we can have no information ahead of time. Unless we believe in fortune-tellers and the like, we cannot know future events in advance, nor can we know of the outcomes of decisions not yet made, etc. Sharing information about such things of the future will create information about current beliefs, not information about the future events. Secondly, having additional access to information does not translate directly into rational behavioral adaptation. New information may not be re-cognized (Stark and Beunza 2009) and acted upon, adequately or at all. The link between information and action is highly situational (Lave 1988) and possibly more a matter of commitment than about the informational content. (Cooper 1986)

Sharing of knowledge and information can be considered both a task and an achievement (Ryle 1949/2000). For sharing to be an achievement, not only must there be *a will* to share – a motivation, an incentive, or a desire; there must also be knowledge and information to be shared. We posit that the ideology of the knowledge society makes us overestimate the existence of knowledge and information to be shared, while probably underestimating the will to share. The general mistrust of the good faith and collaborative intentions of actors could be seen as an easy escape from the most disconcerting thought that there may be things that we do not know and cannot know about ahead of time. The knowledge society is not protected against ignorance, but it is definitely very intolerant towards the idea of ignorance.

¹ Beliefs about the future and its unfolding are not completely unrelated, of course. (Weick, K. E. (2001) But acknowledging that beliefs may be important should not make us neglect the fact that the unfolding of the future depends on many other things than our beliefs and expectations.

Ethnographic studies of architectural competitions in general, and of DACs in particular, provide important inspiration for understanding the social processes of knowledge and information sharing and the challenges involved in learning lessons for the future about things that can only be known retrospectively.

The plan of the paper

As already mentioned, we consider knowledge to be problematic in the knowledge society. As indicated in the title of the paper, knowledge and information may be problematic because it is either asymmetrically distributed, or because it does not exist at a point in time where it could be used to inform action. The latter idea is uncomfortable, especially in a knowledge-celebrating culture. Therefore, the first idea gains prominence, even if it can be shown to be incorrect, because it reaffirms our trust in rationality and meaning.

We analyze the specific course of events of one particular DAC in light of the notions of asymmetrical information and collective ignorance. First we show how dominating the presumption of knowledge is in planning and structuring the architectural competition. We also show how ambiguous the events observed were – and how ambivalent people were in passing judgments and drawing implications. Alternative interpretations survive side by side, until after the outcome of the competition is known. From then on, the asymmetric information notion comes to dominate over the collective ignorance notion, probably in regretfully acknowledging what surfaced to be true and what mistakes were made in the process prior to the resolution.

Methodology

The paper rests on an intensive study of one particular DAC. The competition lasted for several months, and we came into the process approximately halfway through the process. This gave us the opportunity to observe, and to a large extent video-tape, a two-day workshop, the work of the architectural teams in between workshops and final submission, all the meetings and deliberations of the competition panel, including the final selection of the winner, the presentation of the results and some of the various follow-up activities that the outcome ignited. In addition, we conducted several interviews with the key-participants, and we have presented and discussed our observations and findings at a seminar with a representative group of participants, not only the architectural teams, but also various client representatives and experts.

We have only verbal and written accounts of the first half of the competition. The rest of the process is almost completely documented by observation and video-taping. Most observations were done by all three authors, and each interview was conducted by at least two of the authors. This provided ample opportunity for triangulating findings and calibrate interpretations.

Even if we were to discard the data on the first half for reasons of validity, we were able to base our argument on the limited time frame of the second half of the competition. E.g., the discrepancy between evaluations at the second workshop and by the end of the competition is so

more striking when considering the short distance in time. If meaning and appreciation can drift in the short run, presumably it can also drift in the longer run.

The lessons we draw from isolated events from a single case study could be criticized for lacking general validity. However, the case we are making is a very limited one. We show that in the specific case people did not know, and could not have known in advance, the fundamental criteria for picking a winner – and thus they lacked information about the central parameters for competing wisely. We can demonstrate that a competition can be conducted in an orderly manner even if the competition rules are retrospectively chosen. We do not claim that in all cases this will be true to the same extend as we observed here. We merely claim that it *might be true*, and that even a correspondence between prior beliefs and subsequent outcomes might be incidental. It would need careful analysis in each particular case to determine if and to what extent the ignorance would be more descriptive than asymmetric information.

Thus, in generalizing our findings, we only reject the possibility that knowledge and information could be considered as unproblematic. Holding people accountable for things that go wrong creates an incentive for seeing them as knowledgeable, but undisciplined. Had they acted on their knowledge, or had they shared it with others, mistakes would have been avoided. E.g. when construction projects have run-away budgets we love to accuse somebody of foul play. (Flyvbjerg, Bruzelius et al. 2003) Such implications are more comforting than acknowledging the possibility that construction costs cannot be determined and reliably predicted from the start because of inherent Knight'ian uncertainty. (Knight 1921/2002) It is more comforting because we can act upon the experience by penalizing the culprit and building trust in future improvements. However, the culprits we penalize may rather be scapegoats that carry the consequences of our unwillingness to accept the unpredictability of the future and to find ways of coping with such unpredictability. We conclude the paper by suggesting alternatives to the killing scapegoats and the false hopes for predictable futures.

THE DAC AS AN PHENOMENON

DAC is a brainchild of the knowledge society with its preoccupation with knowledge creation and information sharing as a fast route to success and relevance. 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. On the other hand, accepting to participate represents a large investment on the part of the architectural team in the possibility of winning the design contract in the end. The fact that fewer architects compete in each competition increases the odds of winning – everything else being equal – but since the stakes are

also higher the expected value may be unchanged or even reduced to a level where the choice of participating is problematic and frequently challenged.

The empirical validity of the claim that this type of invited competitions incurs its own type of costs is unknown. But there is logic to the viewpoint that the fewer shots at a solution, the more costly it will be to have entries to the competition that miss the target. The immense growth in the content and specificity of the competition brief can be understood as an effort to specify the target better, enhancing the teams' ability to aim adequately. However, the many requirements also produce more risks for the architects of venturing off on a tangent. Relative to the needs of the client, and relative to the totality of requirements in the competition brief, the architectural competition risks producing irrelevant designs, an occurrence which is costly not only in missed opportunities, but also in wasted effort and discouragement on the part of the architects.

To combat such irrelevance and waste the DAC was invented. 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 and enabling mutual learning. The dialogue was a means to the end of enhancing the quality of the individual design entry and to reduce the quality variance by catching misunderstandings at an early stage.

DAC is an instance of institutional entrepreneurship in a most extreme sense. 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 competition was real, but so was the knowledge sharing. But it is still an open question what modifications to the ideals of competition and collaboration were necessary in order to make the DAC functional. No doubt, it took some legal and managerial engineering to make it happen in the first place. No doubt, it took some shrewdness on the part of the participants to make it work.

On this occasion, however, we will focus on the issues of knowledge and information sharing that DACs bring to the fore, because it may also inform us about the role of information in the knowledge society at large.

Information problems in theory and practice

Information (and knowledge) plays a privileged role in our general understanding of humanity. It is preeminently associated with progress and success and is consequently consider 'a good thing' that enables us to act in informed, even rational, ways. When information is lacking, uncertainty

prevails and leadership is required to prevent catastrophes. Neoclassical notions of substantive rationality build on a priori knowledge of ends and preferences, perfect insights in causal mechanisms, and complete information about the current constraints on behavioral choices. Such ideal conditions are not prevailing in practice, of course. But they still inform our interpretations of history and guide our search for improvements and progress.

The DAC builds on this ideal in insisting that better informed architectural teams will produce entries of higher quality and value to the client. A carefully crafted and extensive competition brief and the continuous verbal and written feedback to the teams, multiplied the breadth and depth of the information that the teams had at their disposal. This fact justified the expectations of an increase in quality and relevance of the ultimate competition entries.

Of course, we often face an abundance of information that exceeds our mental capacity (Simon 1961). Besides the collection and creation of information, the challenge of rationality also involves processes of selection and retaining. The task is to reduce the amount of information so that it matches our capacity to process such information. In order to be rational at all, we need to be rational in a bounded manner, and that necessitates ignoring aspects, disregarding requirements, reducing ambitions, and narrowing our reach. To understand human action, we also need to understand the ways in which we create such boundaries for our rationality in order to prevent an informational overload from postponing or paralyzing action.

Clearly, the time and capacity constraints on the work of the architectural teams forced them to be highly selective in attending to the various requirements and pieces of advice. Some aspects, e.g. the issues of logistics in getting the children to and from the school, were collectively excluded from consideration. Other aspects were given cursory attention or were simply forgotten. This was not only the case for the teams, but also for the panel in evaluating the entries and picking a winner. Part of the process was the active selection of the criteria and aspects that would make the winner look like a winner.

Information is social and political in both its nature and use. Considering it a resource it is hard to ignore that it is as unevenly distributed across society as any other resource. Differential access to information yields exploitative opportunities. Contracts and social relationships are explicitly engineered to discourage such exploitation (Williamson 1979; Eisenhardt 1989). When information is incomplete for some actors, it remains a problem to observe and police the open sharing of relevant information. The twin phenomena of 'moral hazard' and 'adverse selection' have been celebrated among economists ever since Akerlof published his analysis of the market for 'lemons' ((Akerlof 1970).

In spite of all the efforts at promoting an open and honest dialogue the fear that the architectural teams acted strategically lingered on. In their interaction as well as in our interviews with them, the theme was repeatedly exercised. E.g., an often voiced disappointment with the deliveries of the teams at the workshops was either interpreted as a lack of effort and progress or as a strategic

withholding of ideas and intentions. The moral hazard consisted in an acknowledged advantages of sharing the ideas of others while keeping own ideas secret. Lacking the information, the performance of the teams was at best ambiguous, but the ambiguity allowed the suspicion of strategic behavior to survive throughout the competition.

Extending the commonsense of our informants, the theory would make us predict that the information and the ideas which were actually shared would be the least valuable ones. Sharing petty information and half-baked ideas would constitute a small loss, relative to the potential loss of sharing significant information and serious ideas. Thus, under conditions of asymmetrical information, the communication would be spent on relatively idle thoughts producing little impact on the outcome of the competition. It had the appearance of knowledge sharing, but it might do more to misinform than to enlighten the opponents.

While uncertainty and asymmetrical information are notions that guide the above reflections, the notion of *ambiguity* adds new challenges to the phenomenon of dialogue. The possibility that information may have many interpretations, leading to equally many alternative implications, fuels the search for meaning and portrays human action as dilemma-ridden (March 1999). Most good ideas turn into bad ideas upon further investigation, while seemingly poor ideas may pave the road to success with sufficient rigidity and discipline.

The DAC enforced an early sharing of ideas and visions and therefore invited ambiguity to play a more prominent role in the interaction. What were presented and evaluated was not only an idea, but also its potential for developing into a profound and coherent idea. It was an invitation to the experts and panel members to collaborate on its development through feedback and constructive criticism. Critique could goad further exploration of the original idea at the risk of appearing uncooperative if the contributions of the client and the experts were not adopted; or it could occasion a change in strategy, thereby potentially relinquishing authorship to the project and becoming entangled in the negative spiral of a failure trap. Positive feedback might, on the other hand, equally well occasion a bias towards exploitation at the expense of further explorations, which may be equally unfortunate if it paralyzes the team within the confines of a success trap (March 1999).

Other scholars question the idea that information comes prior to and informs action. In theories of sense-making, action comes first, and it is the observation of the effects of and reactions to such action that information arises. Thus, we learn the nature of the illness only by watching the patient's reaction to our treatment. We only know the content and implications of our ideas when seeing the response of the client and the experts. Such retrospective sense-making is associated with Weick's work (Weick 2001). To a large extent, actors improvise on an understanding of the situation, the institutionalization of which allows for concerted action. However, improvisation also holds the possibility of crisis, revealing the multiple frameworks within which action can be

understood. Responses may undermine, corroborate and even reinvent the original intentions and understandings of the action.

All architectural competitions have an element of retrospective sense-making. The client only learns what he was asking for when he sees the architects' entries. In the present case, the competition brief was extensive and very specific on a number of points, and very elusive on other points. The latter was true of the overall profile of the school which was characterized as virtual-aesthetic. What that meant to imply was debated, including the relationship between the two constituting concepts. Afterwards, the conceptual confusion remained among the architects, but the competition panel recognized the profile in the winning design proposal. It could not be described and specified abstractly, and therefore its content was discovered in a specific design.

The DAC almost makes a virtue of this retrospective sense-making. The set-up with many experts and panel members giving running commentary and advice to the architectural teams seems to imply that the teams may easily expect to learn new aspects and prospects of their own idea and solutions. Filling these ideas and solutions with the content that stroke a cord with the experts and panel members seems intuitively to be a wise strategy for eventual support and success.

If the information that justifies a specific design solution is discernable only after the design has been presented, meaning and social action becomes unquestionably *situated*. We can never predict the links between cause and effect, means and ends, etc. outside the specific situation in which such links are carved. What counts and how opportunities are construed (Stark and Beunza xxx) are determined in specific circumstances in processes of interpretation and judgment where ends, means and causalities, i.e. everything, are in play cognitively. Lave (Lave 1988) calls such cognitive playing "gap-closing", a concept which has inspired several authors (e.g. (Brown, Collins et al. 1989; Mousavi and Garrison 2003; Axel 2009)) to pay special attention to the ways in which situations are constructed as a constitutive part of sense-making and human action. Situations are not prior to and independent causes of thinking and action. What counts is not determined by the situation because the situation is determined by what can be made to count.

In the competition under study the extensive competition brief defined a situation, including the ambitions for path-breaking solutions to the problems of sustainability. The measures presented at workshops were all criticized for lack of ambition, but alternatives were never really developed. Closing the gap between the aspirations of the brief and the actual design proposals required a redefinition of the situation. Thus, a loose idea about creating energy-saving synergies with a nearby shopping center was taken by the panel to signal innovativeness and capabilities that would allow the team to develop adequate solution at a later stage of the design process. The situation was redefined from a test of solutions to a test of capabilities and future potentials.

With these multiple ideas about the role of information in understanding human action in mind, let us now turn to the specific case and discuss how the installation of dialogues within an architectural competition might impact on the quality of the outcome, expecting that such

dialogues should battle both with the issues of asymmetrical information and with the issues of collective ignorance.

THE CASE:

The municipality of Copenhagen planned to build a new public school in a newly developed part of the city, Ørestaden. The planning went on during the economic boom during which land in Ørestaden was in short supply and extremely expensive. Being under tight budget constraints, the school was placed on a centrally located, but very small lot. It was planned as one out of three schools, to match the projected growth in population in general, and in the number of primary school children in particular. To exploit the extraordinary opportunities from building three nearby schools at approximately the same time, they were planned as a coherent program with the intention of sharing certain facilities. Such sharing allowed each school to develop a more specialized pedagogical profile. The case school was planned to have a *virtual aesthetic* profile. It was envisaged that the teaching of some subjects, e.g. natural sciences and physical education, would partly take place in dedicated facilities at the other schools which were easily within reach by Metro train.

An architectural competition was called for the design of the school. In the process, a public library became part of the plans, even if it remained unclear to a very late stage in the competition that it should in fact be included. The competition brief was exceptionally detailed in terms of aims and requirements, which reflected the thorough planning of the school. On all counts, including sustainability and pedagogic principles, the schools should be exemplary, which should be reflected in and facilitated by the architectural design. The high ambitions and the inherent challenges of fitting a large school onto a very narrow piece of land with many zoning restrictions, including limitations on the height of the building, justified the elaborate planning, but also inspired the adoption of a very unusual type of architectural competition.

It was decided to organize a dialogue-based architectural competition. After several rounds of prequalification processes, three architectural teams were engaged in a competition that required of them a high degree of openness and collaboration. First of all, it was not individual architectural practices that were prequalified to the competition. It was rather unusually cross-disciplinary teams, including also structural engineers, experts on sustainability, pedagogy and children's playgrounds. Within each team, collaboration was required and foreseen, the ambition

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² 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. However, such legal formalities were irrelevant to the issues discussed here. Working in parallel and sharing information was an integral, if foreign, part of the competition, while e.g. adopting the ideas of others was a somewhat belated way of collaborating while working alone.

being explicitly stated that the ideas of the other disciplines should be taken into consideration even before the architects started sketching the building.

In addition to the collaboration within teams, collaboration across teams was also planned. A series of workshops were planned, at which the teams were to present and explain their current ideas and design solutions to each other and to a large board of experts and client representatives. To motivate an open and voluntary sharing of information all teams were awarded '1st prize'. In return, the client informed the teams that they were allowed to learn from each other by adopting other teams' solutions as they saw fit. No team could claim ownership and exclusive rights to any idea, principle or specific solution.

The workshops were organized as stage-gate meetings. The client had specified the specific deliveries that each team should present at the various workshops. Each team presented their material and their current thinking in plenary and in dedicated workshops with the experts and the client's representatives. The feedback was spontaneous and immediate, and was given verbally as well as in writing. The other teams sat in on these workshops. It should be noted that some of the experts were also members of the competition panel.

The final submission of the competition entries was organized in unconventional ways as well. Since many participants outside the teams had knowledge and insight from prior workshops, anonymity could not be maintained. Thus, the entries could be, and were in fact, formally presented to a large body of interested parties by each team before being evaluated by the panel. The panel evaluated the entries with full knowledge of the architectural teams behind each entry, and with more prior knowledge and insight than usual. For this reason, the timeframe for the panel's work was very short indeed. The panel's decision, and a detailed evaluation of each entry, was communicated at a special event open to the public. The teams were informed the evening before about the decision, but were relatively unprepared for the evaluations.

The limits to planning

Not everything went according to the plans. On a larger scale, the economic situation deteriorated rapidly, putting most projects in Ørestaden on an immediate hold. Thus, land became plenty and prices affordable, making the need to squeeze the school onto a tiny piece of land look paradoxical. However, to cancel the competition and start all over again on a new lot would postpone the school for several years which would be unacceptable to the many families already in Ørestaden. For that reason, it would also be politically infeasible to move the school, especially since these discussions took place in an election year.

The economic crisis did slow down also the growth in population, and early on the municipality decided not to build more than the present school. Thus, it lost its context of other schools with complementary profiles and facilities. While maintain the virtual esthetical profile, it now had to be equipped with all the ordinary facilities of any other primary school in the country.

The planning of workshops and dialogues was somewhat undermined by the slow progress of the teams and their – in the eyes of most of the experts –meager contributions. Especially the consulting engineers complained bitterly over having too little to work on. Thus, in some respects the sharing of information and ideas fell short of what was envisioned, and the utilization of some of the mobilized expertise proved less than intense.

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 effects that served as the rationale for the DAC.

Illustration: The library that moved

As already described, the public primary school was also planned to house a public library. This decision was probably a matter of convenience and reflecting a coalition between two mayors of very different political persuasion. But the decision was also justified in terms of preventing the school from becoming an isolated institution. A library within the school would make an invaluable contribution to making a somewhat barren frontier of Copenhagen city a more vibrant place, socially as well as culturally.

At the first workshop, the teams presented very different locations for the library within the school building. Two of the teams had chosen a location at the ground floor to integrate it with other school functions and to attract incidental customers and create the most desired daily traffic of visitors. The third team chose to locate the library at the top floor. In this way, the library would draw people, from the school as well as from the neighborhood, all the way up the building. It served, also symbolically, the same function as the cathedral at the top of an Italian mountain village – the guiding metaphor of that architectural team. The metaphor required a stretch of imagination to be applied to a modern school on the culturally and socially barren frontier of a major city. However, the image fuelled the ambitions of using the school as a means to the explicitly stated aim of creating a sense of community and 'place' to the neighborhood.

In no uncertain terms the location at the top floor of the building was criticized in the dialogues, especially by a librarian assigned to the workshops as an expert. Nonetheless, at the second workshop the team had kept its location at the top floor. This became clear when they gave their presentation on the first day at a plenary seminar. After the presentation the team leader was confronted by one of the panel members who scolded him for not having listened to the feedback at the first workshop. Before the workshop the following day the team went back to the drawing board and worked hard to search for alternative functions to be placed at the top floor without ruining the metaphor. They came up with idea of placing the kitchen, the canteen and possibly a community room at the top, but had no way of integrating that idea into the preliminary design to be presented the following day. Thus, they presented the same project as was presented at the plenary seminar, i.e. with the library on the top of the school, while making a passing reference to the possibility that the top floor could be used for other functions.

Predictably, the criticism was very harsh and the team was *ordered* in clear text to move the library to the ground floor. The other teams received explicit praise for their designs on the issue of the library location. The expert on libraries called their proposals "a good solution" which encouraged them to fix the location and to attend to the many other open issues that needed resolution. Thus, unsurprisingly, in these entries the library had not move location in the final design proposal.

In the meantime, however, the third team moved the library, not only to the ground floor, but also to the other end of the building than where the competitors had put it. This location faced the busiest street surrounding the school building and was therefore better able to attract the incidental customer. Furthermore, the library would become visible from the nearby Metro line, a feature which the experts emphasized as highly desirable.

This location received praise in the final evaluation. The designs of the other teams were now criticized for having chosen a suboptimal solution. As will be clear by now, this evaluation stood in stark contrast to the feedback they received at the workshops. While in a physical the library did not move location, it did move category: from a favorable mentioning to a negative mentioning.

The optimal library location became one among several arguments for appointing the ultimate winner of the architectural competition.

Analysis

It is clear that this illustration shows that dialogues work! There is no doubt that it was the dialogue that moved the library to its optimal location. It seems as 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 an ultimately optimal location, both in relation to the site and the urban context. (The panel's report, p. 17. Our translation)

Thus, the dialogue made the difference without which the library would have ended up in a less optimal location. The optimal location of the library became a winning proposition.

The dialogue works, but as we shall see, it probably works in somewhat mysterious ways. We should not be carried away by the rhetorical closure that makes the dialogue the cause of a better outcome that eventually enabled the choice of a winner of the competition. Gap closing is a Garbage Can –like process (Cohen, March et al. 1988) that harbors a large element of chance. Many other closures would have been possible. The situation became defined in terms of the function of the library, but to the architects the situation looked different. The challenge was not moving the library, but finding out what might replace it at the top of the building that would somehow fit the governing metaphor of an Italian mountain village. It was not until the idea of a

canteen and kitchen facility was linked to notion of food culture and local community that its location at the top floor began to make sense. The reference to the cathedral was reestablished, however in a more mundane sense.

The dialogue was primarily concerned with the location of the library, but the precondition for such a focus was the fact that some other function could legitimately be put in its place. In all honesty, putting a kitchen at the top might have been ridiculed for exactly the same reasons as the ones forcing the library to the ground floor. In the present context, however, sitting on the roof terrace, enjoying a communal evening meal with a splendid view of the neighborhood was the imagery that the proposed solution produced in the mind of at least one of the experts. The dialogue rallied support for the feasibility and attractiveness of a solution that not even the architect himself was convinced would represent an improvement. Continuing his reflections cited above, he said,

[Having kept the library on the top floor] it would have been better, and perhaps it would have been worse (leader of the winning team. Our translation)

We do not know how the situation would have been construed in the end had the team insisted on having the library on the top floor (see below). However, we get an idea of how the dialogue works: it helps in closing gaps by selecting means and ends, and by construing situations where means become means to the appointed ends, and the ends become ends to the appointed means. The dialogue produced a debate in which the requirements of the library were isolated from the needs of the school and the needs of the building as a whole. It made sense to calculate the number of minutes that the library users would waste in elevators, or to argue for the visibility of the library from the nearby metro trains. By defining the issues in such terms, an asymmetry of knowledge and expertise was also installed, making the dialogue the procedure for sharing and thus overcoming the asymmetry. The closure of the gap between all the things we ought to consider, all the ways they might be linked, and all the implications they might have, became possible by narrowing the discussion to the functions and the location of the library. The reasoning within the dialogue, and the comparison of the various proposals, was enabled within a narrowly bounded debate, and disabled by not obeying such boundaries. The "deviant" team was disciplined by the thought that a continued exploration of an original idea was a sign of nonresponsiveness. Thus, on this occasion exploration became, most surprisingly, an illegitimate form of participation in the DAC.

Design solutions producing winners – and vice versa

Had the losing architectural teams known earlier the lessons that they learned when the panel spoke they would have prioritized their time differently and designed their solutions accordingly. Chances are that their libraries would have ended up in the winning location in the building. So much is trivially self-evident. Other issues seem more important, e.g. whether they *could have* known. Against this, we could argue that the winning team only later decided to move the library

to its winning location, and while it perhaps might have been expected that the library would move to the ground floor, given the very direct orders from the experts and panel members to do so, it is not easily predictable that the winning team would find possibilities for putting it in its "optimal" location. Many other things would have to give way, and optimizing the library location might easily have many unfavorable repercussions. After all, the losing teams had, considering all other things, opted for a good location, but not the optimal one. Whether the winning team would be able to fit it into a coherent physical layout of the school as a whole was everybody's guess. Even with our privileged position, we could not have predicted anything but their *inclination* to move the library away from the top floor. Even with such an inclination, it is easily imaginable that they would fail to find a better alternative than the location of the other architectural teams.

However, if the winning team had stood fast and kept the library on top of the building, as a modern, knowledge society reference to the church on top of the Italian village, would it still have ended up as the winner? We are inclined to answer with a "no". After all, the optimal location of the library was part of the panel's reasons for picking that entry as the winner. Furthermore, the explicit orders of even panel members, and the harsh criticism at the second workshop for not having moved it already, would be hard to forget and ignore in the final decision. But the risk of appearing inconsistent did not prevent the panel to reverse its evaluation of the two losing entries. It is furthermore quite conceivable that the panel might have been convinced in the end by the team's further elaboration of the design with the library on the top floor. We must acknowledge that is conceivable that the team might have won even without moving the library to the ground floor. We have no way of knowing, because the situation never occurred, and therefore the panel was never asked to rank such a pool of alternatives. We might even imagine that the team failed to convince the panel and still ended up as the winner. The central importance of the library location was not a natural given premise, and as the case might be, it could have ended up as a minor imperfection of the winning entry. The issue might also have stirred a conflict between the school people and the library people, and, not least divided the two mayors representing each side on the panel. Of course, we have no way of knowing if the library location would end up being a decisive criterion or just a minor imperfection. All we are saying is that such premises and justifications are themselves an outcome of the process, and as such we should not fool ourselves by treating them as a priori given parameters.

The winning team had designed facades of strikingly aesthetic quality. Everyone agreed to this evaluation, even the losing architectural teams. Would it be conceivable that the panel would sacrifice the aesthetics for the location of the library? Yes, but in that case quite likely very unwillingly! One of the professional architects on the panel expressed the view that, for matters of reputation, he could not live with making a design of less quality the winner on grounds that the architect was willing to implement it at a lower fee.³ He would be held accountable for the design

³ The competition entries were to be evaluated on three dimensions: the quality of the design, the quality of the team, and the fee demanded for the implementation of the design.

and the aesthetics by his peers, not for the costs of implementation. It is conceivable that the same would be true, were an aesthetically appealing design with a less than optimal library location to be compared with a less aesthetically appealing design with an optimal library location. We cannot know because such choices are highly situational, and the situation for such a choice never materialized.

It was part of the explicit justification for picking a winner that it had placed the library in an optimal spot, while the losing design merely had found a good, but less than optimal location. We think of this less in terms of a winner-producing criterion, but as an example of gap-closing. The criterion was not the cause of the outcome of the competition, but was selected in the same process of picking the winner. The outcome picked the criterion, as much as the criterion picked the winner. The arguments were present earlier in the dialogue and were exercised on various occasions. However, to elevate it from an argument to a criterion was part of the process of selecting the winner. The criteria and the conclusion were part of the same package. It is merely in the subsequent rendering of the competition that the means become separated, logically and in time, from the ends. The panel only made the library location significant when they realized that they could do so without undermining the right conclusion of the competition. Several other things, such as the innovativeness of sustainability solutions and the pedagogical ambitions, might easily have become more significant and obligatory requirements, had the situation been conceived differently. The situation was characterized by a very successful and powerful presence of the library's spokespersons, in the dialogue and on the panel. The fact that they were powerful was not independent of the fact that the winning proposal allowed them to be powerful and to some extent decisive. Had the winning proposal been different, the power of the library lobby would have been different too.

We come to the conclusion that while it would be beyond the framework developed here to predict the outcome of the competition, had the situation been differently conceived, e.g. in terms of the library location of the winning team, it is not beyond the framework to suggest the possibility that the outcome would have been unaffected by the library staying on the top of the building. The reason for this conjecture is the fact that the situation might have been construed in different terms. We have no way of knowing in which terms specifically it would have been construed, and therefore we have no way of knowing what the outcome might have been. To think otherwise would be to assume that the situation was given irrespectively of the actors and their specific design proposals.

Thus, to understand the outcome of this competition it is not sufficient to point out the criteria on which the proposals were evaluated and the appointment of a winner was justified. We also need to understand why these criteria were made salient in the situation – knowing that other criteria might justifiably have been given as much weight. Gap-closing is a highly predictable process, but how the gaps between means and ends, or the gaps between information and action, are closed in specific terms is not knowable prior to the specific situation where gaps appear in need of closure.

CONCLUSION

By way of concluding, let us return to the question of how dialogues function in the context of architectural competitions and the role of collective ignorance. We have attempted to illuminate our observations from a specific dialogue-based architectural competition with the help of the metaphor of gap closing (Lave 1988). We believe that these dialogues are elements in processes that are charged with producing closure and understanding. As in the case of Garbage Can models of decision making, design premises and design solutions exist independently to a start, and become *selected and connected* in the course of the dialogue. To come to see a specific location of the library as an answer to the library's needs required first of all that the needs of the library were isolated from the needs of the school and the building as a whole. Secondly, it required the construction of the library user as an accidental user, being inspired to pay a visit to the library on the sight of it, and an efficient user, being dissuaded by the prospect of spending a few moments on an elevator. Dialogues exercise reasoning over particular solutions, and in the process they also construct actors, establish causalities and celebrate values and interests.

However, dialogues are situated and indeterminate exercises. Actors might have been constructed differently, causalities might have been conceived alternatively, and competing values and interests might have become the center of celebration. It is not the situation that is the key to understanding which actors, causalities and values are mobilized, because establishing which situation we are in is part and parcel with closing the gaps. We cannot know, nor does it make sense to try to predict, which things become linked in what ways ahead of the time when closure has been reached. These are the conditions that we willingly forget when closure has been reached and situations have been defined and established as true. In retrospect, we are willing to explain the winning entry with reference to (among other things) the optimal location of the library, as if the outcome of the gap closing process were destined to define the situation and the problems in a particular manner. We realize, but often fail to recognize, the possibility that moving the library away from the top floor might also have ended up as a justification for picking another winner of the competition. As the other teams were to experience, solutions and optimality are unstable and ambiguous qualities.

We have no way of knowing what would have happened, had the winning team insisted on locating the library on the top floor. We could not claim that they would have lost because we cannot know how the situation might have been construed in such a hypothetical situation. The aesthetic beauty of the proposal might have changed the logic of the panel instantly, sidestepping the library location to produce a legitimate account for electing it the winner.

So we are face with an existential dilemma of Kierkegaard'ian dimensions. The issue is whether or not to learn from the dialogue. In the studied competition all the teams learned and demonstrated responsiveness to the experts and the client's needs. However, two of the three did so to their

own regret. For example, they learned – correctly we believe – that they had found the right location for the library, only to discover that in the end they were criticized for its non-optimal location. Failing to learn would probably in most cases have been severely penalized, not only in the final decision of the panel, but also symbolically during the workshops. Thus, learn from the dialogue, and you will probably regret it; do not learn from the dialogue, and you will probably also regret it.

Such insights should not legitimate paralysis and despair. But they could legitimate a search for a different way of participating in architectural competitions. The search for evidence is misguided, since outcomes and effects are that about which we will remain ignorant. But the search for strategy, identity and commitment is not misguided. Strategy, identity and commitment protect us from the randomness of experience, and therefore also protect us from learning about things that we cannot know. If the effects of learning from the dialogue cannot be predicted ahead of time, we cannot learn from experience whether to respond or to ignore the advice and demands of the experts and the client. In the end, if the DAC is a specific variant of general gap closing processes we would know the new name of a game – and might choose to play the architectural competitions in slightly different ways. The successfulness of the participation might be unaffected, but on other dimensions the DAC experience might become more rewarding and constructive to the participants than what is currently the case.

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