

# PARTICIPATORY DESIGN OF A CROSS-MEDIA COMMUNITY FOR SOCIETAL ACTION: LESSONS FROM AVATOPIA

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*A cross-media platform was designed for a community of young teenagers oriented towards societal change, a task which motivated a deeply sociotechnical participatory design process. The final outcome involved an interactive web forum featuring creative and communicative collaborative tools in a 3D avatar environment, combined with a weekly show in national public-service television. An assessment of our work indicates that a participatory design process, where participants transition into the role of mentors and norm carriers upon deployment, can be a feasible way to support subcultural community building towards »difficult« topics, even though it entails considerable resource demands. This result is potentially relevant to other practitioners of participatory design outside the traditional settings of workplaces and well-defined user groups. Moreover, we argue that an integrated spiral of production and consumption across the two media channels involved is a viable design concept to support community building. That claim, unlike our methodological finding, is rather limited in scope to interaction design, and specifically to the genre of cross-media products and services.*

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## INTRODUCTION

Designing new media products always takes place in the context of existing media products, channels and uses; against the backdrop of the existing mediascape, as it were. Technological trends in the directions of interactivity, mobility and sociability coexist with established production and consumption practices including mass media such as television as well as personal media such as phones. Any effective design strategy for such a complex situation must find ways of balancing the familiar and the innovative, the old and the new—as Ehn (1988) puts it in a memorable phrase, to address *the dialectics between tradition and transcendence*.

The Avatopia project illustrates one such attempt to balance the old and the new in the mediascape, and specifically by creating a cross-media product intertwining the qualities of public-service broadcast television with those of an interactive web forum. The project aimed at providing a platform for young teenagers committed to creating change in society. As such, it was an experiment in the social contextualization of interactive television, not limited to sharing electronic program guides and snippets of broadcasted »content« but rather placing broadcast TV in a larger context of interactivity and inter-activity for societal purposes.

The project was based on a participatory design process and ran all the way to full-scale deployment of web forum and national TV programming. However, the development of the Avatopia community was prematurely discontinued when the national TV broadcaster suffered an unexpected budget cut. Hence we have no formal evaluation data and the following pages concentrate on presenting a chronological overview of the project, outlining tentative conclusions, and identifying promising directions for future work in related areas. (The overview part below is largely identical to the presentation given in a forthcoming publication [Gislén et al., in press] whereas the two papers differ in terms of analysis and reflections.)

## PROJECT SETTING

Among young teenagers in Sweden (ages 13–17 or so), there is a small but significant fraction committed to changing society in the large and in the small. Typical examples of topics catalyzing their energy include environmental concerns, racial segregation, social injustice, globalization and consumerism, co-determination and societal influence of young citizens, and of course gender equality. You may find them in issue-driven organizations such as Amnesty, Greenpeace and Animal Liberation, or as student representatives in co-determination

groups at school, or marching in the streets during trade organization summits, or hanging out in cafés and other meeting places together with their friends. In urban settings, that is. The ones truly committed to change who have the misfortune of growing up in villages or in the countryside generally find the selection of stimulating social and physical environments to be lacking. What is common across the country is the subcultural perception of being denied the access to media and other channels of public influence that the heartfelt issues deserve.

Swedish Television is the national public service TV network in Sweden, offering two analogue and five digital channels to virtually every household in the country, all (largely) advertisement-free and funded by the state and by viewer fees. It is a cultural institution in many ways, with extremely strong figures for reach and credibility among Swedish mass media and an equally strong image of grown-up and authoritarian television. Consequently, it struggles with low ratings among teenagers as well as with the respectable tasks of identifying its roles and the public service mission in the rapidly changing landscape of increasing TV competition and the new media.

The two preceding paragraphs may appear to have nothing in common, but circumstances happened to be fortunate in the year 2001: The intention emerged to explore the intersection between (some) young teenagers' will to change society and Swedish Television's need to experiment with new cross-media formats and new interpretations of the concept of public service. A collaborative project was formed between Swedish Television, Malmö University, Animationens Hus, the Interactive Institute, and a couple of more peripheral actors to work towards the vision of designing, deploying and assessing a cross-media platform for a small but highly motivated group of young teenagers throughout Sweden committed to creating change in society.

## THE AVATOPIA PROJECT

The vision of the project was formulated in the initial phase based on the knowledge interests of the participants, on Swedish Television's knowledge of its audience, and on preparatory studies of sociological theory and initial fieldwork with young teenagers across Southern Sweden (Gislén and Löwgren, 2002). It essentially posed the idea of a cross-media platform providing the social substrate for planning societal action and influencing the public opinion on key issues. This was to be realized in the form of an interactive web forum in conjunction with a daily or weekly TV show where broadcasted material was produced inside the interactive forum by community members in collaboration with TV staff. The idea was for the two channels to form a *positive spiral of participation*: The comparatively small web forum produces material which is broadcast to a comparatively large TV audience, where some people are excited enough by what they see to join the community by committing to action in the interactive forum. In order for this spiral to work,

we assumed that the interactive forum had to use audio-visual representations of a nature that were suitable for TV broadcasting. Moreover, we thought of the Avatopia community as a small and highly involved group, comprising some 2500 members of which only a hundred or a few hundred were online in the web forum at any given time. The unique access to a highly regarded national broadcast channel would ensure appropriate potential for influencing public opinion.

## CONCEPT DEVELOPMENT

With this overall vision in mind, we set out to create a participatory design process involving 20–30 young teenagers with the dual tasks of (1) contributing to the design of various aspects of the cross-media platform, and (2) adopting the roles of mentors and norm-carriers in the community once it was opened to the public. This strategy—which, to the best of our knowledge, was slightly innovative in methodological terms—was anticipated to be resource-demanding, yet motivated by the goal of a small and highly motivated community core around a difficult and demanding topic.

The group of teenagers was recruited in December 2001 and January 2002 by means of a rather unusual Christmas gift (Figure 1) followed by an initial workshop at Swedish Television's premises in Växjö. The gift was a loaf of bread stuffed with some creative exercises and a cassette tape with instructions and mood music, along with an invitation to bring the completed exercises and come to the Växjö workshop. The exercises were largely inspired by the RCA work on cultural probes

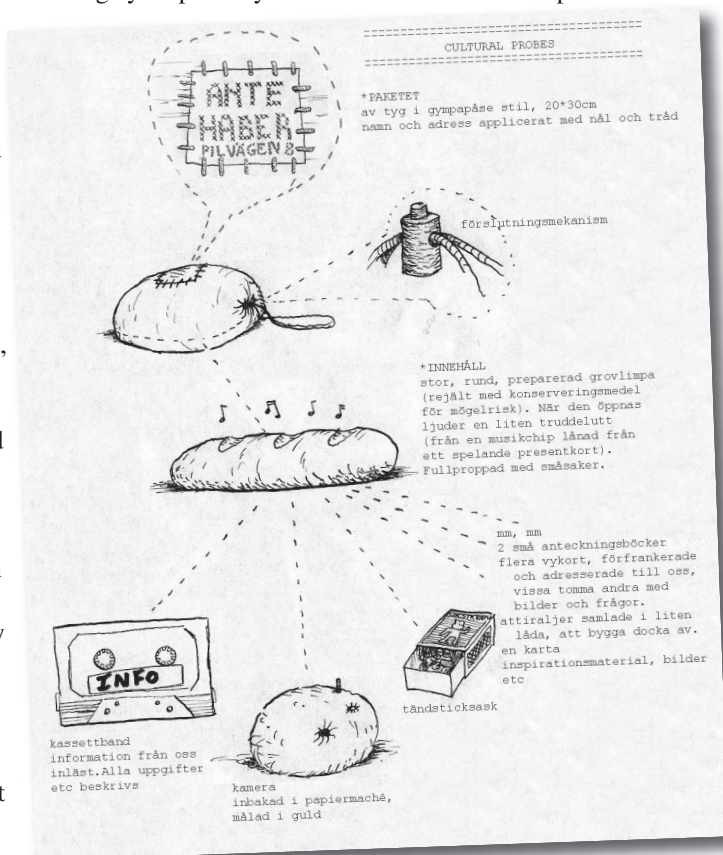


Figure 1. Sketch for the workshop invitation.



Figure 2. Snapshots from the initial workshop.

(Gaver et al., 1999) and involved a disposable camera for a photo diary, a set of pre-addressed postcards with questions pertaining to values and views on change in society, a small object to be used in creating a personal avatar, and a cassette tape containing instructions and some mood music of an alternative bent, composed for the occasion.

Some forty Christmas gifts were sent to young teenagers whom we had reason to believe would be interested in the goals and development of Avatopia. The list of recipients was compiled based on contacts from our initial fieldwork and on other contacts to individuals and organizations where we expected to find project members with the right profile. Twenty-seven signed up for the initial workshop, a surprisingly good result which we attribute at least in part to the slightly unusual and perhaps inspirational nature of the invitation. The participants at the initial workshop spent the two days of a weekend understanding the overall project vision, developing initial ideas for the web forum and for the social mechanisms of the community, and generally getting to know and trust each other. The contributions requested in the invitation were used as raw materials for joint creative work (figure 2) and for discussions in small groups and in plenum.

More specifically, some of the workshop activities included

- building a model of the Avatopia virtual world using low-tech materials such as sand, cardboard and disposable cups;
- building avatar models using the object included in the workshop invitation in combination with other low-tech materials;
- creating short clips of rotoscope animation showing avatars acting and communicating in the model world;



- brainstorming and assessing ideas for functions in the virtual world;
- small-group discussions on the desirable norms and ethics of the Avatopia community;
- creation of scenarios exploring how the Avatopia community would use the cross-media platform to initiate actions towards changing society.

The workshop ended with the formation of four task forces committing to spending efforts during the Spring on, respectively, (i) the look and feel of the interactive web forum; (ii) the functions and features of the web forum; (iii) the norms and values of the community—and ways of upholding them; and (iv) formats for the TV show. The task forces consisted of young teenagers from the initial workshops and some new participants that they invited, working together with researchers and artists from the organizations involved in the project. The young teenagers did the work in their spare time, since they were all going to high-school, and represented a geographic distribution of most of southern Sweden with concentrations around the cities of Malmö, Växjö and Göteborg. These preconditions demanded that the task forces largely worked independently under the guidance of researchers, who were also responsible for aligning the work with the ongoing overall project coordination. For example, the »look and feel« task produced a music video for the song Star by the Swedish rock band Silverbullit (a.k.a. Citizen Bird), in order to develop ideas on a visually eclectic style for the interactive web forum intended to invite participation and collaborative creation (figure 3).

It should be clear that this audiovisual work was closely interconnected with work in the other task forces, such as: tools for co-creation (ii), norms for sharing and collaboration (iii), desirable audiovisual expression



Figure 3. Snapshots from the music video Star.



Figure 4a–d. Screen shots from the implemented Avatopia virtual world (September 2003), illustrating key parts of the concept.

a of the TV programming (iv). Such interdependencies necessitated rather active coordination efforts during the creative work in the Spring of 2002, accomplished through frequent cross-task meetings and proactive online communication and information dissemination. In this coordination work, the importance of tailoring the project communication channels to the participants became very clear. For instance, researchers would tend to take email for granted as a reliable and persistent means of communication, but it turned out that most young teenagers employed different practices. They all had email addresses, often several of them, but they did not use them regularly or reliably. When we looked into the reasons for these communication failures, we learnt that they generally satisfied their communication needs through cellphone texting and in-community messaging in the web-based Lunarstorm community (a Swedish precursor and rough equivalent to MySpace) which was immensely popular among teenagers at the time. Consequently, we had to adjust the means for online communication in the project.

#### THE AVATOPIA CONCEPT

By the Summer of 2002, a concept design was synthesized from the four areas of activity, with a main emphasis on functional and visual aspects of the interactive web forum and strategies for building and sustaining a desirable set of values in the community.

The *interactive web forum* was to become a 3D avatar world with a highly eclectic, collage-style visual quality. The world is small and limited, with room for no more than a hundred avatars or so, in order to create friction and energy. The general character is an outdoors setting, somewhat like a public urban place, with a small number of buildings each providing a dedicated function (figure 4a). For instance, one of the buildings is the Knowledge Bank where collaborative stories, the mythology of the community, memorable community occasions and useful activism information are stored for future use.

The absence of functions for modifying and creating buildings in the virtual world is a conscious decision; we want the community to focus on communication and collaboration, and construction tools might tend to encourage notions of personal property and individual showing-off. (More recent research in the social dynamics of virtual worlds and multiplayer online games, e.g., Jakobsson, 2006, turns out to support this intuition. Note that we are not advocating a total ban on construction tools in virtual worlds—it is hard to argue with the success of, e.g., Second Life—but only that such tools will to some extent distract from the communicative and collaborative aims driving the Avatopia community.)

The primary form of interaction is synchronous typed text and the spatial metaphor is upheld in the sense that your avatar has to be quite close to the avatar you wish to talk to (figure 4b). In addition, there are communicative tools for arranging hearings and other forms of public debates, for initiating and participating in asynchronous

text conversations (figure 4c), for creating propaganda-bots, for placing posters and flyers in the avatar world (figure 4d), for posting protest lists for other members to sign, and for collaborative creation of avatar animations.

The animation tools are based on the idea of using the avatar world as a recording studio with objects as props and avatars as actors, to capture realtime action in the avatar world and then to edit it in a parallel-time »universe« where action can be changed, deleted and added by means of timeline tools until the final result is satisfactory. The tools enable collaborative audiovisual storytelling and they are envisioned to be used for, e.g., satirical purposes.

Concerning the social aspects of *community building*, it was striking to us as adults how much faith the young teenagers placed in open and critical dialogue. Virtually all ideas on technological enforcement of community rules were ruled out and the general direction was one of an open democracy where all voices deserved the right to be heard, even though some could then be thoroughly refuted. One young participant referred to Avatopia as »an anarchistic experiment—what happens in a completely open debate?« but at the same time, it was clear that she and the other participants shared a certain amount of values on the desirable outcomes of a »completely open debate«, namely a collaborative environment marked by tolerance and by an emphasis on judging proposals and ideas on their own merits rather than based on who stated them and how. This general emphasis on dialogue underlines the necessity of building a community core of shared values before public deployment, rather than relying on technological devices such as automated monitoring to structure the social dynamics of the community.

As part of the community building strategy, we planned a series of half-hour TV programs leading

into the launch of the interactive web forum. The TV programs would feature a number of young teenagers from the design team, travelling around in Sweden and initiating actions together with local people in large and small cities. The actions would address issues of the same kind that Avatopia would be expected to be involved in: Increasing awareness of distorted ideals of beauty by building more human-like mannequins and placing them in the windows of clothing stores, facilitating a ceremony in a high-school where the teachers would be awarded grades by the students, organizing a local soccer tournament for teams of different ethnic origins where the players would be mixed into multi-ethnic teams, and so on. The travelling teenagers would move on from TV exposure to roles as primary mentors for newcomers in the interactive web forum. The final part of the series would coincide with the launch of the web forum and contain strong lead-ins to carry the audience from the TV set to the computer.

#### IMPLEMENTATION AND (BRIEF) DEPLOYMENT

A rather significant implementation phase followed the concept design and the Avatopia community was launched in September 2003 with four half-hour TV programs (figure 5) leading up to the opening of the interactive web forum and a weekly TV episode as part of the young-teenager programming block at 7pm on Thursdays. The role of the weekly broadcast was to cover important events in the community and to bring up relevant topics from the world surrounding it.

The public version of the web forum (figure 4, above) offered a significant subset of the functions designed in the concept phase. Most notably, the collaborative animation tools were never part of the public version. Our resources only allowed for a prototype of the animation tools, which seemed to validate the technical feasibility of the chosen architecture but never allowed for inclu-



Figure 5. Shots from episode 2 of the half-hour TV programs, where travelling design team members Moa, Elias and Linn go to Alvesta and work with Maria to carry out a ceremony where students grade teachers at the local high-school.

sion in the public version and full-scale testing in use. The other main difference between the concept design described earlier and the deployed web forum was that functions to create propaganda-bots were lacking, as we deemed them to be of less priority for the initial launch version.

The launch plan posed a slow but steady growth in numbers of community members, and similarly a slow but steady growth in the proportion of relevant topics being addressed by the community—the initial phase would understandably be dominated by discussions about the web forum and its functions and community practices, then the members would gradually move into topical discussions and start using the cross-media platform for societal-change purposes. We expected a critical mass of approximately 1000 (more or less) active members to be reached after six months and the longitudinal evaluation of social community practices and societal outcomes would then start by means of cyber-ethnographical methods.

However, the operation of the community entailed a small running cost for web hosting and a part-time editorial staff member of Swedish Television, which proved unfortunate when Swedish Television suffered an unexpected budget cut in late 2003 and had to concentrate on their core business. The Avatopia experiment was not perceived as part of core business, and it was terminated in early 2004. Hence, no systematic evaluation was performed and whatever data we have to assess our ideas are anecdotal.

## RESULTS

Even though the formal quality of the data from the project is poor (due to the premature termination precluding systematic evaluation of the community in action), our experiences from the design and deployment process still seem to warrant a couple of reflections that may be of use to other designer-researchers and interaction designers. The most central theme concerns *participatory design as a strategy for building the core of a community*. Secondly, we would like to summarize what we learnt with regard to the concept of a *positive production-consumption spiral* in cross-media products and services.

### BUILDING THE CORE OF A COMMUNITY

In spite of what some online services seem to promise, a community is not constituted by the existence of communication tools such as chat rooms or forums. A community is rather constituted by its members, and particularly by the degree to which the members share interests and commitments (Wellman, 1999). It seemed clear to us from the start that the Avatopia community, with its narrow coverage and highly specialized focus on societal change, could not be handled as an »if-we-build-it-they-will-come« project. This is the main reason for devoting a significant portion of the available resources to creating and facilitating a participatory design process where we implemented the strategy of involving a core

of young teenagers deeply in the design work, making them feel ownership towards the result, helping them reach a shared understanding of the norms and ethical protocols of the community-to-be, then transitioning them into the roles of founding members once the Avatopia platform opened to the public. By featuring a few of the most committed core members in the TV trailer series, we wanted to increase recognition and familiarity for newcomers after the public launch.

Based on anecdotal data from the few months when Avatopia was in operation, the strategy seems to have been successful in the sense that the core members (to a varying degree) took the mentoring responsibilities seriously by spending significant time in the virtual world, greeting new visitors and talking to them about the community, its goals and modes of operation.

Our experiences from designing Avatopia can be examined in relation to recent methodological work on participatory design, which typically takes its departure from the fact that the design context has changed significantly since the Utopia project (Bødker et al., 1987) and other early and influential advances in participatory design. For several reasons, emancipatory collaboration with closely knit groups of workers in a workplace setting is no longer the norm. One reason is, of course, that the Western political-economical-ideological climate has changed significantly the 1970s and thereby influenced the conditions for participatory design (compare, for instance, the account of Clement and van den Besselaar, 1993, with the one of Bjerknes et al., 1987). Moreover, the relative importance and impact of the use of digital products and services in workplace settings has diminished compared with the increasing amounts of discretionary, hedonistic use (think personal communication, mobile digital media, games, etc.).

In short, it is recognized in the participatory design community that new forms of use contexts and new sociotechnical arenas need to be considered and addressed: For instance, how can participatory design inform the development of mobile products for discretionary use (Isomursu et al., 2004)? Is innovation—as opposed to incremental improvement—possible in a participatory-design framework (Hillgren, 2006)? What does participation mean in design situations with many stakeholders of varying commitment over long periods of time (DePaula, 2004)? The methodological implications of such a widened scope is the topic of much current debate in the participatory design community.

Our work is a contribution to the ongoing methodological discussion within participatory design, and it is our tentative conclusion that *participatory-design-transitioned-into-ongoing-operation strategies may be effective in formative phases of subcultural communities oriented towards »difficult« topics*, such as societal change, where large investments in energy and commitment are required. The main reason is that norms and values articulated and developed during the design process are

relatively seamlessly carried over to subsequent phases of community operation.

It is interesting to compare our direction with more technologically-deterministic approaches to community building, where, e.g. a recent paper on »neo-tribes« argues that there are three ways of »setting up online communities: Build from scratch, Glue together, and Web homesteaders« referring to different ways to engineer the platform (Johnson and Ambrose, 2006). Our work clearly represents a more sociotechnical route, with different main concerns. We might speculate that our finding can serve as useful input to the ongoing discussion of how consumers can be reconceptualized as communities (see, e.g., Thomke and von Hippel, 2002; Piller et al., 2005) and what the implications of such a move would be for design strategies.

However, it must be noted that participatory-design-transitioned-into-ongoing-operation strategies are very costly in terms of resources and project coordination. Hugely successful examples such as MySpace and Second Life certainly show that communities of a more broadly appealing, low-commitment nature, such as entertainment or general hanging-out and socializing, can be built and deployed using less costly strategies.

#### THE POSITIVE SPIRAL OF PRODUCTION AND CONSUMPTION

When developing cross-media products, it seems to make sense to aim for a positive production-consumption spiral built on the particular qualities of the media involved. In the Avatopia case, one of the core media was broadcast public-service TV which combines strong audience coverage, high credibility and high audiovisual demands. The other core medium was the web, and to make the spiral work we designed the web part to offer communication and collaboration tools with as strong an audiovisual impact as we could, set in a 3D avatar world with a rather distinctive audiovisual expression. The point is, of course, that social events taking place in the avatar world as well as expressive material created by the community members inside the avatar world should be of the kind that is appropriate for broadcasting on TV. In other words, *if you want a web channel to intertwine with a TV channel, make sure that they are equally audiovisual.* (If we had only concentrated on the communicative aspects of the community—i.e., on putting similarly-minded people in touch with each other—it would have been much easier to develop a standard text-and-image-based web forum combined with more resources for conventional TV production by Swedish Television staff using the web forum as a source for journalistic ideas and contacts, which currently seems to be the mainstream way of thinking about TV-web interplay.)

The cross-media approach to interactive TV seems sensible not only because it fits within the limitations of current consumer technology, but also because it draws on the inherent strengths of two rather different media.

To simplify, we might say that TV is low-effort, high-reach and creative web environments are high-effort, low-reach. By connecting them in a positive spiral of production and consumption, it seems possible to create synergy effects.

An additional finding concerning the production-consumption spiral is that for the »audience«, 3D avatar environments turn out to be experientially quite different from broadcast TV. In order for Swedish Television staff to produce a journalistic piece of broadcast TV from inside the web forum by, e.g., recording a hearing and interviewing community members, we found that a significant amount of post-processing was necessary. If you were to view the event in the web forum by being live on the scene through an avatar, the experience would be very different from viewing a recording of the same screen view frame by frame. To make it worthwhile TV, the recording would need to be edited quite heavily to increase the pace and the visual variation. One strategy that the TV journalists proposed to address the lack of proper broadcast-production tools in Avatopia was to visit the web forum with at least two avatars simultaneously in order to get the equivalent of two cameras on the event to be covered.

We may speculate that the experiential difference between avatar environments and broadcast TV is due to your perceived sense of participation in the online case, stemming from the knowledge that you could always move somewhere else in the world, or speak up on any topic at any time—even if you choose to stand still and be quiet for the full duration of the event. Another part of the explanation is, of course, the well-established genre conventions of rapid cuts and visual variation in many broadcast-TV genres.

#### FUTURE WORK

Our experience from Avatopia has highlighted some of the challenges of designing cross-media products and services in the currently quite volatile mediascape. It is straightforward to identify a few relevant directions for further research in the field.

- Design, deploy and study a sustainable subcultural cross-media community in another field and for another audience, to validate the ideas developed in Avatopia on the community-building design strategy of participatory design carried over into ongoing operation, and on the positive spiral of cross-media production and consumption.
- Experiment further with the idea of a small and focused cross-media community to influence public opinion, with relation to ongoing work at the intersection of media studies and interaction design on the roles of city-block TV, mobile-phone video recording and dissemination, blogs and other grassroots media approaches (Lasica, 2005) in societal development. Davis' (1997) prescient and intriguing notion of »computational video as mother tongue« for younger citizens is clearly relevant in this respect, as is Jen-

kins' (2006) work demonstrating the amount of commitment and creative skill invested in audiovisual expression on a voluntary basis in various fan cultures. Another obvious source of inspiration is Lambert's (2002) work on digital storytelling, demonstrating the power inherent in nonprofessional creation of digital media products, even though the focus for him and his colleagues is perhaps more on personal expression than on collaborative societal action.

To conclude, we feel that cross-media products and services is an emerging topic of massive significance in interaction design and media technology as well as media and culture studies, given the current pace and ubiquity of media convergence at all levels. It is our hope that what we have learnt from our work is relevant also to designer-researchers and designers in the broad field of interdisciplinary design research.

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The descriptive parts of this paper are identical to a forthcoming publication (Gislén et al., in press), but they are framed quite differently in the discussion of our results.

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