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Sharing Understanding of Assessment Criteria in Design Project Tutorials: Some Observations of, and Implications for, Practice

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Abstract: *This paper discusses and develops several findings out of a small action research project conducted in the context of a first year design studio. The basis for the project arose out of feedback that design critique is ambiguous, subjective and largely unqualified from the student point of view. While we implement criterion-referenced assessment (CRA) in design units, it is a struggle to identify and clearly express criteria and standards for design projects. Tutors may also struggle, as they relate their own frames of reference for design quality to the order of a CRA matrix. If the academics leading design units have difficulty with defining and agreeing on objectives and the standards against which student achievement is assessed, then where does that leave the student? The paper proposes framing a space of shared understanding by incorporating a dialogical address to criteria and standards into teaching practices, cumulatively expanding this discussion into more pervasive operational and developmental terms that embrace both the procedural and the (often delightful and surprising) declarative knowledge of our students.*

Keywords: *criterion-referenced assessment, assessment, design studio*

The context

This paper documents a small action research project undertaken as part of my higher degree studies in education. It involved observing a number of tutor-student interactions in a design studio setting. I do not have any formal teaching commitment in the unit of study in which I observed the interactions. I negotiated with unit coordinator to work with two design tutors and their associated tutorial groups in the unit. The unit observed is the first unit of design in our undergraduate architectural studies degree program. The majority of students taking this unit have no prior experience with design for the built environment, although a significant percentage of the unit cohort are second year students from another design major (for example, a second year student of interior design or landscape architecture or industrial design, taking this unit as part of a second major or minor in architectural studies).

Three assessment items were set for students: a visual journal (with a weighting of 40%), a set of postcards (20%), a project to design a small artist's studio for a well-known artist of the student's own choosing (40%).

The academic coordinating the unit manages nine sessional tutors, most of whom teach twice weekly in three hour blocks. The unit cohort is subdivided into fourteen groups of approximately eighteen students; nine groups attend on Monday and five groups attend on Wednesday.

I planned to work with two groups: a Monday afternoon group and a Wednesday morning group. Although the tutorial groups had sixteen and eighteen students enrolled respectively, attendance at the sessions I observed was typically fewer than this. On average, I observed six tutor-student interactions in each of the sessions I attended.

I acknowledge several aspects of my interaction that flavoured the nature of the research I could undertake. Firstly, my influence in this learning environment was limited. Outside of the control structure of the unit, students did not inherently value what I was doing, nor was I in a position to make significant, responsive changes to the content or teaching and learning processes within the unit based on the findings of the research cycles. This limited impact aside, my involvement could be seen to be potentially advantageous and clarifying, so I also had to account for a possibly problematic characteristic of the situation: that of working with a subset of a larger unit cohort. So while I wanted to be of some use to the students I made contact with, I was conscious not to create significant advantage for the two groups over the rest.

On these terms my goal was to develop a small action research project that could both extend my understanding of a generic teaching and learning issue and inform my future practice. In this way the reflection had positive value at course/subject area level. The approach of auditing local practices opens to view a localised insight into the student-tutor interaction as arguably the key interaction in the context of teaching and learning in design subjects.

The planned project

The goal of my project was somewhat idealising. Ultimately, I wanted to enhance beginning students' understanding of the language of design critique as they experienced it in a tutorial setting. Surveys of student experience often reveal that from the students' point of view, critique in design seems ambiguous, subjective and largely unqualified. While we implement criterion-referenced assessment (CRA) in project-based design studies, it is a struggle to identify and clearly express criteria and standards to characterise the quality of the outcome

and student achievement. Tutors may also struggle, as they relate their own frames of reference for design understanding and design quality to the order of a CRA matrix.

The academic in charge of the unit I was researching has coordinated the first year design units for several years with success (confirmed by student satisfaction scores) and has been using CRA for at least two years. While I had the option to observe students in other settings, the evidence that the student experience of this first year unit was so positive made it robust for my study. Had I discovered plans going awry in the process of interpretation by students and/or tutors, these findings were unlikely to unravel into anything that would be detrimental to the overall outcome.

For me, it was a most privileged prospect to occupy: to be able to eavesdrop on and document the instances where interpretation of a task or goal is played out, principally through the evidence of the progressive (formative) review of students' work in the context of weekly tutorial discussion. What was revealed in those moments would inevitably be valuable to a larger cycle of improving our practices as a community of design teachers.

So my initial plan was to observe, identify, document and annotate aspects of the discussions between a tutor and their students taking place in the tutorial - about processes and design project work in development – with attention to that which seemed to me to be problematic during the dialogue. I planned then to share my thoughts with those I had observed. The outcome I envisioned was a greater awareness in all parties of potential dissonances of meaning in discussion. Ideally, this sensitivity to the conflicts or ambiguities that arise in discussion would encourage movement towards a space of shared understanding.

I joined the tutorial groups for the third project ('Oasis in the City') at a stage in the schedule by which I presumed a useful amount of work would have been completed. My expectation was that by the time I joined in, projects would be well underway and tutor-student dialogue would be focussed on design development. Once I was 'embedded' into the tutorial setting, I realised that several conditions were going to make my task more difficult than I had envisioned. This promoted my first 'reflection-on-action', in that I had to modify my approach away from the one I had intended to follow.

Most significantly I noted that a lack of student preparedness at the first tutorial sessions I attended limited the range of evaluative feedback that tutors could provide to students. In these sessions tutors dealt largely with procedural aspects of the project task, as students had either not done 'enough' work (a common perception), or had misunderstood the goals for that week. The tutors spent a good deal of time re-stating aspects of task, and

providing how-to advice about such things as site analysis and appropriate procedures and representational conventions for conveying information in the absence of 'formal' instruction in drawing elsewhere in the first year curriculum. I note here that the unit coordinator has developed on-line modules in drawing for students to self-pace through (available from the unit 'on-line teaching' site), but not all students undertake these self-paced activities to develop their skills.

In each session I recorded tutor-student interactions and studied the content of these discussions in relation to the larger elements of the project objectives and criteria and the timeline for the project. My reflection was focussed through a consideration about the time remaining on the task and the extent of work to be completed. This was then queried in relation to the effects of tutor inputs and the terms on which projects were advanced from week to week. I noted that tutors were often responding contingently, subjectively and 'directively' to things that were 'lacking' in the student work.

In my 'documentary' space (a weblog) I proposed that some aspects of the project could be advanced more quickly if both students and tutors kept the unit/project objectives in mind as a reference agenda for discussions and the points around which understanding must be shared. From my reading of the brief (the assignment handout) the following seemed important as a minimum to consider when engaging in productive dialogue about work in progress:

- The quality of work in recording the city up to the point of starting this project (to build on something already accomplished by the student, which had been assessed, and which could be harnessed into the thinking for the current project).
- The quality of research (and understanding) of the work and approach of the chosen artist (the client for the project space).
- Understanding the site and relevant aspects of the surroundings of the site (demonstrated through presenting documentation of observation and analysis).
- Understanding what an 'oasis' is, for the purposes of this project. (The ideas of 'contrast' and 'opposition' are highlighted).
- To develop the design of a suitable studio out of a suitable set of ideas generated from the preceding understandings.

I emailed the students and the tutors a summary of where I was at with my observations, inviting engagement with the web notes by reading and posting comments. Here I was attempting to get all parties to align their productive activity (designing and discussing designing) with the goals of the design project.

I again returned to class to observe and record but this time I also asked to speak with a sample of the groups who had identified that they had read my notes on web. This discussion opened up the issue of project objectives and related criteria and whether or not students were considering the criteria while they were 'doing' the project.

From these discussions, I gleaned the following:

- Students paid most attention to the verbal feedback they received from tutors, although they did not always understand it
- Interpreting the criteria was difficult for some students
- That some students did not think about the criteria until the end when they were preparing their project for submission and assessment (too late for some)
- That some students did not even look at the criteria until they received their summative assessment

Interestingly, two of the students I spoke with had already completed a year of study in industrial design (ID) and reflected on the difference between criteria for their ID projects and the criteria for the architectural projects. They offered that criteria figured largely in their ID project work, with lecturers and tutors presenting the CRA matrix 'up front' and guiding progress in project development. They also observed that their ID design tasks were very clearly defined. To them, in contrast, designing a built environment seemed to be 'about everything' and this justified not paying too much attention to the CRA matrix for the oasis project.

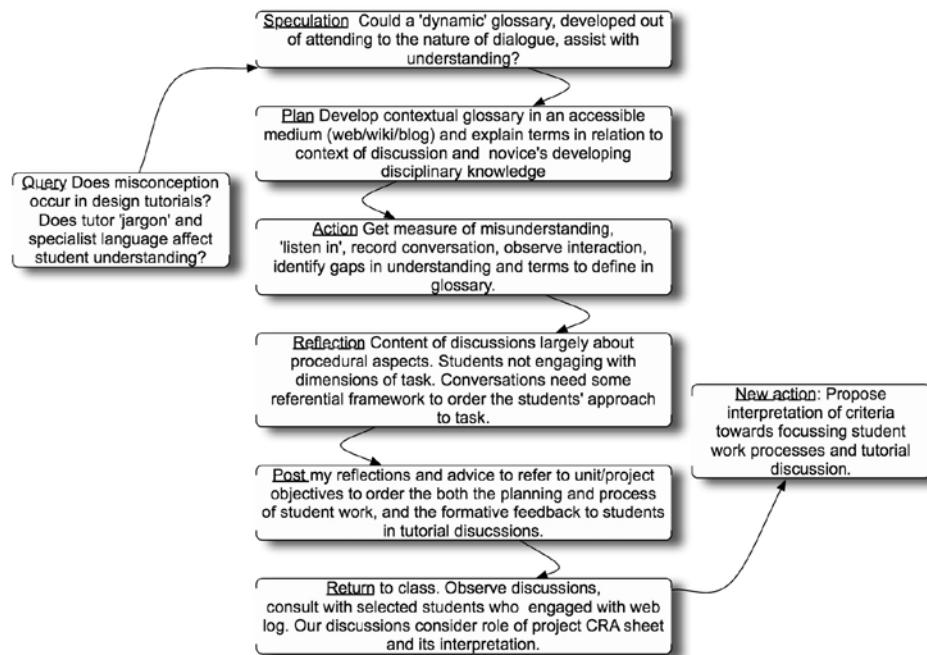


Figure 1: First cycle of recasting plan to account for criteria as way to order discussions between tutors and students.

Out of the first 'cycle' I decided to demonstrate an analysis of criteria and standards in my documentary web space, publicising to students and tutors how these things could be considered and harnessed into managing work and ordering discussions (Figure 1). Because so much of the content of the earlier sessions I observed was about procedural aspects, I focussed on the four criteria that related to the communication and documentation of process and ideas.

- Requisite drawings
- Presentation
- Range of techniques
- Appropriateness of techniques

I analysed the relationship between the criteria and also pointed to the qualitative differentiation of standards for each criterion and presented an extended commentary on this in the web notes also summarising it visually to draw students' attention to the fact that each criterion embraces the previous one, but adds something more (Figure 2).

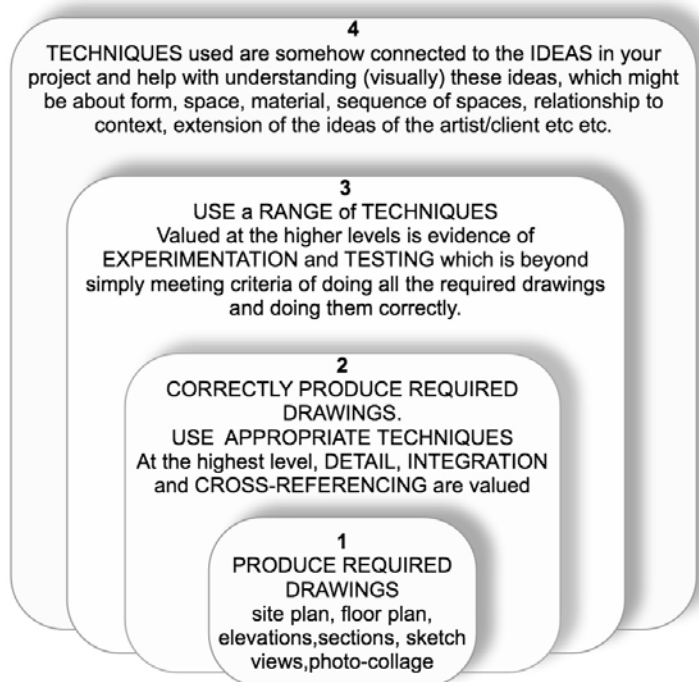


Figure 2: Criteria are embedded.

At the next tutorials I attended, the work was advanced enough for discussion to be framed in terms of the 'performance' against project criteria, but what was revealed in these instances was that certain criteria were more problematic than others in the conflation of 'knowing how' aspects with 'knowing what'. For example the association of 'technique'

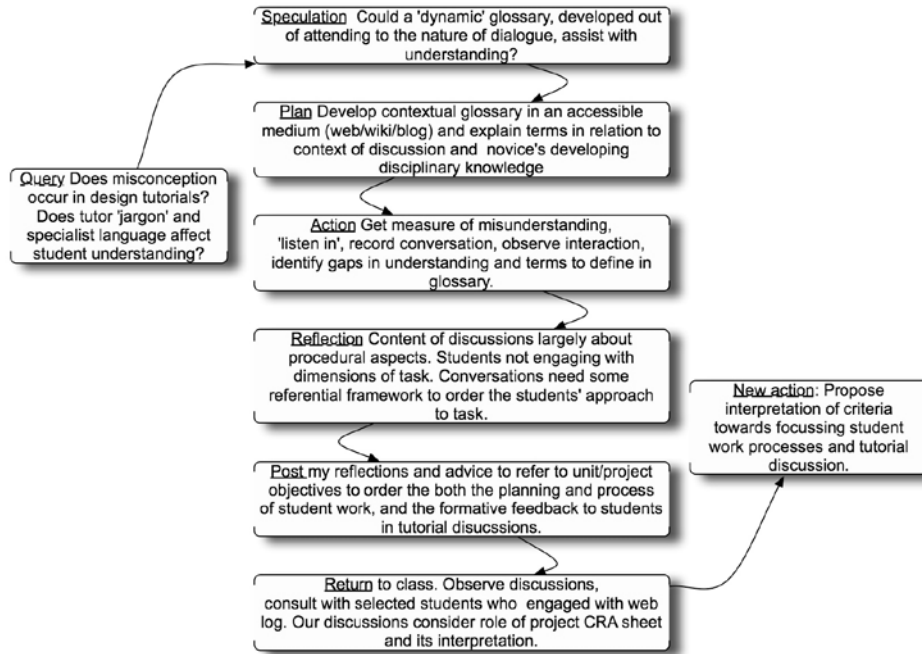


Figure 3: Second cycle of explaining criteria, then reflecting on the construction of these criteria for understanding. Promote new actions, including the design of criteria that differentiate the address to procedural competencies and higher order abilities.

Out of this cycle, then I can identify at least two new actions. The first is to do with how we define and articulate our expectations of students at that higher order, in either demonstrating functional knowledge or the application of the declarative and procedural knowledge through a design project (Figure 3). The second is to do with the relationship between the tutor and the student, and how conceptions of the nature of this relationship can influence the outcome of student understanding in approaching the higher order criteria and deeper learning.

Findings and implications

The disinterest that some students displayed in the criteria surprised me. If as this study demonstrated, some students do not recognise assessment criteria as signposts of what it is important to know and be able to do, then it is important for teachers to make this

more explicit. Yet I was also surprised at how rarely tutors made an address to the criteria when discussing project work. I do not want to suggest that the complex dynamics of the relationship between students and tutors in design education can be resolved by agreement of criteria. Nor do I think that criteria should be the singular focus of discussions between students and teachers. However, given that a large number of studies in design education point to problematic perceptions of subjectivity in design critique, there is obvious value in referring to (if not at every instance of formative assessment, at least at key moments in the semester or assignment timeline) the framework by which the student's efforts will eventually be summatively assessed. While formative assessment cannot be prescriptive, the general coordinates for agreement about a successful outcome exist in the criteria and performance standards written for the assessment tasks.

While I have only dealt with one dimension of the teaching and learning processes in this unit of study (which includes also lectures, a text book and an on-line resource base), I understand that the issues I have identified here, though not significantly detrimental in the context of my colleague's extremely well-conceived and well-managed unit, are emblematic in the wider context of project- and enquiry-based teaching and learning in all design disciplines. It is clear that assessment criteria are an important, although sometimes invisible, layer in the territory that tutor and student navigate together. In large cohorts, the experiential distance between the tutor and students and the academic, who establishes the assessment framework for a project or other item of assessable work, may grow wide. In these large cohorts it's arguable that the clear expression, communication, and shared understanding of criteria and their values are very important.

Using whatever aligned means we can to map out clear learning pathways for students that tutors can consistently manage, while enabling the play of ambiguity and exploration required in 'discovering' what it is to design, is our task. As a result of conducting this small enquiry and subsequent research into the work of others it is clear that much can be gathered around and mobilised by the expression of criteria. Research into tutor/critic-student interactions in design teaching shows that tutors often cover very diverse issues in their discussions with students in order to open up the basis of learning. However, in doing this, they may also create confusion in the student (see Wilkin, 2000). This can play out into the unfortunate ending whereby the student, upon receiving a mark for a project in which they lost sight of the stated objectives by working through a tutor's 'divergent commentary', blames the tutor for the outcome and may go on to seek redress.

While the work of students, in the end, might reflect engagement with higher design understanding, the opportunity of opening up a space of shared understanding in the process of careful expression of criteria and standards and the dialogue that ensues in relation to it, could mean that students are able to internalise this understanding less accidentally. For example, this study highlighted some difficulties that can arise out of merging skills-assessing criteria, largely relating to the communication of observations and ideas, with the criteria for judging the capacity for students to produce appropriate designs with substantive design intention. Unravelling the application of such 'hybrid' criteria is challenging for even an experienced teacher, let alone a pressured tutor or beginning student. Swanson, Sabady and Yin (2006) find in their three-pronged enquiry into the student experience of design studio that this is a particularly trying conflation for foundation students with few or no design communication skills. These students, they observe, struggle so much with their drawing and modelling skills that any possible engagement in reflective design practice is neutered with negative implications for their future as design students (p.234). While acknowledging that the procedural and declarative aspects of designing need to be learnt simultaneously, the researchers offer that the reflective practice aspects and the skills aspects of design should be carefully but productively separated and the roles of each in the holistic process of designing be an explicit, early topic of discussion in foundation classes (p.236).

Extending the idea of openly discussing the bases from which design work is developed and subsequently judged, it is possible also to have students participate very deeply in constructing a space of shared understanding through techniques of self- and peer-assessment that partner and even inform the assessment made by tutors and coordinators. A recent study into the applications and implications of these techniques in an undergraduate psychology subject reveals the useful dimension of students gaining a better grasp of productive self-critique and a greater understanding of criteria while engaging with assessment tasks (see Hanrahan and Isaacs, 2001).

Others have also made similar observations. Cowan (2000) proposes that there is value in asking design students to spell out in detail the criteria and standards by which their work is judged, get assessors to do the same and then compare the results. 'Students who do not know what they are trying to achieve are unlikely to make good progress, other than by chance. It is highly useful and informative to discover that, or whether, some students have no conception of what they are striving to achieve' (p.281). Rust, Price and O'Donovan (2003) argue a similar, although more developed line, that the explicit statement of criteria and standards must be carefully woven into the socialising processes of tacit learning, even to the extent of inviting students to join in with staff in the judgement of work: 'It follows that

inviting students into this shared experience should also enable more effective knowledge transfer of assessment processes and standards to them' (p.152).

The clear benefit of integrating the criteria framework more fulsomely into instances of formative assessment is that it can act as a point around which shared understanding can develop between tutor and student, using a common language. Arguably this could mitigate against their asymmetrical relationship (in terms of power) and enable more effective dialogue, possibly even opening up common avenues of query to the unit coordinator, in which both tutor and student clarify meaning and agree about standards together. This is probably useful from the point of view that many tutors, while knowledgeable about the content domain, are in fact not very skilled in teaching. Some may be very recent graduates, thereby being more peer-like than 'instructor-like'.

Laurillard (2002) identifies that there are many different ways of conceptualising the topics we teach so students and teachers alike need to be cognisant of this differential distance and put in place some means to resolve the resulting tension in a learning situation. She proposes that 'there must be a continuing interactive dialogue between teacher and student, which reveals the participant's conceptions, and the variations between them, and these in turn will determine the focus for the further dialogue' (p.71).

Because the scale of my study was quite small and very time-limited, a factor not explicitly activated was the impact of the personality and approach to their students of the two tutors I observed. If as Laurillard has emphasised, participant's conceptions need always to be exposed and compared, one thread of further enquiry is to investigate more closely how the tutor's attitude and approach to their teaching role might inflect students' understanding and progress. The scene of Helena Webster's (2004) research into tutor-student interaction is the 'ritualised transaction' of the one-to-one desk crit. Webster's ethnographic-type study of students' experiences in one-to-one tutorials offers that students typically encounter three types of tutor: 'the hegemonic overlord', 'the entertainer', and 'the liminal servant'. Of these three types, students in Webster's study largely believe that it is only the third – 'the liminal servant' – who has the greatest positive effect on their learning and enhanced motivation, but that it is the first - 'the hegemonic overlord' - they encounter most frequently.

In labelling the most effective type of tutor 'the liminal servant' Webster is aligning the characteristics that the students identified with a key figure proposed by Peter McLaren in 'Schooling as a Ritual Performance'. McLaren constructs a role for the teacher that is collaborative, and a role for the student, which is also participatory. In McLaren's conception,

the liminal servant is like a celebrant at a religious service and the student, a co-celebrant who is actively engaged. In this role, the teacher or tutor creates a learning environment that is characterised by 'liminality and communitas' (Broz, 1999, p.160) where authority and status are set aside while the student is in the threshold condition of transformation or 'becoming'. It is an approach that recognises that teacher/tutor and students together create the culture of their learning environment.

Relatedly, in Webster's study a key characteristic of the 'ideal' tutor as proposed by her student interviewees, is that they be capable of engendering openness: 'Both the tutor and the student having an awareness of what it is that the other party requires of the project' (p.109). Unfortunately this student-centred quality, in Webster's study at least, does not flavour the lived experience of her student subjects. Instead in the one-to-one context most tutors tended to intuitively adopt a teacher-centred approach, coercing students into a certain way of thinking while assuming that they were supporting student learning. Many students remarked that they found this approach 'demotivating and frustrating'. In Webster's study, very few lower-year learners report positive tutorial experiences (p.110).

My study was far too limited to infer much of import in relation to the ideas of McLaren and others who promote constructivist, student-centred approaches. Webster concludes that the intuitive practices of many design tutors may result in problematic student experiences – 'at best unhelpful and at worst excessively coercive' (p.110). While student satisfaction in the first year learning environment that I observed is reasonably high, in it and other settings I have frequently witnessed instances of coercive and directive behaviour on the part of tutors. That said, I also acknowledge the pressures that may exercise these tendencies such as perceived lack of time for discussion or the absence of work to discuss which may also associated with a lack of experience on the part of the tutor.

To counter the intuitive or reactive teacher-centred tendencies of tutors Webster recommends developing a critically-reflexive approach to tutorial practice. In thinking through ways to facilitate this, it is possible that tutors and students could overtly deploy the 'map' of objectives and criteria: a chart for their excursions into a creative, collaborative space of learning and understanding.

The space of shared understanding that could be framed through a collaborative dialogical address to criteria and standards can readily contain the aspects of the task. Any divergent discussions could occur outwardly from this point, and ideally develop both the students' and the tutors' understanding of each others' thinking but also create a situation where the

student's attention is unambiguously centred on relevant aspects, which is one of Marton's and Ramsden's implications for the design of a learning session (Laurillard, 2002, p.69). Another large value of this approach to the wider enterprise of design teaching would be the cumulative expansion of the discussion of criteria and standards into more pervasive *operational and developmental* terms that embrace the procedural and the (often delightful and surprising) declarative knowledge of our students.

While many studies consider problematic aspects of teaching and learning in design, few critically examine the tutor-student interaction (Webster, 2004 and Blair, 2006) and there is more work to be done particularly in framing the terms of interaction away from perceptions of subjectivity in judgement towards a shared understanding. Other studies focus on the role of discussion about assessment processes in design in the professional development of teachers (Bennett, 1989 and Orr, 2005). A research pathway out of my limited observation, might conflate these two dimensions – tutor-student interaction and the role of discussion in assessment – in an extended analysis of current practice around the use of criteria (and expression of standards) in design process and project units, towards engaging and embedding these more explicitly in the development of students' understanding about design and designing.

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