Δ Calculus · 004 — A Primer on Registration and Identity

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I • Intro

A. Registration

- 1. The notion of identity on which DCal is based arises from the analysis sketched in *On the Origin of Objects*, in which a subject registers the world in terms of overarching normative considerations within which the subject operates.
- 2. The full set of normative considerations arise from a complex admixture of factors deriving from (i) the world; (ii) the subject him, her, or itself; and (iii) the social community and context within which the subject lives.
- 3. The resulting picture is intended to do justice to two humilities:
 - a. Constructivism: That we are here, part of that within which we are embedded, and therefore that, in our collective and individual particularities, we inexorably affect, bias, skew, and otherwise impinge both on the world itself, and on our take of it; and
 - b. Realism: That we are not all that is here, not all that there is—there is that which transcends our experience and understanding (roughly: the world), to which we are beholden.

B. Abstraction

- 1. There is a sense in which an act of registration "abstracts" the world, in that, in taking the world to be intelligible (consisting of objects exemplifying properties² and standing in relations, for example—though that is just one way to register), it
 - a. Throws away an indefinite (effectively infinite) amount of information and detail about that which is registered—both static and dynamic; and
 - b. "Idealizes" and shapes and "boxes the world on its ear" in order to, in a sense, "force-fit" it into an intelligible conception.
- 2. In this sense, one might take objects (to use that example paradigmatically, though the same would hold of properties, relations, features, etc.) to be abstract.
- Classically, however, an abstract entity is opposed to a concrete entity, in which only concrete entities are denizens of the spatio-temporal world.

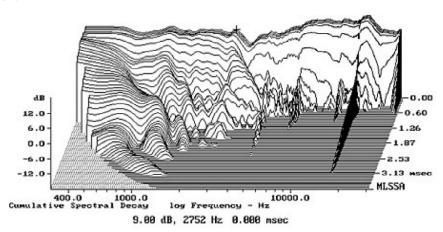


Figure I — Waterfall Plot

¹MIT Press 1996.

²"Properties," as betrayed by its etymology (things *proper* to objects), are historically to inhere in the objects that exemplify them, rather than to arise from so-called "relational" or "extrinsic" facts about how they stand in relation to everything else. This view of "properties are proper" is profoundly rejected in O₃ and hence DCal.

³A normative term

- 4. We will therefore say that objects—and ultimately everything else—are in a certain sense obstracted (though saying what that means takes a lot of work).
- C. This aim of this note is to provide a simplistic caricature of registration, particularly with respect to (i) the way in which abstraction operates, and (ii) how the result exemplifies features classically taken to be characteristic of both realism and constructivism.

II • Example

A. Landscapes

- 1. Figure 1 depicts a spectral decay or "waterfall" plot from a loud speaker review.⁴
- 2. Instead, however, imagine that you have just crossed a mountain pass, on a hike—with a friend named Hillary, say—and that Figure 1 is the image down across a valley to another mountain ridge, which you also
- 3. Hillary says "It's probably fastest to go up the second shoulder."

have to cross.

4. What is it to register a shoulder?

B. Alternatives

1. One possibility is indicated in Figure 2. Suppose that's how Hillary is registering the situation.

2. Suppose instead

0.0 -6.0 400.0 1000.0 Cumulative 9.00 dB, 2752 Hz 0.000 msec

Figure 2 — One possible registration of shoulders

0.0000

1.26

2.53

3.13 msec MLSSA

- you register it as in Figure 3 (before negotiation resolves the ambiguity).

dB

12.0

6.0

- 3. The two registrations clearly differ in a number of ways
 - a. Most obviously, you register an additional (more minor) shoulder between the two that Hillary registers.
 - b. Your registration of (what you call) the 3rd shoulder also includes a small ramification towards its bottom left, but not the thin spit towards its bottom right, which Hillary included.
 - c. Etc.

C. Realism

- 1. Are the shoulders real? Do they exist (as people say) "independent of the observer"?
- 2. The answer—both "yes" and "no"—is suggestive of what is true of all registration, according to the metaphysics on which DCal is based.
- 3. For the following discussion, assume that everything depicted in Figure 1—i.e., the vertical elevations, x&y coordinates, etc.—is "real," independent of us as external observers.⁵
- D. Realism

^{4&}quot;Magico V3 loudspeaker", Stereophile, May 2008. Used without permission.

http://stereophile.com/floorloudspeakers/508mag/index4.html

⁵The ultimate untenability of this assumption is part of what makes this a simplistic caricature. See §III·A·3.

- 1. The way in which the shoulders are real, and independent of observation,⁶ is simultaneously obvious and tricky to say.
- 2. The way in which it is real is that, in one evident enough sense, the mountain is what it is, independent of how we or anyone else takes it to be.
- 3. If one climbs one of the shoulders, for example, the rising ground under one's feet will be real—will be there, firm and solid—independent of whether it is registered this way or that way, or registered as a shoulder (or indeed registered at all).
- 4. Clearly, one is simply "parsing" a real world in one way or the other ("parceling up", "partitioning," "coarse-graining" —a lot of terms are used for this), but that which one is parsing (parceling, partitioning, whatever) exists independent of how it is parsed.
- 5. Moreover, a hard-core realist would add that the act of parsing or grouping is simply a logical opera
 - tion over a real base, and therefore in no way challenges the fundamental realism of the picture.⁷

E. Constructivism

 How the shoulders are individuated, on the other hand, is clearly dependent on human action (most immediately cognitive action, in this case, though ultimately practically and pragmatically grounded). This

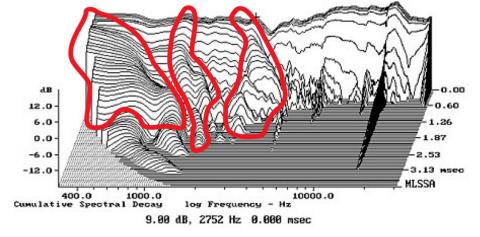


Figure 3 — Another possible registration of shoulders

- cognitive relativity is evidenced by the fact that the two people individuate (parse, group, etc.) the "same" situation in different ways.⁸
- 2. In general, such differences will not simply be due to reasonable individual variation, but interest, etc. (For example, someone interested in landslides, or a hydrologist, might register the same situation quite differently yet.)
- 3. The registration of the shoulders as shoulders is clearly an act of human or social construction, the constructivist will say.

III • Discussion

- A. A myriad issues that this overall picture raises need to be dealt with. A random few:
 - 1. The pictures suggest that the edges of the "registrations" or "registered areas"—i.e., the edges of the shoulders—are fairly determinate. There is no general reason to suppose that this will necessarily be true. As suggested in Figure 4, for example, there is no reason why a registration needs to "decide"

⁶According to the assumptions we have taken on for this discussion.

⁷Such views typically view logic as God-given or in some other way to be ontically prior to the empirical world—a view I disagree with, as it happens, and not one required for DCal's metaphysics to make sense.

⁸ "Same" (i.e., shudder quotes) because on the epistemic/ontological view being articulated, which underlies DCal, *facts*—not just judgments—of sameness are registration dependent (see also §V·C·6).

- (as it were⁹) whether or not there is overlap between any of the (registered) shoulders.
- 2. We also need to address what it is to say that the act of parsing or grouping is merely *logical*—what it means, how and whether it matters, etc.
- 3. Crucially, the presumed "reality" of the underlying x-y plane of elevations also needs to be addressed. As one would expect, the DCal view is that *that, too, is a registration*, effected by conceptualizing cognitive agents for normative purposes of their own—and therefore no more available as a base on which to base other registrations than the resulting shoulders are. (Such as the limitations of simplistic caricatures).
- B. What matters, here, however, are two things:
 - 1. To suggest how the picture of an interplay of an "abstracting" (parsing, grouping) mind(s) with a massively detailed underlying reality makes intuitive sense; &
 - 2. To establish some ways of speaking, so that DCal descriptions, and discussions of it and them, can be established in ways that will cohere with the underpinning metaphysics.

IV • Terminology

A. Intro

- 1. In the simplest case, we will say
 - a. In general, that an agent registers the world.
 - b. In particular, that an agent registers an apple, or registers confusion.
- 2. It seems reasonable to extend such language to DCal descriptions: so that a description might (be said to) register the date of the conference, or register a book, or register a forum thread.

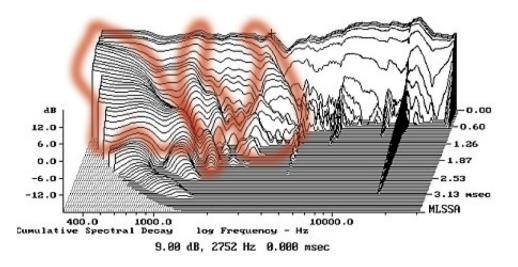


Figure 4 — Less determinate object boundaries

- 3. Specifically, we will talk about
 - a. A registrar—someone (or thing, if we are extending this to descriptions) that registers 10

⁹Even if the *content* of the registration is determinate, in other words, in the sense of the content *determinately being what it is*, there is no reason for that content to "say" whether there is overlap—i.e., no reason (to put it classically) why the presence or absence of overlap in the world would need to play a role in determining the truth of the content.

¹⁰Dictionaries tend to define 'registrar' as someone in charge of official records, but 'registrant' as someone who registers or is registered, suggesting that 'registrant' should be the better term to use. To my ear, however, 'registrant' connotes a kind of passivity, privileging either the "being registered" sense, or the sense of "registering" in terms of "signing up," whereas I intend more to signify such meanings as to notice or observe with care (meaning 1d in Merriam-Webster's), perceive or comprehend (meaning 1e), and also the sense of achieve (as in "he registered an impressive victory"; meaning 5 in MW). For these purposes, 'registrar' somehow seems more appropriate.

- b. What is registered—canoe trips, or Steve Cropper, or the DCal user community.
- c. The act of registration via which a registrar registers something.

B. "As"

- 1. To say that agent or description D registers a canoe (or anything else) implies that the registrar being spoken of (D) and the person saying so are both in a position to register the canoe—to register it as a canoe, as one might say. That is, they overlap in their registration.
- 2. In general, however, in speaking of some registrar R, you cannot assume that you are in position to—or want to—register that which R registers in the same way that he/she/it does.
- 3. The natural thing to say, in such a case is that R registers α as β —e.g., as in "Unfortunately, Pat didn't register the bottle as a suicide note."
- 4. While the separation of registrations is often commendable, the difference in registration schemes (between interlocutor and R) opens up an incredible thicket of complex issues.

V • Registering Registration

- A. The most important issue, in registering registration (one's own, at a meta-level, or in describing another agent or system) is to keep track of which registration scheme is in play, whose voice a given registration is made in (critical in order to determine governing norms), etc.
- B. Some of the issues are relatively straightforward to state:
 - 1. "That which"
 - a. Given perspectival identity, the notion and metaphysics of registration, etc., one cannot in general be sure, in saying that R registers α as β , that that which one has registered as α is, in fact, the "same thing" as that which R registers as β .
 - b. There is of course no way to refer to the part of the world that R is registering "bare"—i.e., without registering it somehow.
 - c. As is evident already (by how the above is written), I take the best way to refer to the object of R's act of registration—i.e., the best way to refer to it, without prejudicing it too much with one's own registration scheme, beyond what is inevitable—is to refer to it as "that which R registers (as β)."

2. Objects

- a. Sometimes R will register an object in the sense that it will register that which it registers as an object.
- b. Whether *R* registers that which it registers as an object, however, when we talk about "that which R registers" we are registering it (what R registers) as an object.
- c. In part because of this, and in part because of the (vaguely Brentano-esque) sense of registration being directed towards the world, and of the "that towards which something is directed" sense of 'object' (cf. "the object of all that work"), we will talk about β as the object of R's registration, whether or not β is registered by R as an object.

C. Voice

- 1. When one says that R registers α as β , " α " is used *in one's own voice*, implying that one takes responsibility for registering α as α . E.g., if I say "the Greeks registered the sun as a god," I register the sun as the sun—unproblematically).
- 2. The term that fills the β role, however, is much more complex.
- 3. Suppose you say "R registers α as β ."

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Thoughts?

¹¹Cf. Frege's horse.

Δ Calculus · 004 — Registration and Identity

- 4. Inevitably, 12 the term (that fills the role of) β in your statement is in your voice and language. It can be tempting to think that this term (the term that fills the role of 13 β is in R's language—R's registration scheme, etc.—but that is wrong. It cannot be so. Any claim that it is so is not only an error, but arrogant.
- 5. Rather, what fills the β role, in your statement that "R registers α as β " is your registration of how R registers that which you register as α —i.e., your registration of how it is that R registers that which it registers.
 - a. For example, suppose we say that a French person would register the cat as "le chat". What fills the role of β in this case is not the 7 character (6 letters and one space) term 'le chat', but the 9 character (6 letters, one space, and two quote marks) term '"le chat". Quotation is an *English construction* that forms an English term that one uses to mention French words. ¹⁴
 - b. Quotation, meta-level reference in general, and reflection, are vastly more complex, even in mundane written natural language, than normal analyses of quotation would suggest. DCal is ideally suited to much more flexible and complex varieties of quotation and reflection—providing natural ways to quote uses, tokens, words, ideas, etc. It is critical, in learning DCal, to know how to be strict about voice, level of reference (registration), etc.
- 6. There is no guarantee—and in general it will not be true—that how one registers R's registration is the same as how R would register their own registration. That is, in saying that R registers α as β , we are registering R's registration as β , but that does not imply that if R were registering their own registrational act, that they would say "I am registering β as β "—since ' β ' may not be a term in R's language.
- 7. The only way in which we and R can share registrations—as opposed to registering each other's registrations—is if we speak the same language, or employ the same registration scheme. ¹⁵What makes that statement complex, of course, is that identity of registration scheme is itself perspectival, depending on how registration schemes are, in the circumstance at hand, being registered.

¹²As inevitably as death and taxes.

¹³I will omit but assume this clarification of schematic substitution in what follows.

¹⁴The French construction for making French terms to mention French terms is also quotation, as it happens, but with different orthography: «le chat». Spanish would do it this way: "le chat,, Etc.

¹⁵See chapter I·5 of AOS.