Rhyme Schemes

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Abstract

What "rhyming" gives us is an approach to establishing a serious basis of comparison between two seemingly unrelated thought systems. This comparison forms a basis for cross-pollinating nuances, applications, criticisms, and extensions of those ideas.

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Wicked Definitions: A Rhyme

In 1973, Horst Rittel and Melvin Webber published what would become a classic paper in design theory, "Dilemmas in a General Theory of Planning." Looking at a range of public crises concerning social policy—from protests against racism, student protests, and war protests—the authors observe that some social problems have clear definitions and solutions, while others do not. In the former category are expectations that a government can provide clean water to homes and other buildings. The latter category includes agenda-setting at the level of national policy and with it the specification of desired outcomes. Such problems seemed almost intractable; stating what the social problem is, is part of the problem itself.

This line of reasoning led to the most enduring contribution of the paper, which revolved around the authors' claim that "Planning problems are inherently wicked." From there, the authors developed a theory of "wicked problems" that has influenced many fields ever since. They offer several distinguishing criteria wicked problems: they cannot be formulated, have no stopping rule, no "ultimate" way to test their solution, no room for trial-and-error, and so on. Matters of social policy, particularly those connected to social justice and equity, are wicked problems, and the problem-solving mentality of many policy experts was a poor fit to such problems, the cause of policy failures, and the underlying reason for the public's loss of faith in governance.

A little over 15 years earlier in a completely different academic field, the philosopher Morris Weitz (1956) was wrestling with the problem of how to define art. The primary job of art theory, he believed, was to provide a definition of art—that is, the necessary and sufficient conditions of identifying a work as art—as the basis of any further appreciation or critique of art. But as he surveyed recent historical efforts to define art—significant form, aesthetic attitude, and organicist theories—they all seemed to fail. They were too narrow (excluding works that we commonly call art), too broad (including non-art), not subject to verification or falsification, and so on, leading Weitz to conclude, "Aesthetic theory—all of it—is wrong in principle in thinking that a correct theory is possible" (1956, p.410).

It was entirely a coincidence that I read these two papers back to back. I read them for two different research projects I was working on at the time. And there is no reason to believe that Rittel and Webber had ever heard of Weitz's work, or vice-versa. I've never seen anyone link them together in art or design theory. But as I was transcribing my notes on Weitz from the book margins to a separate research diary, representing Weitz's ideas with simple schema, my hands seemed to be tracing the same figures that they had been two hours earlier for Rittel and Webber.

Both groups of authors started from the assumption that inquiry concerns could and indeed must be defined as a prelude to actual work and as the basis of any evaluation of their success. Further, both had inherited disciplinary histories where the theories had clearly failed. And in response, both made the same move: they proposed a view that such definitions were impossible. Both then offered an account of why the definitions were impossible—in both cases pointing to the intrinsic complexity of open systems. For Rittel and Webber, there was complexity in deciding where to place a highway—it was a hard decision to undo; for Weitz, there was complexity in defining the "novel" when one of the criteria by which we judge novels is whether they transform what we think the novel is and does. Rittel and Webber concluded that a unified notion of the "American way of life" as a basis for policymaking was fundamentally flawed, while Weitz rejected any unifying theory of art on the same terms. And both groups of authors then offered alternative views with practical professional implications for their respective fields.

The previous paragraph is an example of what I'm calling a rhyme. What I'm trying to capture with this is more than surface affinity; I believe that each group of authors is confronting a substantially similar problem (i.e., the failure of the present belief in unifying definitions/problem frames) with a substantially similar approach (i.e., to reframe the problem away from providing an even better unifying definition/frame towards an account of why such a frame is impossible), and a substantially similar agenda for moving forward (i.e., to conduct inquiry in a way that makes no effort to pin down a problem and its success criteria as foundational). And while both groups of authors are from different disciplines and were almost certainly not directly influenced by each other, they share this much: both sets of authors can be seen as responding to the failed agendas of modernism in mid-twentieth-century American thought.

What "rhyming" gives us is an approach to establishing a serious basis of comparison between two seemingly unrelated thought systems. This comparison forms a basis for cross-pollinating nuances, applications, criticisms, and extensions of those ideas. For example, Weitz argued that art is an open concept, and he proposed that we attend not to what art *is* but what the use of the word "art" *does* in language. Who uses the word, and in which situations, and for what purposes? Weitz argues that while art theories and definitions ultimately fail to define art, where they are successful is in encouraging others to attend to some dimension of art that had hitherto been neglected. It becomes possible to transfer that reasoning to Rittel and Webber's thinking: perhaps a design problem is also an open concept, and design researchers might better attend to the conditions under which the term is used— are they likewise used to call attention to neglected dimensions of the situation, or for some other reason? Moving in the opposite direction, we can ask whether the ten criteria that Rittel and Webber

use to identify "wicked problems" can in some way elucidate the nature and consequences of an open concept of art. What does it mean for practice, for example, if we grant that a theory of art has no ultimate test or proof?

Another benefit of the rhyme formulation is that it avoids reducing one to the other. In this example, we don't have to claim that Weitz was really engaged in "design thinking" or that Rittel and Webber were "really" aesthetic philosophers. That is, rhyme leaves enough space for the concepts to depart from each other. This is important in fields like design, where liberal borrowings from the sciences, arts, and humanities do not mean that design can be reduced to or explained by them. It provides a means to challenge the tendency of disciplines to try to colonize each other.

I believe that the explication of rhymes is useful now, at a time when many design disciplines and institutions are under pressure to produce research like more traditional academic fields. But whether design research seeks to walk and talk like a science (as in the design science movement and more recently in fields like human-computer interaction) or as if it were its own intellectual universe (with its own epistemology (Cross, 2006; Dorst, 2015), how design researchers understand "theory" (Redstrom, 2017) and research methods such as "practice-based design" and "research through design" remains unclear.

My own point of view is that design needs to walk a line between recognizing and building on its scientific, artistic, and humanistic genealogy and establishing its own identity apart from them. And thus the rhyme's ability to establish substantial affinity without asserting identity seems apt to me. I'd like to share two more rhymes in this piece to talk about how I see them as making headway in design theory.

Rhyme 2: The Poetics of Experience Design

The first connects to a controversy a few years ago in the design community concerning experience design. Experience design by this time had become a major industry buzzword and was also shaking up the HCI community (see, e.g., McCarthy & Wright, 2004). By reframing usability into user experience, interaction designers were widening the scope beyond functionality to integrate issues of lifestyle, meaning, and more. Yet there were also efforts to try to engineer experiences, that is, for designers to exert a form of control where they were literally trying to design experiences, rather than interfaces. There was a political notion of domination and control embedded in the idea of designing experiences that rubbed some the wrong way. For instance, Jon Kolko wrote in 2009,

> "The supposed new model is to design something for a person to experience, yet the allusion to experience is only an empty gesture. An experience cannot be built for someone. Fundamentally, one has an experience, and that is experience is always unique."[1]

Many other blog posts came out shortly thereafter making very similar arguments. Here is Helge Fredheim:

[1] From: http://www.jonkolko.com/writingBrandUX.php

"Many designers label themselves "UX designers." This implies great confidence in the capabilities of the designer; it suggests that the user experience can be designed. But [...] we cannot do this. **Instead, we can design for UX**. We can design the product or service, and we can have a certain kind of user experience in mind when we design it."[2]

These counterarguments are both reasonable and politically appealing as well. And yet as I read them, I thought about Hollywood blockbusters, Pixar, and Disney—all seem to cause millions of people to laugh, to gasp, to sit on the edge of their seats at precisely the same moments, and also to cause the vast majority of them to report back a certain kind of overall positive experience. There's no mind control there, and it's easy to imagine an individual who is the exception to these reactions, but still—aren't these movies a kind of evidence that people can, in fact, design experiences?

The objection to the "we can design experiences" argument seemed to hinge on a distinction between the subjective and the objective. The idea is that we can design interfaces, movies, spaces, and so on (all objective) but that experience is located in the subjective ("one has an experience" in Kolko's words), so all we can do is "design *for*" experience. What troubled me about this formulation is that it seems to be too pure, to raise the standard of designing experience beyond what we ordinarily mean by those words. It puts too much in the eye of the beholder. It seems to imply that hundreds sitting in a theatre simultaneously burst into laughter by coincidence.

A way out of this puzzle is to reconstrue the links between the object and the subject in creative acts. This is what Lim et al. (2007) attempted to do with the notion of an "interactive gestalt." The paper is "an attempt to develop an understanding of interaction as its own distinctive entity, something emerging between a user and an interactive artifact." They continue,

"We believe that existing approaches [...] have a large gap between use qualities and artifact properties which designers need to bridge. We argue that this gap is what makes interaction design unclear and difficult in terms of forming aesthetic interactions."

The subject/object distinction (i.e., between artifact properties and use qualities) is one that seems to require "bridging." On the object side are "artifact properties such as size, texture, weight, layout, arrangement, and structure," and on the subject side are "user experience qualities such as pleasantness, fun, ease-of-use, and affect." So far, they have replicated subject/object distinction that underlies the claim that user experiences cannot be designed. But they propose the concept of "interaction gestalt" as a third entity, something which can be designed, and that incorporates both artifact and use qualities within it, using notions like "shaping." That is, designers can shape interaction gestalts by shaping objective qualities (textures, weights, layouts, and structures) and subjective qualities (stories, emotional trajectories, and a sense of fun).

On the one hand, it seems as though developing a new conception of "interaction" as a concept that somehow transcends the subject/object distinction is a very difficult, even metaphysical task. But if it can be done, it can explain with some strength and nuance how it is that designers do, and do not,

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[2] Bold in original. From: https://www.smashingmagazine.com/2011/03/why-user-experience-cannot-be-designed

"design experiences." By finding the common ground of "shaping" Lim et al. appear to have done just that.

But of course, this was not the first time I've heard "shaping" used in this way. As an undergraduate, I read Jerome Stern's *Writing Shapely Fiction*, which treats creative writing as a kind of craft that gives shape simultaneously to novelistic words and readerly experiences. And echoed more deeply in that is one of the earliest and most influential works of literary criticism and aesthetics: Aristotle's *Poetics*. In it, Aristotle writes,

> "Let us discuss the art of poetry, itself, and its species, describing the character of each of them, and how it is necessary to construct plots if the poetic composition is to be successful, and furthermore the number and kind of parts to be found in the poetic work." (Poetics, I, 1447a, 1981)

His project is to specify how the parts of poems are composed into the different types of poems. But he doesn't stop there, as this canonical passage in which he defines tragedy makes clear:

> "Tragedy is, then, an imitation of a noble and complete action, having the proper magnitude; it employs language that has been artistically enhanced by each of the kinds of linguistic adornment, applied separately in the various parts of the play; it is presented in dramatic, not narrative form, and achieves, through the representation of pitiable and fearful incidents, the catharsis of such pitiable and fearful incidents." (*Poetics VI*, 1449b, 1981)

Most significant for our purposes is the last part, what tragedy (understood as a composition of parts) "achieves," and that is catharsis. *Catharsis* refers to a specialized kind of emotional purgation that is an outcome of experiences of tragic resolutions of pity of fear. In other words, Aristotle directly links what we might call objective qualities (i.e., the structures and elements of a tragic play) with what we would call subjective qualities (i.e., emotional states and even a distinctive type of experience: catharsis). Translating Aristotle into a design idiom, we might say that tragedians design experiences of pity and fear that result in catharsis.

With very little editing, it is possible to express the rhyme between Aristotle and Lim et al. using their own words:

"Tragedy is, then, an imitation of a noble and complete action, having the proper magnitude; it employs language that has been artistically enhanced by each of the kinds of linguistic adornment, applied separately in the various parts of the play; it is presented in dramatic, not narrative form, and achieves, through the representation of pitiable and fearful incidents, the catharsis of such pitiable and fearful incidents."

(Poetics VI, 1449b)

"Interaction gestalt [is, then, understood] in relation to [an] interactive artifact, which can be described by artifact properties such as size, texture, weight, layout, arrangement, and structure [, and] user experience, which can be described by user experience qualities such as pleasantness, fun, ease-of-use, and affect"

(Lim et al., pp. 145-6)

In short, Lim et al.'s difficult metaphysical project (to define "interaction" in a way that overcomes the subject/object divide) is here connected to a tradition of scholarship that goes back to the ancient world: poetics. This scholarship not only includes other attempts at offering a poetics, but also entire traditions of critical commentaries about those attempts.

The parochial question of whether interaction designers can design experiences becomes a new manifestation of how humans construct aesthetic works intended to achieve experiential qualities. By treating this as a question of "poetics," rather than a *sui generis* question unique to design, designers gain access to all that we have learned about poetics from a tradition spanning back well over two millennia. Instead of an unproductive debate about whether we can "design experience" or merely "design for experience"—does the pronoun really change anything? - we can reposition the debate in a much more theoretically rich space by linking it to poetics. Yet because interaction design merely rhymes with that tradition (i.e., it is not reducible to it), interaction design also has the potential to extend, critique, and transform poetics as well, much like scholars of film did nearly a century ago.

Rhyme 3: Variations on Themes

The final rhyme I will present came most recently in my work, and it was the first time I started to think of these specifically as "rhymes." Recently appointed as director of a graduate program in HCI/design, I was finding myself needing to explain concepts like "design thinking" to prospective students and their parents, not as a researcher but as someone trying to attract people to his program! Kees Dorst had just published his book *Frame Innovation* (Dorst, 2015), in which he offers a synoptic account of design thinking targeted at a fairly broad audience, and I turned to it for help in articulating what a professional Master's of Science in HCI/design was good for.

In one chapter, Dorst presents design thinking as unfolding across five steps:

1. **Problematic situation**, which is the starting point of design and includes understanding previous attempts to resolve it and trying to figure out why they failed

2. **Thematic analysis**, which entails understand the underlying universals (e.g., needs) at work in the situation

3. **Frame generation**, the core of Dorst's book, which entails proposing new organizational principles and new ways of seeing the situation

4. **Solution proposals**, which are concepts, designs, directions, and so on within the new frames that can improve the situation

5. **Pattern retention**, which refers to retaining the knowledge gained through design activities.

Reading this mainly as a teacher, I was primarily concerned at the time with whether I could explain each of these steps to students, develop good assignments around them, and so forth. And for each of the five steps I could, except for one: thematic analysis.

What Dorst writes about thematic is comparatively short. Here I excerpt liberally from two key sections of the book, starting with how Dorst defines thematic analysis, including its contents and intended outcomes.

> "In theme analysis, we identify and seek to understand the deeper factors that underlie the needs, motivation, and experiences of the [stakeholders]. […] Expert designers move away from the problem situation toward the human dimension […] The universal themes that drive the patterns of human behavior are manifold: they include the need to develop an identity, to feel at home, to deal with the loneliness that is an inseparable part of the human condition. […] Themes are a tool, a form of capturing the underlying phenomenon in a situation one tries to understand. […] A theme analysis ends with an understanding of the "universal," a selection of themes that are relevant to the problem situation on the deeper level at which [stakeholders] have much in common. Because these universals are hidden beneath the surface of our everyday (professional) lives, it can be quite difficult to make them explicit. […] But for the process of frame creation to work, the themes have to be very explicit." (Dorst, 2015, pp. 65-66, 77)

Key in this passage is the use of two metaphors: one of surface and depth, and the other of universals. The idea is that on the surface a situation presents particulars, but we can also read how they reflect universal needs, desires, and experiences. This sounded exciting, but I was curious about how designers *do* this. In this respect, I found Dorst to be somewhat vague and not very actionable.

> "What the expert designers engage in is a subtle process of theme analysis that is very close to the practices used in "hermeneutic phenomenology." […] The elaborate methodologies that have been developed in hermeneutic phenomenology work through a process of filtering the texts or descriptions of experiences, finding patterns, and filtering these again until a core insight is achieved. The themes described in phenomenology are typically both deeply personal and universal. […] But whereas in hermeneutic phenomenology, philosophers seek to reach a deep understanding of the human experience that underlies a text (hence "hermeneutics"), designers are interested in "reading" a problem situation." (Dorst 2015, pp. 66, 77)

I'm inclined to view Dorst as introducing a rhyme of his own here, claiming that the phenomenological hermeneutics of philosophers rhymes with designers' interpretation of a problem situation. So far so good. The problem is that Dorst only very generally describes what phenomenological hermeneutics scholars do—his phrase "elaborate methodologies" seems to suggest that explaining it is out of the scope of the book. While an account of how a philosophical approach does this work is out of scope of the book, Dorst unfortunately stops short of offering an account of what designers do when reading a problem situation. In short, this part of Dorst's account came across as not very actionable and certainly not teachable—and I say that as someone with training in phenomenological hermeneutics. Yet it was hard for me to imagine taking the next step, frame generation, without a strong thematic analysis. I hunted around elsewhere in the same book and then turned to other recent design theory for an answer, and I came up short.

Sometime around that point, I sheepishly realized that I had gone through a doctoral education in literature, where analyzing themes was foundational training. I realized that one doesn't need to turn to advanced scholarly methodologies like phenomenological hermeneutics, since even an undergraduate manual will cover it. Initially, I turned to some handbooks on analyzing themes in literature and art, and from there I turned to scholarly work on theme in literary studies and philosophical aesthetics. Suddenly, I had more explanations and debates than I needed. These provided a level of theoretical granularity that vastly opened up for me whole new avenues of theorizing and teaching this aspect of design thinking.

What I had found, of course, was a rhyme. It was also the first time the rhyme metaphor had occurred to me, and it would later shape how I pursue and characterize my own theory work in design, becoming something of a research methodology for me. But first, let me lay out the rhyme. Theorists of literature describe "theme" as follows:

> "[Themes] provide unity and value in the work beyond the immediacy of the subject, inviting reflection on matters of more universal human concern." (Lamarque, 2009, pp. 136-7)

> "A theme is what a literary work is about, at a more or less general, abstract level. This notion of about-ness typically carries with it the further idea that themes articulate what works are 'significantly or importantly about.'" (Brinker 1993, cited in John, 2016, p. 205)

Both of these definitions cohere with Dorst's account of what a theme is (a universal) and does (integrates and contributes to the overall sense of a situation). The first quote integrates the surface/depth metaphor while the second uses a paraphrase of it (concrete/abstract), and both quotes appeal to the notion of universals. I've established a basis for viewing this as a rhyme. Now, to its payoff.

In literary theory and philosophical aesthetics, considerable theorization of "theme" has been developed as a result of centuries of interpretative practice. This adds some granularity, some distinctions, that one can't find in Dorst or anywhere else in the design literature that I've seen. I will sketch a few examples for their suggestiveness, though it is out of the scope of this piece to develop them at length.

Although themes are typically referred to as universals, universals can be represented both as concepts and also propositions. For example, "pride" is a concept, while "pride comes before a fall" is a proposition. The first nuance is the question of what themes *are*: concepts or propositions? Peter Lamarque characterizes themes as concepts, saying that themes in the works of William Shakespeare include

> "concepts such as (of *MacBeth*) "evil," "inhuman and supernatural," "fantastical and imaginative," or (of *Lear*) "catastrophic redistribution of power and property," "laws of human kindness," or (of *Othello*) "male modes of thought and behavior", "feminine values"." (Lamarque, 2009, p. 150).

Each of the above concepts is expressed grammatically as a noun phrase (i.e., there is no verb). Philosopher of art Eileen John likewise views many themes as concepts, but she then extends themes to also include propositions:

> "It seems that theme, as paradigmatically a type of general content, can take the form of a concept (or complex of concepts), such as 'the boundary of consciousness' and 'the pure but transient vision' (Frye 1957, pp. 57, 61), or of a proposition. Henry James' works are said to hold the theme that 'you cannot have both [moral and worldly beauty] at the same time' (Wilson 1963: 68) or similarly that 'a man has to sacrifice his gods to his passions or his passions to his gods' (Conrad 1963: 15)." (John, 2016, p. 206)

The difference is not merely grammatical. Themes as concepts "can be thought about or dwelt upon, but [they are] not something that can be called true or false" (Beardsley, 2981, p. 404). In contrast, propositions can be evaluated as true or false.

This distinction is relevant to design, as we can see by returning to Dorst. In both the theory section and throughout his many case studies, Dorst only appeals to themes as concepts, never as propositions. Yet propositional themes have at least the potential to be linked to more scientific modes of thinking, because they are more easily falsified. That is, it is possible to translate proposition-based themes into research for design hypotheses as well as into evaluative measures. At a minimum, this distinction introduces a more nuanced way of accounting for and developing design practice, insofar as it conducts thematic analysis.

A second nuance from the theory of themes has to do with what themes *do*. Eileen John synthesizes the literature to suggest that themes have both internal and external functions. Internally, themes unify/integrate a work. They can do so in numerous content-dependent relations: "contrast, exaggeration, framing, reinforcement, undermining, complicating, distinguishing, and so forth" (John 2016, p. 208). Beyond merely unifying the work, there is "the specific deepening or thickening of meaning that theme brings to a given work" (John 2016, p. 208). This account introduces two forms of granularity to thematic analysis: that themes can be expressed through contrast, exaggeration, complicating, and so forth, and that themes contribute to the "thickening of meaning." Given Dorst's characterization of design problem situations as "paradoxes" and as resisting prior attempts at resolution, linking themes to the "thickening of meaning" both helps to explain why thematic analysis is a powerful design tool and also offers insight about how to do it.

Themes' external functions are also of interest. John identifies two such functions. First,

> "Theme with its general content can be 'a semantic point of contact between the individual text and other texts,' able to link works across a writer's oeuvre and to link literary and non-literary texts of all kinds (Brinker 1993:26; Perkins 1993; Lamarque and Olsen 1994:398-439). […] Lamarque and Olsen speak of 'perennial themes' that are returned to again and again in literature and that come to have, partly through their literary treatment, a standing importance in a culture (Lamarque and Olsen 1994)." (John, 2016, pp. 406-8).

Dorst's final step in his model of design thinking is documenting design patterns and similar design outcomes for future application to similar future problems. The ability of themes to cut across instances can very easily be seen as a basis for such applications. The second external function of themes John identifies is as follows:

> "The other external relation highlighted in discussions of theme is the text's or the author's relation with the reader. […] It seems on [literary theorist Northrop Frye's] account that awareness of theme involves the reader's sense that thematic content is being offered by someone with particular dispositions and sensibilities." (John, 2016, p. 209)

Themes help tie readers to works through an interpersonal connection: the reader understands the themes as expressions of an individual's (e.g., an author's or narrator's) dispositions and sensibilities. Philosopher of literature Olsen writes that theme "emerges through the reader's constructive labour. There is no theme for the reader who is unwilling or unable to engage in this constructive labor" (Olsen 1987: 176). To carry out the rhyme: themes help tie designers to problem situations by mediating designers' connection to the dispositions and sensibilities of stakeholders of the problematic situation. There is a word for that, and it is a buzzword in contemporary design discourse: empathy. But the themes are not simply "found" in situations; they are the result of a kind of skilled and intentional labor— and the discovery and analysis of themes is a practical mechanism by which empathy is achieved.

Now I'd like to switch directions to move from Dorst's thinking back to art and literature. I do so because I read Dorst as making some observations about themes that could illuminate themes in art, indeed, even helping to legitimate the humanistic study of the arts at a time when they are under attack. One of the themes that Dorst discusses is the concept of *friction*:

> "the theme of "friction" began to emerge as a bridge between the human and the technical realm. This theme opened up a rich conceptual field, as "friction" can describe both a traffic flow bloackage and the human feeling of being held back from what you want to achieve. Using the word "friction" allows us to become more subtle in our thinking, realizing that blockages may be beneficial, even pleasurable. […] These concepts that bridge the human (cultural) domain and the technical or economical realms can be inordinately useful as themes." (Dorst, 2015, p.77).

Dorst has proposed a criterion of successful frames—that they can bridge the cultural, technical, and economic domains—that coheres with the notion that themes serve external purposes. Here Dorst has specified a different external purpose than what was found in the aesthetics literature. Whereas the aesthetics literature addressed the ability of themes to link different works or authors together, Dorst has proposed that themes can serve as a kind of boundary object between cultural, technological, and economical realms. It is easy to see why this would appeal to a designer, who in many cases is responsible for all of these realms. But it also suggests that artistic works, not just designs, can do this work. In an era where the fetishization of STEM is marginalizing the arts and humanities, here is a professional practice—design—making the case for the vitality of the arts, if only society engages in its "constructive labor" of pursuing empathy.

Thickening Theories' Meanings

I have watched debates unfold in HCI about the complex relations among design practices, designed artifacts, and knowledge production since I became active in the community in the mid-2000s: research through design, critical and speculative design, constructive design, and practice-based research. More broadly, I've come to reflect on the relationship between design and other disciplines. Many of these debates seem to reproduce arguments I've read about in the past—arguments that, if they did not lead to resolution, at least led to more subtle and developed places. I have struggled to find a way to prevent the reinvention of wheels (the consequence of a *sui generis* conception of design) while avoiding treating design as if it were merely derivative of earlier fields (the consequence of a design-as-art or design-as-science view). The rhyming metaphor helped me assert substantive similarities without (I hope) engaging in disciplinary colonialism.

In this essay, I have also tried to show how the notion of rhyming works as a theory building methodology. I identify a problem in HCI/design theory today. Next, I find prior scholarly writings that seemed to be grappling with similar issues. Through a side-by-side comparison, I seek to establish the basis of the rhyme; that is, I claim that there is a substantive similarity between the two discourses. Similarities can be found in how intellectual problems are identified, how key terminology is defined, what are the elements identified as relevant to the matter, which cases or examples are used, when and where the respective works were created, as well as of course how the authors claim to have solved or advanced the problem, including its implications. Next, I look in each discourse for nuances, definitions, mechanics, applications, and other useful features of a theory and introduce them into the other discursive domain. If that helps me advance some dimension of the target domain, I then reciprocally determine if that advance illuminates anything about the source domain (which has now become the target). I quote liberally to encourage others to perceive and think for themselves. By moving back and forth and reversing the flow of knowledge, I aspire to advance my understanding of the concept in both domains, hopefully avoiding any colonial dynamics.

But more positively, I find myself experiencing a "thickening of the meanings" of the theories with which I am engaging. I hope this thickening helps me develop contributions in service of the design research community. But at a minimum it helps me appreciate and find new applications of the intellectual achievements of those who have gone before.

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