

# LOCATING THE CONTRIBUTIONS TO CRITICAL DESIGN EDUCATION (CDE): CRITICAL THEORY, CRITICAL THINKING AND CRITICAL PEDAGOGY

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## ABSTRACT

This paper offers a theoretical perspective to examine and identify the location of 'critical' domains in design education and in doing so will draw upon three particular theoretical frameworks, namely: Critical Theory (Dunne & Raby, 2001; Feenberg, 2008); Critical Pedagogy (Apple, 1990; Giroux, 1994) and Critical Thinking (Paul, 1992). The paper is primarily located in the English Education System and specifically in the Senior High School (Secondary Education) phase but the discourse has implications for all design educators whilst recognizing the broader educational context in which the paper is framed.

This paper concludes that through dialectic and dialogic engagement with the critical domains, the location, articulation and enactment of the 'critical' is revealed. In doing so the essential epistemological and ontological foundations of Critical Design Education are highlighted as offering a unique and empowering learning activity.

**Keywords:** Critical Theory, Critical Design, Critical Pedagogy

## INTRODUCTION

Being 'critical' is central to the nature of design as through engaging in 'critical' processes we seek to refine and reshape the world "devising a course of action aimed at changing existing situations into preferred ones" (Simon, 1969 p.54). Likewise education is a critically reflective process that ultimately should shape our understanding of the world. In this theoretical paper I will therefore seek to examine the location of the existence of the 'critical' in 'design education', referred to as Critical Design Education, and in doing so will draw upon three particular theoretical frameworks, namely: Critical Theory (Dunne & Raby, 2001; Feenberg, 2008); Critical Pedagogy (Apple, 1990; Giroux, 1994) and Critical Thinking (Paul, 1992). The paper is primarily located in the English Education System and specifically in the Senior High School (Secondary Education) phase but the discourse has implications for all design educators by recognizing the broader educational context in which the paper is framed.

The rationale for identifying the location of Critical Design Education and examining the three critical theoretical frameworks is that each draws upon the term 'critical' in the search for something 'better' through challenging accepted norms. The collective contribution of all three locations therefore represents the undertheorised Critical Design Education (CDE) learning environment and recognition that neither the materials, technologies, theories, processes nor procedures we employ nor the educational contexts, assessments and pedagogies utilised are in any sense neutral. Each aspect of CDE, the *content*, *context*, *pedagogy* and *underlying thinking* have a strong cultural and political history such that when we engage in a process of criticality reveals the lack of neutrality and the often unintended consequences of such limited reflection and associated decision making.

In attempting to examine the critical intersection and the location of CDE it is important to conceptually map (Figure 1) each area so that the relationship of each aspect of the 'critical' can be discussed. In addition by locating the three locations of the 'critical' we can begin to understand that the enactment of design education is far from benign as it represents a place of social, political, theological and cultural ideologies played out and represented in the choice of curriculum, the teaching methods and as decisions encapsulated in students judgment making related to artifacts, systems and environments. As such, Giroux (2015) identifies there is a need "to use education to mobilize students to be critically engaged agents, attentive to addressing important social issues and being alert to the responsibility of deepening and expanding the meaning and practices of a vibrant democracy." Unfortunately such realities are often undervalued and not revealed or discussed, and as a consequence educators are often 'delivering' a curriculum, and students are engaged in activities, unaware of the complex interplay of the underlying political, social and cultural influences on their decision making or the unintended consequences of such decisions.

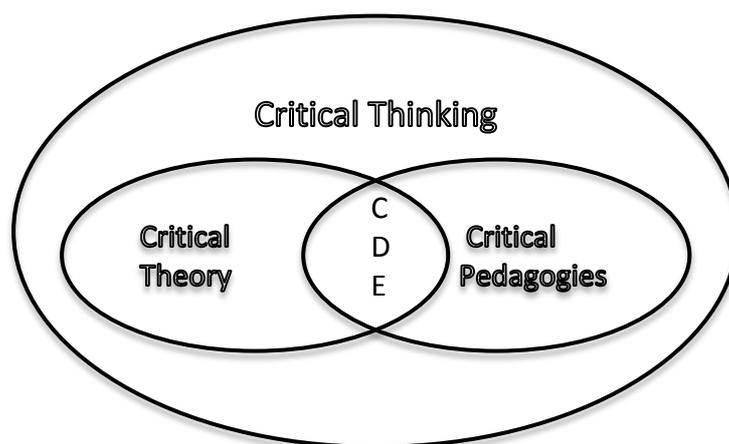


Figure 1: Conceptual Mapping of Critical Design Education (CDE)

At the heart of identifying CDE are social injustices and the acknowledgement of the tension between democratic values and market fundamentalism. As a consequence CDE aims to both acknowledge and critique oppressive institutions, superfluous design, cognitive limitations and benign educational practices. In this context the critical theories employed relate to seeking to critique our relationship with products and services in order to challenge preconceptions of power and influence.

## CRITICAL THEORY CONTRIBUTION TO CDE

From the outset it is essential to acknowledge that critical theory is politically situated and in this context my stance is that whilst design is commonly located in a capitalist discourse (Dunne & Raby, 2001), design can and does operate within a broad political spectrum. However a critical theory of design, as part of critical design education, takes up a stance of recognizing design as a liberating and empowering activity that exists beyond aesthetics, consumerism and consumption. Therefore critical design education, in drawing upon critical theory questions the dominant politics at play and seeks to use design as a tool to imagine alternative future scenarios. Critical design also seeks to empower consumers (for want of a better term), enabling them to become more discerning in their values through requiring 'designers' to consider the needs of the groups they are designing for in different ways. Feenberg illustrates this interrelationship of such values and social system and the interests of its ruling classes being "installed in the very design of rational procedures and machines even before they are assigned specific goals" (2011 p.15). As a consequence it is important to recognize artefacts, systems and environments are therefore ultimately value laden and represent the often hidden interests and beliefs that become manifest in the outcomes of designer actions. As Bourdieu (1997) suggests such artefacts, systems and environments as a result reproduce social structures and as a consequence preserve the dominance of those that they serve.

Adopting a critical approach therefore challenges the existence of naive optimism and blind faith and offers a potential way forward in design education. As Dunne and Raby's (2001) definition of critical design acknowledges, critical design encourages "complex and meaningful reflection on inhabitation of a ubiquitous, dematerializing, and intelligent environment: a form of social research to integrate critical aesthetic experience with everyday life" (p.147). Through adopting a critical design theory, whilst valuing the fulfilling nature of form and innovation, also 'challenges the aesthetic values of both consumers and designers' (ibid) in order to recognize that design has more to offer through achieving a socially just and sustainable society.

Critical theory as manifested through critical design is therefore reflexive, and "emphasizes the disjuncture between the actual and the possible" (Brenner, 2009 p. 203) and as a consequence seeks to liberate, rather than subjugate "human beings from the circumstances that enslave them" (Horkheimer, 1982, p. 244) through facilitating informed design decision making.

## CRITICAL PEDAGOGIES CONTRIBUTION TO CDE

Critical pedagogy represents the means to revealing the relationship between 'knowledge, authority and power' (Giroux, 2015) and whilst critical pedagogy can be considered as distinct from critical theories, the unique nature of design education means that the intersection of critical theory with critical pedagogies can offer an enhanced liberating educational and design learning experience. Through identifying this intersection of critical pedagogy and design we can begin to identify that the enactment of design in an education context is far from impartial and represents, as previously identified, a complex learning environment of social, political, theological and cultural ideologies played out and represented in the choice of curriculum, the teaching methods, the forms of assessment and as decisions encapsulated in students decision making related to artefacts, systems and environments.

As Giroux (2015) points out pedagogy is "always about power because it cannot be separated from how subjectivities are formed, desires are mobilized, some experiences are legitimated and others are not or how some knowledge is considered acceptable while other forms are excluded from the curriculum." Such powerful and influential realities are unfortunately often not revealed or discussed and as a consequence teachers are often 'delivering' a curriculum, and pupils are engaged in activities, unaware of the complex interplay of the underlying political, social and cultural influences on their decision making.

In a broader educational context Apple identifies how "schools are an important part of a complex structure through which social groups are given legitimacy and through which social and cultural ideologies are re-created, maintained, and continuously built" (1986 p.9). At the heart of critical pedagogy therefore are social injustices and the aim to critique oppressive institutions and practice. Likewise the critical theories employed related to design education seeks to critique our relationship with products and services in order to challenge preconceptions of power and influence.

Critiquing through critical thinking therefore offers teachers (and students) a lens to begin to grapple with ways of understanding "how the kinds of cultural resources and symbols schools select and organize are dialectically related to the kinds of normative and conceptual consciousness 'required' by a stratified society" (Apple, 1990 p.2). Whilst such symbols and resources may be evident in the pedagogy and dialogue within the school environment they are also inherent in the decisions we make related to the products and systems we create as part of design education focused upon notional 'progress' and 'improvement' for society. Such artefacts and systems are therefore ultimately value laden and represents the often hidden interests and beliefs that become manifest in the outcomes of teacher and students activities.

Critical design education therefore embraces critical design theory and a critical pedagogical approach through not only seeking to question prevailing political and cultural theories of design but also seeks to challenge the institutionalized practices in which critical design takes place.

## CRITICAL THINKING CONTRIBUTION TO CDE

In identifying a symbiotic relationship of a critical theory of design and its intersection with critical pedagogy, creating a critical design educational experience, the relationship with critical thinking will now be explored. In this context critical thinking can be considered as reflective thinking focused upon deciding what to believe or do based upon the application of discerning judgment. Critical thinking therefore allows us to become aware of our 'positionality' (Foucault, 1982) and central to this is the challenging and critiquing of often taken for granted views of knowledge, knowledge production and reproduction and hierarchies of 'privileged knowledge' and power. Equally questioning the basis of epistemological beliefs, such as beliefs we have about the certainty of knowledge, the values placed upon knowledge and the control we have over the acquisition, transmission and application of knowledge are all essential features of critical thinking.

At this point it is important to reinforce that critical thinking and decision making are complex and difficult to untangle as in addition to the philosophical and psychological dimensions above, critical thinking is also interconnected with our biological, social, political, theological, historical and cultural make up and values. As a consequence students (and teachers) are susceptible to involuntary and unconscious cuing (Tversky, *et.al.*, 1983) recognized as an 'apophenic' state whereby we have an inclination to make spontaneous perception of connections and make meaningfulness of unrelated phenomena (Caroll, 2011) when making what appears to be straightforward decisions. As such 'critiquing' becomes 'critical' not only when making decisions on how to proceed but also in both attempting to fully understand the starting context of the perceived problem and the end resolution point of a perceived solution.

Whilst facilitating a students engagement in challenging perceptions and unfamiliar contexts we have to be 'conscious' of not drawing unsustainable conclusions and connections whilst equally critiquing any proposed resolutions to perceived problems. Problem resolution through critiquing therefore lends itself to dialectic processes that promote the development of autonomous rational individual selves (Vygotsky, 1987). Such rationality relies however on the challenging of the dominance, internalization and prevalence of persuasive cultural tools. For example our everyday communication, considered as collection of cultural tools, can distort our understanding and interpretation of design problem framing. As a consequence we need to "remove the voices (the partitioning of voices), remove the intonations (emotional and individualizing ones), carve out abstract concepts and judgments from living words and responses, cram everything into one abstract consciousness" (Bakhtin, 1986 p.147). Through removing some of the metaphorical noise "that's how you get dialectics" (*Ibid.*).

Hegel's (1931) triadic dialectical approach based around the concepts of thesis, antithesis and synthesis further provides a useful framework to construct critical thinking in developing a critical design education response in order to challenge those assumptions listed. A dialectic process is therefore inherently creative and design orientated as the process involves resolution and refinement through dialogic enquiry. Sternberg sharpens

the dialectical association and argues that creativity forms the 'antithesis' element of the dialectic process through the questioning and often opposing societal agendas, as well as proposing new ones (2001 p.360). Therefore critical thinking in design education, particularly within the context of decision making and problem resolution focused on human contexts should be through a reciprocal process of dialectic reasoning leading to critique. However whilst there might be a tendency to consider that critical thinking is perceived as an implicit act within design education, Paul (1992), identified that many teachers who believed they included the promotion of critical thinking skills in their teaching could not define or distinguish between critical thinking and content coverage. Such epistemic cognition therefore requires teachers to facilitate opportunities for individuals to:

- Reflect on the limits of their own and others knowing and understanding;
- Critique the certainty of their own and others knowing and understanding;
- Question the criteria used to confirm their own and others knowing and understanding.

Critical thinkers are therefore required to be intellectually and dialectically curious.

Whilst some may therefore consider critical thinking as abstract, critical thinking is ultimately an applied process that results in a critique that has significant value for design education. Accordingly the process can be developed and refined to proficiency, and is both a creative and disciplined intellectual activity that can be realized in many different situations but which has particular resonance in those areas of design education that have a focus on decision making and problem resolution focused on human contexts.

## CONCLUSIONS ABOUT CRITICAL DESIGN EDUCATION

The act of design, 'designing', offers significant opportunities for education both as a general curriculum activity and a discrete subject. However, the processes for designing and the pedagogical strategies for developing design capability remain problematic when considered in an education setting. Central to this issue is the tension that exists between validity, progression, performativity, manageability and accountability in an education environment, which can often be seen to stifle 'Critical Design Education' opportunities through a lack of epistemic vigilance (Mercier and Sperber, 2011).

From this paper it can be seen that the relationship of design education to critical thinking, critical pedagogy and critical design should be considered as an integral one as the process of critiquing is essential in order to challenge everyday implicit assumptions, cognitive illusions and unsustainable fallacies. In previous work (Spendlove 2010; 2013; 2014; 2015) I have challenged such assumptions that designing is a conscious, intuitive and rational act positing that as 'design thinkers' we are prone to the cognitive and cultural constraints and distortions listed above. Critical Design Education now extends this by drawing upon the complimentary critical theories of design and pedagogy. As such, when critical thinking is framed within a critical design theory discourse the extent of the critique become more sophisticated. This is further enhanced when both the teacher (and the

student) acknowledge the broader educational environment, the underlying political assumptions and normative expectations, that they operate within.

Adopting the definitions above allows us to view critical thinking as the essential enabling agent of Critical Design Education. Therefore critical thinking attempts to identify everyday unreliable assertions and influences whilst also questioning the basis and reliability of such decision making. As part of the identified relationship critical design provides the domain specific context and associated knowledge which will be critiqued. Likewise critical pedagogy provide a further context and location to question the underlying prevailing power structures and political influences and reproduction of inequalities that occurs within the education environment in which the understanding of design is developed.

This paper concludes that through dialectic and dialogic engagement within the critical domains discussed, the location, articulation and enactment of the 'Critical Design Education' is revealed. In doing so the essential epistemological and ontological foundations of Critical Design Education are highlighted as offering a unique and empowering learning activity.

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