

Designing in the Context of Fashion – Designing the Fashion Context

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Fashion is a collective cultural phenomenon generated by the individual but linked to actions of a very large number of garment designers aiming to create distinctive but similar clothes. This paper outlines the mental processes, behavioural strategies and working patterns through which fashion and knitwear designers actively construct the contexts – their visual environments as well as memories of individual garments and mental representations of the spaces of acceptable garments – in which they design. Designers form each other's contexts through the garments they create, which are seen at shows, in magazines, in shops, and on the streets – communicating through impersonal cultural channels. The consumers play a relatively minor role in selecting from a very restricted choice. As they share a vocabulary of design elements, garment designs are, to varying degrees, collective and cultural as well as individual. We argue that creativity in garment design resides in finding innovative understandings of the spaces of acceptable garments and perceptual evaluations of acceptability as much as in idea generation.

Fashion is an emergent cultural phenomenon – a powerful autonomous force – yet fashion comprises and emerges from individually designed artefacts, designed by individual designers. What is the relationship between fashion as a part of culture and the designing activities of the individual designers who collectively create it? This paper outlines an answer to this question, in terms of the relationships between present and future fashion and the contexts that inform designers' actions, and how designers actively create and exploit these contexts. It indicates the relationships between designers' design generation actions to their mental representations of designs, to how they interact with other individuals and with designs and other carriers of fashion information, to fashion as a collective, impersonal aspect of culture.

This analysis is based on an extensive ethnographic study of the knitwear design process by the first author, in which she visited 25

companies in Britain, Germany and Italy, and interviewed or observed 80 designers and technicians (see Eckert 2001). Part of this study was undertaken as part of the M_{ND} project (Mechanisms of Inspiration in Novel Design) which focused on the role of sources of inspiration in the design process (Eckert and Stacey 2001); this also included an experimental study of how knitwear designers adapt sources of inspiration in creating new designs (Eckert and Stacey, in press). Both our ethnographic and experimental studies included interviewing our informants and subjects about both their working practices and their mental processes. The breadth of our study allows us to assess which aspects of designers' researching and designing activities are common to all designers throughout the industry, and which are varied according to the nature of the designer's company and its target market.

1. The perception of fashion

Awareness of what clothes are common, contemporary, appropriate, is a universal part of human experience, though the sharpness of that awareness differs. Clothes are individual, but we perceive styles as collective. We recognise clothes as within a particular contemporary style, or novel, or outdated, or simply strange – outside the boundaries of any acceptable style (figure 1).

Designers, and the buyers who make purchasing decisions for retailers, wear clothes and are members of the cultures in which they are fashionable, but they are not typical: their acute and explicit awareness of clothes and their relationships to fashions puts them at one extreme of their spectrum of customers. And their perceptions of clothes are influenced by access to different sources of information.

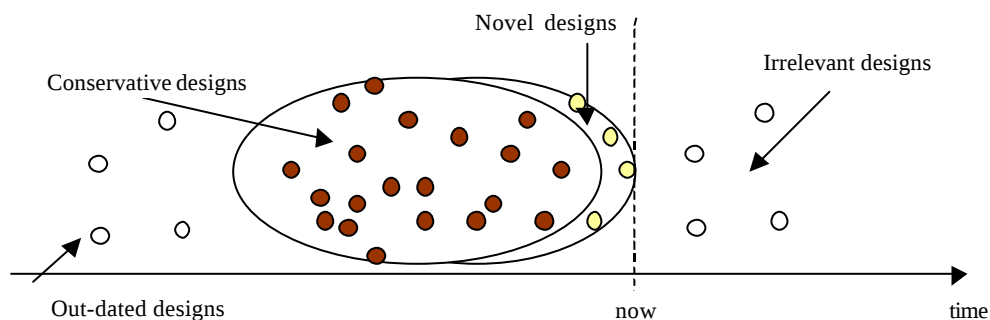


Figure 1. The envelope of acceptable designs within a fashion

1.1 The phenomenon of fashion perception—a sociological view

Like other technical artefacts, clothes have a dual nature, as both physical structures and effectors of purposes; for clothes these purposes are both practical and cultural. The function of clothes to signal group identity, position and status has always been well recognised. Clothes often communicate the roles, intentions and

expectations held by the participants in social interactions. Simmel (1904), presenting the first published sociological theory of fashion, argued that the motor of fashion change was the desire of the upper classes to retain their indicators of superior status in the face of the efforts of the lower orders to emulate them. Since then, the patterns of group identity and emulation have become and been recognised to be more complex, and sociological theorists of fashion have examined how clothes express both individuality and conformity to the norms of particular groups. Whether we like it or not, or are aware of it or not, clothes communicate not only group membership, but also, in how they differ from what is standard for the group, communicate attitudes and personality characteristics as well as subgroup membership (see for instance Lurie 1981, McCracken, 1988). We perceive consciously or tacitly, both similarity to others and newness, which themselves carry meaning. The clothes themselves are thus participants in the network of interactions through which we communicate and construct our understanding of the world. How we use clothes depends on how we perceive them, and how others perceive both them and us depends partly on how we use them. Clothing choice serves to maintain our self-perceptions through our expectations about how others will perceive us. But how we interpret clothes as reflecting individual or group characteristics depends on where we see them: on the streets of Beverly Hills, or Huddersfield, or Lusaka; or pictured in *Book Moda*, or *Vogue*, or in downmarket women's magazines. It also depends fundamentally on our many earlier experiences of other similar clothes – for language this property is called intertextuality. ['As a principle, intertextuality reminds us that the meaning of each use of language here and now depends in part on how we connect it to other uses of language there-and-then.' (Lemke 2000)]

The selection of clothes is influenced by a variety of conflicting motivations. The force that drives fashion forward is the desire to be seen both as individual and as a particular kind of person – especially the desire to be seen as in touch and up-to-date and daring (and thus wearing what is new). The countervailing desire not to be seen as weird or eccentric is the force that keeps fashion coherent – as fashion rather than unrestrained variety. For some people, this expression of attitudes and personality is carefully thought through; for others it consists of active conformity to or rebellion against the demands of a particular culture; for still others it is often entirely tacit. While designers have little interest in achieving intellectual coherence in their designs, they are acutely aware of the impression-creating effects designs will have in contemporary social environments, and thus how they can be used for social self-expression.

1.2 The mechanism of fashion perception—a psychological view

Fashion and knitwear designers see huge numbers of garments, and report being able to remember a large number in vivid detail. Fashion

and knitwear designers possess both a technical understanding of the structures of garments and very good visual memories and visualisation skills for garments. Most of the knitwear designers we have talked to tell us that they see their designs mentally as detailed, realistic images of garments, similar to photographs. Experienced designers have commented to us that the ability to visualise garments is the most important attribute of a good designer. How complete and detailed these mental images really are is hard to assess; research on imagery indicates that details in subjectively-rich mental images may often not exist until people focus on a particular area or detail (for instance Kosslyn 1980, 1994, Logie 1995). But it is quite common for knitwear designers to create, evaluate and discard designs in their heads, sketching only to communicate. And designers in many fields often imagine designs in greater detail than they require for their current activities.

We have found that knitwear designers typically describe new designs as modifications of other individual designs, which suggests that memories of a wide range of individual garments play an important role in their design thinking. We argue elsewhere (Eckert and Stacey 2000) that the shared context of remembered individual designs gives designers a language to communicate design ideas, partly because it is inherently difficult to describe the significant features of garments except in terms of variations from other designs. Knitwear designers have a vocabulary for garment features, but the range of available verbal labels for garment categories is very much smaller than the range of possible categories. Designers' use of reference-based descriptions, and their reports of having vivid and detailed memories of large numbers of garments they have seen, indicates that designers' mental representations of the space of possible garment designs primarily comprises very many garment instances serving as exemplars of subtly differentiated subcategories, that can only be referred to by their origins.

While we have only verbal report evidence about knitwear designers' mental representations of individual garments and garment categories, we can make inferences from the large body of psychological research on learning, memory and expertise. For the knitwear designers we have studied, mental representations of types, trends, and spaces of acceptable garments within a fashion are visuospatial. Category membership is perceptually recognised rather than reasoned about. Although designers' memories include details of both exact form and context, research on perceptual learning (see Goldstone 1998) and expertise in, for instance, radiology (for instance Myles-Worsley et al. 1988), chess (for instance Gobet and Simon 1998) and electronics (Eger and Schwartz 1979), as well as mental imagery, indicates that visuospatial representations are highly structured, incorporating categorisations of both structural features and emergent visual features. It is difficult to assess how much of the

mental representation of a garment is unique to it, and how much is reconstructed from representations of more general categories. The structure and redundancy in mental representations enables details to be reconstructed from sparse mental descriptions. Studies of memory for drawings of faces (Wulf 1922) and for stories (Bartlett 1934) have shown that unusual features that are perceived as significant are highlighted and exaggerated, while other unusual features are smoothed towards what is standard for the category (see Koriat et al. 2000). Perceptual recognition of an object or scene as a member of a category (which involves the use of the category representation to construct a representation of the individual) can distort what people *perceive*, highlighting salient unusual features and minimising others, as well as enabling them to perceive the object or scene as a configuration of particular components (see Goldstone 1998).

Piecing together general patterns from what can be seen in the here and now is a universal human activity. Both designers and ordinary people identify styles and trends in what they see, abstracting from the similarities between individual garments as well as interpreting other information such as written descriptions, and associating styles with times and situations. Our interview evidence indicates that designers reason about whether striking features of individual garments are unique or are exemplars of categories forming new trends. They also reason explicitly about the development of the forms, cultural associations and acceptability of their most general, labelled categories, including the historical styles that may reappear, creating the mental context for imagining new categories as modifications of old ones. They are aware that this is an important part of their job. Psychological research shows that preconceptions about what is significant, and information about who has created objects, influences conscious category formation (see for instance Wisniewski and Medin 1994). We hypothesise that tacit perceptual learning processes also influence knitwear designers' mental representations of garment categories – especially of what is central or typical (see Goldstone 1998); and that tacit perceptual learning has a profound influence on the fashion perceptions of non-experts outside the fashion industry who seldom think explicitly about fashion developments or the structures of garments.

Designers in other fields make comparable use of memories for both generalisations and individual designs: Schön (1988) describes *functional types* and *references* as forms of architectural design knowledge. Drawing on the cognitive theory of dynamic memory (Schank and Abelson, 1977, Schank, 1982), Oxman (1990) argues that precedents are used in design as prototypes, through a process of *typification* in which individual designs, problems etc are used to create and refine more abstract generalisations, and are indexed in memory by these generalisations

Through these individual perceptions of what is going on, collective cultural phenomena – styles adopted by many designers – influence human actions. In complexity theory terms, this is downward causation from collective social processes to individual psychological processes (see Lemke 2000).

2. Generating ideas in context

Designers use their perceptions of the relationships between garments, styles and the state of fashion not just to evaluate their designs but also to selectively generate only appropriate designs. They also actively control their context – the sources of inspiration in their immediate environment – to provide appropriate elements for these designs (Eckert and Stacey 2001, in press).

2.1 Memory and idea generation

Designers' memories for other designs they have seen, as well as other objects and images, provide the building blocks for the creation of new designs. Designers' pattern synthesis actions, that create or modify new designs, combine, manipulate and transform the objects, features and properties they have available in memory. The most powerful influences on these pattern synthesis actions are the design elements, desires and constraints in conscious awareness or available in the designer's visual field. Thus sketches influence the creative thinking of designers in many fields (see Purcell and Gero 1998), and visible sources of inspiration trigger design ideas (Eckert and Stacey 2001, in press), just as external representations channel thinking in convergent problem solving (see Zhang 1997).

But the content of long term memory also contributes. Research on memory has shown how readily memories for objects, concepts or events are recalled, or serve to influence other cognitive processing, depends on how recently and forcefully someone has perceived or been reminded of not only the items themselves, but also of other related items (see Baddeley 1996). This spreading activation of memories produced by the activation of related memories depends on the organisation of memory created by the recognition of similarities and associations, and generalisation to abstract types.

Thus creative thinking is powerfully though not exclusively influenced by recent experiences, most strongly by the designer's current visual field and current active concerns. Pattern synthesis actions are precisely tailored to the demands of the designer's tasks – which are an integral part of the context for creative thinking – but designers cannot fully control the influence of their memories. Knowledge of previous designs biases designing even when designers know they need to escape from the influence of their memories, and are actively trying to create something different (see Jansson and Smith 1991, Purcell and Gero 1996). Darke (1979) argues that the designs of the architects she studied were shaped by the aspects of

the design problems that were explicit and salient in the architects' minds when they generated the essential features of their conceptual designs (what Darke terms the *primary generator*), and that the most prominent aspect of the problem situation for an architect is typically the physical characteristics of the site a building is being designed for. Architects and engineers are trained to devote time to articulating their problems and to identify the hard constraints on the forms their designs can take – which are usually major parts of their primary generators. The knitwear designers we have studied conceptualise their problems in terms of the results they want to achieve. The constraints on their designs are much softer (beyond the need to fit and serve a function, which is taken entirely for granted); they comprise belonging to visuospatial categories and possessing emergent perceptual features. Knitwear designs have primary generators, but these are often not consciously articulated.

2.2 Strategies for guiding idea generation

Acts of creative imagination are not predictable. But they can be directed, both by manipulating one's experiences to provide the building blocks in memory that can contribute to fruitful design synthesis actions, and by manipulating one's environment to make useful design elements perceptually available. We have seen that knitwear designers apply conscious and systematic strategies (though they wouldn't describe them in quite these terms) for providing themselves with the appropriate sets of experiences in memory to be able to formulate their design problems appropriately, and to tune their perceptual evaluations of design ideas (see section 3.1). In the course of designing, they also actively control their perceptions of sources of inspiration so that these will trigger the imagination of appropriate design ideas in combination with their earlier memories, by searching for sources of inspiration that match their objectives or retrieving those they have collected (see section 3.2).

Many designers appear to apply these strategies to generate very large numbers of ideas for designs as mental images which they perceptually evaluate and discard. In our experimental study of designing by adaptation knitwear designers applied a variety of procedures for formulating design problems so that they could use particular experiences and elements of the environment – sources of inspiration – to create parts of designs (Eckert and Stacey in press); however in most normal design practice they would search further for sources of inspiration that more immediately suggest ideas they like. Observing how designers control both their visual environments and the contents of their memories, as well as the relationships between their sources of inspiration and the designs they produce, gives us a way to study creative behaviour.

3. The mechanisms of fashion

The knitwear designers we have studied actively control their design context by making extensive use of sources of inspiration throughout the design process. We have described this in more detail elsewhere (Eckert and Stacey 2001). Here we take a more systemic view, relating designers' practices to the transmission of information and causal power over what people wear.

3.1 Constructing context: fashion research and range planning

Before designing for a new season, designers need to gain an understanding about what will be fashionable for that season. They need to learn the constraints of the fashion space by understanding what looks dated and what is not yet right for their market sector, as well as the key looks and features that define a particular fashion.

They begin with an awareness of current fashion trends, giving an indication of proportions, styles and overall appearance. Styles often persist and evolve incrementally for several years. Designers are aware of the cycle of recapitulation of historic fashion developments in modified forms. (We suspect this awareness has a powerful causal influence on what they design, and thus on the cycle itself.) Experienced designers can extrapolate likely fashion developments, and anticipate what historic styles can be expected to appear, reinterpreted according to new technical developments and materials, as well as changed customer behaviour and different perceptions of the roles of women and men in society. For example the early 1980s are currently being revived in 2001, and very popular styles of the 1980s like batwing sleeves are beginning to appear on catwalks. Technology push also changes the designers' contexts as new materials are developed. In knitwear the capabilities of knitting machines have increased enormously over the last two decades to catch up with the versatility of hand knitting. As new types of patterning and styling become possible, knitting machine manufacturers produce and distribute swatches demonstrating these possibilities to a large number of companies.

This understanding of the envelope of what is acceptable, and what appears relatively sober, daring, sexy, and so on within it (see figure 2 over), is gained primarily by looking at the clothes presented on catwalks and in the shops. Knitwear designers study catwalk fashion primarily by reading magazines and forecasting materials, looking for themes, colours and styles that are coming through, and picking up on prevalent and novel features. They go on shopping trips to the fashion capitals, such as Milan, Paris, London and New York, to study new collections for themselves and get a feeling for the acceptance of styles in different market sectors. On shopping trips they buy or study key garments which they use in detailed design later on. Knitwear designers typically attend yarn shows where spinners present their ranges in the colours they have selected for the season –

the two big yarn European yarn shows are Pitti Filati in Florence and Expofil in Paris. Yarns are often presented as knitted samples, which suggest fashionable patterns in a way that is seen by very large numbers of designers. Many knitwear designers comment that at yarn shows they gain a feeling for a new season in a day and often begin to translate yarns that they see into specific designs. Being able to spot trends and mentally translate them into garments is a vital skill. By doing fashion research designers tune the tacit perceptual skills they have developed for *recognising* what is and is not fashionable, what cultural connotations a garment will have, and in what way a garment design needs to be modified to conform to fashion, as well as provide themselves with the set of garment type concepts and other memories that they need to create new designs. Fashion and knitwear designers formulate design problems (tacitly making major design decisions) in range planning: picking a set of garment types, within particular fashion trends, that they will aim to produce.

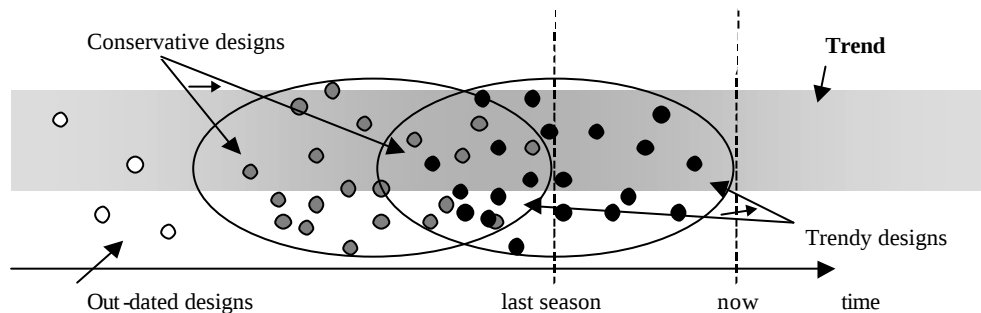


Figure 2. Change in fashion

Apart from the couturiers, who don't design for the mass market, all commercial designers go through the same process of fashion research and have access to most of the same sources of information. Designers aim to know what their competitors are doing as well as the companies designing for the next higher segment of the market – whose looks they aim to imitate – so that they can produce garments within the same fashion. Figure 3 (over) shows the imitation hierarchy; garments only *directly* influence designs one level below. (A significant fraction of high fashion designer label garments are bought by high street fashion designers as sources of inspiration. Some Florentine fashion shops swap in their winter collections briefly in July to sell them to designers attending Pitti Filati.)

Designers develop a progressively sharper understanding of the fashion for a new season as the season approaches. They can only begin working on a new season when the forecasting materials are published and the main trade shows take place, about two years before their garments will reach the shops. As time progresses, designers get more information from magazines, designer label garments in shops (which precede high street garments by about a

year), trade shows for future seasons, and so on, about how the fashion spaces of previous seasons are and are not being extended, and which styles and features created by couturiers are being adopted by commercial designers. This is a progressive narrowing of the spaces of possibilities. Companies evaluate their designs against this clearer picture, and if necessary, add designs at a late stage to fit emerging trends they have missed. But as this disrupts the development of other designs and the process is under severe time pressure anyway, they prefer to get their fashion research right, and produce 'too many' designs and discard those that don't fit.

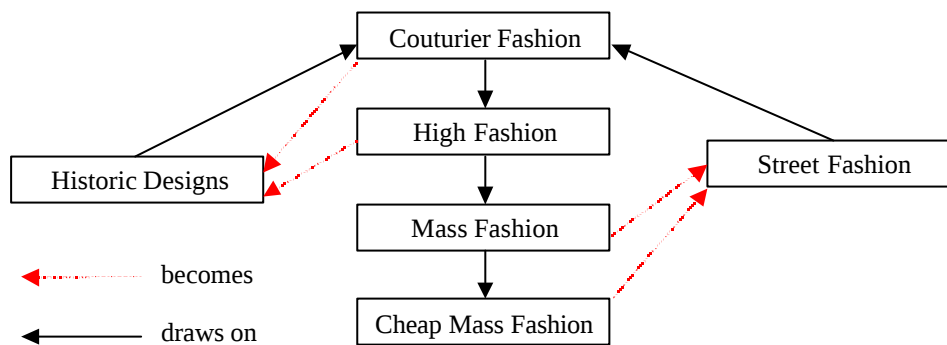


Figure 3. Imitation hierarchy in fashion industries

3.2 Applying context: generation and selection of design elements

The knitwear designers we have talked to often generate relatively concrete and detailed designs in the course of fashion research and range planning, but these are more often placeholders for more abstract categories than serious proposals for individual designs. Knitwear designers typically produce large numbers of designs in short bursts; relatively few are chosen at selection meetings for detailed design. The detailed design is done by knitting machine technicians, who create programs for computer controlled knitting machines.

In creating and choosing designs, the designers look at what other companies are doing, but pay remarkably little attention to what their customers want; however the designers for suppliers to retail chains are very concerned about what will appeal to the buyers who make selection decisions. How designers conceptualise the users of their garments varies, but they almost never have any direct contact with their customers; they think about where their company fits into the space of market niches, and typically imagine the lifestyle and desires of a (supposedly) prototypical customer – the range of customers is wider and these imagined customer prototypes are sometimes wildly wrong. Most designers take little account of the practical needs of their customers – for example for trousers with pockets.

How designers use sources of inspiration in creating designs depends on the constraints on the problem. Imitating other garments and basing motifs on licenced characters fixes the sources. Designers creating colour or stitch structure patterns often refer to objects and pictures they have collected, and systematically search through books of likely sources of inspiration for something they can adapt into structures that will possess particular emergent perceptual characteristics (see Eckert and Stacey 2001). They also use the knitting machine manufacturers' patterns directly. In their offices, designers can glance at or quickly find yarn samples and fabric swatches, their own previous designs, and images of garments they have torn out of magazines.

3.3 Information transmission in the fashion process

While other objects and images can contribute to designs, what is fashionable – features, styles, categories of garments – is communicated through garments themselves, and images of them, 'annotated' with the contexts they are seen in, who is wearing them, what magazine they are pictured in. Designers talk to their colleagues, who most closely share their own experiences, and to the people who make selection decisions – buyers, or sometimes internal buyers or salespeople (see Eckert and Demaid in press). But the communication of what other parts of the fashion culture are doing is public and impersonal (see figure 4). Conversations among designers make constant reference to these publicly available objects and images as well as to their own designs (Eckert and Stacey 2000).

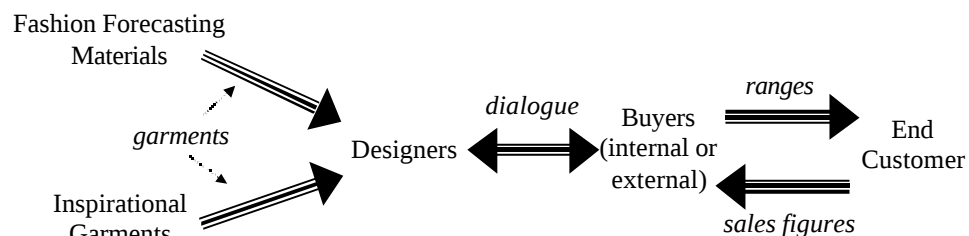


Figure 4. Personal and cultural communication of fashion information

The ways this combination of deliberate and chance cultural communication embeds individual garments in contexts influences how designers as well as customers perceive them as both individuals and as exemplars of categories, and modify their sets of categories and representations of what is typical or frequent in each category. In the magazines such as *Book Moda* that report the work of catwalk designers, photographs of similar garments are often clustered to facilitate the perceptual learning of categories of garments defining new styles. Contexts also influence the relationships between garment concepts and other concepts that constitute their cultural connotations.

While the cultural connotations of individual garments – their meaning – depend most on previous experiences of similar garments, they are actively manipulated by the people presenting them on catwalks, in magazines and in brochures and advertisements, in how garments are combined with other garments and with situations and images conveying cultural meanings.

The garments that define future fashion are created by designers, and are communicated through images created by marketers. These images are selected and organised by the editors of fashion magazines. So designers and other industry-insiders create a major part of each others' contexts. Fashion forecasting bureaux, which look at social trends, forthcoming cultural events and what the couturiers are doing, predict future fashion trends; their forecasts are used by designer label companies and fashion magazines, but not by the couturiers or the more downmarket companies. Like the magazines that report catwalk shows, these forecasts comprise collections of images of garments with other images projecting moods or cultural connotations, along with short pieces of text that are intended to convey connotations rather than provide analysis. The displays at yarn shows and other trade fairs are less glossy, but are also calculated public displays created by designers and marketers.

One powerfully influential forecasting bureau is the Color Marketing Group, an American forecasting bureau comprising an international body of experts from various field of design, who look at trends, pick up on likely themes, and assess new technical developments in dyes. They suggest a range of colours, which are then picked up by the forecasting bureaux, spinners, and fabric designers, who work very early in the development of new fashions. Although other colours are added, these early predictions determine the overall colour range for a season. The design space is severely restricted by the range of colours offered by the spinners. Some companies have yarns spun and dyed exclusively for them, but the spinners often use them as input in designing later ranges.

4. The collective generation of fashion

Each season the public sees a coherent fashion on sale with distinct themes and styles, which enables people to express themselves in the stylistic context of their time. This coherence becomes apparent when individual ranges don't fit into the context of fashion, because they use styles too early for their target market, or too late so that the garments look dated.

The coherence of fashion is achieved by the vast majority of the western world's commercial designers independently following essentially the same process of fashion research, range planning and design, at roughly the same time. Designers in different companies look at the same forecasting materials and the same magazines, attend the same shows, and see the same garments on sale. By

seeking to create similar if distinctive designs, they create context for each other. Designers typically get no input from the consumers other than gross sales figures, and their perceptions of the clothes they see on the streets. So the consumers usually only have a subterranean role in slowly and broadly nudging the designers' understanding of their contexts. However, fashion diffusion processes such as the emergence of street fashions like grunge and subcultures such as the mods and punks, and fashion leadership by celebrities (see Sproles and Burns 1994) can occasionally throw trends off course and exert a significant effect on collections. Recently David Beckham, the captain of the England football team and a major media celebrity, wore on a public occasion a traditional diamond pattern golf sweater in pastel colours. Sales of this sweater increased so much that the manufacturer had to outsource production to its competitors. One designer we have spoken to attributes the current (in 2001) vogue for traditional golf styles in a trendy young market largely to that single event.

5. Conclusions: individual creativity and cultural emergence

We have found that knitwear designers actively develop both their immediate perceptual environments and their memories to enable effective and appropriate design thinking, first to formulate design problems and then to synthesise designs. By combining other research findings with our own analyses at different levels we can trace this process, both through time, and from the designers' cognitive mechanisms through their behavioural strategies to the working patterns of the knitwear industry and the operation of the fashion culture. Relating designers' observable behavioural strategies to the findings of cognitive psychology about general cognitive mechanisms provides a way to understand designing that is coarse-grained enough to be tractable and informative.

Looking at designing from the perspective of how it is informed by its context, and looking at fashion from the perspective of the people who *make* it, raises knotty questions of how much is individual and how much is collective, who actually exerts power over the fashion process and the clothes we wear, and what is the role of individual creativity versus selection from a circumscribed range of options.

5.1 Design as an emergent cultural process

A lot of clothing design is individual; the design of knitwear is typically done by a team of two, a knitwear designer who creates a conceptual design and hands it on to a knitting machine technician who creates a detailed design in the form of a program (Eckert 2001). But most of the context for this designing – the styles, features and individual precedent garments that provide the major building blocks for new designs – is created collectively. Not only are the channels through which design ideas are exchanged shared, public and impersonal, but the designs that constitute 'messages' act collectively. They are

combined to form mental representations of types of garments and features, and individual garments are represented in terms of their similarities and differences from other garments and garment categories. Designers explicitly reuse features, regarding them as shared cultural property although some are traceable to individual designers. The features and emergent perceptual properties that are most influential as contributors to new designs are those that are frequent in the garments designers see.

Through following the same processes of design research, which is part of the shared culture of the industry, designers produce very similar designs, that share characteristics at the levels of structural features, emergent visuospatial properties, and aesthetic effects. This is partly a result of fixation and designers possessing very similar mental representations of the spaces of possible garments, and partly a result of actively following precedents. Thus designs are, to varying degrees, shared cultural property as well as individual creations; their collective influence as masses of garments in creating fashion is reciprocal.

5.2 Who controls your clothes?

How and why fashion changes has been examined from a wide variety of psychological, sociological and economic perspectives (see for instance Solomon 1985). However almost all analyses have regarded the consumers as the primary agents of change and control, focusing on the attitudes and desires that power the phenomenon of fashion changes (for instance Blumer 1969), how the choice of styles and options within styles is influenced by attitudes and desires (see Lurie 1981), and how fashions spread according to how and how much the consumers are exposed to them (for instance Sproles and Burns 1994). These analyses have paid little attention to what designers do. But the consumers have no direct control over what clothes they get offered, unless they make their own. This is controlled by the designers and the buyers who make purchasing decisions for retailers – exactly how depends on the different business models of designing and retailing companies (Eckert and Demaid in press). What we have found is that the consumers are largely irrelevant to what the designers do, except insofar as they consider the attitudes of their target markets; the consumers' role is restricted to selecting garments (and styles) from a very limited (and for some, completely unsatisfactory) range of options. While the fashion diffusion processes described by Sproles and Burns (1994) and others exist, the ascription of primary control over fashion to the consumers assumes a much wider choice than exists for the average consumer.

The evolution of clothing styles is primarily driven by the evolution of the contexts that designers create in; these contexts are very largely determined by the actions of professional participants in the fashion industry. So what, if any, influence do the consumers

have? While the clothes on offer are fairly homogeneous, a larger number of styles are marketed than achieve mass acceptance, so tastes and the diffusion processes that influence them have a significant effect, so that styles in serious conflict with prevailing social attitudes are rejected. However even this public selection process may not involve offering real choice to the average consumer; for instance Marks and Spencer often base marketing decisions on short trials in their Marble Arch branch. Social attitudes and the corresponding self-images people want to project influence the selection of clothes within fashions, shifting the perceived centre of a space of acceptable garments within a fashion, thus making peripheral designs look either more or less unusual. This will have some influence on the context in which designers produce related garments in the future, and on the decisions of retail buyers.

5.3 Individuality and creativity in fashion

So what is creative and individual in commercial garment design, if what designers do is a rational adaptation to the constraints on designs imposed by the environment, and the major components of new designs are provided by the fashion culture? While creativity is often measured in terms of difference from what came before (see Christiaans 1992), a commercial garment design that is different enough to be outside the boundaries of fashion is worthless – it is merely irrelevant. At the same time, a lot of knitwear design (for instance) is the application of standard procedures to produce many similar designs, in a design field where the constraints on what designers produce are too soft to force innovations in problem solving procedures or radical reformulations of the design challenge (Eckert, Stacey and Wiley 1999). So what does creativity – creating something both novel and appropriate – look like in this situation? Half the answer lies in forming a novel understanding of the fashion space itself – understanding what emergent visuospatial properties of the garments within the space must be held constant and what properties varied, so that new garments appear new and different while retaining their coherence with the space of acceptable garments in the fashion. The other half of the answer lies in finding novel structural features or variants or combinations of structural features, that create emergent aesthetic effects that appear novel in appropriate ways while remaining within the allowable space in other ways. Of course, there's a role for exploration and trial and error in this; one conclusion of our study of knitwear design is that the skill of expert designers is in the complexity and subtlety of their perceptual evaluation of designs as much as in their ability to generate design ideas, and that a large part of their creative thinking is in their perceptual filtering of the designs they imagine.

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