Branding and liberal autonomy
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Citation for published version (APA):

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Now that we know the empirical conditions for minimal liberal autonomy it seems that there is an easy way to determine whether branding undermines any one of them. We could take a representative sample of for example advertisements, show them to subjects in a laboratory and determine whether the thresholds for autonomy have been transgressed. Because no ready standard for cognitive load was available, we would restrict ourselves to the thresholds for negative affect induction, evaluative conditioning and subliminal influence. Thus, we would see whether the acquisition of the brand-related mental states co-occurred with negative affect (for state oriented persons), whether the mental states were formed as the result of covariation learning, and whether subjects were aware of the stimuli that caused their brand-related mental states to change. In order to establish the centrality of the attitude change, we would have to repeat the experiments over an extended time period. And for the purpose of determining whether producers of branding knew or should have known that the relevant aspects of the message they produced violated autonomy, we would also want to track down and interview a representative sample of the people involved in the production of the relevant advertisements.

Unfortunately, such research has not been carried out yet. Admittedly, as I will show in chapter 4, academic consumer research does show that there are cases in which advertisements transgress the specified thresholds for autonomous mental state formation. But since it is hardly feasible for the state to test every single brand message for autonomy violation, the sample that has been studied in consumer research is far too small to inform regulatory state action. As a way around this problem, my strategy is to give an account of structural features of branding that generate pressure in the direction of autonomy violation. Thus, if any one of such features were shown to drive autonomy violation in branding, then the state could realistically develop regulatory policies. I define structural features of branding as stable conditions, where conditions are sufficiently stable if they are unlikely to change in the foreseeable future. These features include universal mechanism of human psychology (genetically determined or shaped in the same way by universal environmental conditions), institutions supportive of market economies and cross-cultural social norms. If we have a list of such conditions, then we can check whether they push branding in the direction of transgressing autonomy thresholds (on their own or in interaction). And if we can locate the position of organizations within this structure, then we can also hope to determine what agents with specific roles can be reasonably expected to intend.

For this strategy to work, we need first of all a theory about how psychological, economic and cultural factors relate to each other. This is a contested issue in the social sciences, and not one that I can hope to resolve here. Instead I propose to opt – in line with the minimalist design of the overall argument – for the most conservative theory. Because results of the hard sciences are less contested than those of the humanities, a conservative approach would
favor the theory of which the greatest share of assumptions are grounded in the hard sciences. A further requirement would of course have to be that the theory makes non-trivial falsifiable predictions, for otherwise the gain in reliability does not help to explain anything. On the basis of these criteria I posit that the epidemiological approach to culture developed by Dan Sperber is to be preferred.²

On this account, culture is made up of causal chains of representations that are mediated by processing devices (i.e. human minds). There are mental representations and public representations, and these are interchangeably linked to each other. Mental representations are located inside processing devices and public representations outside of it. When we zoom in on one such a causal chain, we might see something like this. The vibration of a set of vocal cords in a throat causes a phoneme (public representation), which is then transduced by the auditory system in another person’s brain. After some complicated inferential processing the interpreted thought is stored in the memory of a speaker, where it may one day in some form – after some motivational processing – cause (mental representation) the motor area of the brain to trigger a vibration of the vocal cord (public representation), and so the process continues (until a thought is lost in all relevant memories). The highly complicated array of such chains in a society is a culture, and branded messages are a subset of a culture (or several cultures in the case of global brands).

In order to explain why some chains of representations stabilize and others do not, Sperber points to psychological and ecological factors. The most important ecological factors are the availability of external memory devices (e.g. writing), institutions engaged in the transmission of the representation (e.g. churches), and the recurrence of the situation in which the representation gives rise to an action which causes it to be transmitted (e.g. danger). Psychological factors include the relevance of a representation to the background knowledge of a person, the ease with which a representation is memorized, and the motivation to communicate (or otherwise act on) the representation. Furthermore, as in epidemiology proper, Sperber does not offer an overarching theory for the spread of representations, but merely a set of tools with which specific chains can be explained on an ad hoc basis.³

Sperber’s work focuses mainly on psychological factors, for the purpose of which he has developed a ‘massively modular’ account of the mind.⁴ On this view there are perceptual modules that process external stimuli and conceptual modules that receive their input from a perceptual module or from another conceptual module (or both). Because processing is a cognitively costly affair, Sperber assumes that processing in higher-order conceptual modules only occurs for representations that are in a buffer which he calls attention (provided they meet an input condition of the higher-order conceptual module). Competition among representations moreover is fierce and regulated by a number of relevance principles.⁵ With regard to memory, Sperber assumes that beliefs about states of affairs (which he calls intuitive beliefs) are formed on the basis of innate templates for which parameters are set by the culture in which a person grows up. As such, ideas about objects follow specifications from a ‘physics module’, those about nature the ‘folkbiology module’ and those about other people the ‘mindreading module’. His assumption is that representations that violate such templates are inherently interesting and more memorable, which according to him might for example explain the spread of myths and religious beliefs. The motivation to communicate a representation, finally, has not yet received much attention in Sperber’s theorizing.⁶

On the basis of this theory we can begin to assess the structure of the conditions of branding. Whereas psychological and cultural conditions will prove to be complex topics (which are dealt with later in this chapter), economic conditions of branding are relatively straightforward. It will prove useful to lay them out briefly here, because they constrain the framing
of subsequent relevant conditions. Simply put, the main economic condition derives from the assumption that brands that cause more sales have greater survival value. By corollary, brand managers that happen to produce brand features that cause more sales will have greater survival chances within companies. To be sure, the causal chain of brand production is a lot more complicated. The brand message itself is produced by advertising creatives who may simply follow fashion trends among colleagues, craft messages on the basis of prejudices or follow the advice of some marketing guru. But their fate is decided by corporate executives who are in turn under pressure from shareholders to increase profits. Surely, there is also a wide array of considerations on the minds of executives – such as adherence to company traditions and personal biases – and there is certainly also a process of negotiation with creatives, but at the end of the day a company must make a profit. And we can assume that the companies which produce branding that causes more sales will outcompete companies that do not. Although tracking measures are imperfect, firms do have some notion of the relation between their advertising budget and sales over time. Hence, companies with agents who happen to prefer branded message features that more efficiently increase sales (or prefer agencies that produce messages which increase sales) will be selected. For this reason, autonomy violation that results from branding that increases sales will count as structural. Other forms of branding may also thrive, but since they will be the result of company traditions, confused wisdoms of the advertising trade or personal whims they are inherently unstable. In terms of Sperber’s framework we could summarize the above by saying that branding organizations are institutions which transmit public representations because of a feedback loop with sales.⁷

On this basis we can already say that at least unconscious goal activation for branding that has a direct impact on behavior (i.e. in-store branding) is likely to be used structurally. For if a goal is activated unconsciously, the consumer is not able to apply persuasion knowledge to the message and will hence – all things being equal – be more likely to act on the goal. This assumption is elegantly illustrated in an experiment in which the Wal-Mart logo – which is branded for thrift – reduced spending behavior, whereas its slogan “Save money. Live better” increased spending.⁸ This interesting effect is best explained with reference to the persuasion knowledge that consumers bring to bear on explicit slogans in shops. They know that store managers are out to persuade them and hence automatically correct – and even overcorrect – for such messages. Thus, in shopping contexts unconscious goal activation will overall be more effective in increasing sales and can hence be expected to be applied for structural reasons. Whether introjection that is due to negative affect induction is equally effective under conditions in which persuasion knowledge is applied is a question that has not been tested yet and therefore remain an open question.

With regard to branding that changes mental states, matters are more complicated because the strength of mental states that result from associative processing is far weaker than the strength of mental states that result from deliberative processing. That is, we saw that deliberative processing generates stronger implicit attitude effects (as well as explicit attitude effects) than associative processing.⁹ Because the persuasion threat is much more direct in the shopping context than in the context in which advertisements are processed it is not evident that associative processing is ever more effective in advertising. With regard to mental state formation in branding we therefore need a more elaborate argumentative strategy in order to establish whether or not it involves structural autonomy violation. Such a strategy might look something like this. If we could isolate the set of combinations of properties of branded messages that are most efficient in increasing sales (under specified psychological and cultural conditions) then we could determine whether any subset of them struc-
naturally transgresses autonomy thresholds. Properties of branded messages refer to content (themes, values or emotions) as well as form (rhetorical mode or persuasion technique). Although it is theoretically possible that there is a crude correlation between a single one of these properties and sales effects, this is unlikely. It is more realistic to suppose that there are correlations between combinations of these properties and sales. One can imagine for example that certain emotions enhance the effect of a persuasion technique, or that certain themes are most effectively communicated when metaphors are used.

There are two relevant routes by which the relation between such sales-enhancing properties of branding and autonomy violation can be established. The difference consists in the order in which relations are established. The direct route looks for correlations between properties and sales first, and relates the resulting subset of properties to psychological and cultural conditions in a second step in order to determine their structural nature. It can then be established whether this still narrower subset of properties violates autonomy. The indirect route relates sales to psychological and cultural conditions, which results in a set of constraints for properties being effective in increasing sales in the long run. Hence, for properties to structurally cause sales it is necessary for them to overcome these constraints. If we can determine how they must do so, then we can establish whether this occurs in a way that violates autonomy.

I pursue the direct route in section 1 on the basis of consumer research, but because it has failed to find correlations between sales and relevant properties of branded messages (i.e. those that can in principle be implied in autonomy violation), this route is blocked to me. This forces me in the remaining sections to push the indirect argument. Here I focus on general psychological conditions, because they are most structural. Among psychological conditions I select motivation on the ground that if there are general motivations, then all consumption behavior (and hence sales) must be caused by them. In section 2 a case is made for the existence of such general motivations. Section 3 shows that a large chunk of products is bought for public consumption and offers empirical evidence for thinking that such consumption is in large part motivated by three higher-order social motivations. Pre-
dictions are derived from motivational psychology about the conditions under which higher-order social motivations should cause specific types of product choices, and these predictions are supported by evidence from consumer psychology. In section 4 I extend this line of reasoning by formulating a set of hypotheses that allow one to test whether the relations found in laboratories carry over to the level of society. In the final section, relevant managerial implications are explored (that is, implications relevant to the question of autonomy violation). Given the complexity of human psychology, we may assume that there are not only cues that trigger general motivations, but also psychological obstacles that obstruct this triggering. If either the triggering itself or the circumvention of obstacles is more effective by means that violate autonomy, then such autonomy violation is of a structural nature. I will argue in section 5 that there are such cases, and therefore predict that autonomy violation in branding is structural.

This argumentative design is not only more manageable than the empirical approach sketched out in the beginning of this chapter, but it is also more relevant from a normative point of view. For if we know the structural causes of a problem, we can respond with more measured responses than if we just know the size of a problem.

1 When Branding Leads to Sales

The direct route to knowing whether branding structurally violates autonomy begins with isolating the properties of branding that are most effective in enhancing sales. Fortunately, a substantial academic community attempts to answer this question. In particular, those working on the phenomenon brand equity attempt to establish which consumer attitudes towards brands generate profits (1.1) and those working on advertising effectiveness attempt to find which techniques most effectively enhance sales (1.2).

1.1 Brand Equity and Consumer Attitudes

Attention in marketing theory shifted towards long-term effects of promotion from at least the early 1980s. Theorists such as David Aaker and Kevin Keller argued that the difference between the price of a branded product and a similar unbranded product must be due not to individual advertisements or a seasonal campaign, but to promotion of a brand over the course of decades (although there is of course some role for inter-consumer communication as well). Ever since, several attempts have been made to put a number on this value, which I will discuss under the heading of financial approaches to brand equity. Putting a number on brand equity does not explain how it came about. To this end, so called consumer based approaches to brand equity attempt to identify the mental representations in the consumer’s mind that lead her to pay a premium for a brand.

The financial value of brand equity is determined by measuring the difference between the price of a branded product and the price of an equivalent product that is not branded. This is established by analyzing sales figures of the brand against sales figures of an equivalent generic product. The difference cannot be due to any attribute of the product or service, and so – if distribution differences are controlled for – must be due to the brand image. So called firm level analyses extend this product level analysis by assessing the revenue of a firm that can be attributed to the brand. This requires more complicated subsequent calculations...
that are carried out in various ways. For present purposes it suffices to sketch one prominent approach taken by the agency Interbrand. Their calculation of brands as assets proceeds in three steps. First, the annual earnings of the branded products of a firm are established. Because the brand is treated as an asset, one needs to add to these earnings the projected future revenues of the same products. From this sum taxes, operating costs and capital costs are subtracted. In a second step one must subtract from the resulting economic earnings the value that is generated by the product attributes themselves (so that only the value due to the brand image remains). Third, a more fine-grained assessment is made of the riskiness of future earnings. To this end, projections of demand for the brand are made according to criteria such as market position and diversification.10

Other research projects attempt to explain the sources of the financial brand equity in the minds of consumers. Just as in the case of financial brand equity, consumer brand equity researchers fail to agree on a methodology or on basic concepts. The first problem is that much of the research does not measure financial brand equity but the intention to purchase or laboratory product choice. And these measures are of course imperfect proxies. To give one example, although brand awareness is found to correlate significantly with purchase intention in the laboratory, there is no such clear-cut correlation with sales data.11

Second, the survey measures of the psychological ‘sources’ of brand equity are not very informative for our purposes. A very popular measure is ‘perceived value’.12 But what exactly does the survey response that a brand is perceived as valuable tell us? Sure enough a correlation with purchase intention is found (who would want to buy a worthless object?), but saying that someone buys a product because she values it is like saying she has a preference for it. It merely leads us to reformulate the question ‘What is the source of the brand?’ into ‘Why do people value a brand?’ More useful are studies that attempt to distinguish brand equity that is ascribed on the basis of attributes of the branded product or not. This research shows that the ratings of attributes of a product (say the durability of a phone and its signal strength) are less important than ratings of nonattribute perceptions for predicting brand choice.13 This is a valuable insight in itself, but for our purposes we are particularly interested in which aspects of these nonattribute perceptions predict brand choice. We want to know which themes, values, persuasion techniques and rhetorical modes cause the sale of brands. And to this level of analysis consumer based brand equity has simply not yet progressed.

1.2 Advertising Effectiveness Research

For such a more detailed analysis we would have to select a form of branding that is the easiest to manipulate and monitor. For this purpose T.V. advertising is a good candidate, because cable connections can be controlled on the household level. Furthermore, we would want to test the effect of these ads (and their features) not in the form of intentions to purchase the advertised product penned down on a survey form, but in the form of actual purchasing behavior in the real world. Such research does in fact exist, and is known as split cable research.14 For such research a small community is selected in which two subgroups are selected that are balanced for demographics, previous purchases and shops visited. Because of the ability to manipulate T.V. content at the individual household level, it is possible to test the effectiveness of a particular ad (shown in group 1 households) against variations on the same ad, a rival ad for the same brand or no ad at all (shown in group 2 households). It is moreover possible to correlate evaluations of advertisings obtained in laboratory settings or by telephone interviews (such as recall) with sales figures for that same ad in the
real world. Because all the participants use ID customer cards for their shopping, which are tracked by the experimenters, purchasing effects can also be measured at the individual level. What a meta-analysis of these enormous studies demonstrates is surprisingly unremarkable. Although the measure is still in use in many firms, it turns out that there is no (or at best a tiny) correlation between subject’s recall of an advertisement (obtained in experiments or via telephone) and purchasing behavior. A better idea for marketers is to concentrate their T.V. ads in time (say at the beginning or end of their campaign) rather than to distribute them evenly, because this distribution results in higher sales as measured over the course of an entire campaign. The authors offer no explanation for this effect on the psychological level though. It also turns out that, on average, ad copy that is changed leads to more sales than copy that is repeated over and over during a campaign. The most likely explanation for this effect would be to suppose a tedium effect of repetition that keeps back the effect of unchanged advertisements. Because the effect of changing advertisements is greatest for new brands, a preference for novelty may drive the effect. More interestingly, one split cable study tested several laboratory evaluations of advertisements (such as liking), which appears to have no or almost no predictive power. True, a moderate correlation was shown for the so called ‘ARS persuasion measure’. But that measure tests product choice (from a set of products of the same category) in the laboratory after seeing an advertisement for the relevant product. And a correlation between product choice in the laboratory and the real world after seeing the same ad is not all that revealing from a psychological point of view. In sum, neither brand equity research nor the most sophisticated advertising effectiveness research has yet established correlation between sales and message aspects that are relevant from the perspective of autonomy.

2 Human Motivations

Because no relevant correlations between branding properties and sales have been established in consumer research we will have to infer these properties from first principles. This is what I called the indirect route. I plan to develop this more elaborate approach in four steps. If there are universal human motivations (step 1), then branding that enhances sales must appeal to these motivations (step 2). If we could isolate the subset of motivations that are most relevant to consumer behavior (step 3), then we could determine whether the most effective appeal to these motivations involves autonomy violation (step 4). This argumentative strategy assumes – and this is the first step, to be dealt with in this section – that we can find universal higher-order human motivations, and that is not an uncontested claim. For although psychologists universally agree that there is a set of basic innate motivations, they do not agree on the complexity of these innate motivations. I want to argue though that there are at least no decisive arguments against assuming that a limited set of evolved motivation modules produce all the varieties of human desires, and some theoretical arguments in favor of it (2.1). I then go on to offer suggestive empirical evidence for thinking that there are stable higher-order motivations (2.2).
2.1 Theoretical Arguments for Evolved Higher-order Human Motivations

The most comprehensive case against the idea that the mind consists of a set of complicated innate modules – including motivational modules – has been made by the philosopher David Buller.17 His first argument is that there would simply be insufficient genes to code for such detailed higher-order systems in the brain. It is known that about half of the human genome codes for the brain, and that a large bulk of those genes is involved in coding for perception functions. Hence, Buller argues, there are simply not enough genes left to do the coding of more complex higher-order functions.18 This argument ignores that the expression of genes relies on complex interaction with proteins, so that much detailed mapping is off-loaded, and genes merely control the general outline.19 If this is true, then a small number of genes could in principle code for the complicated innate algorithms that supposedly constitute higher-order modules.

Second, Buller maintains that developmental neurobiology would show that whereas ancient structures of the brain are under relatively tight genetic control, more recent cortical structures are not. That is, when the massive amount of neurons that are produced in early life are pruned, only subcortical pruning would be endogenous, while cortical neurons would be pruned only on the basis of experience. Because higher-order modules would presumably have to be located in the cortex, this would mean that they cannot be genetically programmed and hence that there are no such modules.20 This argument is not plausible either. For one thing, many cortical structures develop normally in animals that are artificially deprived of any relevant experience, which can only be due to genetic control over the initial locations of the neurons.21 Furthermore, if mental modules are formed exclusively on the basis of experience then they could still count as universal and adaptive provided the environmental pressures under which were formed are universal.22

Finally, Buller argues that higher-order modules cannot exist in principle, because they require for their functioning information from other modules. He gives the example of the status module which would according to him have to rely on feedback input from other modules that measure status ranks in domains such as religion, politics or sports. If it accesses such modular databases (with regard to religious status rankings for example), Buller continues, then it is no longer a module. However, if it does not access such databases at all, then it cannot assess status behavior. If this is correct, then there cannot be complicated modules such as the status module.23 There are two serious problems with this argument. First, it is not necessary to assume that a status module must rely on information from (unrealistically) specialized modules for religion or sports. If there are universal signals of deference, then a status module could simply be equipped to read such signals of deference and infer that the deferred-to person must have high status, without having to know anything about the trait or activity that led the deferred-to person to become the object of deference. But a more fundamental flaw is, second, the assumption that modules must be encapsulated by definition. In this regard Peter Carruthers has proposed to make a distinction between encapsulation and inaccessibility. A module is encapsulated if it cannot draw on any outside information besides its input, where input is what activates the system.24 This would be the conception that Buller has in mind. It would for example mean that the mindreading module is turned on by intentional behavior and receives no information beyond that. However, an alternative conception of modularity is possible. Modules are inaccessible when they can not only receive input from one another (i.e. information that activates their processing) but can also search each other’s database for subsequent information. Crucially, such entities are still
modules because they cannot access each other’s processing. If the inaccessibility account of modularity is coherent, then Buller’s third argument against massive modularity also fails.

Let me now very briefly mention some theoretical reasons for thinking that there are higher-order modules. First of all, biological systems in general tend to be built in a modular fashion, because such a structure is less prone to developmental errors, because local damage is more easily contained and because a structure made up of modular parts can be more flexibly (and independently) adapted in response to environmental problems. And since the mind is an organ, it is likely to be modular as well (while abundant evidence of people with brain lesions who suffer a defect in only one functional domain supports this assumption). Second, an organism as complex as Homo sapiens must solve many learning challenges, and it is unlikely that these are all solved by a general learning mechanism. Instead, one would expect such processing to occur in specialized modules that are activated by inputs that are specific to a certain problem or opportunity domain. The number of modules would then depend on the number of stable problems that occurred in the Pleistocene, to which the mind is adapted. This account is coherent with thinking that modules will sometimes overlap. For because brain activity is so costly to the organism, there are good reasons to assume that modules will share processing systems with each other if they carry out the same computations. With that said, I conclude that there is a suggestive theoretical case for thinking that higher-order motivation modules exist.

2.2 Evidence for Higher-Order Human Motivations
If the mind is indeed modular, then there will be a fixed number of desire modules that have evolved to respond to stable problems. What we want to know then is how many motivational modules exist, or at least what the most important such modules are. There is certainly no lack of such lists, but these are of little use if we do not know what counts as evidence for a motivational module. Let us first discuss some proposals that clearly cannot count as such evidence.

The psychologist Steven Reiss had thousands of subjects pick motivations that they thought were driving their behavior from a list of hundreds that he had come across in the psychological literature and then extended himself. After some factor analysis he managed to categorize motivations in 15 groups (to which he later added another category), which he afterwards framed as evolved solution to problems from the Pleistocene. In a similar study, the psychologist Larry Bernard and colleagues reversed this order. That is, they first considered stable problems faced by our Pleistocene ancestors, which they grouped according to the social system in which these must have emerged. Specifically, at the individual level they posit a self-protection challenge, at the level of the dyad ones for mating and affective awareness, at the large group level the challenge of relationship maintenance and parental care, at the highest level not so much a challenge as the danger of motivational infection by memes. Bernard and colleagues then conducted a survey that was to establish whether these categories represented distinctive categories. Whatever the outcome of the studies of either Reiss or Bernard, and whatever the order of definition of motivations, there is no compelling reason for thinking that they will tell us anything about evolved motivations. The reason for this is that using surveys assume that conscious goal states are a window into motivational modules. And that assumption is true only if evolved motivations would cause actions exclusively via the conscious system 2 reasoning process, which is highly unlikely.
So what does count as evidence for a higher-order social motivation module? One type of evidence would be a delineation of the range of inputs that activate a motivation module. Obviously, absent fine-grained neuroimaging (which is not yet possible), in order to know whether a stimulus activates a module we must look for patterns of behavior that consistently correlate with exposure to a relevant stimulus (and that must be predicted in advance on the basis of assumptions about stable problems of humans living in the Pleistocene). Furthermore, as in basic motivational systems that regulate energy reserves, fluid balance, carbon dioxide levels and body temperature, there should be special feedback mechanisms that inform social motivation modules about the state of relationships to other people. Just as blood sugar levels tell us to take another bite and insulin tells us to stop eating, so social feedback mechanisms should regulate the strength of a social motivation. In this regard, so called sociometer theory maintains that one such mechanism is global self-esteem. In light of very strong correlations between social exclusion and global self-esteem, it proposes that self-esteem is an evolved meter that signals to the organism whether it is recognized by members of a group. Because of the potentially disastrous effects of ostracism in Pleistocene life, a meter that alarms the organism that it is about to be kicked out of a group would be a great advantage. In following through on the evolutionary logic of the idea of a sociometer, Lee Kirkpatrick and Bruce Ellis propose that there should be many such meters because there were multiple stable social problems in the Pleistocene. Besides group affiliation, humans have an interest in also gauging the state of at least relations of dominance, prestige and love. On the basis of this framework, I will argue below that there is suggestive evidence for higher-order (and partly overlapping) social modules for group affiliation, mating and status rank.

**Affiliation Motivation**

There may have been three stable challenges for individuals in relation to groups in the Pleistocene Environment of Evolutionary Adaptiveness (EEA). First, due to the prolificacy of in-group conflict, an individual must have adapted its behavior in order to avoid ostracism. Second, an individual would have wanted to know whether group members could be trusted to do their share of cooperative work. And third, in times of war an individual would have wanted reliable protection from a group. In this section I briefly discuss three lines of research on group behavior, which taken together suggest that evolution may have designed motivations that help individuals cope with these challenges and specify which inputs trigger these motivations.

Whatever the precise social organization of human life in the Pleistocene may have been, survival chances inside groups must have been significantly higher than outside of them. Not only are reproductive chances slim on one’s own, but survival probability is also diminished, given the lack of food sharing and protection against predators or hostile bands. For this reason, one may expect evolution to have designed a mechanism that alarms the organism when it is in danger of being ostracized from a group. Sociometer research suggests that to this end self-esteem may function as a meter that tracks recognition from group members. Self-esteem may function in this way because self-reported self-esteem correlates highly with the level of inclusion in real as well as imagined situations. Moreover, if exclusion is experimentally induced, levels of self-esteem plummet. In one experiment, subjects rated and rank-ordered three other participants in terms of how eager they were to participate with them in a cooperative follow-up task for which three persons were required. After the questionnaires were collected, the subject was told in one condition that she was excluded from the follow-up task because of a random selection procedure, and in another condition
that her exclusion was based on the ratings of the other three participants. Self-esteem decreased only in the latter condition.\textsuperscript{34} What is more, exclusion appears to activate the motivation to affiliate, since a series of experiments has established that it is correlated with greater agreement to incorrect majority perceptual judgments, greater willingness to join regular (e.g. a job training group for student) as well as dubious groups (e.g. a mind-control group for spoon bending), better memory for social information, and greater unconscious mimicking of an interaction partner (especially if the interaction partner belongs to the same group).\textsuperscript{35}

More evidence for the motivation to engage in affiliation behavior comes from social identity theory.\textsuperscript{36} Experiments within the so called minimal group paradigm show that cues for group membership such as wearing the same t-shirt influences the subsequent allocation of resources in favor of group members, while subjects are not aware of this bias. Apparently, there is a database in which membership characteristics are stored and whenever one or more of these are perceived a desire to benefit the person is generated. Although the theory was not designed with an eye to validating predictions about evolved motivations, a case can be made for thinking that the need to cooperate may have driven the evolution of these mechanisms. For experiments show that social identity is a better guarantor of keeping members of a group together in the face of attractive alternative options than are perceptions of investments or norms.\textsuperscript{37} If there are moreover honest signals that indicate that a person is motivated by the social identity mechanism and if this mechanism operates automatically, then others can rely on these signals in deciding on whether to cooperate or not. Evidence for the existence of such signals is offered in chapter 5 (when we turn to evolutionary explanations of religion).

A third type of input to the affiliation module is fear of death and related coalitional challenges. Evidence for the relation between death threats and positive in-group behavior has been collected by decades of Terror Management Theory (TMT) research. This theory holds that fear of death is so paralyzing that we are strongly motivated to escape into worldviews that assuage it. In particular, TMT proponents have speculated that those individuals who are better at avoiding thinking about death – due to a ‘survival instinct’ – must have been more efficient in whatever tasks they were carrying out, and hence must have had better survival chances. This reasoning has been criticized by several evolutionary psychologists though, on the ground that evolution does not build general survival instincts (instead it builds mechanisms that avoid specific threats) and that the anthropological record demonstrates that worldviews are as much fear-inducing as fear-assuaging.\textsuperscript{38} Whereas TMT explains the tendency of individuals to affiliate with groups as an element of the escape into a worldview, an alternative evolutionary account sees the need to join a group as primary and worldview preference as derivative.\textsuperscript{39} On the latter account, the need to affiliate is explained as an adaptive response to coalitional threats. Given the prolificacy of warfare among Pleistocene communities, an urge to cling to a group in times of extreme danger is likely to have enhanced survival chances. Evidence for this account comes from experiments in which subjects upon perceiving a fear of death cue affiliate with (in this case: sit closer to) group members even if these individuals previously attacked their worldview.\textsuperscript{40}

**Mating Motivation**
With regard to mating, motivational structures may have been a response to two stable problems: mate acquisition and mate retention. Evolutionary psychologists claim that both are structured by complicated assessment and behavior mechanisms, but I will focus here on the motivation to acquire mates because it has been the object of research in consumer
psychology (and thus allows me extend my argument in that regard later on). The motivation for mate acquisition is claimed to be structured by complicated design architecture in two respects: there may be sophisticated innate criteria for preferring one potential mate over another and there may be pre-programmed mating strategies. I will discuss these components of the motivation for mate acquisition in this order.

Some criteria for mate assessment are shared by men and women while others are adaptations that have arisen in response to sex-specific problems. The first type of preferences has emerged because both men and women have an interest in a partner with so called ‘good genes’ (i.e. genes that benefit potential offspring) as well as compatible and diverse genes. A reliable way of measuring the quality of genes is fluctuating asymmetry (i.e. deviation from perfect symmetry of a trait that is on average symmetrical in the population) of a set of bodily features. Such asymmetry is correlated not only with lower fitness, but also with lower mate preference of both men and women in industrialized as well as developing countries. It is not clear however whether humans assess asymmetry as such or conditions that are associated with it, such as (for men) peer status, masculine faces, muscularity, voice quality, dance movements and scent.

A criterion that men may use to assess potential mates, beyond symmetry, is signals of residual reproductive value. Crucial elements that determine a women’s residual reproductive value – such as the quality of her ova or the storage of a special type of body fat – is modulated by the production of estrogen. Hence, bodily features that are shaped as a result of the release of estrogen may signal reproductive value, provided such features are not easily produced by other means. That is, there should be a serious cost involved in producing such features for them to function as honest signals. Although there are serious costs associated with the release of estrogen – such as the diminishment of the functioning of the immune system – it might be possible to develop relevant features by different and non-costly means. With regard to body fat such concerns are immaterial though, because the relevant type of fat is directly useful for the development of the fetus. That is, so called gynoid fat is different from android fat in that it is less easily accessed for survival functions and contains nutrients that are essential to the fetus’ brain development. It is stored in different depots – breasts, hips, buttocks and thighs – and such storage turns out to correlate with attractiveness ratings by men. There is also evidence that estrogen release influences the development of faces (e.g. facial bone growth is capped, so that the lower face remains small), smoother skin and a higher pitched voice. But in this regard it is not clear why women with low reproductive value have not developed such features independent of estrogen release and so faked having a high reproductive value. That is, future research must rule out the existence of feasible alternative developmental systems.

For their part, women appear to be equipped with innate criteria for assessing men in terms of their ability and willingness to provide material benefits (i.e. shelter, food, protection and teaching children). There are two relevant types of evidence for this claim. The first is the existence of what Randy Thornhill and Steven Gangestad call ‘extended female sexuality’: the fact that human females are sexually active and initiate sex when they are not fertile (where the fertile period is limited to a few days before ovulation). This behavior is most plausibly interpreted as a strategy by which women compete for the acquisition of those men most able and willing to provide material benefits. This is plausible because in other species extended sexuality is associated with males giving material benefits to partners, with reproductive benefits of females and with females assessing men on the basis of different criteria when fertile (i.e. criteria other than the ones that indicate the provision of material benefits). Second, with regard to food, the ethnographic record shows that of the 95 foraging societies
about which data are available, 64% of calories are provided by men, while male contributions to a family unit correlate with lower child mortality and higher reproductive rates. However, for women to be able to assess men for their capacity and willingness to contribute material benefits, there must be relevant criteria. With regard to capacity, the most relevant criterion appears to be status. The mechanism for the assessment of status is the subject of the next section. Here I note merely that there are prestige orders based on for example hunting skills in foraging societies, which are relevant in terms of men’s ability to provide calories, while social dominance would be relevant in terms of protection (of the women herself as well as her offspring). Both prestige and dominance are qualities in a mate that women value. The willingness of men to provide these benefits (and not to run away with another woman after conception) may be assessed by kindness, generosity and emotional openness, which women across cultures value highly on self-report measures of mate preference.

Interestingly, as we noted, across species females with extended sexuality have different preferences when they are fertile. This ‘ovulatory shift’, in which mating preferences shift from concerns relating to material benefits to concerns for good genes, has also been consistently observed with human females in a number of respects. That is, it is consistently found that women at peak fertility (i.e. 2 to 3 days before ovulation) prefer the scent of men who are rated as more symmetrical on 10 bodily traits and men who self-report to be socially dominant. They also prefer male faces that are rated as more masculine (provided they rate for short-term sexual interactions), more muscular male bodies, male voices that are lower pitched, and men who display more dominant behavior based on ratings of video-taped material. Because this shift of mating preferences in the direction of good genes disappears when women take contraceptives that inhibit hormone release associated with ovulation, it seems plausible to assume that the ovulatory shift may be caused by estrogen.

The second way in which mating motivation may be structured by complicated mechanisms is in the form of mating strategies. In the Sexual Strategies Theory (SST) developed by David Buss and Steven Schmitt, a distinction is made between short-term mating strategies and long-term mating strategies (which involves extended courtship, parental investment, the emotion of love and resource contributions). If it were shown that the choice for any one mix of these strategies is regulated by automatic mechanisms, then this would suggest that there is a complex innate mating motivation. Likewise, if there would be automatic feedback mechanisms that inform the organism about success in mate acquisition, then this would also count as suggestive evidence for innate motivational mating mechanisms.

To begin with, on the basis of parental investment theory – i.e. women invest by default much more in children than men, in the form of nine months of pregnancy – SST predicts and finds that men more actively seek short-term relationships across cultures and whatever the male-female ratio. More interesting yet, the choice of mating strategy may be regulated by hormonal shifts in both men and women. When it comes to women, there is evidence that during the fertile phase – possibly because of the influence of estrogen – their strategy shifts towards extra-pair copulations with symmetric men (provided their partner is not himself symmetrical). That is, in a number of studies it has been found that self-reported desire for extra-pair copulations strongly increases during the fertile phase, while other studies show that this effect occurs mainly when a woman’s partner scores high on measures of fluctuating asymmetry of body traits. Women also report a lower desire for intimate sex when they are in their fertile phase, which is the type of sex they supposedly typically have with their partner. Finally, women in their fertile phase are consistently shown to walk and move more, while they also report a greater interest in attending social events where they
might meet men. With regard to men, higher levels of testosterone are associated with a more short-term mating strategy in a number of studies. It is not clear however whether this effect is due to temporary shifts in testosterone, to testosterone exposure in utero (leading to a more masculine brain) or both.

With regard to feedback mechanism there is evidence for effects of mate value on global self-esteem and effects of self-esteem on mating strategy. Effects of mate-value on self-esteem have been tested experimentally. In one study it was shown that the effect of negative feedback on a participants’ mate value on global self-esteem is greater than feedback on a person’s qualities as a friend. In a follow-up study to this experiment it was moreover found that when participants received feedback on their mate value, the negative effect on global self-esteem was greater for men if the feedback was about their status and greater for women when it was about their attractiveness. A cross-cultural study obtaining self-report measures from participants in dozens of modern nations suggests the function of such shifts in self-esteem. For it was found that global self-esteem is consistently associated with a higher frequency of reported short-term mating strategies of men, while there is either no (or a reversed) such association for women. This suggests that there may be a specialized device (or sociometer) for measuring success and failure in mate acquisition that scales up or down self-perceived mate value, which in turn may determine which mix of long- and short-term mating strategies is pursued.

**Status Rank Motivation**

The function of dominance in primate groups is relatively clear. A dominance hierarchy is a ranking based on the superiority of one member over the other in a physical confrontation (or the threat thereof). Signs of dominance are universal across the primate world and include large size, physical strength, vigor, good health, being adult, being male and having a high-ranked mother. For females, a higher place in the dominance hierarchy results in greater access to food, grooming and access to higher quality mates. It is possible that primates come to learn that ending up high in the hierarchy brings benefits, but such learning is error-prone, and it is therefore more plausible to assume that primates have an innate desire for climbing in the status hierarchy. Moreover, humans show universal signs of deference and authority, which suggests that such behavior schemata are programmed (it would be an extreme coincidence if all human groups came up with exactly the same signs). Universal deference signs include submissive cowering, stooped posture, eye aversion, retreating from someone, nervousness and grinning. Universal dominance signs for humans include specifically (besides the one mentioned in the beginning of this section) facial authority signals. That is, cross-cultural studies find that holistic authority judgments of faces are consistent between cultures, although the precise constellation of features that accounts for these judgments has not yet been uncovered (e.g. smiling is universally seen as a sign of deference whereas eye brow position is interpreted differently across cultures).

That such features play a role in the formation of actual status hierarchies has been corroborated in a great number of studies on spontaneous rank orderings among humans and voice and facial dominance features. In one study Allan Mazur and colleagues even significantly predicted the number of promotions of officers on the basis of ratings of their faces for dominance. However, what we want to know is how these status signs are used in human behavior and whether this use can count as evidence of evolved modules. On this question there are two relevant models. One sees the use of status signs as regulated by testosterone while the other points to specialized sociometers.
The sociologist Allan Mazur has developed a model of dominance contests as games of stress induction. According to him, rank allocation in humans and nonhuman primates alike occurs not so much by means of fighting as by staring competitions. Alter and Ego both display universal and culturally diverse dominance signs (which I mentioned earlier) which induce stress in the other, measured in terms of depressions of thumb blood value and cortisol value in the blood. Both negatively affect health. The contest ends when Ego decides that the stress is not worth the effort, and accepts a subservient rank position to Alter. Winning contests boosts levels of testosterone in the blood (which has been measured in a great number of physical and non-physical contests\textsuperscript{67}), which may stimulate more confident expressions of dominance signs in the future, while losing contests has the opposite effect\textsuperscript{68}.

A second line of research extends the initial sociometer model by measuring self-esteem in terms of feelings of superiority (according to question such as ‘Are you easily pushed around?’). This domain specific meter is hypothesized to be specialized in the regulation of dominance displays. In an experiment conducted by Kirkpatrick and colleagues this hypothesis was put to the test. Subjects were asked to write an essay after which they received negative feedback by an evaluator in order to induce feelings of rejection. In a follow up task they were asked to prepare sandwiches for the evaluator in which they could choose to select hot sauce. It was argued that the decision on the amount of hot sauce offered subjects the opportunity to aggress against the evaluator. Regression analysis showed that measures of self-esteem in terms of superiority were a positive predictor of the level of aggression (in terms of the quantity of hot sauce), whereas self-esteem in terms of social inclusion was a negative predictor\textsuperscript{69}. I noted earlier that status rank may be conferred not only on the basis of dominance but also on the basis of prestige. If so, then there should be a distinct mechanism for regulating status rank behavior on the basis of prestige-relevant criteria. To this end, Kirkpatrick and colleagues devised another questionnaire that measures prestige-related self-esteem by asking questions like ‘Are your opinions valued by others?’ and ‘Do you make significant contributions to your social group?’ Because dominance related self-esteem informs the organism that it should engage in more contests, it should correlate with higher levels of testosterone (which is correlated with more aggression). However, people who are high in prestige rely on the presence of others in their vicinity for their position and therefore should want to avoid aggression. A high prestige self-esteem score should therefore decrease the desire to engage in aggression and not or negatively correlate with reported aggressive behavior. These predictions were subsequently partially validated\textsuperscript{70}.

Many uncertainties pertain to both models. As to the first model, the role of testosterone in causing dominance displays is still not settled, whereas sociometer theory of dominance and prestige relies still entirely on explicit measures of self-esteem\textsuperscript{71}. Moreover, both models only predict when humans are motivated to engage in status contests and do not predict when humans will be motivated to acquire status signs. It is furthermore unclear which adaptive strategies losers of status contests might employ to further their prospects, since a position at the bottom of the rank-order elicits aversive reactions. In this regard it is interesting to note that research on Vervet monkeys has demonstrated that serotonin levels in the blood of dominated individuals are lower, while experiments on human subjects show that experimental reductions of levels of serotonin result in irritability, sleep disorders and aggressiveness\textsuperscript{72}.

Taken together, research on evolved higher-order motivations suggests that much of social life may be driven by three modules that may include one or more sub-modules (e.g. the status rank module includes both dominance and prestige meters) and that may share cogni-
tive architecture with each other (e.g. the status rank and mating modules both motivate status signaling and may hence share systems that evaluate status rank in a group). The fact that subjects are not aware of the relations between inputs, motivation and behavior suggests that the mechanisms function automatically, which is exactly what one would expect of innate modules. Some evolutionary psychologists have taken this argument a step further and proposed that there is a pyramid of evolved needs in which parenting, mate acquisition and mate retention are at the top, because reproduction would be the primary evolutionary requirement. Such arguments should be advanced with great care however, because motivations are highly context dependent. It is one thing to assume that a given set of motivations will be of primary importance given the stability and importance of Pleistocene problems they evolved in response to, and quite another to place these problems in a hierarchy. For my purposes there is no need to take a stance on this issue.

3 Motivations and Consumption

From among the motivational modules that a massive modularity account implies we would want to limit ourselves to a subset that is most relevant to consumption. One subset of motivations for consumption has recently been proposed by Dan Ariely and Michael Norton, who want to distinguish between conceptual consumption and unmediated consumption. Consumption that is not mediated by concepts is motivated by immediate experiences of aspects of the product. Eating a cookie is presented as the paradigm case. However, the consumer research that Ariely and Norton discuss reveals that even experiences of elementary consumption, like eating and drinking, are themselves mediated by expectations. That is, an influential study showed that knowing that a beer contains vinegar affects taste only when this information is known before drinking, which is evidence for thinking that concepts influence the actual taste experience. It is not clear then whether there is all that much to which unmediated consumption could refer.

A more useful distinction is the one between consumption because of private desires or because of public desires. A private desire is not private in the sense that other people had no role in shaping it. Instead, private consumption means that the consideration of what others might think about the product plays no role in the decision to buy it. There is disagreement about cases in which consumers are not aware of other-regarding motives. However, given the predominant role of unconscious processes in decision making (chapter 2.2) it seems only reasonable to also count unaware motivations as public behavior. Scholars have traditionally struggled to define such unconscious motives to please or impress others in acts of consumption. But on the basis of my discussion of evolved human motivations an easy solution presents itself. We call all acts of consumption public that are caused by motivational modules that evolved in reaction to a social problem. This includes the modules for mating, affiliation and status, but also the motivations for consistency and accuracy that may have arisen in response to persuasion contexts.

Given that social relations are of primary importance in the EEA as well as today, we would expect that public consumption plays a major role. This expectation is easy to test. If social signaling drives consumption, then products that are more visible should have a lower price/quality relation. Angelo Chao and Juliet Schor tested this hypothesis for lipstick, mascara, eye shadow and facial cleanser, which subjects ranked as progressively less public.
They then had professional artists and students test the products, and give quality evaluations. According to expectations, highly visible lipstick had no positive price/quality relation, whereas the privately used facial cleanser did. If the theory of evolved social motivations developed by evolutionary psychologists is correct, we should also find evidence for acts of consumption resulting from cues that have been identified as inputs to higher-order motivation modules. Such evidence is given in the remainder of this section for affiliation (3.1), mating (3.2) and status rank (3.3) motivations.

3.1 Consuming Community

There are two relevant types of motivation to affiliate that can be activated in consumption. Consumption can occur because of affiliation with the people who use the brand (i.e. the brand community) or with a brand-external group.

There is evidence for the involvement of brand communities in the motivation to consume from both psychology and sociology. Psychological research suggests that coalitional threat cues of danger can activate the motivation to affiliate. Specifically, in an experiment carried out by Aric Rindfleisch and colleagues, one group of subjects was first asked to describe the emotions that thinking about their own death aroused. In a follow up task both this existential threat group and a control group were asked to fill in a survey on their communal-brand connections (involving questions such as ‘I really identify with people who use this brand’) to brands of mp3 players and sunglasses. Connections with the brand was higher for participants in the existential threat condition. Rindfleisch and colleagues also carried out a national survey in which it was found that people who report social insecurity show strong communal brand connections. Admittedly, the strengthening of brand community feelings when feeling insecure (or after perceiving an existential threat) is not evidence for an effect on consumption behavior. After all, the reported preference for affiliation brands for insecure and fearful subjects might not translate in actual purchases.

But if products are indeed bought to express group identity, then we should find that brands actually function in this way in social networks. That is, we should find evidence from sociology for consumers feeling part of a group that uses a product. Sociological evidence for the existence of so called brand communities comes from field studies by Albert Muniz and Thomas O’Guinn. They took notice of one brand community member and visited him in his neighborhood (called Fairlawn) where the researchers tracked down the network of fellow brand community members as well as members of other brand communities. In the end they interviewed members of the community of users of Saab, Mac and Michelin about what Muniz and O’Guinn understand as the three defining criteria of a community. They found evidence for common awareness (brand users felt part of a brand community), rituals and traditions (e.g. Saab drivers apparently flash their lights when passing by) and feelings of moral responsibility (brand community members help each other out when encountering product related problems). More direct evidence of a relation between activation of the affiliation motivation and purchasing behavior exists for both pre-existing groups and entire generations. In a series of experiments carried out by Baumeister and colleagues, affiliative consumption was defined as the choice for a product that was related to a group the subject was a part of (instead of a brand community) while the relevant cue was social exclusion (instead of existential fear). The relevant result is that subjects who felt rejected after an experimental manipulation were more likely after the experiment to buy with their own money from a store in the laboratory items that expressed their belongingness to a group over items that did not. That is,
compared to a control group, they were no more likely to buy more practical items (such as a notepad, a magazine, bath gel and cookies), but they did buy more items that showed off their group affiliation (e.g. a wrist band of their university).83

Brand managers can also activate the affiliation module by tapping into nostalgic behavioral programs that satisfy the consumer's need to belong. That is, if a brand can be associated with an item in the set of nostalgic phenomena of a consumer, then whenever a consumer's shopping behavior is motivated by the affiliation module, the brand will be considered more favorably. Katherine Loveland and colleagues carried out a number of studies that demonstrate that a need to belong is indeed correlated with a preference for nostalgic products.84 In one study they had participants fill in two questionnaires on their need to belong and an implicit measure of belongingness in which they had to recognize a subliminally flashed nonword letter string that actually had the shape of words related to belonging. A high score on these measures correlated with a preference for Dutch brands that had been rated as nostalgic (e.g. LU Prince and Peijnenburg). Moreover, when the need to belong was induced artificially by priming an interdependent self or by inducing social exclusion, subjects respectively picked more nostalgic movies or ate more nostalgic cookies.85

3.2 Good Mate Value for Money

It was earlier pointed out that the mating module shares much of its architecture with the status module because of the sexual benefits that a high rank position brings with it. In the realm of consumer products, high status goods are an obvious way to show one's position in the prestige order. Thus, if the mating module drives consumption, then men who are primed with attractive women should prefer buying status goods over saving money, compared to a control group (of men who are not primed with attractive women). This inference was corroborated by Vladas Griskevicius and colleagues, who found that men who were primed with attractive women were much more likely to buy a new watch, a vacation or a new car rather than save money.86 In another experiment it was shown that mating-primed men also prefer conspicuous goods (vacations, watches and cars) over everyday goods (kitchen staples, toiletries, household cleaning products) compared to a control group. Women showed no such behavior change.87

In a large follow-up study, Griskevicius and a different set of colleagues pinned down two conditions in which primes of attractive women induce status-seeking behavior in men.88 One condition is the mating strategy to which men are inclined. On the basis of a questionnaire, in which a range of questions such as ‘Sex without love is okay’ were answered, men were given a rating on the so called sociosexual attitudes scale. On this basis the categories low-investment men (i.e. those who are more interested in short-term mating opportunities) and high-investment men (i.e. those who are more interested in long-term relationships) were formed (where an individual fell in either category by virtue of having a score at least one standard deviation above or below the mean). It then turned out that only low-investment men who were primed with pictures of eight attractive women were more likely to choose products that were rated by other students as conspicuous consumption goods (e.g. designer sunglasses, stereo sets for cars) over nonconspicuous goods (e.g. low-cost jeans, toaster oven). That is, high-investment men (as well as women in either category) showed no significant priming effect. This result was corroborated by having men from both categories rate a set of products. Besides some filler products there was the option to buy one of two wallets that were of supposedly comparable quality, appearance and price. However, one wallet had a low-budget retail store logo on it while the other was a replica that carried the
name of the prestigious brand ‘Coach’ on it. Again, low-investment men (who were this time primed with a romantic story) showed a greater preference for the high status item while the prime had no effect on high-investment men. As such, this study rules out the possibility that low-investment men chose high status items just to feel good about themselves (as buying a counterfeit is unlikely to do so).

A second condition (besides a person’s sex – and hence level of parental investment –and mating strategy) for the facilitation of status-seeking behavior is the type of prime that is used. To test the effects of this variable, Griskevicius and colleagues devised romantic stories that differed in the expected duration of the sexual relationship that was unfolding. In a vacation affair story, a man and a woman had a romantic dinner on the day before they departed, while in a campus affair story the romantic dinner was between students who expected to stay on the campus for an extended period. When the male participants were asked to indicate how much they were willing to spend on eight types of products that had previously been rated by other students for representing conspicuous consumption, only low-investment men showed an effect of the prime. More interestingly, this effect only existed for the short-term affair story. Surely, all this presumed status signaling by men only makes sense if women actually find men who engage in conspicuous consumption more attractive. Griskevicius therefore tested in yet another study how interested women were in a relationship with a man on the basis of a short biography. Between two groups of women, the manipulation was the name of a car. In one condition the description of a corporate executive included the fact that he owned a Honda Civic while in another condition he owned a Porsche. Women indicated a greater willingness to engage in an affair with the Porsche owning man, but only when the affair was short-term.

The mating motivation of women has been shown to be activated by presenting pictures of attractive men, by certain hormones and by pictures of attractive women (i.e. rivals). The main output behavior of mating motivated women is not the acquisition of high status goods, but rather behavior that enhances appearance. In an experiment, Kristina Durante and colleagues took the purchase of sexy clothing as such behavior. In a setting in which a fashion web shop was simulated, women who were primed with pictures of beautiful men indeed chose significantly more clothing products that had been rated as more sexy in a pre-test. Interestingly, Durante and her colleagues also tested the effects of hormonal shifts during the menstrual cycle by measuring the level of the luteinizing hormone (LH), which is released about 48 hours before ovulation. Participants took part in the webshop test described above both when they were ovulating and when they were not (telephone interviews in advance allowed the researchers to estimate participants’ period of ovulation by asking about it obliquely). As a cover story, participants were told that the experiment was about fashion, health and relationships. A first finding of Durante and colleagues was that women in the ovulating condition chose 10% more clothing pieces that has been evaluated as sexy (compared to women in the non-ovulating condition). In follow up studies, the researchers attempted to isolate the variables that moderated this effect. Specifically, they wanted to know whether appearance enhancing behavior functions as the peacock’s tail (i.e. to impress opposite sex members), as a deer’s antlers (i.e. to impress same sex rivals) or as a lion’s manes (i.e. to impress both).

Interestingly, it turned out that the surplus effect of ovulation on sexy product choice disappeared when women were primed with attractive men or with unattractive women, which must count as evidence against the thesis that hormones may enhance efforts to impress potential mates. Even more interestingly, ovulating women chose 25% more sexy products when they had previously thought about attractive local women (as compared to
non-ovulating women). Because there was no effect at all of either seeing pictures of attractive women or thinking about attractive local women on non-ovulating participants, these results suggest that LH (or the accompanying estrogen) may activate a switch in the mating module, so that perceptions of potential rivals in the mating market stimulate efforts to impress potential mates with behavioral programs such as dressing sexy. And brand managers can of course tap into this motivation by presenting images of attractive women when branding products for women.

3.3 Selling Power to the Powerless

There is ample anecdotal evidence for thinking that branded products are used as status symbols, but what we would really like to see is more reliable real world evidence for this claim. Such evidence is given in a study by J. Lycett and R. Dunbar on the display of mobile phones – products that are heavily advertised for their status appeal – by men in an English pub. What they found was that men showed their mobile phone more not when more women entered the pub in absolute terms (or when there were more women relative to men), but when more men entered (and when there were more men relative to women). This suggests that at least mobile phones might be used in male-male status contests. Furthermore, if products function in status competition, then we would want to see evidence of them eliciting effects that can be predicted on the basis of models that were discussed in section 2.2. Specifically, on the basis of the model of Mazur one would expect to find that people who use reliable high status products should win more stress contests and hence have higher levels of testosterone (in either saliva or blood samples). In this regard Gad Saad and John Vongas found that when men drove an expensive Porsche sports car they produced more testosterone than when they drove a family Sedan. Because participants committed themselves to strictly sticking to the speed limit, this effect can reasonably be argued to be due to perceived higher status.

We also noted that the two models of status-seeking behavior in humans did not make predictions on the conditions in which people seek to acquire status signs (which is different from using status symbols in status contests), which is most relevant from the perspective of motivation and consumption. In this regard the psychologists Derek Rucker and Adam Galinsky have built upon the finding that low levels of serotonin due to low power in monkeys and humans alike are deeply aversive and motivate the organism to alleviate the state of powerlessness. If consumption goods can signal rank position, they argue, then low status individuals may be particularly motivated to acquire high status goods to re-enter the status contest ring. In a series of experiments Rucker and Galinsky offered evidence for such effects in the realm of consumption.

In a first experiment, subjects were asked to recall a situation in which they either were in a position of power over another person or were the underlying party. Those in the low power condition showed a greater willingness to pay for products that were pre-tested as signaling high status (executive pen, briefcase, fur coat, and a silk tie) against products that were not (ballpoint pen, sofa, dryer, washer, and a minivan). A second experiment controlled for the possibility that the products themselves rather than the status that was associated with them accounts for the effect. This time the same product (a picture frame) was described either as conferring high status (e.g. ‘scarce’ and ‘unique’) or as conferring low status (e.g. ‘mass-produced’ and ‘available to anyone’). Again, low status subjects were more willing to pay for the high status option.
In a third experiment, subjects in both the high and low power condition were asked how much they were willing to pay for an executive pen with the label of a prestigious private university and to indicate how much future power they expected to gain from the product. Low power subjects were not only willing to pay more, but also expected greater future power from the purchase. Fourthly, when subjects had to generate advertising slogans for a luxury product, the ones in the subordinate (low power) role made more appeals to status, while subjects in superior roles (manager) stressed performance. In order to rule out the possibility that the powerful emphasize performance only to hide their aims (of gaining more power), in another experiment Rucker and Galinsky presented high power subjects with a product that was described as high in performance but not at all stylish. If high power subjects really prefer performance, they should still prefer this product description over one in which the frame was described as stylish but of low quality. And so they did. In a sixth experiment, it was shown that high power people had less interest in visible (or conspicuous) consumption than low power people. That is, high power individuals had less preference for high-end clothing with a logo (compared to the same clothing without logo) than low power subjects.

If low power people are indeed more likely to consume high status goods, then we can make the subsequent prediction that people who belong to low status groups should on average spend more of their budget on status goods. If one is willing to assume that ethnic minorities in the United States have on average a lower position in status hierarchies, then research by the economist Kerwin Charles and colleague validates this prediction. On the basis of US data on consumption patterns, they showed that ethnic minorities spend a greater share of their income on visible consumption (clothing, jewelry and cars) than non-minority citizens. Because the share of visible goods decreases when income levels go up within a minority group, there is good reason to assume that individuals low in power indeed attempt to enhance their status by means of conspicuous consumption.

It is not immediately clear how these results relate to the models of status-seeking behavior of Mazur or Ellis and Kirkpatrick. But a reasonable speculation would be to suppose that whereas winning status contests (and the accompanying experience of high power) may induce subjects to engage in more contests with the same repertoire of status signs, losing contests may facilitate behavioral programs that seek to add status signs to the repertoire.

4 Social Motivations, Consumption and Branding

So far we established that there is suggestive evidence for assuming the existence of motivation modules for affiliation, mating and status rank, and that there is evidence from psychology and sociology to suggest that these modules cause consumption behavior. This is all that my argument requires, as it follows that the kind of branding (for visible products) that manages to plausibly present a product as satisfying desires that are connected to these modules will be most effective in causing sales. However, there are quite a number of assumptions involved in taking a case that is built mainly in laboratories to the level of actual branding effects in society. It would therefore be appropriate to at least outline how this extension can be falsified. To this end I have devised a number of hypotheses that use natural experiments,
set up by history, to test whether attempts to associate brands with higher-order motivations indeed correlate with higher sales.

4.1 Affiliation, Advertising and Existential Threats
With regard to group identification conditions, we must begin with the observation that we have evolved to affiliate with those who share traits with us. This first criterion is difficult to test however, since it is practically impossible to retrieve physical and psychological traits of actual consumers and then relate them to traits in real branded messages. At best, we could argue that group identification is easier with ads that feature people with average faces, clothes and values. But then, group affiliation emerges precisely then when people differ from the standard (e.g. by wearing a red t-shirt), so that it is uncertain whether this feature would work. On the other hand, when features in advertisements are too distinctive, most people will reject the features, which will hamper sales. Thus, the gain in affiliation caused by similarity of unique features will be offset by the loss in affiliation due to greater risk of conflicts of the specific values with those of the consumers. The second criterion is that we tend to identify with those who are much around us. Although it will probably be the case that advertisements featuring groups of people that are very often repeated are more likely to lead to group identification, the threshold for significant effects will in all likelihood be much higher than the level of repetition that any advertising campaign has yet achieved. But we may suppose that, all things being equal, group identification will be higher for advertisements in which groups of people are associated with a brand than for those in which a single person is associated with a brand.

If this is true, then we would expect increased sales for such brands under historical conditions that are known to lead to greater group identification. But how to isolate such historical conditions? We noted in section 2.3 that coalitional threats activate the affiliation module. Hence, if a society-wide event were identified that can reasonably be assumed to have induced existential fears across the population, then those brands that are advertised for group identification may be expected to be bought more often. As such society-wide events, I propose to select two particularly dangerous moments in the Cold War: the Berlin Crisis from June 4 to November 9 1961 and the Cuban Missile Crisis of October 1962.

**Hypothesis 1**: Sales of the brand that was advertised more consistently for group affiliation than the equivalent product will be higher during the Berlin and Cuban Missile crises than during the preceding, intermediate and following years.

4.2 Mating, Advertising and the Sex Ratio in Society
In order to test the effect of mating related branding on sales we can fill in more details of the research design. We would want to have two historical records of advertisements for brands of comparable quality (as established in blind company tests) in the same market. In this way we would control for most fluctuations in demand external to the brand image. In this regard the car manufacturers BMW and Mercedes would be a good pick because they come close in terms of quality. Next, we would need to find a condition similar to the sexual priming exercise of Griskevicius and colleagues on the level of society at large. For this purpose I propose to turn to the sex ratio in society – i.e. the amount of men in relation to reproductive women – because it influences the selection of mating strategies. That is, if there are more females than males in the mating market, power shifts towards men so that
their innate preference for short-term relations comes to shape sexual relations. Skirts, for example, turn out to be shorter if there is a shortage of men on the mating market (at least in the period 1885-1976) and a cross-cultural study that compared 185 countries found that a shortage of men consistently correlates with a higher birth rate. Particularly striking is the recent finding that there was a 100% increase in extramarital births in postwar Bavaria when the sex ratio dropped to 0.6 due to male war casualties. As such, the motivational basis of advertising induced consumption could be tested by a simple prediction.

**Hypothesis 2**: In the 1950s, German sales of the car that turns out to have been associated in advertising with sex were higher than sales for the car that has not been advertised equivalently in the same period, compared to sales for both cars in the 1970s (when the sex ratio was more equal).

Testing the motivational basis of brands that are associated with status is trickier, because recent research suggests that female mate preferences may be – paradoxically – more demanding in the context of a low sex ratio as a defense mechanism in a short-term mating environment. More (cross-cultural) research is needed on this mechanism as well as male responses to it before meaningful predictions can be made.

### 4.3 Status Rank, Advertising and Foreign Occupations

A natural experiment on the role of status in the real-world effectiveness of branding would have to involve a manipulation in which a cue of low power (or high power) is experienced nationwide. Such a condition might be very rare. So much so, in fact, that the only plausible candidate condition may well be foreign occupation. We can certainly assume that this situation evokes feelings of low power in the population. The realization of defeat is likely to cause feelings of powerlessness by itself, while dominance displays by conquering soldiers will reinforce this state. A good case would be the German occupation of the Netherlands, which was swift (the conquest took only four days) so that there should have been a clear break in terms of feelings of power. (Better still might be the German occupation of France, because the humiliation was more intense in that case. But the realization of defeat may have been a more gradual affair in that case.) If the psychological work by Rucker and Galinsky is correct, this event should have activated the status rank module so that consumption for status products went up. If we could find two equivalent products where one was consistently branded for high status whereas the other was not, then we could predict that the high status brand should have higher sales (all things being equal).

**Hypothesis 3**: The product that was advertised more consistently for high status than the equivalent product will sell more during the first week of German occupation of the Netherlands in 1940 than during the same week in preceding years (relative to equivalent products that had not been advertised for status).

In order to avoid confusion I should stress that the aim of research along these lines would not be to demonstrate that consumption is driven by the male/female ratio, diplomatic crises and occupation armies. The aim would also not be to confirm the idea that different types of branding are particularly successful under these three conditions. Instead, the aim of the studies sketched above would be to confirm that the respective motivational mechanisms
indeed drive spending behavior, and only to this end extreme historical conditions are selected as natural manipulations of history.

5 Managerial Implications of the Motivational Structure of Branding

So far in this chapter I have observed that much of the brand premium is explained by visible consumption and that such behavior is driven to an important extent by higher-order social motivations. If this is true, then brand managers have an interest in crafting messages in such a way that they are most appealing as signals of mate value, status or affiliation. In this section I explore under which conditions such signals are most appealing and establish the factors that constrain this appeal. The most important such constraint will turn out to be the cognitive motivation for consistency. If the motivation for consistency were indeed a constraint on effective brand promotion, and brand managers would hence have a motive for bypassing it, then there are two reasons for thinking that the normative implications are serious. Firstly, checking for consistency is the core property of the initiatory mechanisms that secure authentic mental state formation, and bypassing these mechanisms constitutes a case of authenticity violation. Since the associative processing channels by which initiatory mechanisms are bypassed do not allow intentions to be identified, such influence would also undermine self-control. Secondly, because the motive for bypassing the consistency architecture is to more effectively appeal to an innate motivation module, the resulting violation of autonomy would count as structural.

5.1 Widening the Brand Community

A first managerial implication of the affiliation motivation is that (brand) community images that appeal to more specific values will be more effective in constructing credible signals of belongingness and create greater loyalty. Let me discuss credibility first. Although social identity research shows that we easily identify with a group, such identification is contingent on similarities (e.g. wearing the same t-shirt). This means that once a branded product spreads and is used publicly, it will get an automatic affiliation boost. That is, people who are motivated to express their belongingness will now consider the brand a more credible signal of belongingness. This means that this effect is unrelated to properties of branded messages. Such a message can of course in principle show other people displaying the brand and so simulate a virtual brand community, and this strategy is likely to have an effect. But a more effective way to turn a brand into an effective signal of belongingness is to make the brand express values that a consumer holds dear. This strategy is likely to be more effective because our ancestors are more likely to have preferred signals of belongingness that indicate that the individual ascribes to the values and norms of the community. Such signals are more revealing of true commitment than signals that express similarity of dress and the like (see chapter 5).

This brings me to loyalty. If consumers of brand A signal belongingness via similarity of surface properties and those of brand B via similarity of values, then all things being equal consumers of brand B will be less likely to switch to a different community. The reason being that commitment to values is located far higher up in the goal hierarchy, so that aban-
donment would force the individual to reject more goal commitments. If either the credibility or loyalty argument is correct, then brand managers have a structural motivation – all things being equal – to be specific about the values the brand community signals.

However, all things are not equal, and that brings me to the second incentive. It states that in order for a brand community to be more successful in generating sales it will have to include a maximum number of consumers. There may be a serious trade off involved for some product categories where the wealth of consumers is more important than their number. But even if we take these cases into account, in general the maxim will still be: the more brand community members, the better. In order to expand the consumer base, a brand would have to signal values (given that these are most effective in fostering belongingness) that appeal to a maximum number of consumers. However, even if there are certain values that are shared almost universally among consumers, appealing to these values is no guarantee of success. Universal values, after all, are limited in number – if the cross-cultural work of the psychologist Schwarz is correct there are about ten. Given competition from other community brands, there would be a vicious race to exploit these universal values, and the massive appeal to them would mean that a simple reference to the universal value will no longer be distinctive. From now on, the brand that is most convincing in associating itself with a value will attract most consumers. This forces us to answer the question what makes a community value more convincing to a consumer. We can assume that this convincingness will depend on the possibility for consumers to relate to situations that express the value. However, once situations are specified, values are interpreted in advertisements and other aspects of marketing. And interpretations massively expand the amount of conflicts that the consumer can perceive with what she deems important (higher order goals, preferences, moral codes and the like). This means that the second incentive to increase the number of consumers is hampered by the rise in conflict perception that reliable community commitments bring with them.

If this is true, then we would expect to find evidence for decreases in brand preference when consumers associate a brand with an out-group that they do not like. In a number of studies Katherine White and Darren Dahl have indeed found such effects. When they had subjects allocate real brands to the categories in-group, out-group and dissociative group (i.e. disliked group), it turned out that subjects rated dissociative group-brands more negatively and had less self-brand connections with them. They also found that Canadians showed a lower product preference (and choice likelihood) for brands that were associated with the United States (i.e. a dissociative reference group), especially when they identified strongly with Canada (i.e. their in-group). Interestingly, this effect was moderately mediated by their self-reported 'self-disidentification' with a brand (i.e. responses to questions such as 'I would not want to identify with this brand'), which suggests that conflict occurs at the level of explicit attitudes. These effects are found both in more and in less publicly consumed products (i.e. menu choice and pen use), but they are stronger in the former case.

This leads to a third incentive, which is to remove the factors that constrain the brand group inclusion process. If there are means to communicate reliable group commitment signals that bypass conflict perception mechanism, then a firm that uses those means will be more successful in broadening its consumer base – all things being equal – than a firm that does not. We saw in chapter 2.3 that there are such means, as both implicit covariation learning and unconscious stimulus presentation bypass conflict perception. And such bypassing constitutes a violation of autonomy. To recapitulate then, the affiliation motivation is most effectively activated when the community appeal is broadest, but the consistency motivation limits the success of doing so via explicit value displays. Because the incentive to use implicit
influence results from a conflict between innate motivations, the autonomy violation is of a structural nature.

5.2 Prudent Displays of Fitness

Given that explicit – attention grabbing – messages are more effective in changing long-term attitudes (as well as action), and given that the mating module causes much of our behavior, we might be led to believe that brand managers have an incentive to make explicit claims about the fitness signaling qualities of product. There is all the more reason to think so in light of the fact that members of the opposite sex must know about the meaning of the signal for it to have an effect. So the more explicitly a mating relevant quality is advertised, one would assume, the better signal receivers know about it, and the more successful the product should be in causing sales. The reality of advertising shows a very different picture however. We do not read that a shampoo makes you look younger and that youth is attractive to men. Nor do we learn that BMW is a reliable indicator of high status, and that this is scientifically proven to be associated with more one night stands. Moreover, while there are quality certificates for every imaginable aspect of a product (its ecological footprint, consumer union quality results, health approval stamps) there is no such seal for a proven effect in attracting sex partners.

This state of affairs should not surprise us once we take the pressures against explicitness of sexual quality displays into account. For one thing, in almost all games it is an advantage if you have control over what others know about you. And so it is in the mating game. If a man wears a t-shirt that advertises him as a womanizer, then women know immediately what he is up to. This could lead to defensiveness that is not in the man’s interest. Better to be able to decide on the spot how much of his intentions women should discern. Moreover, all things being equal, what is easily available is less attractive than what is hard to get (this principle if known in social psychology as the scarcity principle), which is another good reason not to flaunt desires to attract mates too explicitly. Second, many potential consumers have strong marriage commitments. Men who return home with sunglasses that were advertised consistently for their guaranteed success in attracting mates may expect to raise some marital eyebrows at the very least. And married people, needless to say, form a substantial market. Third, there are social norms against overt displays of sexuality in advertising, especially among women. Perhaps motivated by both sexual strategies and marital peace, such norms are in some form near universal and seem to make life a whole lot more relaxed. Hence, explicitly exhibiting sexual desires is likely to generate negative feelings because of the fact that a social norm is breached as well.

The evolutionary psychologist Geoffrey Miller has entertained another possible explanation which is that promises of mate acquisition are not made explicit because they are not credible. If they were put to the test, it may be that at best small effects are found that do not seem to justify the enormous costs of the brand premium. Miller’s reason for this expectation is that the most effective mating strategies must have evolved in the Pleistocene. If this is so, then we might expect witty conversations, dancing skills and athletic performances to be much more effective time investments than taking another job in order to pay for a BMW. This argument is hard to assess though because there is hardly any research on the comparative effectiveness of mate acquisition strategies.

In any case, if any one of these arguments is correct, then explicit claims about sex are to be avoided and brand managers who want to play the sex card should do so covertly. Or, as Miller puts it more emphatically, “the product’s nominal functions, features, specifications,
novelties, popularity, and branding must occupy the consumer’s conscious attention, while the promise of signaling status and sex appeal must penetrate the unconscious as silently and unaccountable as a stealth bomber”. Indeed, unconscious stimuli would do the job, but so would evaluative conditioning (as long as the relevant conflicts are not perceived by both the consumer and the target audience that is exposed to future brand signaling). Hence, the structure of marriage, the rules of the mate acquisition game and social norms all press brand message into formats that violate autonomy. Although they are not as immutable as innate motivational modules, these normative structures are stable enough to think of the autonomy violation resulting from implicit sex appeals as structural.

5.3 Status Appeals That Fit

If brand managers want to present their brands as convincing signals of high status, then they must associate their product with signs that indicate a person’s position in one of society’s rank order systems. The design and branding of SUVs for example, is crafted in such a way as to signal that the driver is dominant. SUVs have darkened windows, are often black and advertised as larger than large. But most status appeals in branding are more subtle and involve associations with sign systems that bestow prestige on people, and these systems are messy: there is no single rank order in society, signs of prestige are not the same for every group, and especially cultural prestige is historically fluctuating.

Admittedly, status displays are credible signals of one’s position in a cultural status field in part because they are costly: it takes effort to acquire the information about the latest trends. In line with this expectation a number of experiments conducted by Jonah Berger and Morgan Ward have shown that fashion students have a preference for less visible brand signals even though these increase the risk of misidentification. And they have this preference especially if the product is visible (e.g. clothing) and if they are asked to think of walking with the product (e.g. a branded bag) through the street. However, the authors note that inconspicuousness is rewarding only for high-end products that cannot continuously be updated or renewed. Inconspicuous status signaling would in these cases be an efficient means to retain the perceived exclusivity of the brand. For most products though, the gradual loss of exclusivity will be the most efficient way to soak in as many consumers as possible. Thus, for most brands which appeal to status it will be more efficient to show advertisements in which high status people use the brand and to display the brand in contexts (e.g. villas and swimming pools) or objects (e.g. suits) that are associated with high status.

If this is correct, then we may assume that the process of convincing consumers that a brand signals status will cause a lot of conflict perception. Some consumers may feel aversion towards the high status person that promotes the brand, some may dislike luxurious contexts and some may dislike objects like suits. Displaying the brand as a status sign would also mean displaying potentially disliked traits. If this is true, then we should find that when subjects choose among brands that are rated as high in status, they should prefer the ones that are rated as more self-congruent. This is exactly what Aran O’Cass and Hmily Frost found in their study of attitudes towards the brands Calvin Klein, Target, Oakley and Polaroid. As in the case of affiliation, the interaction with the innate motivation for consistency presses appeals to the status motivation in the direction of conflict evasion. And as both motivations are equally stable, the resulting autonomy violation is equally structural.

Given the oblique character of my argument it is easy to lose sight of which claims have been supported and which remain to be proven. The strategy was to argue that if we know
the motivational bases for consumption, we can infer to which desires brand images are responsive. Brand value that depends on public signaling was argued to be motivated by the three partly overlapping modules for affiliation, mating and status rank, and evidence was offered for the assumption that consumption is caused by these motivations. It was then argued that brand managers who want to appeal to these motivations have an incentive to device messages in such a way that they violate autonomy. Specifically, affiliation, mating and status appeals are bound by structural constraints, caused either by other innate motivations or by stable social norms, which lead to conflict perception. This gives brand managers the incentive to bypass conflict perception mechanisms and hence to violate autonomy. Thus, the entire argument has so far been about the structural forces that are expected to push branding in the direction of autonomy violation. In the next chapter the mechanics of the autonomy violation itself will be considered in order to see whether it actually occurs.