

Consumer happiness derived from inherent preferences versus learned preferences

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We distinguish between two types of preferences. One is inherent (e.g., preference for warm over cold temperature); it is formed early in evolution and largely stable. The other is learned (e.g., preference for large over small diamonds); it is acquired more recently, and variable across time and contexts. We propose that compared with inherent preferences, learned preferences 1) rely more on social comparison, resulting in a relative (rather than absolute) effect on happiness, and 2) are more prone to hedonic adaptation, resulting in a transient (rather than durable) effect on happiness. In addition, we propose that preferences about resource-related attributes (e.g., size of home) are inherent in low-value regions, and learned in high-value regions. We discuss implications of this analysis for improving consumer subjective well-being.

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Consumers derive happiness from consuming their preferred products or services, which are composites of their preferred attribute values. What is the relationship between consumption of preferred attribute values and happiness? Suppose X is a consumed attribute (e.g., home size), x_1 and x_2 ($x_2 > x_1$) are two values on the attribute (e.g., 1000 square feet and 2000 square feet), and, *ceteris paribus*, people prefer the higher value (i.e., x_2) to the lower value (i.e., x_1). Suppose also that person A has x_1 and person B has x_2 . Is person B happier than person A? And if person A switches from x_1 to x_2 , will she feel happier, and, if so, how long will the increased happiness last? More generally, do preferred attribute values always correspond to better subjective experience? Is happiness absolute (i.e.,

independent of other people's, or one's previous, attribute values) or relative (i.e., dependent on other people's, or one's previous, attribute values)? Existing literature yields mixed results on these issues [1,2,3,4,5^{*},6,7,8,9,10].

The main tenet of this review is that whether a more preferred attribute value (in choice) corresponds to greater happiness (in experience) depends, at least in part, on whether the preference is inherent or learned.

Inherent preference versus learned preference

Preferences are not created equal. Preferences about some attributes are formed early in evolution, and are hard-wired [11]. Examples include the preference for a warm ambient temperature (e.g., 70 °F) over a cold ambient temperature (e.g., 40 °F) [12^{**}], for high calorie food (e.g., French fries) over low calorie food (e.g., kale salad), for a good night's sleep over sleep deprivation [13], and for being socially accepted over being socially excluded [14]. We call this type of preference 'inherent preference.'

Preferences about other attributes are acquired more recently in evolution in specific social, cultural environments and are malleable across time and contexts. Examples include the preference for genuine diamonds over synthetic diamonds, for a \$ 3000 Gucci bag over a \$300 Coach bag, for French wine over Californian wine, and for Crocs' hole-filled shoes over normal looking shoes. We call this type of preference 'learned preference.' In earlier publications [12^{**},15^{*}], we referred to attributes related to inherent preference as 'inherently evaluable' attribute or 'type A' attribute, and attributes related to learned preference as 'inherently inevaluable' attributes or 'type B' attributes. We adopt the terms 'inherent preference' and 'learned preference' here because these new terms are more intuitive and better explain the origin of the preferences. Simonson has also used the term 'inherent preferences' to refer to stable preferences [16], but his notion of inherent preference focuses on individual differences, which can be attributed to individual genes [17] (e.g., some individuals are predisposed to prefer soft pillows and others are predisposed to prefer hard pillows), whereas our notion of inherent preference concerns evolutionarily-formed human preferences.

Whether a preference is inherent or learned is a continuum, depending on when the preference is formed in human evolution — a million years ago, a millennium ago, or a year ago. It is for ease of exposition that we treat

inherent and learned preferences as if they were discrete in this article.

We propose that happiness derived from inherent preferences 1) relies less on social comparison and 2) is less prone to hedonic adaptation, than happiness derived from learned preferences, resulting in two happiness-related effects — 1) absolute versus relative effect and 2) durable versus transient effect.

Social comparison: absolute versus relative effect

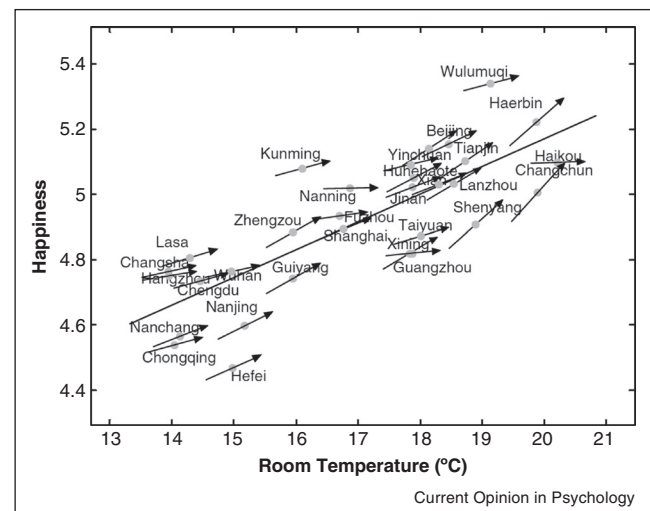
Inherent preferences are formed early in evolution and gradually become ‘hard-wired’ in mind and body, whereas learned preferences are acquired more recently in specific social, cultural contexts. Therefore, happiness derived from inherent-preference attributes doesn’t need social comparison; one would feel better under 70 °F temperature than under 30 °F temperature, regardless of what temperature others are under or what temperature she was under in the past. In contrast, happiness derived from learned-preference attributes require social comparison; one would feel better wearing a 2-karat diamond than wearing a 1-karat diamond, only if she knows others wear 1-karat or she wore 1-karat in the past [12^{••},18[•],19[•],20[•]].

Proposition 1.

Happiness about inherent-preference attributes needs no social comparison and is absolute; happiness about learned-preference attributes needs social comparison and is relative.

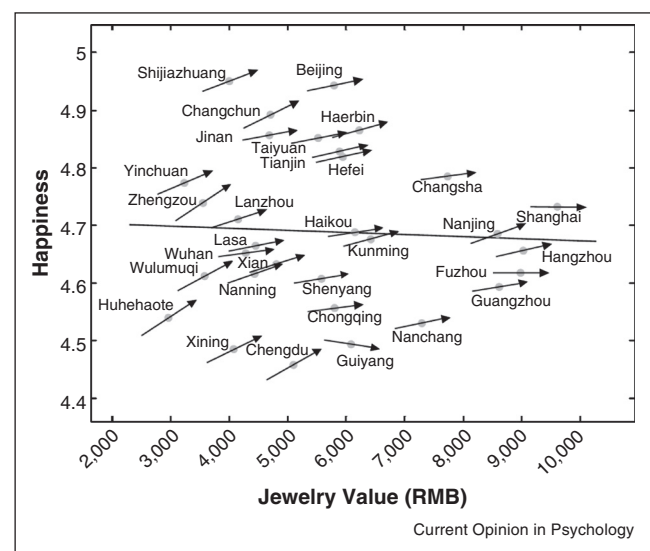
Evidence for Proposition 1 comes from a field study conducted during a winter through telephone interviews among residents in 31 representative cities in China [12^{••}]. The researchers investigated the relationship between attribute value and happiness on a typical inherent-preference attribute — room temperature, and a typical learned-preference attribute — jewelry value. They asked each resident four questions: 1) their present room temperature, 2) their happiness with their present room temperature, 3) the value of their jewelry and 4) their happiness with their jewelry. The researchers analyzed the effects of temperature value and jewelry value on happiness both within cities and across cities, assuming that social comparison is more likely among people within the same city than between different cities. They found that, for room temperature, within each city people with higher room temperature were happier (within-city effect), and between cities people with higher room temperature were also happier (between-cities effect) (see Figure 1). However, for jewelry value, there was only a within-city effect (see Figure 2). These results suggest that happiness derived from room temperature, an inherent-preference attribute, does not rely on social comparison and is absolute, whereas happiness derived from jewelry value, a learned-preference attribute, relies on social comparison and is relative.

Figure 1



The impact of room temperature on happiness within cities and across cities (from [12]). The slope of each small line indicates the effect of temperature within a particular city, and the slope of the long (trend) line indicates the effect of temperature across all the cities. As the graph shows, temperature has a positive effect within most cities (within-city effects), and also a positive effect across cities (between-city effect).

Figure 2



The impact of jewelry value on happiness within cities and across cities (from [12]). The slope of each small line indicates the effect of jewelry value within a particular city, and the slope of the long (trend) line indicates the effect of jewelry value across all the cities. As the graph shows, jewelry value has a positive effect within most cities (within-city effects), but does not have a positive effect across cities (between-city effect).

Hedonic adaptation: durable versus transient effect

Our analysis yields a second proposition about hedonic adaptation [21–25]. Inherent preferences have a stable and hard-wired internal reference scale; therefore, the hedonic effect of a change on an inherent-preference attribute is resistant to hedonic adaptation and is durable. On the contrary, learned preferences do not have a stable reference scale and rely on social comparison; therefore, the impact of a change on a learned-preference attribute will disappear once the comparison standard (be it other people's attribute value, or one's own previous attribute value) becomes less salient. In other words, the hedonic effect of a change on a learned-preference attribute is prone to hedonic adaptation and is transient.

Proposition 2.

Happiness about inherent-preference attributes is resistant to hedonic adaptation; happiness about learned-preference attributes is prone to hedonic adaptation.

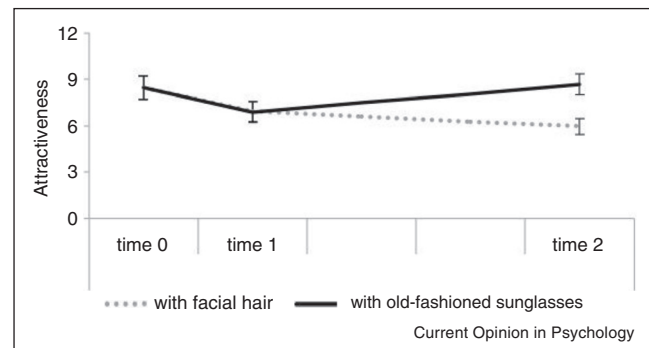
The temperature/jewelry study reviewed above provides indirect evidence for Proposition 2. Presumably, respondents in that study had experienced their room temperature and owned their jewelries for an extended period of time. The fact that between cities residents with warmer temperatures were still happier than residents with colder temperatures, yet residents with more expensive jewelries were not, suggests that the effect of temperature is durable and the effect of jewelry is transient.

More direct evidence for Proposition 2 comes from a recent unpublished paper by Tennant and Hsee. In one study, participants watched a series of pictures of a female model over time and rated her attractiveness. Initially, the female model had no facial hair and wore modern-looking sunglasses; then she underwent a 'downward change' — either the emergence of dark facial hair, or the replacement of her modern-looking sunglasses with old-fashioned sunglasses. Assuming people derive more happiness from viewing more attractive figures, the results supported Proposition 2 (see Figure 3). Specifically, right after the downward change (which happened between time 0 and time 1), attractiveness ratings plunged about the same amount in both conditions, but over time, attractiveness rating in the old-fashioned-sunglass condition rebounded, whereas attractiveness rating in the dark-facial-hair condition remained the same. These results suggest that a change on an inherent-preference attribute (e.g., female facial hair) produces a longer lasting effect than a change on a learned-preference attribute (e.g., female fashion).

Resource-related attributes

An important class of attributes consumers care about concerns the size or magnitude of resources, such as the

Figure 3



The impact of a downgrade on female facial hair versus a downgrade on female sunglasses over time (from a recent unpublished paper by Tennant and Hsee). As the graph shows, the downgrade on female facial hair produces a durable effect, whereas the downgrade on female sunglasses does not.

size of a living space, and the amount of food stockpiled. We call these attributes resource-related attributes. We propose that preferences about them are inherent in low-value regions and learned in high-value regions. That is because in low-value regions such attributes affect basic psycho-biological needs, whereas in high-value regions such attributes do not, yet people over-generalize their preference for high values in low-value regions to high-value regions.

Take home size for example. A difference in a low-value region (e.g., 200-square-foot or 400-square-foot) affects one's basic living needs; therefore, one's preference in this region is inherent. In contrast, a difference in a high-value region (e.g., 2000-square-foot or 4000-square-foot) has little effect on one's basic living needs, yet people still prefer the larger one. This preference is learned, and is probably extrapolated from preferences in low-value regions.

Proposition 3.

For most resource-related attributes, preferences in low-value regions are inherent and preferences in high-value regions are learned.

Combining Proposition 3 with Proposition 1 yields the following corollary:

Proposition 3.1.

Happiness derived from a change in high-value regions (vs. low-value regions) of a resource-related attribute does (vs. does not) rely on social comparison, and thus is relative (vs. absolute).

To illustrate, consider home size again. Suppose that with social comparison, people living in 4000-square-foot homes are happier than those living in 2000-square-foot homes, and people living in 400-square-foot homes are also happier than those living in 200-square-foot homes,

and the differences in happiness in the two cases are comparable. Then, according to Proposition 3.1, *without* social comparison, people living in 4000-square-foot homes are not happier than people living in 2000-square-foot homes, but people living in 400-square-foot homes are still happier than people living in 200-square-foot homes.

It should be noted that Proposition 3.1 is not a restatement of diminishing marginal sensitivity or utility [26,27]. First, diminishing marginal sensitivity or utility does not account for the differential impacts of social comparison in the low-value region and in the high-value region. Second, diminishing marginal sensitivity or utility state that the preference for a given change is greater if the change takes place in a low-value region (e.g., from 200 to 400 square feet) than in a high-value region (e.g., from 2000 to 2200 square feet). In contrast, Proposition 3.1 suggests that holding the preference for a change in a low-value region (e.g., from 200 to 400 square feet) and the preference for a change in a high-value region (e.g., from 2000 to 4000 square feet) constant, the former preference is inherent and the latter is learned.

Combining Proposition 3 with Proposition 2 yields the following corollary:

Proposition 3.2.

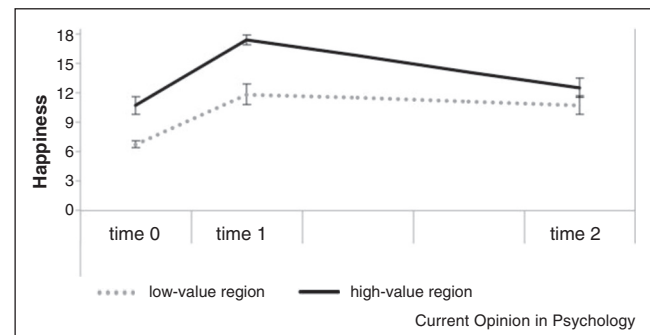
Happiness derived from a change in high-value regions (vs. low-value regions) of a resource-related attribute is prone (vs. resistant) to hedonic adaptation, and thus is transient (vs. durable).

To illustrate, suppose that initially an upgrade from a 2000-square-foot home to a 4000-square-foot home creates as great a gain in happiness as an upgrade from a 200-square-foot home to a 400-square-foot home. Then, according to Proposition 3.2, over time, the gain in happiness in the former case will fade, whereas the gain in happiness in the latter case will stay.

The propositions above apply not only to the size or magnitude of survival related resources such as living space and food supplies, but also other resources. Take the size of the screen of an e-reader for example. A difference in a low-value region of the attribute (e.g., small or medium size) affects one's eye strain and ease of reading, and one's preference in this region is inherent. In contrast, a difference in a high-value region of the attribute (e.g., medium or large size) has little effect on one's eye strain and ease of reading, and one's preference in this region is learned.

Indeed, a study from a recent unpublished paper by Tennant and Hsee lent support to this argument. They investigated the impact of the size of an e-reader on

Figure 4



The impact of upgrading a resource-related attribute (i.e., e-reader size) in low-value region (from 6.7" to 8.1") versus in high-value region (from 8.1" to 11.0") over time (from a recent unpublished paper by Tennant and Hsee). As the graph shows, the upgrade in the low-value region produces a durable effect, whereas the upgrade in the high-value region does not.

happiness during reading by asking one group (i.e., low-value region group) of participants to first read on a small-size e-reader (6.7") and later a medium-size e-reader (8.1"), and another group (i.e., high-value region group) of participants to first read on a medium-size e-reader (8.1") and later a large-size e-reader (11.0").

The authors measured participants' happiness over time and found that (see Figure 4) right after a size upgrade (which happened between time 0 and time 1), participants in the low-value region and in the high-value region reported a similarly large gain in happiness, but over time, the happiness gain in the high-value region condition faded away, whereas the happiness gains the low-value region group remained.

Conclusion

For the vast majority of human history, our ancestors lived in resource-poor conditions. In the past few centuries we have gained substantial and rapid increases in wealth, and our future generations will likely live in even more affluent conditions. Can wealth translate to happiness? That is, do better external values (e.g., larger home size, more variety of products, higher income) yield better subjective experience? This review provides a partial answer by highlighting the distinction between inherent and learned preferences.

Our framework sheds light on consumer happiness in poor and affluent societies. Specifically, people in resource-poor societies are still in low-value regions of many resource-related attributes, and are still 'climbing the happiness ladder.' According to our theory, each step up in the 'happiness ladder' brings an absolute and durable increase in happiness. However, people in resource-rich societies are already in high-value regions of

such attributes, and are ‘running on the happiness treadmill.’ According to our theory, each step forward on the ‘happiness treadmill’ will be neutralized by the lack of social comparison and hedonic adaptation over time.

How can consumers in affluent societies obtain absolute and sustainable happiness gains? Our recommendation is to identify not-yet-satisfied inherent preferences. For example, even in affluent societies, many people still experience depression, sexual dysfunction, and a variety of other physical and mental illnesses. We believe that improvements in these areas will lead to absolute and sustainable gains in happiness.

Further, preferences for being mildly busy (over idle or extremely busy) [28], for finding purpose and meaning in life, for being socially connected (over isolated) [14,29,30], and for being able to help others are also likely inherent [31–34] (see [35–37] for other recommendations). Thus, being mildly busy, spending time on meaningful activities, developing and maintaining social relationships, and caring for others, will likely bring absolute and long-lasting gains in happiness.

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